Studies of high or moderate quality used for results and conclusions in the present report

First author Pub. Year Reference Country	Design Time to follow-up Setting Performed (yrs)	Participants Women/men	Occupational factor (-s)	Outcome	Association between occupational factor and cardiovascular disease; least adjusted model	Association between occupational factor and cardiovascular disease; most adjusted model
Ahlbom et al 2004 [1] Sweden	Case-control. Data from the SHEEP study General working population 1992–1994	The study base was the population of Stockholm county during 1992–1993 for men and 1992–1994 for women Participation was restricted to men in the age group 45–65 years Cases were diagnosed with myocardial infarction Controls were randomly selected from the population registrar, matched for date of diagnosis, hospital catchment area, age and sex n=1 544 (595 cases and 949 controls) All participants were men	**Electro-magnetic fields** Occupational exposure to electromagnetic fields was based on job titles 1, 5 and 10 years before diagnosis. Classification was made according to a job-exposure matrix	**Myocardial infarction** Sources of information were all departments of medicine in the region, the Stockholm County Council in-patient registry and the National Cause of Death registry Hospitalized cases were diagnosed according to standardized criteria using information on symptoms, electrocardiogram and enzymes The diagnosis of the remainder was based on death certificates and death registers	Relative risk of acute myocardial infarction in occupational groups classified by their electromagnetic field levels according to a job-exposure matrix. RR (95% CI) adjusted for age and hospital catchment area **Electromagnetic field** <20 µT: 1.0 ≤20 to <30 µT: 0.90 (0.69; 1.18) ≤30 µT: 0.72 (0.47; 1.11)	Relative risk of acute myocardial infarction in occupational groups classified by their electromagnetic field levels according to a job-exposure matrix. RR (95% CI) adjusted for age, hospital catchment area and socioeconomic status **Electromagnetic field** <20 µT: 1.0 ≤20 to <30 µT: 0.87 (0.66; 1.14) ≤30 µT: 0.57 (0.36; 0.89)
Alfredsson et al 1985 [2] Sweden	Prospective cohort study One year General working population	Participants were women and men between 20–84 years living in specific geographical areas in 1975 n=958 096	**Several factors** Exposure data was based on a job-exposure matrix, based on interviews with 9 051 men and 4 191 women	**Myocardial infarction** Data was collected from national registers on hospitalization Myocardial infarction was defined based on	Standardized morbidity (hospitalization) ratio with regard to myocardial infarction among subjects in occupations with high proportions of reported exposure compared to other working subjects. SMR (95% CI) **Women** Hectic, monotonous work: 164 (112; 233)	–

	1975–1976	Both women and men participated, but the exact number of each gender is not stated in the article		ICD codes 410.00 and 410.99	Monotony: 128 (104; 157) Lengthy working hours: 131 (105; 162) **Men** Hectic, monotonous work: 118 (102; 135) Few possibilities to learn new things: 113 (104; 123)	
Allesøe et al 2014 [3] Denmark *Note*: Results from various combinations of different physical activity at work and during leisure time is also available in the article	Prospective cohort study. Data from the Danish Nurse Cohort study 15 years Health care 1993–2008	Participants were female members of the Danish Nurses' Association, aged 45 years and older. Women who were not actively employed as nurses at baseline or who had passed the retirement age (65 years) at baseline were excluded from the study population Women with ischemic heart disease prior to the baseline survey were also excluded Age: 45–64 years n=12 093 at baseline All participants were women	**Physical activity** Physical activity at work was assessed with self-administrated questionnaire. The questions were based on items formulated by Saltin and Grimsby and are stated in the article	**Ischemic heart disease** Information on ischemic heart disease diagnose was obtained from a national register Ischemic heart disease was defined as codes 410–414 in ICD-8 and I20–I25 in ICD-10	The effect including potential confounders on hazard for ischemic heart disease according to physical activity at work. HR (95 % CI) adjusted for age **Physical activity at work** Sedentary: 1.16 (0.90; 1.50) Moderate: 1.00 High: 1.42 (1.17; 1.72)	The effect including potential confounders on hazard (HR) for ischemic heart disease according to physical activity at work. HR (95 % CI) adjusted for risk factors for ischemic heart disease, leisure time physical activity, work pressure, job influence, shift work and work hours per week **Physical activity at work** Sedentary: 1.13 (0.86; 1.49) Moderate: 1:00 High: 1.34 (1.08; 1.66)
Allesøe et al 2010 [4] Denmark	Prospective cohort study 15 years Health care 1993–2008	Participants were female members of the Danish Nurses' Association. Women aged 45–64 years Members who were unemployed or had passed the age of 65	**Psychosocial working conditions** Data on work pressure, job influence, shift work and physical activity was collected at baseline. The questions are stated in the article	**Ischemic heart disease** Information on ischemic heart disease diagnose was obtained from a national register	The effect of including covariates on hazard ratio for ischemic heart disease according to work pressure among nurses participating in the Danish Nurse Cohort Study. HR (95% CI) adjusted for age **Work pressure** Much/a little too low: 1.44 (0.64; 3.25) Suitable: 1.00	The effect of including covariates on hazard ratio for ischemic heart disease according to work pressure among nurses participating in the Danish Nurse Cohort Study. HR (95% CI) adjusted for age and also adjusted for family history of ischemic heart disease, diabetes, menopausal status, body mass index, smoking, alcohol consumption, leisure time physical activity

	1993–1998 (also studied the effect of work pressure on the risk of IHD)	years were excluded. Also women with a hospital admission for ischemic heart disease, were registered in The Central Person Registry as missing or having emigrated or with missing information on psychosocial work environment were excluded n=12 116 at baseline All participants were women		Ischemic heart disease was defined as 410 in ICD-8 and I21–23 in ICD-10, other acute or chronic ischemic heart disease (411–412 in ICD-8 and I24-25 in ICD-10), angina (413 in ICD-8 and I20 in ICD-10) or electrocardio-graphically diagnosed heart disease (414 in ICD-8)	A little too high: 1.25 (1.04; 1.50) Much to high: 1.47 (1.14; 1.88) **Job influence** Major influence 1.00 Some influence 1.02 (0.86; 1.22 Minor or no influence 1.01 (0.76; 1.34) **Shift work** Day: 1.00 Evening: 1.05 (0.82; 1.35) Night: 1.44 (1.11; 1.87) Rotate: 0.91 (0.72; 1.15) **Physical activity at work** Sedentary/not physically exerting: 1.00 Physically exerting/strenuous: 1.36 (1.15; 1.61)	**Work pressure** Much/a little too low: 1.51(0.66; 3.42) Suitable: 1.00 A little too high: 1.24 (1.02; 1.50) Much to high: 1.35 (1.03; 1.76)
Andersen et al 2004 [5] Denmark	Prospective cohort study 6–22 years General population 1974–1996	Participants had been tested in three previous cohort studies conducted in Copenhagen; The Copenhagen City Heart Studies (randomly selected participants), The Copenhagen Male Study (participants selected from larger public or private workplaces) and the Glostrup Population studies (participants selected from different birth cohorts) The age varied between the studies;	**Psychosocial working conditions** Psychosocial working conditions was assessed by means of a job exposure matrix	**Myocardial infarction** End point was defined as incidence of first myocardial infarction, whether fatal or non-fatal Cause of death was obtained from the National Death register and cases of inpatient care for acute myocardial infarction were obtained from the National Hospital Discharge Register Myocardial infarction was defined according to ICD: 8th revision code 410,	Hazard ratios of myocardial infarction by dimensions of psychosocial working conditions. HR (95% CI) adjusted for cohort of investigation, age, cohabitation and sex **Decision authority** 1 quartile (highest): 1 2 quartile: 1.08 (0.86; 1.36) 3 quartile: 1.11 (0.91; 1.36 4 quartile: 1.26 (1.04;1.54) **Skill discretion** 1 quartile (highest): 1 2 quartile: 1.35 (1.08; 1.71) 3 qartile:1.28 (1.04; 1.58) 4 quartile: 1.52 (1.22; 1.89) **Social support** 1 quartile (highest): 1 2 quartile: 1.32 (1.00; 1.73) 3 quartile: 1.11 (0.84; 1.47) 4 quartile: 1.12 (0.84; 1.48)	–

		all were above 20 years at baseline For this study all participants also needed to be employed at the time when occupation was registered n=16 216 7 086 women and 9 130 men		and 10th revision code I21–I22	**Demand** 1 quartile (lowest): 1 2 quartile: 1.09 (0.88; 1.35) 3 quartile: 1.05 (0.85; 1.30) 4 quartile: 1.01 (0.82; 1.25)	
Andre-Petersson et al 2007 [6] Sweden	Prospective cohort study. Part of the Malmö Diet and Cancer Study The mean follow-up time was 7.8–7.9 years General population 1992–2001	Participants were born between 1923 and 1945 and were living in the city of Malmö, Sweden. All subjects needed to have been employed at their present worksite for at least 4 years Participants were excluded if they if they had indication of cardio-vascular disease, treatment or hospitalization due to myocardial infarction, stroke or intermittent claudication Those with an unclear position on the occupational level scale were also excluded	**Social support and job strain** Social support at work was assessed using six statements according to Ahlberg-Hultén, Theorell and Sigala, 1995. The items are presented in the study Questions concerning the job strain model at work were assessed by a number of questions according to the JCQ questionnaire	**Myocardial infarction and stroke** Myocardial infarction was defined as a fatal or non-fatal myocardial infarction corresponding to ICD-9 codes 410 and 412 Information on myocardial infarction was obtained from the National myocardial Infarction Register and the Malmö Myocardial Infarction register (Hansen & Johansson, 1991). Only the first myocardial infarction was used for the purpose of this study Stroke was defined as hemorrhagic, ischemic, or unspecified stroke,	Social support at work and psychosocial work characteristics and their univariate association with incidence of myocardial infarction and stroke. Relative hazard (95% CI) **Myocardial infarction, women** ***Social support at work*** Low levels: 2.23 (1.17; 4.25) ***Job strain model*** Relaxed: 1.00 Active 2.16 (0.81; 5.77) Passive: 1.72 (0.66; 4.53) Job strain: 1.29 (0.44; 3.85) **Myocardial infarction, men** ***Social support at work*** Low levels: 1.00 (0.69; 1.45) ***Job strain model*** Relaxed: 1.00 Active 1.02 (0.64; 1.62) Passive: 1.06 (0.62; 1.81) Job strain: 1.17 (0.67; 2.06) **Stroke, women** ***Social support at work***	–

		n=7 770 at baseline 4 707 women and 3 063 men at baseline		without any distinction made between them. A stroke, thus, corresponded to the ICD-9 codes 430, 431, 434, and 436 Information concerning stroke incidence was obtained from the Stroke Registry of Malmo (Jerntorp & Berglund, 1992). Only the first incidence was used for the analyses	Low levels: 1.55 (0.91; 2.66) ***Job strain model*** Relaxed: 1.00 Active 0.66 (0.29; 1.53) Passive: 0.86 (0.42; 1.79) Job strain: 1.16 (0.56; 2.40) **Stroke, men** ***Social support at work*** Low levels: 0.93 (0.59; 1.44) ***Job strain model*** Relaxed: 1.00 Active 0.97 (0.57; 1.65) Passive: 0.76 (0.39; 1.49) Job strain: 1.03 (0.53; 2.00)	
Autenrieth et al 2011 [7] Germany	Prospective cohort. Data from the MONICA/ KORA Augsburg survey The median follow-up time was 17.8 years General population 1989–2007	Participants were employed, 25–74 years and lived in three German cities. They were middle-aged and mostly free of chronic conditions n=2 538 (entire cohort 4 672 participants) 2 299 women and 2 373 men in the entire (initial) cohort	**Physical activity at work** A questionnaire was designed to assess different domains of physical activity, asking participants to report the time usually spent on being physically active during work during a normal week over the past year After restricting the analyses of occupational activity to employed participants only, data from 2 538 cohort members were available for further analyses of work physical activity	**Cardio-vascular disease** End points used in this study were all-cause mortality and mortality from cardiovascular disease Deaths were ascertained by regularly checking the vital status of all sampled persons of the MONICA survey through the population registries inside and outside the study area Death certificates were obtained from	Hazard ratios by domain and physical activity level for cardiovascular disease mortality. HR (95% CI) adjusted for sex, body mass index, systolic blood pressure, total-to-HDL cholesterol ratio, education, smoking status, alcohol consumption, myocardial infarction, stroke, diabetes, cancer, self-reported limited physical activity due to health problems, and other domains of physical activity **Physical activity at work** Light work: reference Moderate work: 0.54 (0.31; 0.93)	–

				local health authorities Using the ICD 9th revision codes 390–459, death certificates were coded for the underlying cause of death		
Azizova et al 2014 [8] Russia *See also* the other publications by Azizova, below *Note*: the article also presents data on 5, 10, 15 and 20 years lag for alpha-particle exposure	Retrospective cohort study Up to 60 years Nuclear power industry 1948–2008	The subjects in this study were employed at of the main Mayak plants (reactors, radiochemical or plutonium production plants) during 1948–1972, regardless of gender, age, nationality, occupation, and other characteristics. The mean age at first employment was 24 years (men) and 26 years (women) The previously studied cohort was extended by more than 3 000 workers first employed in 1973 Also, the follow-up was increase compared to previous publications from the Mayak cohort n=22 377	**Radiation (gamma and alpha)** Individual monitoring of external gamma-rays and internal alpha particles exposure (^{239}Pu) were recorded in individual diametric cards and journals Annual individual external gamma ray estimates were available for all cohort members Internal alpha-particle exposure due to incorporated plutonium mainly related to plutonium transit from the lungs to the pulmonary lymph nodes and onward to the systemic circulation and its deposit in extra-pulmonary organs Urine bio-assays of workers were used to calculate the radiation	**Cerebro-vascular disease** Data on diagnoses and deaths were gathered from company, national and local registers All diseases and deaths were coded according to ICD-10	Cerebro-vascular disease by total whole body external gamma-radiation dose. RR (95% CI) **External gamma-radiation - incidence** ***0 year lag (<0.1 Gy=1)*** 0.1–0.2 Gy: 1.09 (1.01; 1.19) 0.2–0.5 Gy: 1.17 (1.08; 1.27) >0.5 Gy: 1.48 (1.36; 1.61) ***5 years lag (<0.1 Gy=1)*** 0.1–0.2 Gy: 1.17 (1.07; 1.17) 0.2–0.5 Gy: 1.20 (1.11; 1.31) >0.5 Gy: 1.48 (1.36; 1.62) ***10 years lag (<0.1 Gy=1)*** 0.1–0.2 Gy: 1.19 (1.01; 1.30) 0.2–0.5 Gy: 1.21 (1.11; 1.32) >0.5 Gy: 1.52 (1.39; 1.67) ***15 years lag (<0.1 Gy=1)*** 0.1–0.2 Gy: 1.17 (1.07; 1.28) 0.2–0.5 Gy: 1.19 (1.09; 1.30) >0.5 Gy: 1.52 (1.39; 1.67) ***20 years lag (<0.1 Gy=1)*** 0.1–0.2 Gy: 1.15 (1.05; 1.27) 0.2–0.5 Gy: 1.20 (1.10; 1.32) >0.5 Gy: 1.46 (1.32; 1.61) **External gamma-radiation - mortality** ***0 year lag (<0.1 Gy=1)***	Cardio-vascular disease by total whole body external gamma-radiation dose. RR (95% CI) with factors added to the stratification described below **External gamma-radiation - incidence** ***Hypertension*** 0.1–0.2 Gy: 1.11 (1.01; 1.21) 0.2–0.5 Gy: 1.17 (1.07; 1.28) >0.5 Gy: 1.48 (1.35; 1.63) ***Body mass index*** 0.1–0.2 Gy: 1.07 (0.98; 1.17) 0.2–0.5 Gy: 1.14 (1.04; 1.25) >0.5 Gy: 1.45 (1.32; 1.60) ***Employment duration*** 0.1–0.2 Gy: 1.09 (1.00; 1.19) 0.2–0.5 Gy: 1.17 (1.07; 1.27) >0.5 Gy: 1.44 (1.32; 1.58) ***Smoking index*** 0.1–0.2 Gy: 1.08 (0.99; 1.17) 0.2–0.5 Gy: 1.16 (1.07; 1.27) >0.5 Gy: 1.47 (1.35; 1.61) **External gamma-radiation - mortality** ***Hypertension*** 0.1–0.2 Gy: 0.82 (0.66; 1.01) 0.2–0.5 Gy: 0.86 (0.71; 1.04) >0.5 Gy: 0.98 (0.81; 1.20)

		5 661 women and 16 716 men	doses. A bio-kinetic model was contracted		0.1–0.2 Gy: 0.85(0.69; 1.04) 0.2–0.5 Gy: 0.87 (0.73; 1.05) >0.5 Gy: 0.98 (0.82; 1.18) ***5 years lag (<0.1 Gy=1)*** 0.1–0.2 Gy: 0.85 (0.69; 1.04) 0.2–0.5 Gy: 0.88 (0.74; 1.06) >0.5 Gy: 0.98 (0.82; 1.18) ***10 years lag (<0.1 Gy=1)*** 0.1–0.2 Gy: 0.85(0.69; 1.04) 0.2–0.5 Gy: 0.89 (0.73; 1.09) >0.5 Gy: 1.01 (0.84; 1.21) ***15 years lag (<0.1 Gy=1)*** 0.1–0.2 Gy: 0.90 (0.73; 1.11) 0.2–0.5 Gy: 0.89 (0.74; 1.07) >0.5 Gy: 1.03 (0.86; 1.24) ***20 years lag (<0.1 Gy=1)*** 0.1–0.2 Gy: 0.98 (0.79; 1.20) 0.2–0.5 Gy: 0.87 (0.73; 1.05) >0.5 Gy: 1.04 (0.86; 1.26) **Absorbed alpha-particles in liver - incidence** ***0 year lag (<0.01 Gy=1)*** 0.01–0.025 Gy: 1.21 (1.09; 1.35) 0.025–0.1 Gy: 1.28 (1.15; 1.42) >0.1 Gy: 1.59 (1.42; 1.78) **Absorbed alpha-particles in liver - mortality** ***0 year lag (<0.01 Gy=1)*** 0.01–0.025 Gy: 1.59 (0.86; 3.20) 0.025–0.1 Gy: 1.66 (0.91; 3.32) >0.1 Gy: 2.11 (1.15; 4.24)	***Body mass index*** 0.1–0.2 Gy: 0.81 (0.64; 1.01) 0.2–0.5 Gy: 0.91 (0.74; 1.11) >0.5 Gy: 1.09 (0.89; 1.33) ***Employment duration*** 0.1–0.2 Gy: 0.79 (0.63; 0.98) 0.2–0.5 Gy: 0.83 (0.68; 1.01) >0.5 Gy: 0.95 (0.79; 1.16) ***Smoking index*** 0.1–0.2 Gy: 0.70 (0.54; 0.91) 0.2–0.5 Gy: 0.75 (0.59; 0.96) >0.5 Gy: 0.91 (0.71; 1.17) **Absorbed alpha-particles in liver - incidence** ***Hypertension*** 0.01–0.025 Gy: 1.19 (1.07; 1.34) 0.025–0.1 Gy: 1.27 (1.14; 1.42) >0.1 Gy: 1.59 (1.41; 1.79) ***Body mass index*** 0.01–0.025 Gy: 1.21 (1.08; 1.35) 0.025–0.1 Gy: 1.33 (1.18; 1.49) >0.1 Gy: 1.65 (1.44; 1.85) ***Employment duration*** 0.01–0.025 Gy: 1.23 (1.10; 1.37) 0.025–0.1 Gy: 1.29 (1.16; 1.44) >0.1 Gy: 1.60 (1.42; 1.80) ***Smoking index*** 0.01–0.025 Gy: 1.17 (1.05; 1.31) 0.025–0.1 Gy: 1.23 (1.10; 1.38) >0.1 Gy: 1.57 (1.40; 1.77)
Azizova et al 2011 [9] Russia	Retrospective cohort study Over 50 years	The subjects in this study were employed at of the main Mayak plants (reactors, radiochemical or	**Radiation** Individual monitoring of external gamma-ray (Gy) and internal exposure (^{239}Pu) were	**Cardio-vascular disease and hypertension** Outcome was assessed by incidence	Analysis in which first x year following the start of radiation work were assigned to ”zero dose” category when lagging doses of x years. Cardiovascular disease incidence, analyses by external dose. RR (95% CI)	Analysis in which first x year following the start of radiation work were assigned to ”zero dose” category when lagging doses of x years. Cardiovascular disease incidence, analyses by external dose. RR (95% CI) adjusted for

Note: Data on 10 and 15 years lag is presented in the study. Mortality data is also available	Nuclear power industry 1948–2005	plutonium production plants) during 1948–1972, regardless of gender, age, nationality, occupation, and other characteristics. Workers, who use to work at more than one plant, were included in the cohort only once. Workers who were involved in radiation incidents/accidents with single gamma-neutron exposure at high dose rates and who developed acute radiation syndrome, as well as workers exposed to other radionuclides, were excluded from the study cohort. The method of identifying the cohort of Mayak workers have been described previously (Koshurnikova et al., 1999) n=18 763 4 744 women and 14 019 men	recorded in individual diametric cards and journals Work histories and dose estimates from the dosimetry system "Dose–2005" established in the framework of Russian–American project on radiation health effects research	and mortality from cardiovascular disease (430–438 ICD-9 codes). Among the information sources on incidence, there were achieved and current medical cards, and case histories, as described earlier (Azizova et al., 2008)	**Cardiovascular disease, 5 years lag** Excess relative risk per Gy: 0.397 (0.305; 0.479) <0.2 Gy: 1.0 0.2–0.5 Gy: 1.133 (1.046; 1.228) 0.5–1.0 Gy: 1.197 (1.093; 1.311) >1.0 Gy: 1.611 (1.470; 1.767) **Cardiovascular disease, 20 years lag** Excess relative risk per Gy: 0.387 (0.290; 0.485) <0.2 Gy: 1.0 0.2–0.5 Gy: 1.103 (1.013; 1.201) 0.5–1.0 Gy: 1.157 (1.048; 1.276) >1.0 Gy: 1.570 (1.420; 1.736)	smoking and alcohol consumption at 0 years lag **0 years lag** Excess relative risk per Gy: 0.391 (0.308; 0.474) <0.2 Gy: 1.0 0.2–0.5 Gy: 1.105 (1.024; 1.193) 0.5–1.0 Gy: 1.194 (1.095; 1.301) >1.0 Gy: 1.553 (1.422; 1.697)
Azizova et al 2012 [10] Russia	Retrospective cohort study Over 50 years	The subjects in this study were employed at of the main Mayak plants (reactors, radiochemical or	**Radiation** Individual monitoring of external gamma-ray (Gy) and internal exposure (^{239}Pu) were	**Ischemic heart disease** Outcome was assessed by incidence and mortality from	Analysis in which first x year following the start of radiation work were assigned to "zero dose" category when lagging doses of x years. Ischemic heart disease incidence, analyses by external dose. RR (95% CI)	Analysis in which first x year following the start of radiation work were assigned to "zero dose" category when lagging doses of x years. Cardiovascular disease incidence, analyses by external dose. RR (95% CI) adjusted for

Note: There are also data available on 10 and 15 years lag. Mortality data also available	Nuclear power industry 1948–2005	plutonium production plants) during 1948–1972, regardless of gender, age, nationality, occupation, and other characteristics. Workers, who use to work at more than one plant, were included in the cohort only once. Workers who were involved in radiation incidents/accidents with single gamma-neutron exposure at high dose rates and who developed acute radiation syndrome, as well as workers exposed to other radionuclides, were excluded from the study cohort. The method of identifying the cohort of Mayak workers have been described previously (Koshurnikova et al., 1999) n=18 763 4 744 women and 14 019 men	recorded in individual diametric cards and journals Work histories and dose estimates from the dosimetry system "Dose–2005" established in the framework of Russian–American project on radiation health effects research	ischemic heart disease (410–414 ICD-9 codes). Among the information sources on incidence, there were achieved and current medical cards, and case histories, as described earlier (Azizova et al., 2008)	**Ischemic heart disease incidence, 5 years lag** Excess RR per Gy: 0.098 (0.043; 0.153) <0.2 Gy: 1.0 0.2–0.5 Gy: 0.891 (0.816; 0.973) 0.5–1.0 Gy: 0.934 (0.847; 1.031) >1.0 Gy: 1.097 (0.993; 1.212) **Ischemic heart disease incidence, 20 years lag** Excess RR per Gy: 0.104 (0.038; 0.169) <0.2 Gy: 1.0 0.2–0.5 Gy: 0.891 (0.794; 0.965) 0.5–1.0 Gy: 0.972 (0.871; 1.084) >1.0 Gy: 1.134 (1.015; 1.268)	smoking and alcohol consumption at 0 years lag **0 years lag** Excess RR per Gy: 0.114 (0.060; 0.167) <0.2 Gy: 1.0 0.2–0.5 Gy: 0.907 (0.834; 0.986) 0.5–1.0 Gy: 0.980 (0.893; 1.076) >1.0 Gy: 1.133 (1.031; 1.246)
Barengo et al 2004 [11] Finland	Prospective cohort. Data from the North Karelia Project and the	Participants were drawn from the national population register. They were 30–59 years and living	**Physical activity** Occupational physical activity was determined by a self-administered	**Cardio-vascular mortality** The data were comple-mented by linkage to the	Hazard ratios for total and cardiovascular mortality according to different levels of occupational physical activity. HR (95% CI) adjusted for age and study year	Hazard ratios for total and cardio-vascular mortality according to different levels of occupational physical activity. HR (95% CI) adjusted for age, study year, body mass index, systolic blood pressure, cholesterol, education,

	FINMONICA/Finrisk studies The median follow-up time was 20 years General population 1970–2001	in eastern and south-western Finland Subjects who were previously diagnosed with coronary heart disease, stroke, heart failure or cancer at baseline, and those who were physically inactive because of severe disease or disability at baseline were excluded n=32 677 16 824 women and 15 853 men	questionnaire by Hu et al	nationwide Finish death register according to the unique national personal identification number ICD 8th, 9 th and 10 th revision were used for coding the causes of death. The codes used for cardio-vascular disease were 390–459 (I00–I99). The endpoint of the follow-up was the date of death. If the subjects were alive, the follow-up ended at the latest in December 2001	**Occupational physical activity** ***Women*** Light: 1.00 Moderate: 0.63 (0.53; 0.76) Active: 0.78 (0.66; 0.92) ***Men*** Light: 1.00 Moderate: 0.65 (0.57; 0.76) Active: 0.82 (0.74; 0.92)	smoking status, and other two types of physical activity (commuting and leisure time) **Occupational physical activity** ***Women*** Light: 1.00 Moderate: 0.73 (0.60; 0.88) Active: 0.77 (0.65; 0.91) ***Men*** Light: 1.00 Moderate: 0.75 (0.64; 0.87) Active: 0.77 (0.69; 0.87)
Bobák et al 1998 [12] Czech Republic	Case control study. Part of the MONICA study General population, working full time 1992–1993	All participants included in this study were registered at one of five Czech districts participating in the Monitoring of Trends and Determinations of Cardio-vascular Disease (MONICA) project. Men between 24–64 years were eligible Cases with definite and probable myocardial infarction were obtained from the MONICA projects registers	**Decision latitude and work demand** Work demand was assessed by three questions and decision latitude by eight questions. The questions were based on the JCQ questionnaire On the bases of the score, participants were classified into four categories of job strain, corresponding to Karasek´s grouping	**Nonfatal myocardial infarction** Definition of definite myocardial infarction was made according to MONICA criteria: 1) definite electrocardio-graphic evidence or 2) probable electrocardio-graphic signs plus abnormal enzymes and typical or atypical symptoms or 3) typical symptoms plus abnormal enzymes with electrocardio-graphic	Odds ratios for job characteristics and myocardial infarction. OR (95% CI) adjusted for age and district **Work demand** 1 quartile (lowest): 1.0 2 quartile: 0.62(0.37; 1.03) 3 quartile: 0.79 (0.31; 1.38) 4 quartile (highest): 0.54 (0.31; 0.93) **Decision latitude** 1 quartile (lowest): 1.0 2 quartile: 0.71(0.42; 1.19) 3 quartile: 0.63 (0.38; 1.03) 4 quartile (highest): 0.43 (0.25; 0.75) **Job strain** Low pace-high control: 1.0 Low pace-low control: 1.59 (0.97; 2.61) High pace-high control: 0.83 (0.49; 1.42)	Odds ratios for job characteristics and myocardial infarction. OR (95% CI) adjusted for age, district, education, smoking, waist–to–hip ratio, high blood pressure, total cholesterol reported by a doctor and personal history of diabetes mellitus **Work demand** 1 quartile (lowest): 1.0 2 quartile: 0.62(0.36; 1.06) 3 quartile: 0.72 (0.40; 1.32) 4 quartile (highest): 0.52 (0.29; 0.93) **Decision latitude** 1 quartile (lowest): 1.0 2 quartile: 0.76(0.44; 1.30) 3 quartile: 0.61 (0.36; 1.05) 4 quartile (highest): 0.43 (0.24; 0.93) **Job strain**

		The population sample for the MONICA survey served as controls. The group was a random sample of men 25–64 years of age, stratified in 5-year age categories and drawn from the population register in the same geographical registers as the cases n=963 (179 cases and 784 controls) All participants were men		non codable or absent Probable myocardial infarction according to MONICA is typical symptoms and uncertain ECG and enzymes	High pace-low control: 1.35 (0.82; 2.24)	Low pace-high control: 1.0 Low pace-low control: 1.64 (0.96; 2.79) High pace-high control: 0.77 (0.44; 1.35) High pace-low control: 1.31 (0.77; 2.25)
Boggild et al 1999 [13] Denmark	Prospective cohort study 22 years Shift workers 1970–1993 1985–1993 (new baseline)	Participants were volunteering men, 40–59 years old, working at railway, public road construction, military, post, telephone, bank, customs and medical industry n=5 249 at first baseline n=3 387 at second baseline All participants were men	**Working time** Participants reported in questionnaire whether they worked irregular hours, shift work, often had night work or whether they only worked daytime	**Ischaemic heart disease** Information on hospital admission and mortality for acute myocardial infarction was obtained from national registers Ischemic heart disease was defined as ICD-8 codes 410–414	Shift work as a predictor of ischaemic heart disease. RR (95%CI) adjusted for age **Ischaemic heart disease** ***All participants*** Shift work: 1.0 (0.8; 1.2) ***Social class III*** Shift work: 0.8 (0.6; 1.2) ***Social class I, II and V*** Shift work: 1.25 (0.87; 1.78) **Fatal ischaemic heart disease** ***Social class I, II and V*** Shift work: 1.31 (0.82; 2.11)	Shift work as a predictor of ischaemic heart disease. RR (95% CI Ischemic heart disease: adjusted for social class, sleep (deviation from 6–7 h/day), tobacco, age, weight, height and fitness value Fatal ischemic heart disease: adjusted for age and social class **Ischaemic heart disease** ***All participants*** Shift work: 0.9 (0.7; 1.1) ***Social class III*** Shift work: 0.7 (0.5; 1.0) **Ischaemic heart disease, adjusted for age and social class** ***Social class I, II and V***

						Shift work: 0.95 (0.66; 1.38) **Fatal ischaemic heart disease** ***Social class I, II and V*** Shift work: 0.96 (0.59; 1.57)
Bonde et al 2009 [14] Denmark *Note*: Data also available in subgroups (municipality and county)	Prospective cohort study The mean follow-up was 4.8 years Public service workers 2002–2007	The participants were employees at Aarhus country and Aarhus municipality n=18 258 at baseline 14 424 women and 3 834 men at baseline	**Psychosocial factors** Psychosocial factors at work were assessed by a short version of the Copenhagen psychosocial questionnaire (COPQES) by Munch-Hansen et al	**Ischemic heart disease** Outcome was defined as hospitalization due to ischemic heart disease (angina pectoris or myocardial infarction). It was assessed by discharge diagnosis ICD-8 codes 410–414 in period 1977–1994 and ICD-10 codes I20, I21 and I24 from 1995 onwards Data was restricted to first referrals for heart disease. Data was obtained from national registers	Ischemic heart disease according to perceived psychosocial work factors at work unit level categorized in quartiles (percentiles 0–25; 26–75 and 76–100 for scales where high values indicate high psychosocial load). HR (95 % CI) adjusted for age, gender, marital status, children <15 years at the residence and socioeconomic status **Job demands** High: 1.3 (0.8; 2.3) Intermediate: 1.2 (0.7; 1.9) Low: 1.00 **Job control** Low: 2.0 (1.1; 3.6) Intermediate: 1.4 (0.8; 2.4) High: 1.00 **Job strain** Demand above median and job control below median: 1.3 (0.9; 2.1) All others: 1.00 **Work climate satisfaction** Low: 1.0 (0.6; 1.8) Intermediate: 0.9 (0.6; 1.4) High: 1.00	–
Bosma et al 1998 [15] United Kingdom	Prospective cohort study. Data from the Whitehall II cohort Average follow-up was 5.3 years	Participants were civil servants in the age of 35–55 employed at London-based civil departments Participants were excluded if they	**Effort-reward-imbalance and job strain** Effort-reward-imbalance was assessed by proxy measures based on measurements of e.g.	**Angina pectoris, doctor-diagnosed heart ischemia or both** Angina pectoris was measured by the Rose questionnaire	Effort reward imbalance at phase 1, Self-reported job control (mean phases 1 and 2), and externally assessed job control at phase 1 and reports of new coronary heart disease. OR (95% CI) adjusted for age, sex, length of period between phases 1 and 3 **Angina pectoris**	Effort- reward imbalance, self-reported job control (mean phases 1 and 2), and externally assessed job control at phase 1 in the total sample (OR, 95%CI) of any new coronary heart disease adjusted for age, sex, and length of period between phases 1 and 3, additionally adjusted for other work characteristic (Effort-reward imbalance was adjusted for externally

	Civil service departments 1985–1993 1985–1988 (phase 1) 1989–1990 (phase 2) 1991–1993 (phase 3)	reported coronary heart disease at phase 1 n=7 372 took part in all three phases. (9 302 took part in either phase 2 or three and the number of participants were 10 308 at baseline) 3 413 women and 6 895 men at baseline	control and personality assessed by questionnaires Job control and job strain were assessed at all three phases by the JCQ questionnaire Job strain was also externally assessed at phase 1 in 18 of 20 departments by well-informed personnel managers	Doctor diagnosed heart ischemia depended on whether the subject reported that a general practitioner or hospital doctor ever suspected or confirmed a heart attack or angina pectoris	***All, effort reward*** Low efforts and high rewards: 1.0 High efforts or low rewards: 2.06 (1.07; 3.98) High efforts and low rewards: 2.78 (1.44; 5.37) ***All, job control*** High: 1.0 Self-reported, intermediate: 1.36 (0.83; 2.23) Externally assessed, intermed: 1.28 (0.91; 1.81) Self-reported, low: 2.09 (1.29; 3.37) Externally assessed, low: 1.47 (1.77; 2.02) ***Women, effort reward*** Low efforts and high rewards: 1.0 High efforts or low rewards: 2.08 (0.63; 6.84) High efforts and low rewards: 3.14 (0.96; 10.3) ***Women, job strain*** Self-reported: 1.01 (0.65;1.58) Externally assessed: 1.27 (0.81; 1.98) ***Men, effort reward*** Low efforts and high rewards: 1.0 High efforts or low rewards: 2.13 (0.97; 4.7) High efforts and low rewards: 2.59 (1.17; 5.73) ***Men; job strain*** Self-reported: 1.4 (0.93;2.1) Externally assessed: 0.91 (0.53; 1.57) **Diagnosed heart ischemia** ***All participants; effort reward*** Low efforts and high rewards: 1.0 High efforts or low rewards: 2.00 (0.79; 5.06) High efforts and low rewards: 3.55 (1.42; 8.9) ***All, job control*** High: 1.0 Self-reported, intermediate: 1.39 (0.79;2.45) Externally assessed, intermed: 1.08 (0.68; 1.71) Self-reported, low: 1.49 (0.81; 2.74)	assessed job control, mean self-reported job control and externally assessed job control was adjusted for effort-reward imbalance), employment grade level, negative affectivity, and coronary risk factors ***All participants with no missing values*** Low efforts and high rewards: 1.0 High efforts or low rewards: 1.77 (0.95; 3.28) High efforts and low rewards: 2.15 (1.15; 4.01) ***All participants with no missing values, job control*** High: 1.0 Self-reported, intermediate: 2.08 (1.22; 3.55) Externally assessed, intermediate: 1.53 (1.06; 2.2) Self-reported, low: 2.38 (1.32; 4.29) Externally assessed, low: 1.56 (1.08; 2.27)

					Externally assessed, low: 1.38 (0.74; 2.09) ***Women; effort reward*** Low efforts and high rewards: 1.0 High efforts or low rewards: 1.45 (0.18; 11.6) High efforts and low rewards: 3.1 (0.4; 23.8) ***Women; job strain*** Self-reported: 1.01 (0.65;1.58) Externally assessed: 1.27 (0.81; 1.98) ***Men; effort reward*** Low efforts and high rewards: 1.0 High efforts or low rewards: 2.13 (0.75; 6.03) High efforts and low rewards: 3.63 (1.3; 10.2) ***Men; job strain*** Self-reported: 1.16 (0.7;1.94) Externally assessed: 1.18 (0.65; 2.14) **Any coronary heart disease outcome** ***All participants; effort reward*** Low efforts and high rewards: 1.0 High efforts or low rewards: 2.17 (1.19; 3.95) High efforts and low rewards: 3.14 (1.72; 5.71) ***All, job control*** High: 1.0 Self-reported, intermediate: 1.61 (1.04;2.48) Externally assessed, intermed: 1.26 (0.92; 1.71) Self-reported, low: 2.04 (1.32; 3.16) Externally assessed, low: 1.57 (1.17; 2.08) ***All with no missing values, effort reward*** Low efforts and high rewards: 1.0 High efforts or low rewards: 1.93 (1.05; 3.55) High efforts and low rewards: 2.68 (1.46; 4.91) ***All with no missing values, job control*** High: 1.0 Self-reported, intermediate: 2.05 (1.22; 3.44)	

					Externally assessed, intermed: 1.26 (0.92; 1.71) Self-reported, low: 2.15 (1.26; 3.67) Externally assessed, low: 1.57 (1.17; 2.08) ***Women; effort reward*** Low efforts and high rewards: 1.0 High efforts or low rewards: 2.41 (0.74; 7.91) High efforts and low rewards: 3.59 (1.1; 11.7) ***Women; job strain*** Self-reported: 1.14 (0.76; 1.72) Externally assessed: 1.22 (0.8; 1.86) ***Men; effort reward*** Low efforts and high rewards: 1.0 High efforts or low rewards: 2.12 (1.05; 4.27) High efforts and low rewards: 2.98 (1.48; 5.99) ***Men; job strain*** Self-reported: 1.45 (1.03; 2.06) Externally assessed: 1.03 (0.66; 1.61)	
Brown et al 2009 [16] USA	Prospective longitudinal cohort study. Data from Nurses' Health Study 16 years Health care 1988–2004	Participants were recruited from the larger Nurses' Health Study. Women were excluded if they had a history of stroke, were part of a minority group or had missing data n=80 161 at baseline All participants were women	**Rotating night shift work** Total number of years worked with rotating night shifts (at least 3 nights/month in addition to days and evenings in that month) was queried in 1988	**Fatal or nonfatal ischemic stroke** Non-fatal stroke were self-reported Fatal stroke were ascertained through the national death index or next of kin Medical or death certificates for all reported strokes were reviewed by a physician For non-fatal cases where a medical record was un-available, a re-	Ischemic stroke by years of working rotating night shifts. HR (95% CI) adjusted for age and questionnaire cycle **Confirmed + probable ischemic stroke** No shift work: 1.0 1–2 years: 0.96 (0.84; 1.09) 3–5 years: 1.01 (0.88; 1.16) 6–9 years: 1.16 (0.96; 1.4) 10–14 years: 1.11 (0.89; 1.4) 15–19 years: 1.43 (1.11; 1.84) 20–29 years: 1.34 (1.03; 1.74) ≥30 years: 1.47 (1.12; 1.92) HR/5 years of shift work: 1.07 (1.04; 1.1) **Confirmed ischemic stroke** No shift work: 1.0 1–2 years: 0.94 (0.8; 1.1) 3–5 years: 0.98 (0.83; 1.16) 6–9 years: 1.16 (0.92; 1.45)	Ischemic Stroke by Years of Working Rotating Night Shifts. HR (95% CI) adjusted for age, questionnaire cycle, hypertension, coronary heart disease, diabetes, elevated cholesterol, aspirin use, body mass index, smoking, alcohol consumption, fruit and vegetable consumption, physical activity, menopausal status and use of hormone replacement therapy **Confirmed + probable ischemic stroke** No shift work: 1.0 1–2 years: 0.99 (0.87; 1.13) 3–5 years:1.0 (0.87; 1.15) 6–9 years: 1.1 (0.91; 1.33) 10–14 years: 0.99 (0.79; 1.24) 15–19 years: 1.24 (0.96; 1.59) 20–29 years: 1.17 (0.9; 1.52) ≥30 years: 1.32 (1.0; 1.73) HR/5 years shift work: 1.04 (1.01; 1.07)

				confirmation from the participant was asked for	10–14 years: 1.05 (0.79; 1.38) 15–19 years: 1.65 (1.24; 2.2) 20–29 years: 1.29 (0.94; 1.77) ≥30 years: 1.22 (0.86; 1.73) HR/5 years of shift work: 1.06 (1.02; 1.1)	**Confirmed ischemic stroke** No shift work: 1.0 1–2 years: 0.96 (0.82; 1.13) 3–5 years: 0.96 (0.81; 1.14) 6–9 years: 1.09 (0.87; 1.36) 10–14 years: 0.94 (0.71; 1.24) 15–19 years: 1.42 (1.07; 1.89) 20–29 years: 1.13 (0.82; 1.55) ≥30 years: 1.11 (0.78; 1.57) HR/5 years shift work: 1.03 (0.99; 1.07)
Chandola et al 2005 [17] United Kingdom	Prospective cohort study. Study participants were extracted from the Whitehall II cohort 6 years Civil service departments 1985–2001 Measured at: 1985–1988 (Baseline) 1997–1999 (ERI 1) 2001 (self-reported angina pectoris)	Participants were female and male British civil servants who were still employed at 1997–1999 n=3 697 at the 1997–1999 follow-up It is not stated how many participants were followed up in 2001 (10 368 at baseline) Both women and men participated in the study, but the number of each gender is not specified	**Effort-reward imbalance** The 85–88 effort-reward imbalance was assessed by proxy measures based on measurements of adverse psychosocial environment assessed by questionnaires at baseline The effort reward imbalance was re-measured in 1997–1999 (ER1) by the Siegrist questionnaire	**Angina pectoris** Angina pectoris was self-reported by use of the Rose Angina Questionnaire by Godin, or with self-reported doctor diagnosed angina. Only new cases between phase 5 (1997–1999) and phase 6 (2001) were considered	Standardised probit regression coefficients for the association between exposure and angina at 2001 **Angina** ***Women*** Effort-reward imbalance 1985–88: 0.16, p<0.01 Effort-reward imbalance 1997–99: 0.01 ***Men*** Effort-reward imbalance 1985–88: 0.04 Effort-reward imbalance 1997–99: 0.15, p<0.01	–
Chang et al 2010 [18] Taiwan	Retrospective cohort study 1 year Post-partum women	Participants were living in one of 90 cities in Taiwan, randomly chosen. They worked in manufacturing, construction, mining, wholesale, retail	**Working hours** A home interview was conducted six months post partum to assess the working hours during pregnancy	**Gestational hypertension** Information of gestational hypertension was collected from the birth registration	Gestational hypertension by maternal shift work and working hours. Crude OR (95 % CI) **Working schedule** Non-employed: 1.00 Daytime: 1.13 (0.88; 1.40) Shift work: 1.14 (0.84; 1.55) Evening: 1.46 (0.71; 3.00)	Gestational hypertension by maternal shift work and working hours. OR (95 % CI) adjusted for maternal age, ethnicity, education, marital status, parity, body mass index, previous induced abortion, previous spontaneous abortion, smoking, alcohol drinking during pregnancy and parity

	2005–2006	trade, personal service, public administration and defence, professional service, public administration and other professions Exclusion criteria were women with multiple gestations, women under the age of 18 years, women with pre-existing conditions including diabetes and hypertension and finally women who did not fill out the forms correctly n=20 276 (24 200 at baseline) All participants were women		It was defined as a syndrome in which women who previously had normal blood pressure, after 20 weeks gestation had a systolic blood pressure of at least 140 mmHg or diastolic blood pressure of at least 90 mm Hg on at least two occasions taken at least 6 hours apart	Daytime and evening: 1.21 (0.84; 1.73) Rotating shift: 0.88 (0.49; 1.56) **Working hour/week** Non-employed: 1.00 ≤40 h: 1.02 (0.78; 1.33) >40 h: 1.21 (0.95; 1.54) 41–48 h: 1.32 (0.99; 1.76) 49–56 h: 1.05 (0.69; 1.60) ≥56 h: 1.10 (0.73; 1.66)	**Working schedule** Non-employed: 1.00 Daytime: 0.98 (0.76; 1.26) Shift work: 0.98 (0.72; 1.35) Evening: 1.38 09.66; 2.87) Daytime and evening: 1.01 (0.70; 1.46) Rotating shift: 0.78 (0.44; 1.41) **Working hour/week** Non-employed: 1.00 ≤40 h: 0.88 (0.66; 1.17) >40 h: 1.06 (0.82; 1.37) 41–48 h: 1.19 (0.88; 1.60) 49–56 h: 0.92 (0.59; 1.42) ≥56 h: 0.93 (0.61; 1.41)
Cheng et al 2014 [19] Taiwan	Case–control study General population 2008–2011	Cases were men, aged under 60 years, who were actively working prior to the disease onset who were admitted to hospital with a first diagnosed acute myocardial infarction or severe coronary heart diseases Controls were men drawn from a national survey and	**Several psychosocial factors** Information on working hours and sleep duration was obtained by a standardized questionnaire Job control and job demands were assessed by scales based on JCQ The scale for workplace justice consisted of	**Acute myocardial infarction and severe coronary heart diseases** Severe coronary heart diseases was defined as angiography confirmed left main disease, triple vessel disease or two-vessel disease with involvement of the proximal left anterior descending coronary artery	Odds ratios for disease in conditional logistic regression models. OR (95% CI) with adjustment of age and education categories **Coronary heart disease** ***Working hours (h/week)*** <40: 1.7 (1.2; 2.5) 40–≦48: 1.0 48–≦60: 1.6 (1.2; 2.1) >60 2.3 (1.7; 3.1) **Acute myocardial infarction** ***Working hours (h/week)*** <40: 1.7 (1.0; 2.9) 40–≦48: 1.0	Odds ratios for disease in conditional logistic regression models. OR (95% CI) with adjustment of age and education categories, smoking status, body mass index and psychosocial work factors including job demands, job control, workplace justice, job insecurity and shift work were treated as confounding variables and controlled in the models **Coronary heart disease** ***Working hours (h/week)*** <40: 1.5 (0.9; 2.3) 40–≦48: 1.0 48–≦60: 1.6 (1.2; 2.2)

		matched to the cases on age, education and area of residence. For each case, two individually matched controls were randomly chosen n=966 (322 cases and 644 controls) Results on coronary heart diseases were based on 955 men (914 for most adjusted) and results on acute myocardial infarction were based on 402 men (375 for most adjusted) All participants were men	items for distributive justice procedural justice, informational justice and interpersonal justice The status of shift work (day shift vs. other shifts) and job insecurity (secure vs. insecure) were assessed by single items	A standardized questionnaire was administered by a trained interviewer during hospitalization or within two weeks after discharge for cases, and at home for controls	48–≦60: 1.6 (1.0; 2.5) >60: 2.4 (1.5; 4.0)	>60: 2.2 (1.6; 3.1) ***Job control (high: 1.0)*** Medium: 0.8 (0.6; 1.1) Low: 0.6 (0.4; 0.8) ***Job demands (low: 1.0)*** Medium: 0.9 (0.6; 1.2) High: 1.0 (0.7; 1.4) ***Workplace justice (high: 1.0)*** Medium: 1.2 (0.9; 1.7) Low: 1.6 (1.2; 2.1) ***Job security (secure: 1.0)*** Insecure: 0.7 (0.6; 1.0) ***Shift work*** Fixed day shift: 1 Irregular shift: 0.9 (0.7; 1.2) **Acute myocardial infarction** ***Working hours (h/week)*** <40: 1.3 (0.7; 2.7) 40–≦48: 1.0 48–≦60: 1.6 (1.0; 2.8) >60: 2.7 (1.6; 4.7) ***Job control (high: 1.0)*** Medium: 1.1 (0.7; 1.8) Low: 0.7 (0.4; 1.1) ***Job demands (low: 1.0)*** Medium: 0.9 (0.5; 1.5) High: 1.0 (0.6; 1.9) ***Workplace justice (high: 1.0)*** Medium: 1.3 (0.8; 2.2) Low: 1.5 (0.9; 2.7) ***Job security (secure: 1.0)***

						Insecure: 0.8 (0.5; 1.3) ***Shift work*** Fixed day shift: 1 Irregular shift: 0.7 (0.4; 1.1)
Clays et al 2013 [20] Belgium	Prospective cohort study. Part of the BELSTRESS cohort The mean follow-up time was 3.15 years General working population 1994–1999	Participants were employed men, aged 35–59 years, from 25 companies or public administrations across Belgium who were free from coronary heart disease at baseline Medical examinations which aimed at measuring classical coronary risk factors (blood pressure, non-fasting blood sample, body mass index) was assessed by trained members of the research team n=14 337 (21 419 at baseline) 5 141 women and 16 278 men at baseline Women were not included in the prospective follow-up	**Occupational physical activity** The physical activity was assessed with a self-administrated questionnaire	**Coronary heart disease** Clinical manifest coronary events was defined as the occurrence of an acute myocardial infarction, unstable angina, and hospitalization for coronary artery bypass grafting or percutaneous transluminal coronary angioplasty	Occupational physical activity and coronary heart disease, results from Cox proportional hazards regression analyses in men. Crude HR (95 % CI) **Occupational physical activity (PA)** Low: 1.00 High: 1.72 (1.03; 2.87) **Combination of occupational and leisure PA** ***Low leisure time PA*** Low occupational PA: 2.83 (1.47; 5.44) High occupational PA: 2.82 (1.14; 7.02) ***Moderate/high leisure time PA*** Low occupational PA: 1.00 High occupational PA: 4.38 (1.76; 10.90)	Occupational physical activity and coronary heart disease, results from Cox proportional hazards regression analyses in men. HR (95 % CI) adjusted for educational level, occupational class, job strain, body mass index, smoking, alcohol consumption, diabetes, systolic blood pressure, total cholesterol and HDL cholesterol **Occupational physical activity** Low: 1.00 High: 1.28 (0.68; 2.44) **Combination of occupational and leisure PA** ***Low leisure time PA*** Low occupational PA: 1.98 (0.99; 3.96) High occupational PA: 1.51 (0.54; 4.19) ***Moderate/high leisure time PA*** Low occupational PA: 1.00 High occupational PA: 3.82 (1.41; 10.36)
Cooper et al 2009 [21] USA	Prospective cohort. Data from the National Longitudinal Mortality Study	Participants were a national sample of the non-institutionalized US population identified	**Magnetic fields** Job titles were classified according to occupational codes. To determine potential	**Several outcomes** Cohort members were followed for cardio-vascular disease mortality	Hazard ratio for the association between cardiovascular disease mortality and magnetic field exposure. Crude HR (95% CI) **All cardiovascular disease**	Hazard ratio for the association between cardiovascular disease mortality and magnetic field exposure. HR (95% CI) adjusted for sex, age, race, hispanic origin, marital status, income, and education completed

	9 years General population 1980–1989	from a population survey for whom occupational codes were available that allowed estimate of potential occupational exposure to magnetic fields Unemployed and retired individuals were excluded n=307 012 135 103 women and 171 909 men	magnetic field exposure for each job, codes were linked with a job-exposure matrix developed previously by Bowman and colleagues Personal monitoring and spot measurements on power-frequency magnetic fields were compiled based on a comprehensive search of the peer-reviewed literature and non-published sources	using the National Death Index to identify the event and cause of death, classified according to ICD-9 codes Death from specific cardiovascular disease outcomes as follows: arrhythmia: codes 426 and 427; acute myocardial infarction: code 410; coronary heart disease: codes 411–414	<0.15 µT:1.0 0.15–<0.20 µT: 1.24 (1.15; 1.35) 0.20–<0.30 µT: 1.42 (1.31; 1.53) >0.30 µT: 1.48 (1.36; 1.61) **Arrhythmia** <0.15 µT:1.0 0.15–<0.20 µT: 0.94 (0.65; 1.34) 0.20–<0.30 µT: 1.34 (0.97; 1.84) >0.30 µT: 1.35 (0.93; 1.95) **Acute myocardial infarction** <0.15 µT:1.0 0.15–<0.20 µT: 1.24 (1.09; 1.42) 0.20–<0.30 µT: 1.57 (1.39; 1.78) >0.30 µT: 1.56 (1.35; 1.79) **Coronary heart disease** <0.15 µT:1.0 0.15–<0.20 µT: 1.30 (1.09; 1.54) 0.20–<0.30 µT: 1.32 (1.11; 1.55) >0.30 µT: 1.52 (1.26; 1.83)	**All cardiovascular disease** <0.15 µT:1.0 0.15–<0.20 µT: 1.03 (0.95; 1.12) 0.20–<0.30 µT: 0.93 (0.86; 1.00) >0.30 µT: 0.98 (0.90; 1.08) **Arrhythmia** <0.15 µT:1.0 0.15–<0.20 µT: 0.84 (0.58; 1.21) 0.20–<0.30 µT: 0.91 (0.66; 1.26) >0.30 µT: 0.90 (0.62; 1.31) **Acute myocardial infarction** <0.15 µT:1.0 0.15–<0.20 µT: 0.97 (0.84; 1.11) 0.20–<0.30 µT: 0.96 (0.84; 1.08) >0.30 µT: 1.01 (0.85; 1.14) **Coronary heart disease** <0.15 µT:1.0 0.15–<0.20 µT: 1.06 (0.89; 1.27) 0.20–<0.30 µT: 0.85 (0.72; 1.01) >0.30 µT: 1.02 (0.83; 1.23)
Davies et al 2005 [22] Canada	Retrospective cohort study Mean follow-up 24 years Blue-collar workers 1950–1995	Participates were blue-collar workers from 14 lumber mills in British Colombia who worked at least 1 year between 1950 and 1995 and who were followed up over the same period. Mean age at entry into the cohort was 30 years n=27 464	**Noise exposure** Noise exposure was assessed in 1 900 full-shift personal noise dosimetry measurements for the participating mills. In addition, interviews and site visits and data from building plans that described potential determinants of both current and past noise exposure was assessed	**Acute myocardial infarction** Data on acute myocardial infarction and ischemic heart disease other than acute myocardial infarction (ICD-9 codes 411–414.9 and 429.9) was obtained from the national mortality database	Association of deaths resulting from acute myocardial infarction and cumulative noise exposure. Standardized mortality ratios, SMR (95% CI) adjusted for age and calendar year **All participants (dB (A)-year)** <100.0: 0.99 (0.88; 1.10) 100.0–104.9: 1.0 (0.89; 1.20) 105.0–109.9: 1.1 (0.95; 1.2) 110.0–114.9: 1.0 (0.89; 1.2) ≥115.0: 1.1 (0.82; 1.4) **Subgroup without hearing protection (dB (A)-year)** <100.0: 1.0 (0.89; 1.2) 100.0–104.9: 1.0 (0.88; 1.2) 105.0–109.9: 1.2 (1.0; 1.5)	–

		Gender of the participants is not specified in the study			110.0–114.9: 1.3 (1.0; 1.6) ≥115.0: 1.3 (0.81; 2.1)	
De Bacquer et al 2005 [23] Belgium	Prospective cohort study. Part of the BELSTRESS cohort The mean follow-up was 3.1 years Working population from a number of specified areas 1994–1999	Participants were 35–59 year old men working at industrial plants, banks, insurance companies, public administrations and hospitals Participants were extracted from the Belgian Job Stress Project Cohort, BELSTRESS Men with existing coronary disease and men with all three job stress subscales missing at baseline were excluded n=14 337 16 329 at baseline All participants were men	**Job stress** Job stress was assessed by a self-administered questionnaire according to the JCQ expanded demand-control model	**Coronary events** All sickness absence ≥3weeks reported to the company was checked by the occupational health centre. They contacted the person´s treating physician to check for a possible coronary heart disease diagnosis. This was defined as the occurrence of an acute myocardial infarction, unstable angina, hospitalization for coronary artery bypass grafting or percutaneous transluminal coronary angioplasty	Relation of job stress scales to incidence of coronary events. HR (95%CI) adjusted for age **Job demands** Low: 1 Medium: 1.14 (0.68; 1.9) High: 1.31 (0.77; 2.24) **Decision latitude** Low: 1.0 (0.6; 1.65) Medium: 0.91 (0.55; 1.52) High: 1 **Social support** Low: 2.11 (1.27; 3.52) Medium: 1.36 (0.79; 2.32) High: 1 **Job strain** Low strain: 1 Passive: 0.75 (0.41; 1.38) Active: 0.99 (0.56; 1.75) High strain: 1.35 (0.73; 2.49) **High strain** No: 1 Yes: 1.48 (0.88; 2.49) **Isostrain** No: 1 Yes: 1.91 (1.07; 3.41)	Relation of job stress scales to incidence of coronary events. HR (95%CI) adjusted for age, education, body mass index, smoking, diabetes, systolic blood pressure, serum total cholesterol, ISCO code (classification of occupations) and company **Job demands** Low: 1 Medium: 1.26 (0.73; 2.14) High: 1.43 (0.8; 2.57) **Decision latitude** Low: 0.83 (0.48; 1.43) Medium: 0.73 (0.42; 1.26) High: 1 **Social support** Low: 2.36 (1.38; 4.01) Medium: 1.58 (0.91; 2.74) High: 1 **Job strain** Low strain: 1 Passive: 0.7 (0.37; 1.32) Active: 1.13 (0.61; 2.07) High strain: 1.26 (0.66; 2.41) **High strain** No: 1 Yes: 1.38 (0.8; 2.38) **Isostrain** No: 1 Yes: 1.92 (1.05; 3.54)
Emeny et al 2013 [24]	Case-control. Part of the	Participants were 35–74 year old workers	**Job strain** Job strain was assessed in employed study	**Coronary events** Coronary events included sudden	Multivariate associations of job strain on coronary heart disease outcome. HR (95%CI) adjusted for age, sex and survey	Multivariate associations of job strain on coronary heart disease outcome. HR (95%CI) adjusted for age, sex, survey, smoking status,

Germany	MONICA/KORA cohort 12 years General working population 1984–2002 Participants recruited in three different surveys: 1984–1985 (S1) 1989–1990 (S2) 1994–1995 (S3) Final outcome: 2001–2002	living in the region of Augsburg Participants were extracted from the MONICA/KORA cohort Individuals with diabetes, cancer, stroke, myocardial infarction, heart failure and participants missing blood samples or co-variables were excluded n=1 027 (114 cases and 913 controls) 389 women and 638 men	participants by using the job demand-control model and the JCQ questionnaire	cardiac death or fatal and non-fatal myocardial infarction and were defined according to algorithms used for the MONICA/KORA Ausburg myocardial infarction registry, death certificates or follow-up questionnaires for participants no longer living in the area Self-reported coronary events were validated by contacting the participant´s hospital	Job strain: 2.57 (1.09; 6.07)	body mass index, actual hypertension, total cholesterol/high-density lipoprotein cholesterol and physical activity Job strain: 2.22 (0.95; 5.32)
Ferrie et al 2013 [25] United Kingdom	Prospective cohort. Part of the Whitehall II cohort The average follow-up was 8.6 years Civil servant departments 1995–2004 Baseline: 1995–1996 Outcome: 2002–2004	Participants were British civil servants, 42–56 years old Participants with prevalent coronary heart disease at baseline were excluded n=4 174 1 236 women, and 2 938 men	**Job insecurity** Job insecurity was self-reported at baseline by the question "How secure is your present job?"	**Coronary heart disease** Outcome was measured as fatal coronary heart disease, clinically verified myocardial infarction and definite angina Coronary deaths was obtained through the British national register (ICD-9 codes 410–414 or ICD-10 codes I20–I25)	Association between self-reported job insecurity at baseline and incident coronary heart disease. HR (95%CI) adjusted for age **Job insecurity** Secure: 1.0 Insecure: 1.41 (1.04; 1.91)	Association between self-reported job insecurity at baseline and incident coronary heart disease. HR (95%CI) adjusted for age, sex, marital status, occupational grade, diabetes, systolic and diastolic blood pressure, cholesterol, body mass index, smoking, alcohol consumption, fruit and vegetable use, exercise level, mental health **Job insecurity** Secure: 1.0 Insecure: 1.26 (0.91; 1.73)

				Non-fatal myocardial infarction was defined using the WHO MONICA project criteria and ascertained from records during hospitalization for acute myocardial infarction and from study electro-cardiograms taken every 5 years Definite angina was ascertained from clinical records		
Fransson et al 2004 [26] Sweden	Case-control. Part of the SHEEP study General population 1992–1994 Male cases identified 1992–1993 Female cases identified 1992–1994	Participants were Swedish citizens living in Stockholm County who were 45–70 years of age and free of clinically diagnosed myocardial infarction n=4 069 Cases Women: 550 Men: 1 204 Control Women: 777 Men: 1 538	**Physical work activity** Sitting, repetitive lifting, heavy lifting and perceived occupational physical activity was reported by participants through questionnaire on lifestyle factors For cases identified by death certificates and those cases who died before contacted the questionnaire was sent to a close relative. This group did not answer questions related to the outcome perceived occupational physical activity	**Myocardial infarction** Myocardial infarction was defined using criteria set up by Swedish association of cardiologists in 1991 (symptoms according to case history, changes in specific blood enzyme levels, electrocardiogram changes or autopsy findings of myocardial necrosis) Cases were identified from the coronary and intensive-care units at all emergency hospitals in the Stockholm County area, from the hospital discharge	Risk of acute myocardial infarction in relation to physical activity. OR (95% CI) adjusted for age, hospital catchment area, smoking, socioeconomic status, fibre intake and alcohol consumption **Perceived occupational physical activity** ***Non-fatal cases women*** Very light: 1.0 Light: 0.93 (0.59; 1.46) Moderate: 0.88 (0.54; 1.45) Strenuous or very strenuous: 1.1 (0.64; 1.89) ***Non-fatal cases men*** Very light: 1.0 Light: 1.27 (1.01; 1.6) Moderate: 1.46 (1.1; 1.93) Strenuous or very strenuous: 1.57 (1.15; 2.15) **Sitting at work** ***All cases women*** Less than half of time: 1.0 About half of time: 0.77 (0.51; 1.17) More than half of time: 0.47 (0.31; 0.69)	–

				register for the Stockholm County area, and through death certificates from the Swedish national register	***Non-fatal cases women*** Less than half of time: 1.0 About half of time:0.81 (0.52; 1.28) More than half of time: 0.55 (0.36; 0.84) ***All cases men*** Less than half of time: 1.0 About half of time: 0.91 (0.73; 1.15) More than half of time: 0.9 (0.72; 1.12) ***Non-fatal cases men*** Less than half of time: 1.0 About half of time: 0.93 (0.73; 1.19) More than half of time: 0.98 (0.78; 1.23) **Repetitive lifting at work** ***All cases women (no=1.0)*** Yes: 1.29 (0.87; 1.91) ***Non-fatal cases women (no=1.0)*** Yes: 1.49 (0.99; 2.25) ***All cases men (no=1.0)*** Yes: 1.23 (1.0; 1.51) ***Non-fatal cases men (no=1.0)*** Yes: 1.22 (0.98; 1.52) **Heavy lifting at work** ***All cases women (no=1.0)*** Yes: 1.46 (0.87; 2.43) ***Non-fatal cases women (no=1.0)*** Yes: 1.56 (0.91; 2.67) ***All cases men (no=1.0)*** Yes: 1.14 (0.9; 1.43) ***Non-fatal cases men (no=1.0)*** Yes: 1.27 (1.0; 1.6)	

Fujino et al 2007 [27] Japan	Prospective cohort study 15 years General working population 1988–2003	Participants were employed men aged 40–79 years in 45 areas of Japan between 1988 and 1990. In 22 out of the 45 areas, all residents living in a given target area were regarded as study subjects. In 20 areas, those who had undertaken a basic health examination were invited to participate in the study. In two areas, the subjects consisted of health examinees plus volunteers All subjects were free from cerebrovascular disease at baseline n=14 568 (110 792 at baseline) All participants were men	**Noise** Noise was assessed with a self-administrated questionnaire at baseline. The question is stated in the article	**Cerebro-vascular diseases** Outcome was assessed according to ICD 10th revision (ICD-10) as follows: cardiovascular diseases (I60–I69), intracerebral haemorrhage (I61–I61.9), and cerebral infarction (I63–I63.9) All deaths that occurred in the cohort were ascertained by death certificates from local public health centres	Hazard ratios of perceived noise exposure at work associated with cause-specific mortality. HR (95% CI) adjusted for age **Cerebrovascular diseases** No noise: 1.00 Noise: 1.47 (0.99; 2.19) **Intracerebral haemorrhage** No noise: 1.00 Noise: 2.38 (1.20; 4.71) **Cerebral infarction** No noise: 1.00 Noise: 1.66 (0.75; 3.65)	Hazard ratios of perceived noise exposure at work associated with cause-specific mortality. HR (95% CI) adjusted for age, smoking, alcohol consumption, educational level, perceived mental stress, past medical history, body mass index, hours of walking, hours of exercise, shift work and job type **Cerebrovascular diseases** No noise: 1.00 Noise: 1.31 (0.85; 2.02) **Intracerebral haemorrhage** ***All participants*** No: 1.00 Yes: 1.74 (0.73; 4.10)
Fujino et al 2006 [28] Japan	Prospective cohort study 15 years General working population 1988–2003	Participants were employed men aged 40–79 years in 45 areas of Japan between 1988 and 1990. In 22 out of the 45 areas, all residents living in a given target area were regarded as study subjects. In 20 areas, those who	**Shift work** All subjects completed a self-administered questionnaire at baseline. The question is stated in the article	**Ischemic heart disease, cerebro-vascular disease and hypertension** Outcome was assessed according to ICD 10th revision (ICD-10) Ischemic heart disease (ICD-10 codes	Relative risk of shift work association with cause-specific mortality. RR (95 % CI) adjusted for age **Ischemic heart disease** Daytime worker: 1.00 Fixed-night worker: 1.28 (0.51; 3.17) Rotating-shift worker: 2.27 (1.34; 3.84) **Cerebrovascular disease** Daytime worker: 1.00	Relative risk of shift work association with cause-specific mortality. RR (95 % CI) adjusted for age, smoking, alcohol consumption, educational level, perceived mental stress, past medical history, body mass index, hours of walking, hours of exercise, shift work and job type **Ischemic heart disease** ***All workers*** Daytime worker: 1.00

		had undertaken a basic health examination were invited to participate in the study. In two areas, the subjects consisted of health examinees plus volunteers All subjects were free from cerebrovascular disease at baseline n=17 649 All participants were men		I20–I25), and cerebrovascular disease (ICD-10 codes I60–I69) were applied	Fixed-night worker: 1.00 (0.47; 2.15) Rotating-shift worker: 1.17 (0.69; 1.97)	Fixed-night worker: 1.23 (0.49; 3.10) Rotating-shift worker: 2.32 (1.37; 3.95) ***Participants without hypertension*** Rotating-shift worker: 2.12 (1.14; 3.94) ***Participants with hypertension*** Rotating-shift worker: 3.40 (1.12; 10.29) **Cerebrovascular disease** Daytime worker: 1.00 Fixed-night worker: 0.88 (0.41; 1.91) Rotating-shift worker: 1.12 (0.66; 1.91)
Gilbert-Ouimet et al 2012 [29] Canada	Prospective cohort study The mean follow-up time was 3.3 years White-collar workers 2000–2006	Participants were workers from three public insurance organizations in Quebec City who were invited to participate The inclusion criteria were age <60 years old at baseline, working for one of the three organizations for more than 6 months at baseline, working at least 21 hour per week at both times, not being pregnant at either time, not being treated for hypertension	**Effort-reward imbalance** Effort was self-assessed at baseline and follow-up using 4 items; two original items of the French version of the Siegrist questionnaire and two proxies Reward was evaluated using the 11 original items recommended by Siegrist (Vallas et al., 2006)	**Blood pressure** Ambulatory blood pressure measures were taken every 15 min during regular hours on a working day (from 8:00–16:00) at both baseline and follow-up Circa 30 blood pressure measures were collected for each worker during each day The first three measures, taken in the presence of staff, were excluded	Cumulative incidence ratios of hypertension by effort-reward imbalance in men and women. Cumulative incidence ratio (95% CI) adjusted for systolic baseline blood pressure **Women** ***<45 years old*** Never exposed: 1.00 Exposed only at baseline: 0.59 (0.21; 1.66) Exposed only at follow-up: 1.51 (0.67; 3.41) Exposed at both times: 1.20 (0.53; 2.75) ***≥45 years old*** Never exposed: 1.00 Exposed only at baseline: 2.45 (1.22; 4.93) Exposed only at follow-up: 1.17 (0.47; 2.92) Exposed at both times: 2.78 (1.26; 6.10) **Men** Never exposed: 1.00 Exposed only at baseline: 0.97 (0.52; 1.82) Exposed only at follow-up: 1.18 (0.69; 2.01) Exposed at both times: 1.17 (0.61; 2.26)	Cumulative incidence ratios of hypertension by effort-reward imbalance in men and women. Cumulative incidence ratio (95% CI) adjusted for systolic baseline blood pressure, education and over commitment. Also adjusted for age in men and for overweight in women **Women** ***<45 years old*** Never exposed: 1.00 Exposed only at baseline: 0.79 (0.28; 2.22) Exposed only at follow-up: 1.74 (0.79; 3.84) Exposed at both times: 1.28 (0.57; 2.86) ***≥45 years old*** Never exposed: 1.00 Exposed only at baseline: 2.23 (1.17; 4.23) Exposed only at follow-up: 1.30 (0.54; 3.12) Exposed at both times: 2.30 (1.16; 4.55) **Men** Never exposed: 1.00 Exposed only at baseline: 0.94 (0.50; 1.77)

		The mean age was 43 years n=1 595 966 women and 629 men				Exposed only at follow-up: 1.30 (0.78; 2.16) Exposed at both times: 1.04 (0.56; 1.95)
Girard et al 2014 [30] Canada	Nested case-control Follow-up started on the day of the 65th anniversary of the worker and ended either in the date of death or on December 21, 2007. The mean follow-up time was 6.8 years Industry 1983–2007	Participants were retired workers (>65 years) who had at least one audiometric test during the study period. Workers were employed in various industrial sectors and were exposed to noise in their work place Only subjects whose hearing was normal for age and those whose hearing loss was characteristic of exposure to noise were included Only workers ages 55–64 years at the time of the hearing test were included Each case was match with three controls n=644 (161 cases and 483 controls) All participants were men	**Noise** Duration of noise exposure was reported by workers in an individual auditory history questionnaire collected at the time of the hearing test	**Cardio-vascular disease** Cardio-vascular disease mortality was ascertained using ICD-9 codes 390–459 and ICD-10 codes I00–I99 Data was collected from a provincial death registry, using death records from the Quebec Ministry of Health and Social Services	Risk of death in cardiovascular disease. OR (95% CI) **Duration of noise exposure** <27 years: 1.0 27–36.4 years: 0.76 (0.47; 1.22) ≥36.4 years: 1.70 (1.10; 2.62)	–

Guimont et al 2006 [31] Canada	Prospective cohort study 7.5 years Public organizations 1991–2003 Baseline data collected 1991–1993 and follow-up between 1999-2003	Participants were between 18–65 years old and employed as senior management, professional-, technical- or office workers at public organizations in Quebec city The following were excluded: manual workers, those working 20 hours or less per week, pregnant workers, those with cardio-vascular disease (including treated hypertension) and those with missing answers or blood pressure measurements n=6 719 3 236 women and 3 483 men	**Job strain** Job strain was assessed using a self-administrated job content questionnaire (JCQ)	**Blood pressure** Blood pressure was measured at the work-site by trained nurses in accordance with the American heart association protocol Participants not working at follow-up was measured at a research clinic	Risk ratios for blood pressure increases in the highest quintile (according to blood pressure); cumulative job strain categories compared with the never-exposed category. RR (95% CI) adjusted to age, body mass index, social support at work, living with a child, number of years working for the organization, baseline systolic or diastolic blood pressure values **Systolic blood pressure increase** ***Women*** Never exposed: 1.0 Exposed only at baseline: 1.1 (0.94; 1.29) Exposed only at follow-up: 1.1 (0.91; 1.32) Exposed baseline + follow-up: 1.15 (0.93; 1.41) ***Men*** Never exposed: 1.0 Exposed only at baseline: 0.98 (0.81; 1.18) Exposed only at follow-up: 1.4 (1.14; 1.73) Exposed baseline + follow-up: 1.33 (1.01; 1.76) **Diastolic blood pressure increase** ***Women*** Never exposed: 1.0 Exposed only at baseline: 1.06 (0.92; 1.28) Exposed only at follow-up: 0.91 (0.74; 1.12) Exposed baseline + follow-up: 1.06 (0.85; 1.31) ***Men*** Never exposed 1.0 Exposed only at baseline: 1.06 (0.9; 1.24) Exposed only at follow-up: 1.1 (0.92; 1.32) Exposed baseline + follow-up: 1.07 (0.84; 1.36)	–
Gustavsson et al 2001 [32] Sweden *Note:* additional data is available	Case-control. Data extracted from the SHEEP study General population	Participants were Swedish citizens living in Stockholm County who were 45–70 years of age and free of clinically diagnosed myocardial infarction	**Exposure to different chemical substances** Participants answered questionnaires on lifetime occupational history, description and duration of work tasks	**Myocardial infarction** Cases were persons surviving at least 28 days after the infarction, identified from coronary or intensive care units at	Estimates for myocardial infarction according to the highest intensity of exposure during at least 1 year of work. RR (95% CI) adjusted for age group, sex, year of enrolment and hospital catchment area **Motor exhaust (mg of CO/m³)**	Estimates for myocardial infarction according to the highest intensity of exposure during at least 1 year of work. RR (95% CI) adjusted for age group, sex, year of enrolment, hospital catchment area, smoking, alcohol drinking, hypertension, overweight, diabetes mellitus and physical activity at leisure time

on cumulative exposure	1992–1994 Male cases were identified 1992–1993 and female cases 1992–1994	n=2 993 **Cases** Women: 398 Men: 937 **Controls** Women: 538 Men: 1 120	and specific occupational exposures. A senior industrial hygienist examined the questionnaires and assessed the probability and the intensity of occupational exposure to substances by the expert rating method The intensity of exposure to motor exhaust was assessed by a job-exposure matrix (Siemiatycki 1996) The other factors were estimated in a semi-quantitative way based on exposure levels reported for a limited number of occupations in which the respective exposure was common	the emergency hospitals in Stockholm County or from a computerized hospital discharge register Standardized diagnostic criteria to define myocardial infarction were used Controls were selected through computerized population register at the time of case identification	Unexposed: 1 >0–2.2: 1.04 (0.78; 1.4) 2.3–3.3: 1.54 (1.15; 2.09) 3.4–6.8: 1.73 (1.29; 2.31) 6.9–11.3: 1.51 (1.01; 2.25) ≥11.4: 1.15 (0.77; 1.71) **Combustion products other than motor exhaust (mg of respirable particles/m³)** Unexposed: 1.0 >0–0.9: 1.15 (0.93; 1.42) 1.0–2.4: 1.76 (1.32; 2.34) ≥2.5: 2.18 (1.3; 3.64) **Organic solvents (hygienic effect)** Unexposed: 1.0 >0.5[1]–0.19: 1.32 (1.08; 1.61) 0.2–0.5: 1.13 (0.82; 1.55) ≥0.5: 1.6 (1.04; 2.48) **Lead (mg/m³)** Unexposed: 1.0 >0–0.03: 0.94 (0.75; 1.18) ≥0.4: 1.17 (0.75; 1.82) **Dynamite** Unexposed: 1.0 Exposed: 1.55 (0.92; 2.61) [1] Probably ment to be 0.05	**Motor exhaust (mg of CO/m³)** Unexposed: 1.0 >0–2.2: 0.95 (0.69; 1.29) 2.3–3.3: 1.34 (0.98; 1.83) 3.4–6.8: 1.36 (0.99; 1.85) 6.9–11.3: 1.24 (0.81; 1.9) ≥11.4: 0.98 (0.64; 1.5) **Combustion products other than motor exhaust (mg of respirable particles/m³)** Unexposed: 1.0 >0–0.9: 1.0 (0.8; 1.25) 1.0–2.4: 1.42 (1.05; 1.92) ≥2.5: 2.11 (1.23; 3.6) **Organic solvents (hygienic effect)** Unexposed: 1.0 >0.5[1]–0.19: 1.26 (1.02; 1.55) 0.2–0.5: 1.05 (0.76; 1.47) ≥0.5: 1.49 (0.94; 2.35) **Lead (mg/m³)** Unexposed: 1.0 >0–0.03: 0.88 (0.69; 1.12) ≥0.4: 1.03 (0.64; 1.65) **Dynamite** Unexposed: 1.0 Exposed: 1.49 (0.86; 2.56) [1] Probably ment to be 0.05
Hakansson et al 2003 [33] Sweden	Prospective cohort study 29 years General working population 1967–1996	Participants were a general population born 1886–1958, from the Swedish twin registry Those who were unemployed or not included in job	**Low frequency magnetic fields** Levels of exposure were obtained by linking the occupations to a previously elaborated job exposure matrix or	**Mortality from cardio-vascular disease** Cause-specific mortality was obtained through linkage with the causes-of-death registry	Relative risk of death from cardiovascular disease in relation to occupational exposure to extremely low frequency magnetic fields. Low exposure=1.0 for all calculations. RR (95% CI) adjusted for age, smoking and body mass index **Acute myocardial infarction** ***All subjects (additionally adjusted for sex)*** Medium: 1.15 (0.74; 1.77)	–

	Baseline data from 1967 and 1973	exposure matrix were excluded n=27 790 11 110 women and 16 680 men	description (Floderus et al 1993, 1996) The following categories were applied for the magnetic fields: Low: 0–0.09 µT Medium: 0.1–0.19 µT High: 0.2–0.29 µT Very high: ≥0.3 µT	Causes of death were coded according to ICD Acute myocardial infarction: ICD-7, code 420.1, ICD-8 and ICD-9 code 410 Ischemic heart disease: ICD-7 codes 420.0 and 422.1, ICD-8 codes 412 and 413, ICD-9 codes 411–414 Arrhythmia: ICD-8 code 427, ICD-9 codes 426 and 427 Arthero-sclerosis: ICD-8 and ICD-9 code 440	High: 1.19 (0.76; 1.86) Very high: 1.31 (0.8; 2.14) ***Women*** Medium: 0.93 (0.49; 1.78) High: 1.06 (0.55; 2.05) Very high: 2.35 (0.76; 7.25) ***Men*** Medium: 1.4 (0.69; 2.85) High: 1.44 (0.69; 3.01) Very high: 1.53 (0.73; 3.22) **Ischemic heart disease** ***All subjects (additionally adjusted for sex)*** Medium: 1.18 (0.62; 2.25) High: 1.06 (0.54; 2.07) Very high: 0.75 (0.34; 1.66) ***Women*** Medium: 1.85 (0.69; 4.93) High: 2.25 (0.82; 6.16) Very high: 2.03 (0.22; 18.44) ***Men*** Medium: 0.68 (0.33; 1.4) High: 0.53 (0.24; 1.17) Very high: 0.42 (0.18; 0.97) **Arrhythmia** ***All subjects (additionally adjusted for sex)*** Medium: 1.31 (0.6; 2.85) High: 1.24 (0.54; 2.84) Very high: 1.0 (0.38; 2.6) **Atherosclerosis** ***All subjects (additionally adjusted for sex)*** Medium: 1.11 (0.53; 2.32) High: 1.5 (0.71; 3.2) Very high: 1.68 (0.73; 3.88)	

Hallqvist et al 1998 [34] Sweden	Case-control. Data extracted from the SHEEP study General population Cases identified 1992–1994	Participants were Swedish citizens living in Stockholm County who were 45–64 years of age and free of clinically diagnosed myocardial infarction Cases were included at the time of disease incidence. At the same time one referent per case was randomly selected from the study base after stratification for age, sex and hospital catchment area. There was at least one participating referent for each identified case, and therefore more referents than cases were initially included n=2 497 Cases: 1 047 Control: 1 450 All participants were men	**Job strain** Job strain was assessed using the Swedish shortened self-administrated job content questionnaire (DCQ)	**Myocardial infarction** Cases were recruited from all ten emergency hospitals in the region and from continuous screening of the death certificates at statistics Sweden. A small proportion of the cases were identified from the computerized hospital discharge register	Risk of non-fatal myocardial infarction with different cut-offs in the demands and decision latitude exposure dimensions. For results presented in quartiles, cut-offs in exposure dimension divided in quartiles (worst quartile vs the rest according to the distribution of demand and decision latitude scores among the referents) or optimum (cut-offs chosen to reflect an optimum balance between exposure contrast and power). RR (95% CI) adjusted for smoking, body mass index and hypertension **Demands (cut-off score)** 9: 1.1 (0.8;1.5) 10: 1.2 (0.9; 1.7) 11: 1.3 (1.0; 1.7) 12: 1.3 (1.0; 1.7) 13: 1.4 (1.1; 1.7) 14: 1.2 (0.9; 1.6) 15: 1.0 (0.7; 1.4) 16: 1.1 (0.7; 1.7) 17: 1.8 (1.0; 3.3) 18: 1.3 (0.5; 3.1) **Decision latitude (DL) (cut-off score)** 11: 2.2 (1.0; 4.8) 12: 2.2 (1.2; 4.1) 13: 2.2 (1.3; 3.5) 14: 2.3 (1.5; 3.5) 15: 2.1 (1.5; 3.0) 16: 1.3 (1.0; 1.8) 17: 1.5 (1.1; 1.9) 18: 1.3 (1.0; 1.6) 19: 1.1 (0.8; 1.4) 20: 1.1 (0.8; 1.5) **All working men** ***Quartiles*** High demands/not low DL: 1.1 (0.8; 1.5) Low DL/not high demands: 1.2 (0.9; 1.7) High demands/low DL: 2.2 (1.2; 4.1)	–

					Optimum High demands/not DL: 1.3 (1.0; 1.7) Low DL/not high demands: 1.8 (1.1; 2.9) High demands/low DL: 9.2 (3.3; 25.6) **Manual workers** ***Quartiles*** High demands/not low DL: 1.2 (0.5; 3.1) Low DL/not high demands: 1.6 (0.9; 3.0) High demands/low DL: 10.0 (2.6; 38.4) ***Optimum*** High demands/not low DL: 1.6 (0.8; 3.2) Low DL/not high demands: 2.3 (1.1; 4.9) High demands/low DL: 46.1 (4.9; 429) **Non-manual workers** ***Quartiles*** High demands/not low DL: 1.2 (0.8; 1.6) Low DL/not high demands: 1.0 (0.6; 1.7) High demands/low DL: 1.5 (0.6; 3.5) ***Optimum*** High demands/not low DL: 1.4 (1.0; 1.9) Low DL/not high demands: 1.3 (0.6; 3.2) High demands/low DL: 3.6 (0.7; 18.8) DL: decision latitude	
Hammar et al 1998 [35] Sweden	Case-control study General population 1976–1981 1976–1984	Participants were general working population, age 30–64 years, from both rural and urban environments For each case, two random controls were selected from the study base stratified by sex, age and year	**Job strain and social support at work** A work organization exposure matrix, developed by Johnson et al, was used. It has been described in previous studies (Johnson et al., 1996, 1990 and 1993, Theorell et al., 1991, Hall et al 1993)	**Myocardial infarction** Information was assessed by hospital discharge registers and death records in accordance with a previously evaluated method (Ahlbom et al., 1978; Hammar et al., 1991)	Relative risk for a first myocardial infarction for subjects exposed to different work environmental factors. RR (95% CI) adjusted for age, country of residence and calendar year **Women** ***Decision latitude (high: 1.00***) Low: 1.44 (1.25; 1.65) ***Psychological demands (low: 1.00***) High: 0.95 (0.82; 1.10)	–

		of hospital admission or death of the cases n=38 456 10 008 cases (1 175 women and 8 833 men) 28 448 controls (3 535 women and 24 913 men)	High job strain was define as a combination of high psychological demands and low decision latitude in accordance with the JCQ questionnaire		***Social support at work (high: 1.00***) Low: 1.20 (1.04; 1.39) ***Job strain (low strain: 1.00)*** Active: 0.93 (0.75; 1.16) Passive: 1.43 (1.13; 1.81) High strain: 1.23 (1.01; 1.51) ***Decision latitude/social support*** High/High: 1.00 High/Low:1.21 (0.96; 1.53) Low/High: 1.43 (1.16; 1.77) Low/Low: 1.56 (1.28; 1.91) ***Decision latitude/demands/social support*** High/Low/High: 1.00 High/Low/Low: 1.46 (0.98; 2.18) High/High/High: 0.91 (0.68; 1.22) High/High/Low: 1.04 (0.79; 1.36) Low/Low/High: 1.39 (0.92; 2.11) Low/Low/Low: 1.49 (1.14; 1.94) Low/High/High: 1.37 (1.06; 1.76) Low/High/Low: 1.31 (0.99; 1.73) **Men** ***Decision latitude (high: 1.00***) Low: 1.19 (1.13; 1.25) ***Psychological demands (low: 1.00***) High: 0.94 (0.89; 0.99) ***Social support at work (high: 1.00***) Low: 1.15 (1.10; 1.22) ***Job strain (low strain: 1.00)*** Active: 0.89 (0.81; 0.98) Passive: 1.04 (0.94; 1.14) High strain: 1.21 (1.08; 1.35) ***Decision latitude/social support*** High/High: 1.00	

					High/Low:1.02 (0.94; 1.10) Low/High: 1.05 (0.96; 1.16) Low/Low: 1.24 (1.17; 1.33) ***Decision latitude/demands/social support*** High/Low/High: 1.00 High/Low/Low: 1.17 (0.98; 1.39) High/High/High: 0.97 (0.84; 1.12) High/High/Low: 0.93 (0.79; 1.09) Low/Low/High: 1.04 (0.89; 1.23) Low/Low/Low: 1.17 (1.01; 1.36) Low/High/High: 1.49 (1.04; 2.13) Low/High/Low: 1.35 (1.16; 1.58)	
Hammar et al 1994 [36] Sweden *Note*: the article also presents models for blue and white collar workers	Case-control study General population 1970–1975	Participants were general working population, age 30–64 years, from both rural and urban environments For each case, two random controls were selected from the study base stratified by sex, age and year of hospital admission or death of the cases Only subjects with the same type of occupation, that belong to the same exposure category in 1970 and in 1975, were included in the analyses n=35 396 9 295 cases (1 165 women and 8 130 men)	**Job strain** Information was assessed from the national surveys, described previously (Alfredsson et al., 1985) Job strain was defined by the JCQ model. High job strain was defined as a combination of high psychological demands and low decision latitude	**Myocardial infarction** Information was assessed by hospital discharge registers and death records in accordance with a method that was developed and evaluated previously (Ahlbom et al., 1978; Hammar et al., 1991)	Relative risk for a first myocardial infarction for subjects exposed to different work environmental factors 1970–1975. RR (95% CI) adjusted for age, country of residence and calendar year **Women** Hectic work: 1.00 (0.7; 1.3) Monotony: 1.8 (1.2; 2.6) Few possibilities to learn new: 1.9 (1.4; 2.5) Long working hours: 1.0 (0.7; 1.5)[1] Low influence, planning of work: 1.8 (1.2; 2.6) Low influence, work tempo: 1.4 (1.0; 1.9) Low influence, working hours: 1.3 (1.1; 1.7) Noise: 1.5 (1.0; 2.1) **Men** Hectic work: 0.9 (0.8; 1.1) Monotony: 1.3 (1.1; 1.5) Few possibilities to learn new: 1.4 (1.3; 1.6) Long working hours: 0.9 (0.8; 1.1) Low influence, planning of work: 1.5 (1.4; 1.6) Low influence, work tempo: 1.3 (1.2; 1.5) Low influence, working hours: 1.3 (1.2; 1.5) Noise: 1.4 (1.3; 1.5)	–

		26 101 controls (3 502 women and 22 599 men)				
Hammar et al 2001 [37] Sweden	Case-control study. Data from the SHEEP and VHEEP studies 1993–1994	Participants were from the Stockholm Heart Epidemiology Program (SHEEP) and Västernorrland Heart Epidemiology Program (VHEEP). The population were men and women age 45–64 years of age, from a city and a rural area in Sweden Cases were classified as first events if there was no previously recorded hospitalization for acute myocardial infarction in the hospital discharge registers during the previous 8 years For each case, one control was selected from the study base concurrently with disease incidence by matching on the sex, age and place of residence of the case n=3 126 (1 563 cases)	**Job strain and shift work** Risk factors were assessed by a questionnaire. For the SHEEP study it has been described previously (Reuterwall et al., 1999) Job strain was defined as the combination of high psychological demands and low decision latitude in the work situation according to JCQ Shift work was defined as working hours from 22.00–06.00	**Myocardial infarction** Information was assessed by special teams at every hospital treating acute medical cases, from hospital discharge registers and from the National Cause of Death Register The diagnosis of acute myocardial infarction was based on information on typical symptoms, typical changes in electro-cardiogram or enzymes in accordance with certain defined criteria For fatal cases, autopsy records stating signs of recent myocardial necrosis were applied	Relative risk associated with risk factors for myocardial infarction. Men and women aged 45–65 years in Västernorrland and Stockholm. RR (95% CI) **Women** Job strain: 1.8 (1.3; 2.4) Shift work: 1.9 (1.3; 2.8) **Men** Job strain: 1.5 (1.2; 1.8) Shift work: 1.4 (1.1; 1.7)	–

		Cases: 415 women and 1 148 men				
Held et al 2012 [38] A large number of countries *Note*: The article also has data presented in tables describing data by country income	Case-control study. Data from the INTERHEART study General population 1993–1994	Participants were working persons in 52 countries in Asia, Europe, the middle east, Africa, Australia, North America and South America Cases had myocardial infarction. Persons presenting with cardiogenic shock, history of any major chronic disease, known angina pectoris, sufferers from physical disability and those on social security were excluded At least one age- and sex-matched control without a history of cardiovascular disease was recruited per case. Controls were selected either from the community or from the recruiting hospital n=24 260 (10 043 cases and 14 217 controls) Information on gender is not listed in the article	**Physical activity** Physical activity during work was assessed by questionnaire on how active they had been at work	**Acute myocardial infarction** Cases of first myocardial infarction presenting within 24h of symptom onset were eligible to participate in the study	Association between occupational physical activity and risk of acute myocardial infarction. RR (95% CI) adjusted for age, sex and country level income **Work related activity** Mainly sedentary: 1.00 Walking at one level: 0.82 (0.76; 0.89) Walking, climbing, lifting: 0.95 (0.87; 1.04) Heavy physical labor: 1.23 (1.09; 1.39)	Association between occupational physical activity and risk of acute myocardial infarction. RR (95% CI) adjusted for age, sex and country level income, smoking, alcohol, education, household income, waist-hip-ratio, hypertension, diabetes, psychosocial factors, fruit and vegetable intake **Work related activity** Mainly sedentary: 1.00 Walking at one level: 0.78 (0.71; 0.86) Walk, climb, lift: 0.89 (0.80; 0.99) Heavy physical labor: 1.02 (0.88; 1.19)

Hemmingsson et al 2006 [39] Sweden	Prospective cohort study Up to 13 years General population 1990–2003	Participants were from a nation-wide survey of young Swedish males born 1949–1951, who were conscripted for compulsory military service in 1969–1970 n=39 160 All participants were men	**Job control** Data on job control was assessed indirectly from occupational titles using a job exposure matrix applied when the participants were 39–41 years of age The job exposure matrix (Fredlund et al., 2001), was based on aggregated data derived from questionnaires to representative samples of employees in the population	**Coronary heart disease** Data on hospitalization and mortality due to coronary heart diseases was collected when the participants were 40–53 years of age Information on coronary heart diagnoses ICD-9th revision (code 410–412) and 10th revision (codes I20–I25) revision) was obtained by record linkage with the National Hospital Discharge Register, covering all public inpatients care in Sweden since 1987, and with the Swedish Causes of Death Register	Job control and coronary heart disease among men 40–53 years of age. Crude HR (95% CI) **Job control** High control: 1.0 High intermediate: 1.05 (0.87; 1.26) Low intermediate: 1.03 (0.85; 1.23) Low control: 1.55 (1.31; 1.84)	Job control and coronary heart disease among men 40–53 years of age. HR (95% CI) adjusted for socioeconomic position of father, crowded housing in childhood, short stature, low education, heavy alcohol consumption, smoking, overweight, income 1985 **Job control** High control: 1.0 High intermediate: 0.82 (0.68; 0.99) Low intermediate: 0.77 (0.64; 0.93) Low control: 0.99 (0.82; 1.19)
Hintsa et al 2010 [40] United Kingdom	Prospective cohort study. Data from the Whitehall II study 8.7 years Civil servants 1989–1999	Participants were London office workers, age 35–55 years in 20 civil service departments at study inception The participants were free from prevalence of coronary heart disease at baseline	**Psychosocial factors** Job demands and job control were assessed with the Job Content Questionnaire (JCQ) Organizational justice was assessed with the same proxy measure of five items as in all previous studies from Whitehall II	**Coronary heart disease** The incidence of coronary heart disease was defined as a coronary heart disease death, a first non-fatal myocardial infarction or definite angina Coronary deaths were defined by ICD 9th	Job control and organizational justice with coronary heart disease. HR (95% CI) of Cox regression models with no adjustments **Job control** Low: 1.72 (1.08; 2.74) Intermediate: 1.56 (1.02; 2.39) High: 1.00 **Organizational justice** Low: 1.72 (1.10; 2.67) Intermediate: 1.66 (1.08; 2.53) High: 1.00	Job control and organizational justice with coronary heart disease. HR (95% CI) of Cox regression models with adjustments for family history of coronary heart disease, education, father's education, father's social class, number of siblings and height **Job control** Low: 1.76 (1.10; 2.81) Intermediate: 1.58 (1.02; 2.43) High: 1.00 **Organizational justice**

		The mean age was 44 years n=6 435 All participants were men		revision (codes 410–414) New cases of non-fatal myocardial infarction were ascertained both by questionnaire on a chest pain and a physician's diagnosis of heart attack Confirmation of myocardial infarction was obtained by the MONICA criteria Assessment of angina was based on either participant's reports with corroboration in medical records or abnormalities on an electro-cardiogram or a coronary angiogram		Low: 1.73 (1.11; 2.69) Intermediate: 1.68 (1.10; 2.57) High: 1.00
Holtermann et al 2010 [41] Denmark	Prospective cohort study. Data from the Copenhagen male study 30 years Working population from a number of specified areas 1970–2001	Participants were 40–59 year old men volunteering to participate. They were working at the railway, public road construction, military, post, telephone, bank, customs and medical industry Men with orthopaedic problems, angina pectoris, myocardial infarction or	**Work hours per week** Participants reported weekly working hours in a questionnaire, in categories designed by the authors	**Ischemic heart disease mortality** Information on death diagnose was obtained from a national register Ischemic heart disease was defined as ICD-8 410–414 and ICD-10 categories 120–125	Working hours as predictor of ischemic heart disease mortality. HR (95% CI) adjusted for age **Number of work hours per week** <40: 1.00 40–45: 1.59 (1.20; 2.11) >46: 1.28 (0.91; 1.78) **Number of hours per week** ***Lowest quintile of physical fitness*** <40: 1.0 40–45: 1.94 (1.02; 3.72) >46: 2.69 (1.33; 5.46) ***Medium quintile of physical fitness*** <40: 1.0	Working hours as predictor of ischemic heart disease mortality. HR (95% CI) adjusted for age, body mass index, systolic and diastolic blood pressure, diabetes, hypertension, alcohol use, smoking, physical work demands and social class **Number of hours per week** ***Lowest quintile of physical fitness*** <40: 1.0 40–45: 1.49 (0.76; 2.89) >46: 2.28 (1.10; 4.73) ***Medium quintile of physical fitness*** <40: 1.0 40–45: 1.37 (0.93; 2.03)

		claudicatio intermittens were excluded n=4 964 at baseline All participants were men			40–45: 1.71 (1.18; 2.49) >46: 1.06 (0.67; 1.86) ***Highest quintile of physical fitness*** <40: 1.0 40–45: 0.98 (0.52; 1.82) >46: 0.87 (0.41; 1.87)	>46: 0.94 (0.59; 1.51) ***Highest quintile of physical fitness*** <40: 1.0 40–45: 0.80 (0.41; 1.57) >46: 0.91 (0.41; 2.02)
Holtermann et al 2012 [42] Denmark	Prospective cohort study. Data from the Copenhagen City Heart Study 17 years General population 1981–2008	Participants were aged 25–66 years without a history of cardiovascular disease who attended an initial examination in the Copenhagen City Heart Study in 1976–1978 The study population was drawn from the Copenhagen Population Register Persons above the age of retirement in Denmark (67 years) at the time of the second examination (1981–1983) were excluded n=7 819 4 538 women and 3 281men	**Occupational physical activity** A single question with four categories was applied for assessing occupational physical activity. The question is described in the article	**Myocardial infarction** Subjects were followed in national registers for myocardial infarction The endpoint myocardial infarction was defined as the first incidence of fatal or non-fatal myocardial infarction according to ICD-8, code 410 and ICD-10, codes I21–22 Episodes of non-fatal myocardial infarction were retrieved from a national hospital discharge register Deaths were obtained from the a national register of causes of death	Occupational physical activity as predictor for fatal and non-fatal myocardial infarction. HR (95% CI) controlled for age **Women, occupational physical activity** Low: 1.0 Moderate: 0.82 (0.62; 1.09) High: 1.10 (0.76; 1.57) ***Low leisure time physical activity*** Moderate occupational: 0.82 (0.42; 1.59) High occupational: 1.13 (0.47; 2.73) ***Moderate leisure time physical activity*** Moderate occupational: 0.72 (0.50; 1.03) High occupational: 1.01 (0.62; 1.65) ***High leisure time physical activity*** Moderate occupational: 1.38 (0.71; 2.68) High occupational: 1.75 (0.82; 3.70) **Men, occupational physical activity** Low: 1.0 Moderate: 1.34 (1.07; 1.68) High: 1.18 (0.93; 1.50) ***Low leisure time physical activity*** Moderate occupational: 1.28 (0.74; 2.23) High occupational: 1.15 (0.65; 2.03) ***Moderate leisure time physical activity*** Moderate occupational: 1.39 (1.00; 1.95) High occupational: 1.43 (1.00; 2.04)	Occupational physical activity as predictor for fatal and non-fatal myocardial infarction. HR (95% CI) controlled for age, smoking, alcohol, body mass index, leisure time physical activity, systolic blood pressure, diabetes, cholesterol, blood pressure medication and household income **Women, occupational physical activity** Low: 1.0 Moderate: 0.76 (0.56; 1.33) High: 0.98 (0.67; 1.44) ***Low leisure time physical activity*** Moderate occup: 1.03 (0.49; 2.15) High occup: 1.55 (0.55; 4.35) ***Moderate leisure time activity*** Moderate occup: 0.65 (0.45; 0.95) High occup: 0.78 (0.46; 1.33) ***High leisure time physical activity*** Moderate occup: 1.00 (0.49; 2.01) High occup: 1.18 (0.54; 2.60) **Men, occupational physical activity** Low: 1.0 Moderate: 1.30 (1.03; 1.64) High: 1.20 (0.93; 1.55) ***Low leisure time activity*** Moderate occup: 1.39 (0.76; 2.53) High occup: 1.15 (0.62; 2.13)

					High leisure time physical activity Moderate occupational: 1.31 (0.92; 1.88) High occupational: 1.00 (0.69; 1.47)	***Moderate leisure time activity*** Moderate occup: 1.27 (0.89; 1.80) High occup: 1.41 (0.96; 2.06) ***High leisure time physical activity*** Moderate occup: 1.27 (0.87; 1.86) High occup: 1.04 (0.69; 1.55)
Holtermann et al 2011 [43] Denmark	Prospective cohort study. Data from the Copenhagen male study 30 years Working population from a number of specified areas 1970–2001	Participants were men 40–59 years volunteering to participate. They were working at the railway, public road construction, military, post, telephone, bank, customs and medical industry Men with orthopaedic problems, a history of myocardial infarction, angina pectoris or intermittent claudication were excluded n=5 249 at baseline All participants were men	**Physical activity at work** Participants reported in a questionnaire, in categories designed by the authors. Items are described in the article Indirect measurements of physical fitness were performed with a bicycle ergometer Social class was based on a system by Svalastoga	**Ischemic heart disease mortality** Information on death diagnose was obtained from a national register Ischemic heart disease was defined as ICD-8 410–414 and ICD-10 categories 120–125	Analysis of low social classes only (IV and V). Physical work demands and risk of ischemic heart disease mortality according to level of physical fitness. HR (95% CI) adjusted for age **Low physical fitness** Physical work demand (low: 1.00) Medium: 1.70 (0.77; 3.75) High: 2.47 (1.08; 5.68) **Medium physical fitness** Physical work demand (low: 1.00) Medium: 1.11 (0.70; 1.75) High: 1.21 (0.74; 1.97) **High physical fitness** Physical work demand (low: 1.00) Medium: 0.51 (0.24; 1.08) High: 0.50 (0.22; 1.15)	Analysis of low social classes only (IV and V). Physical work demands and risk of ischemic heart disease mortality according to level of physical fitness. HR (95% CI) adjusted for body mass index, blood pressure, diabetes, hypertension, alcohol use, smoking and physical activity **Low physical fitness** Physical work demand (low: 1.00) Medium: 1.88 (0.84; 4.22) High: 2.90 (1.21; 6.96) **Medium physical fitness** Physical work demand (low: 1.00) Medium: 1.11 (0.70; 1.77) High: 1.19 (0.72; 1.96) **High physical fitness** Physical work demand (low: 1.00) Medium: 0.63 (0.28; 1.40) High: 0.60 (0.24; 1.47)
Hu et al 2005 [44] Finland	Prospective cohort study The mean follow-up was 18.9 years General population	Participants were Finnish citizens from 5 different geographic areas, 25–64 years of age Participants with a history of coronary heart disease, stroke	**Occupational physical activity** Participants reported occupational physical activity through a self-administered questionnaire (Hu et al 2003, 2004 and Barengo et al 2004)	**Stroke** Mortality data were obtained from statistics Finland, nonfatal events from the National Discharge Register	Risk of total stroke, according to occupational physical activity. HR (95% CI) adjusted for age, area and study year **All participants (also adjusted for sex)** Low: 1.0 Moderate: 0.85 (0.77; 0.94) Active: 0.9 (0.82; 0.98)	Risk of total stroke according to occupational physical activity. HR (95% CI) adjusted for age, area, study year, body mass index, systolic blood pressure, cholesterol, education, smoking, alcohol consumption, diabetes, leisure time physical activity and commuting physical activity **All participants (also adjusted for sex)**

	1972–2003 (baseline data sampled between 1972–1997)	or cancer at baseline, incomplete data on any required variable were excluded n=47 721 24 880 women and 22 841 men	Activity was classified as light (physically very easy), moderate (standing or walking) or active (walking and lifting or heavy manual labour)	ICD 8, 9 and 10 was used for identification of subarachnoid haemorrhage (430, I60), intracerebral haemorrhage (431, ICD-9 code 432, I61–62), intracerebral infarction (432–438, I63–66) any stroke events (430–438, I60–66)	**Women** Low: 1.0 Moderate: 0.87 (0.76; 0.99) Active: 0.88 (0.77; 1.0) **Men** Low: 1.0 Moderate: 0.84 (0.72; 0.97) Active: 0.91(0.81; 1.02)	Low: 1.0 Moderate: 0.94 (0.85; 1.04) Active: 0.89 (0.81; 0.98) **Women** Low: 1.0 Moderate: 0.95 (0.83; 1.09) Active: 0.89 (0.78; 1.03) **Men** Low: 1.0 Moderate: 0.93 (0.80; 1.08) Active: 0.90 (0.80; 1.03)
Hu et al 2007 [45] Finland *Note*: additional data is available on participants with moderate or severe hypertension without hypertension treatment	Prospective cohort study Mean 19.9 years General population 1972–2003 (baseline data sampled between 1972–1997)	Participants were Finnish citizens, 25–64 years old, with hypertension (systolic blood pressure ≥140 mm Hg or diastolic blood pressure ≥90) Moderate or severe hypertension was defined as systolic blood pressure ≥160 mm Hg or diastolic blood pressure ≥95) or receiving anti-hypertension drugs Participants with a history of coronary heart disease, stroke, at baseline, diabetes type I at baseline or follow-up, incomplete data on any required variable were excluded n=26 643	**Occupational physical activity** Participants reported occupational physical activity through a self-administered questionnaire (Hu et al 2003, 2004, 2005, 2007) Activity was classified as, low (physically very easy), moderate (standing/walking) or high (walking and lifting or heavy manual labour)	**Cardio-vascular mortality** Mortality data of cardiovascular death (ICD-8,9 and 10 codes 390–459 and I00–I99) were obtained from statistics Finland	Risk of cardiovascular mortality according to different level of occupational physical activity among suspects with hypertension. HR (95% CI) adjusted for age and study year **Women** Low: 1.0 Moderate: 0.68 (0.6; 0.78) High: 0.75 (0.67; 0.85) **Men** Low: 1.0 Moderate: 0.71 (0.63; 0.8) High: 0.82 (0.74; 0.9)	Risk of cardiovascular mortality according to different level of occupational physical activity among suspects with hypertension/moderate or severe hypertension. HR (95% CI) adjusted for age and study year, education, alcohol consumption, smoking, body mass index, systolic blood pressure, cholesterol, use of hypertensive drugs at baseline or during follow-up, incident diabetes at baseline or follow-up, commuting and leisure-time physical activity **Women** ***All hypertension*** Low: 1.0 Moderate: 0.85 (0.74; 0.98) High: 0.84 (0.73; 0.96) ***Moderate or severe hypertension*** Low: 1.0 Moderate: 0.83 (0.70; 0.98) High: 0.78 (0.67; 0.92) **Men** ***All hypertension*** Low: 1.0 Moderate: 0.84 (0.74; 0.96) High: 0.86 (0.78; 0.96)

		12 244 women and 14 399 men				***Moderate or severe hypertension*** Low: 1.0 Moderate: 0.81 (0.69; 0.96) High: 0.84 (0.74; 0.96)
Hublin et al 2010 [46] Finland	Prospective cohort study. Data extracted from the Finnish twin cohort 22 years General population 1982–2003 Baseline data sampled 1975 and 1981	Participants were Finnish twins born before 1958 Participants not responding to both questionnaires, not working, with missing information on working time 1981 and those that not was Finnish residents 1981 were excluded The healthy subgroup include subjects without chronic diseases (e.g. angina pectoris, cancer, myocardial infarction, stroke, diabetes mellitus or chronic obstructive pulmonary disease) in 1981 n=20 142 (healthy subgroup n=15 314) Both men and women participated, but the exact number of each sex is not specified	**Shift work** Shift work was assessed by questionnaire Working time was classified as mainly daytime, mainly night-time, mainly shift-work or not working	**Cardio-vascular disease** Mortality data was obtained from Statistics Finland, ICD-10 codes I20–I25, ICD-8 and 9 codes 410–414 Incident hypertension was obtained by record linkage of cohort data with a register of reimburse-ment of hypertension treatment, i.e. treatment granted after medical certificate by treating physician	Risk of mortality due to coronary heart disease or incident of incident hypertension. HR (95% CI) adjusted for age **Mortality due to cardiovascular disease** ***Women*** Day 1975 and 1981: 1.00 Night 1975 or 1981: 1.38 (0.71; 2.69) Shift 1975, day 1981: 1.16 (0.66; 2.04) Day 1975, shift 1981: 1.55 (0.88; 2.74) Shift 1975 and 1981: 1.22 (0.83; 1.79) ***Men*** Day 1975 and 1981: 1.00 Night 1975 or 1981: 1.75 (0.92; 3.33) Shift 1975, day 1981: 1.09 (0.68; 1.76) Day 1975, shift 1981: 0.94 (0.56; 1.56) Shift 1975 and 1981: 1.09 (0.82; 1.44) **Incident of hypertension** ***Women*** Day 1975 and 1981: 1.00 Night either 1975 or 1981: 1.12 (0.8; 1.56) Shift 1975, day 1981: 1.05 (0.84; 1.32) Day 1975, shift 1981: 1.24 (0.99; 1.56) Shift 1975 and 1981: 1.06 (0.88; 1.28) ***Men*** Day 1975 and 1981: 1.00 Night 1975 or 1981: 0.73 (0.39; 1.35) Shift 1975, day 1981: 0.93 (0.72; 1.21) Day 1975, shift 1981: 1.04 (0.81; 1.33) Shift 1975 and 1981: 1.15 (0.97; 1.37)	Risk of mortality due to coronary heart disease or incident of incident hypertension. HR (95% CI) adjusted for age, marital status, social class, education, smoking status, binge drinking, grams of alcohol consumed daily, hypertension, body mass index, conditioning physical activity, life satisfaction, diurnal type, sleep length, use of hypnotics and/or tranquillizers, physical load of work and working pace **Mortality due to cardiovascular disease** ***All women*** Day 1975 and 1981: 1.00 Night 1975 or 1981: 0.9 (0.36; 2.23) Shift 1975, day 1981: 1.08 (0.56; 2.08) Day 1975, shift 1981: 1.52 (0.82; 2.82) Shift 1975 and 1981: 1.21 (0.75; 1.93) ***Healthy women*** Day 1975 and 1981: 1.00 Night 1975 or 1981: – Shift 1975, day 1981: 0.67 (0.09; 4.96) Day 1975, shift 1981: 2.16 (0.62; 7.55) Shift 1975 and 1981: 1.02 (0.27; 3.95) ***All men*** Day 1975 and 1981: 1.00 Night 1975 or 1981: 1.82 (0.97; 3.41) Shift 1975, day 1981: 0.86 (0.48; 1.54) Day 1975, shift 1981: 0.79 (0.44; 1.41) Shift 1975 and 1981: 1.06 (0.75; 1.50) ***Healthy men*** Day 1975 and 1981: 1.00 Night 1975 or 1981: 1.17 (0.35; 3.90)

						Shift 1975, day 1981: 0.14 (0.02; 1.05) Day 1975, shift 1981: 0.91 (0.39; 2.12) Shift 1975 and 1981: 0.77 (0.42; 1.39) **Incident of hypertension** ***Women*** Day 1975 and 1981: 1.00 Night 1975 or 1981: 1.02 (0.70; 1.48) Shift 1975, day 1981: 0.97 (0.76; 1.23) Day 1975, shift 1981: 1.15 (0.89; 1.47) Shift 1975 and 1981: 1.0 (0.8; 1.23) ***Men*** Day 1975 and 1981: 1.00 Night 1975 or 1981: 0.72 (0.37; 1.39) Shift 1975, day 1981: 0.93 (0.71; 1.21) Day 1975, shift 1981: 1.04 (0.81; 1.33) Shift 1975 and 1981: 1.07 (0.88; 1.30)
Huisman et al 2008 [47] The Netherlands	Prospective cohort study. Data from the Netherlands longitudinal GLOBE study General working population 12 years 1991–2003	Participants were working inhabitants from 18 municipalities in the Netherlands. Age between 25–65 years. The region is characterised by the presence of several industries Participants were excluded if they had a self-reported myocardial infarction within 5 years before baseline, had missing data for education, alcohol consumption, smoking, occupational class and job characteristics	**Physical and psychosocial factors** Job characteristics was assessed by a self-administered questionnaire including questions on job control, demands and physical working conditions (noisy surroundings, physically demanding or dangerous work etc) (Schrijvers et al 1998) Job demands and control were also assessed by the JCQ questionnaire	**Myocardial infarction** Myocardial infarction was defined as ICD-9 code 410 and obtained through the national medical registry	Association of job characteristics with incidence of myocardial infarction. HR (95% CI)[1] adjusted for age, sex and marital status **Control** High control: 1.0 Low control: 1.69 (1.19; 2.42) **Demands** Low demand: 1.0 High demand: 0.87 (0.59; 1.31) **Job strain** Low strain: 1.0 Low demand/low control 1.5 (0.99; 2.27) High demand/high control: 0.75 (0.43; 1.31) High demand/low control: 1.73 (0.98; 3.05) **Physical working conditions** No adverse physical conditions: 1.0 Adverse physical conditions: 1.46 (1.02; 2.1)	–

		n=5 757 Both women and men was included, but the exact number of each sex is not specified			[1]Does not specify the confidence interval in the head of the table, mentions in the text that CI was 95% (even though for another table)	
Irwin et al 1994 [48] USA *Note*: additional data is available on parous participants and video display terminal use	Prospective cohort study Military 9 months per subject 1987–1989	Participants were US navy enlisted personnel, over 17 years old, admitted to military hospitals for singleton infant delivery Women with pre-existing hypertension were excluded n=3 755 (total group 5 605) All participants were women	**Several factors** A panel of navy industrial hygienists and occupational medicine physicians classified all the job types for each exposure	**Pregnancy induced hypertension** Pregnancy induced hypertension was defined by ICD-9 code 642.2–6 and 9 obtained through participants hospital discharge records held by the department of defence	Relative risk of pregnancy induced hypertension for nulliparous enlisted navy women. RR (95% CI) **Standing (low=reference)** Medium: 0.96 (0.75;1.2) High: 0.87 (0.69; 1.1) **Lifting (low=reference)** Medium: 0.99 (0.8; 1.2) High: 0.84 (0.67; 1.1) **Physical exertion (low=reference)** Medium: 0.97 (0.77; 1.2) High: 0.9 (0.71; 1.1) **Temperature/humidity (low=reference)** Medium: 1.0 (0.8; 1.3) High: 0.82 (0.64; 1.1) **Noise (low=reference)** Medium: 0.93 (0.73; 1.2) High: 0.91 (0.72; 1.2) **Chemical exposure (low=reference)** Medium: 0.97 (0.79; 1.2) High: 1.1 (0.75; 1.5) **Monotonous tasks (low=reference)** Medium: 1.1 (0.13; 1.3) High: 1.0 (0.74; 1.3)	–
Ishikawa-Takata et al 2010 [49]	Prospective cohort study	Participants were male employees at a bearing	**Physical activity** Occupational physical activity was assessed	**Hypertension** Hypertension was assessed during an	Hazard ratio for developing essential hypertension according to physical activity. HR (95% CI) adjusted for age	Hazard ratio for developing essential hypertension according to physical activity. Multivariate HR (95% CI) adjusted for age,

Japan	4 years Industry 1994–1998	manufacturer, including its head office, 36 branches and 12 factories in Japan Employees with a history of ischemic heart disease, cancer or a cerebro-vascular accident were excluded. Also, employees working alternative day and night shifts were excluded as well as those who already had an above normal blood pressure at baseline Age: 18–57 years n=2 879 All participants were men	with a questionnaire. The questionnaire items are stated in the article	annual physical checkup Hypertension was defined using the criteria of JNC-7 (systolic blood pressure <140 and/or diastolic blood pressure >90 mmHg), or if the participants were using antihyper-tensive medication	 **Occupational physical activity** Stationary (sitting): 1.00 Light standing or moving: 0.89 (0.63; 1.27) Manual work: 0.79 (0.59; 1.05)	body mass index, smoking status, alcohol intake, parental history, and baseline value of blood pressure or blood glucose **Occupational physical activity** Stationary (sitting): 1.00 Light standing or moving: 0.89 (0.61; 1.30) Manual work: 0.75 (0.55; 1.02)
Ising et al 1999 [50] Germany	Case-control study General working population Year when study performed is not stated	Participants were employed men, 31–65 years of age, who were previously treated for acute myocardial infarction (cases) Controls were randomly sampled to function as a control group	**Noise** Subjective work noise was quantified by a questionnaire. The instruction for the subjects was: "Of the following noise sources please select which best describe how loud it is at your workplace: 1) refrigerator; 2) typewriter; 3) electric lawnmower; 4) electric drill; 5) pneumatic drill	**Myocardial infarction** Men who had been treated for acute myocardial infarction (ICD 410) in the major Berlin (West) hospitals were considered as cases	Relative risk of myocardial infarction in dependency of age of work noise categories (categories 1+2 are reference). RR (95 % CI) **Noise** Noise category 1+2: 1.0 Noise category 3: 1.47 (1.07; 2.01) Noise category 4: 2.01 (1.49; 2.72) Noise category 5: 4.14 (3.01; 5.71)	Relative risk of myocardial infarction in dependency of age of work noise categories (categories 1+2 are reference). RR (95 % CI) adjusted for control variables; social class, education, marital status, residential area, shift work, body mass index, current smoking and work noise categories **Noise category 3** 31–45 years: 2.1 (1.07; 4.30) 46–55 years: 1.4 (0.85; 2.15) 56–65 years: 1.0 (0.56; 1.99) **Noise category 4**

		n=2 543 (395 cases and 2 148 controls) All participants were men				31–45 years: 4.0 (1.90; 8.52) 46–55 years: 1.7 (1.08; 2.67) 56–65 years: 1.9 (1.03; 3.33) **Noise category 5** 31–45 years: 5.6 (2.37; 13.07) 46–55 years: 3.9 (1.86; 5.13) 56–65 years: 4.2 (2.25; 7.95)
Johansen et al 2002 [51] Denmark	Prospective cohort study 0–19 years Utility companies 1982–2000	Participants were Danish utility workers employed for at least 3 months. A nationwide cohort of men employed at utility companies between 1900 and 1993 was linked to a nationwide population-database pacemaker register. Persons who had undergone pacemaker immolation between 1982 and 2000 were compared with corresponding number in the general population Age of participants were not stated in the article n=24 056 All participants were men	**Electro–magnetic fields** A job-exposure matrix specific to electro-magnetic fields was designed. It distinguished among 25 job titles held by workers in utility companies and 19 work areas within the utility industry To each combination of job title and work area, an average level of exposure to 50-Hz electro-magnetic fields during a working day was assigned, which in turn was grouped into three categories: extremely low frequency electro-magnetic fields=background exposure (≤0.09 µT), medium exposure (0.1–0.99 µT), and high exposure (≥1.0 µT)	**Pacemaker implantation** Data was gathered from the population-based Danish Pacemaker Register, which is considered 100 percent complete. All medical centers that implant pacemakers in Denmark report new implantations and renewal of pacemakers or pacemaker electrodes to the register on a continuous basis	Standardized incidence ratios for pacemaker implantation during the period 1982–2000 among 24 056 men employed for at least 3 months at a utility company in Denmark between 1900 and 1993, by average estimated level of exposure to electromagnetic fields at work and duration of employment. Standardized incidence ratio (SIR) and 95% CI **Background exposure (≤0.09 µT) (n=20)** ***Duration of employment (years)*** 0–9: – 10–19: – ≥20: 1.35 (0.8; 2.1) Total: 1.11 (0.7; 1.7) **Median exposure (0.1–0.99 µT) (n=61)** ***Duration of employment (years)*** 0–9: 1.14 (0.2; 3.3) 10–19: 1.41 (0.8; 2.4) ≥20: 0.72 (0.5; 1.0) Total: 0.83 (0.6; 1.1) **High exposure (≥1.0 µT) (n=23)** ***Duration of employment (years)*** 0–9: – 10–19: 0.90 (0.2; 2.6) ≥20: 1.06 (0.7; 1.6) Total: 1.00 (0.6; 1.5) **Unknown exposure (n=31)** ***Duration of employment (years)*** 0–9: 2.60 (0.3; 9.4)	–

					10–19: 1.60 (0.6; 3.3) ≥20: 1.08 (0.7; 1.6) Total: 1.21 (0.8; 1.7)	
Johansson et al 1988 [52] Sweden	Prospective cohort study The mean follow–up was 11.8 years General population 1968–1984	Participants were a random sample of able-bodied middle–age men from the Primary Prevention Study in Gothenburg The participants age was 47–55 years (mean 51 years) at the entry to the study n=7 495 All participants were men	**Physical activity** The physical activity was assessed by questionnaire at baseline. The questions are stated in the article	**Death from myocardial infarction and non–fatal re-infarctions** Non–fatal myocardial infarction was recorded according to specific criteria by the Myocardial Infarction Register Death certificates were collected and the Swedish National Death Cause Specific Register was matched against the computer file for all men in the study Cause–specific mortality was coded with respect to the underlying cause of death by two physicians, who were unaware of the baseline data	Death and non–fatal re-infarctions in relation to physical activity at work among able–bodied men at the time of the first infarction. Univariate **Physical activity at work** Non–fatal infarction: ns Coronary death: 0.033 Total mortality: 0.141	Death and non–fatal re-infarctions in relation to physical activity at work among able–bodied men at the time of the first infarction. Multivariate adjusted for age, material status, prognostic index, S-cholesterol, systolic blood pressure, angina pectoris, smoking, cessation post-infarction **Physical activity at work** Non–fatal infarction: – Coronary death: 0.077 Total mortality: 0.079
Johnson et al 1996 [53] Sweden *Note*: Data is also available on 10, 15, 20, 25 and >26 years of	Nested case–control study 14 years General male working population 1977–1990	Participants were employed Swedish men from a random sample of the entire Swedish population obtained by Statistics Swedish from the National Registry of Births. The present group combined four	**Psychosocial and physical exposure** Psychosocial and physical exposure scores were assigned by linking each subject's occupational history with a work organization exposure matrix	**Cardio-vascular disease mortality** Mortality was obtained by linking study group records to the National Death Registry for the years 1977 through 1990	Conditional logistic regression analysis: adjusted relative risk estimates for cardiovascular disease mortality. RR (95% CI) adjusted for age, year last worked, survey year, smoking, exercise, education, social class and nationality. Five years cumulative exposure **Control** High: 1.00 Medium high: 1.68 (1.14; 2.49)	Dichotomous multivariable conditional logistic regression analysis: adjusted relative risk estimates for cardiovascular disease mortality. RR (95% CI) adjusted for age, year last worked, survey year, smoking, exercise, education, social class and nationality. The low, medium low, and medium high quartile groups were combined and compared with the high quartile group. Five years cumulative exposure

cumulative exposure		of these annual samples (1977, 1979, 1980, 1981) Five controls were randomly selected for each case subject Age: 25–74 years n=2 942 (521 cases and 2 422 controls) All participants were men	The matrix was used to assign scores for work control, psychological job demands, social support, physical demands	Cardio-vascular mortality was analyzed by combining all deaths for arterio-sclerotic heart disease, cerebro-vascular disease, and peripheral vascular disease according to the ICD-8, codes 400–404; 410–414; 427; 430–436; 440–445	Medium low: 1.56 (0.99; 2.44) Low: 1.46 (0.95; 2.25) **Psychological demands** Low: 1.00 Medium low: 0.90 (0.66; 1.24) Medium high: 0.93 (0.67; 1.26) High: 0.76 (0.52; 1.13) **Social support** High: 1.00 Medium high: 0.98 (0.72; 1.34) Medium low: 0.89 (0.64; 1.25) Low: 0.96 (0.68; 1.37) **Physical demands** Low: 1.00 Medium low: 1.06 (0.72; 1.57) Medium high: 1.18 (0.79; 1.74) High: 1.24 (0.76; 1.57)	**Control** 1.60 (1.06; 2.41) **Psychological demands** 0.95 (0.71; 1.24) **Social support** 1.00 (0.75; 1.34) **Physical demands** 0.84 (0.55; 1.45)
Johnson et al 1989 [54] Sweden	Prospective cohort study 9 years General population 1976–1986	Participants were a random sample of Swedish employed men who participated in the Swedish Central Bureau of Statistic's survey of living conditions Age: 35–60 years n=7 219 All participants were men	**Iso–strain** Data were collected in personal interview performed by professional interviewers in 1976 and 1977 The iso–strain was assessed by the Swedish questionnaire items relating to work, which were identically worded and scored in both survey years. The questions are stated in articles appendix	**Cardio-vascular disease mortality** The cardio-vascular disease mortality data was drawn from the National Death Register for the years 1976–1986 The cardio-vascular disease mortality was combined by all deaths for arterio-sclerotic heart disease, cerebro-vascular disease, and peripheral vascular disease; ICD codes: 400–404; 410–414; 427, 430–436; 440–445	Cardiovascular disease mortality for the high iso–strain group compared to low iso–strain group. RR (95% CI) adjusted for age **High iso–strain** Total sample: 1.92 (1.15; 3.21) Blue–collar subsample: 2.58 (1.06; 6.28) White–collar sample: 1.31 (0.58; 2.96)	–

Karlsson et al 2005 [55] Sweden	Prospective cohort study 50 years Industry 1952–2001	Participants were male workers from two pulp and paper manufacturing plants owned by the same company in the north of Sweden. Participants had been employed for at least six month between 1940 and 1998 Age of the participants was not stated in the article n=5 442 (2 354 shiftworkers and 3 088 dayworkers) All participants were men	**Shift work** The company files contained information on job title, start and end of each type of employment and workplace Job title and workplace characteristics made it possible to classify each person with regard to length of shiftwork	**Coronary heart disease and ischemic stroke** The outcome was monitored from 1952–2001 by linkage to the national Case of Death Register. During the 50–year observational period, the assignment of diagnose was based on five consecutive revisions of the International Classification of diseases	Standardized relative ratio for coronary heart disease and stroke among the shift-workers when compared with the day-workers. SRR (95% CI) adjusted for age **Coronary heart disease, years of shift-work** <5 years: 0.85 (0.30; 2.38) ≥5 to <10 years: 0.97 (0.56; 1.67) ≥10 to <20 years: 0.83 (0.58; 1.19) ≥20 to <30 years: 1.02 (0.77; 1.36) ≥30 years: 1.24 (1.04; 1.49) Shiftworkers vs dayworkers: 1.11 (0.95; 1.30) **Ischemic stroke, years of shift-work** <5 years: 4.57 (1.58; 13.21) ≥5 to <10 years: 0.54 (0.07; 3.97) ≥10 to <20 years: 1.76 (0.68; 4.57) ≥20 to <30 years: 1.08 (0.42; 2.78) ≥30 years: 1.51 (0.87; 2.63) Shiftworkers vs dayworkers: 1.56 (0.98; 2.51)	–
Kawachi et al 1995 [56] USA	Prospective cohort study. Data from the Nurses' Health Study cohort 4 years Health care 1988–1992	Participants were female nurses free of diagnosed coronary heart disease and cerebrovascular disease Women were excluded from the cohort if they had been previously diagnosed with myocardial infarction or angina or cerebrovascular disease Age: 30–55 years	**Shift work** Shift work was assessed with a questionnaire. The question is stated in the article	**Coronary heart disease** Cases were confirmed if they met the diagnostic criteria of the World Health Organization. Medical records were reviewed by physicians who were blinded to exposure status Fatal coronary heart disease was confirmed by hospital records on the death certificate if this was the underlying and	Age-adjusted relative risk of total incident coronary heart disease according to duration of rotating night shift. RR (95% CI) adjusted for age, cigarette smoking, body mass index, history of hypertension, diabetes and hypercholesterolemia, past use of oral contraceptives, menopausal status, alcohol intake, parental history of myocardial infarction before 60, level of physical activity and vitamin intake **Duration of rotating night shift (years)** Never: 1.00 1–2: 1.17 (0.85; 1.61) 3–5: 1.15 (0.82; 1.63) 6–9: 1.78 (1.19; 2.67) 10–14: 2.01 (1.29; 3.14) 15 or more: 1.69 (1.15; 2.48)	Multivariate age-adjusted relative risk of total incident coronary heart disease according to duration of rotating night shift. RR (95% CI) adjusted for age, cigarette smoking, body mass index, history of hypertension, diabetes and hypercholesterolemia, past use of oral contraceptives, menopausal status, alcohol intake, parental history of myocardial infarction before 60, level of physical activity and vitamin intake **Duration of rotating night shift (years)** Never: 1.00 1–2: 1.25 (0.91; 1.73) 3–5: 1.14 (0.80; 1.61) 6–9: 1.60 (1.05; 2.42) 10–14: 1.66 (1.05; 2.64) 15 or more: 1.33 (0.89; 1.97)

		n=79 109 All participants were women		most probably cause given and there was previously evidence of coronary heart disease		
Khaw et al 2006 [57] United Kingdom	Prospective cohort study. Data from the EPIC–Norfolk study 8 years General population 1993–2004	Participants were men and women aged 45–79 years who took part in the European Prospective Investigation in to Cancer and Nutrition (EPIC)–Norfolk study. They were recruited from registers of participating general practices in Norfolk Persons were excluded if they had a history of heart disease, stroke or cancer at the baseline n=19 290 10 652 women and 8 638 men	**Physical activity** Habitual physical activity was assessed using questions referring to activity during the past year Usual physical activity at work was classified in four categories: sedentary, standing (e.g. hairdresser, shop assistant, guard), physical work (e.g. plumber, cleaner, nurse) and heavy manual work (e.g. docker, construction worker, bricklayer)	**Incident fatal and non-fatal cardio-vascular disease** All participants were flagged for death certification at the Office of National Statistics in UK with vital status ascertained on the whole cohort Death certificates for all decedents were coded by trained nosologists according to the ICD 9th revision Cardio-vascular death was defined as death with ICD 400–438 as underlying cause and encompasses stroke and coronary heart disease as well as other vascular causes Participants were identified as having a cardiovascular disease event during follow-up if they had a hospital admission and/or died with cardio-vascular	Relative risks factor for incident fatal and non-fatal cardiovascular disease by work physical activity score in 8 638 men and 10 652 women aged 45–79 years with no history of heart disease, stroke, or cancer in EPIC-Norfolk 1993–2004. RR (95% CI) adjusted for age and sex **Work activity** Sedentary: 1.00 Standing: 0.64 (0.58; 0.70) Physical: 0.67 (0.60; 0.75) Heavy manual: 0.80 (0.62; 1.02)	Relative risks for incident fatal and non-fatal cardiovascular disease by work physical activity score in 8 638 men and 10 652 women aged 45–79 years with no history of heart disease, stroke, or cancer in EPIC-Norfolk 1993–2004. RR (95% CI) adjusted for body mass index, systolic blood pressure, blood cholesterol, cigarette smoking habit, alcohol intake, known diabetes and social class **Work activity** Sedentary: 1.00 Standing: 0.69 (0.63; 0.76) Physical: 0.69 (0.62; 0.78) Heavy manual: 0.78 (0.60; 1.01)

				disease as underlying cause of death		
Kivimaki et al 2011 [58] United Kingdom	Prospective cohort study. Data from the Whitehall II Study 12.3 year follow-up (median) Civil servants 1991–2004	Participants were British civil servants free from prevalent coronary heart disease Participants with prevalent coronary heart disease, part-time employees and those with missing data on working hours at baseline were excluded Age: 39–62 years n=7 095 2 109 women and 4 986 men	**Working hours** Working hours were assessed by a question at baseline (Phase 3 screening; 1991–1993). The question is stated in the article	**Coronary heart disease mortality** To ascertain coronary heart disease death, participants were flagged by the British National Health Service Central Registry, who notified the date and cause of deaths. These were classified as coronary if either codes 410–414 (ICD-9), or codes I20–I25 (ICD-10) were present on the death certificate	Coronary event among those working 9, 10 or more than 11 hours compared to men and women working 7–8 hours. HR (95% CI) adjusted for the Framingham risk score **Long working days** 9 hours: 0.90 (0.60; 1.35) 10: hours: 1.45 (0.99; 2.12) >11 hours: 1.67 (1.10; 2.55)	–
Kivimaki et al 2005 [59] United Kingdom	Prospective cohort study. Data from the Whitehall II Study 8.7 year follow-up (median) Civil servants 1985–1999	Participants were male British civil servants who responded to the justice question at phase 1 (1985–1988) and 2 (1989–1990) and had no history of coronary heart disease at phase 2. All of these men were followed up for coronary heart disease in the end of phase 2 (1999) Age: 35–55 years	**Justice at workplace** Justice was assessed with a self-reported justice scale, which tapped the relational component of organizational justice. Several questionnaire items are stated in the article	**Coronary heart disease** The incidence of coronary heart disease was defined as a coronary heart disease death, a first nonfatal myocardial, or definite angina Fatal coronary heart disease was assessed by a national registry. Coronary deaths were defined by ICD-9, codes 410–414	Association of psychosocial factors and justice at work with incidence coronary heart disease. HR (95% CI) adjusted for age and employment grade **Job strain** Low: 1.00 Intermediate: 1.23 (0.89; 1.69) High: 1.52 (1.12; 2.07) **Effort-reward imbalance** Low: 1.00 Intermediate: 1.25 (0.91; 1.72) High: 1.31 (0.95; 1.80) **Justice at work** Low: 1.00 Intermediate: 1.00 (0.75; 1.34)	Association of physical factors and justice at work with incidence coronary heart disease. HR (95% CI) adjusted for age, employment grade and all predictors shown **Job strain** Low: 1.00 Intermediate: 1.18 (0.85; 1.64) High: 1.44 (1.01; 2.05) **Effort-reward imbalance** Low: 1.00 Intermediate: 1.06 (0.76; 1.48) High: 0.95 (0.65; 1.40) **Justice at work** Low: 1.00 Intermediate: 1.03 (0.76; 1.40)

		n=6 442 All participants were men		Potential new cases of nonfatal myocardial infarction were assessed by questionnaire. Confirmation according to MONICA criteria was based on electro-cardiograms, markers of myocardial necrosis, and chest pain history from medical records Assessment of angina was based on the participant's reports of symptoms with corroboration in medical records or abnormalities on electro-cardiogram or coronary angiogram	High: 0.65 (0.47; 0.89) **Low or mediate justice level** ***Job strain*** Low: 1.00 Intermediate or high: 1.57 (1.10; 2.25) ***Effort-reward imbalance*** Low: 1.00 Intermediate or high: 1.31 (0.90; 1.89) **High justice level** ***Job strain*** Low: 1.00 Intermediate or high: 0.87 (0.54; 1.42) ***Effort-reward imbalance*** Low: 1.00 Intermediate or high: 0.90 (0.54; 1.48)	High: 0.69 (0.49; 0.98)
Kivimaki et al 2008 [60] United Kingdom	Prospective cohort study. Data from the Whitehall II Study 9.6 year follow-up (median) Civil servants 1985–1999	Participants were male British civil servants with no hypertension at phase 1 (1985–1988) and no history of coronary heart disease at phase 2 (1989–1990) and no missing data on and at least one measurement of blood pressure and hypertension after baseline Age: 35–55 years	**Organizational justice** To assess organizational justice, a self-reported justice scale was used. Participants rated their response to a question, which is stated in the article	**Coronary heart disease** Incident of coronary heart disease comprised coronary heart disease death, a first nonfatal myocardial infarction or definite angina For the assessment of fatal coronary heart disease participants were flagged at a national registry, which provided information on the	The effect of organizational justice on incident of coronary heart disease. HR (95% CI) adjusted for age, sex ethnicity and socioeconomic position Organizational justice: 0.87 (0.77; 0.98)	The effect of organizational justice on incident of coronary heart disease (n=6 062, 231 events). Hazard ratio (95% CI) adjusted for age, sex ethnicity and socioeconomic position and additionally adjusted for systolic blood pressure at baseline, diastolic blood pressure at baseline and hypertension slope Organizational justice: 0.87 (0.77; 0.98) *Note*: the article lists exactly the same numbers for the least and the most adjusted models

		n=6 062 1 812 women and 4 250 men		date and cause of death Coronary deaths were defined by ICD-9, codes 410–414 as underlying causes of death		
Kivimaki et al 2006 [61] United Kingdom	Prospective cohort study. Data from the Whitehall II Study 10.4 year follow-up (median) Civil servants 1985–1999	Participants were male British civil servants free from coronary heart disease at baseline phase 1 (1985–1988). Incident of coronary heart disease was assessed from phase 2 to the end of 1999 Age: 35–55 years n=7 253 2 210 women and 5 043 men	**Job strain** Job strain and its components were measured using a self-assessment scales of work demands	**Coronary heart disease** Incident of coronary heart disease comprised coronary heart disease death, a first nonfatal myocardial infarction or definite angina For the assessment of fatal coronary heart disease participants were flagged at a national registry, which provided information on the date and cause of death Coronary deaths were defined by ICD-9, codes 410–414 as underlying causes of death	Uncorrected hazard ratio of incidence of per 1-standard deviation increase in stress indicator, after phase 2. HR (95% CI) **Stress indicator at phase 1** Job strain: 1.23 (1.10; 1.38) Work demands: 1.14 (1.03; 1.29) Lack of control: 1.23 (1.07; 1.41)	Corrected hazard ratio of incidence of per 1-standard deviation increase in stress indicator, after phase 2. HR (95% CI) adjusted for age, sex and employment grade **Stress indicator at phase 1** Job strain: 1.30 (1.13; 1.51) Work demands: 1.18 (1.04; 1.37) Lack of control: 1.26 (1.08; 1.46)
Kivimaki et al 2007 [62] United Kingdom	Prospective cohort study. Data from the Whitehall II Study 16.1 year follow-up (median)	Participants were male British civil servants free from coronary heart disease at baseline phase 1 (1985–1988). Incident of coronary heart disease was	**Job strain** Job strain and its components were measured using a self-assessment scales of work demands	**Coronary heart disease** Incident of coronary heart disease comprised coronary heart disease death, a first nonfatal	Multiple adjusted associations between job strain and incident coronary heart disease. HR (95% CI) adjusted in addition to age, ethnicity, and employment grade **All participants** Low-strain: 1.00 Passive: 1.01 (0.80; 1.27)	Multiple adjusted associations between job strain and incident coronary heart disease. HR (95% CI) adjusted in addition to age, ethnicity, employment grade, blood pressure (systolic and diastolic) mean and slope **All participants** Low-strain: 1.00

	Civil servants 1985–2004	assessed from the end of phase 1 to phase 7 (2003–2004) Age: 35–55 years n=8 086 2 456 women and 5 630 men		myocardial infarction or definite angina For the assessment of fatal coronary heart disease participants were flagged at a national registry, which provided information on the date and cause of death Coronary deaths were defined by ICD-9, codes 410–414 as underlying causes of death	Active: 1.20 (0.96; 1.49) High-strain: 1.36 (1.07; 1.72) **Normotensive subgroup** Low-strain: 1.00 Passive: 0.91 (0.70; 1.17) Active: 1.12 (0.89; 1.42) High-strain: 1.30 (1.00; 1.68)	Passive: 1.02 (0.81; 1.29) Active: 1.23 (0.99; 1.53) High-strain: 1.41 (1.11; 1.80) **Normotensive subgroup** Low-strain: 1.00 Passive: 0.92 (0.72; 1.19) Active: 1.14 (0.90; 1.44) High-strain: 1.34 (1.03; 1.74)
Kivimaki et al 2003 [63] Finland	Prospective cohort study 2 year follow-up Health care 1998–2000	Participants were hospital employees (10% doctors, 47% nurses, 12% laboratory and X-ray department staff, 12% administrative staff, and 19% maintenance, cleaners and other workers) Participants were free from cardiovascular disease and depression at baseline Age: 18–63 years n=5 432	**Workplace bullying** Bullying was assessed by the following question: ''Workplace bullying refers to a situation where someone is subjected to social isolation or exclusion, his or her work and efforts are devalued, he or she is threatened, derogatory comments are made about him or her in his or her absence, or other negative behavior that is aimed to torment, wear down, or frustrate the victim occur. Have you been subjected to such bullying?''	**Cardio-vascular disease** Cardio-vascular disease was assessed by a self-administered checklist of common chronic diseases. For each disease, the respondent was requested to indicate whether or not a medical doctor had diagnosed him or her as having the disease Cardio-vascular disease was identified if the respondent reported myocardial infarction, angina pectoris, cerebro-vascular disease or hypertension	Associations of bullying with incidence of cardiovascular disease. Crude OR (95% CI) **Subjected to bullying at baseline and/or at follow-up** At neither time: 1.00 At one time: 0.73 (0.43; 1.22) At both times: 2.53 (1.28; 5.03)	Associations of bullying with incidence of cardiovascular disease. OR (95% CI) adjusted for sex, five year age categories, and income **Subjected to bullying at baseline and/or at follow-up** At neither time: 1.00 At one time: 0.72 (0.43; 1.21) At both times: 2.31 (1.15; 4.63)

		4 831 women and 601 men				
Knutsson et al 1999 [64] Sweden	Case-control. Data extracted from the SHEEP and Västernorrlands infarction studies General population Cases identified 1992–1995	The study base were Swedish citizens living in Stockholm county or Västernorrlandwho were 45–64 years of age and free of clinically diagnosed myocardial infarction Cases were defined as all non-fatal and fatal first events of acute myocardial infarction, first episode. Cases were included at the time of incidence of disease Controls were randomly selected from the study base after stratification for sex, age and hospital catchment area The referents were selected within two days of case incidence from computerised registers. Each referent candidate was also checked for history of myocardial infarction since 1975 n=4 648 (2 006 cases and 2 642 controls)	**Shift work** Information on shift work was collected through a number of questions in questionnaires or by complementary telephone interviews Day time work was defined as work between 6.00 am and 6.00 pm. Any work beyond theses hours was defined as shift-work Job strain was assessed by the Swedish version of the demand-control measurement questionnaire (DCQ)	**Myocardial infarction** Cases were recruited from emergency hospitals in the study region, from continuous screening of the death certificates at statistics Sweden or identified from the computerized hospital discharge register Criteria for myocardial infarction were those accepted by the Swedish association of cardiologists in 1991	Shift and night work (compared to day work) as predictor of myocardial infarction. Crude OR (95% CI) **Women** Shift work: 1.7 (1.3;2.4) Night work: 2.2 (1.2; 4.2) **Men** Shift work: 1.5 (1.3;1.9) Night work: 1.4 (1.0; 2.0)	Shift and night work (compared to day work) as predictor of myocardial infarction. OR (95% CI) adjusted for smoking job strain and educational level **Women** Shift work: 1.3 (0.9;1.8) Night work: 1.6 (0.8; 3.1) ***Shift work according to age group*** 45–55: 3.0 (1.4; 6.5) 45–60: 1.7 (1.0; 3.0) 45–65: 1.3 (0.9; 2.0) **Men** Shift work: 1.3 (1.1;1.6) Night work: 1.3 (0.9; 1.8) ***Shift work according to age group*** 45–55: 1.6 (1.1; 2.4) 45–60: 1.5 (1.1; 2.0) 45–65: 1.3 (1.0; 1.6) Odds ratios for combined effect of shift work and job strain on myocardial infarction. OR (95% CI adjusted for smoking and educational level **Day work** Low job strain: 1.0 High job strain: 1.5 **Shift work** Low job strain: 1.5 High job strain: 1.7

		1 423 women and 3 225 men				
Koeman et al 2013 [65] The Netherlands	Prospective cohort study 10 years General population 1986–1996	Participants were men and women aged 55–69 years living in the Netherlands at the time of enrollment n=10 032 3 599 women and 6 433 men	**Magnetic field exposure** The magnetic field exposure was assessed by a questionnaire The exposure to low-frequency magnetic fields was assigned to each job by linking the ISCO-88 job codes to a recently developed job-exposure matrix	**Cardio-vascular disease mortality** Causes of death were obtained from the Central Bureau of Statistics a Total cardiovascular mortality was ICD-9 codes 390–459 and ICD-10 codes I00–I99 Ischemic heart disease was ICD-9 codes 410–414 and ICD-10 codes I20–I25 Acute myocardial infarction was ICD-9 codes 410 and ICD-10 codes I21–I22 Subacute and chronic ischemic heart disease infarction was ICD-9 codes 411–414 and ICD-10 codes I20, I24 and I25 Cerebro-vascular disease was ICD-9 codes 430–438 and ICD-10 codes I60–I69	Total cardiovascular disease mortality in relation to occupational extremely low–frequency magnetic field exposure. HR (95% CI) adjusted for age at baseline, sex, smoking, attained education level, alcohol consumption and body mass index **Ever exposed, exposure level** ***Women and men*** Background: 1.00 Low or high: 1.02 (0.93; 1.13) ***Women*** Background: 1.00 Low or high: 0.96 (0.83; 1.12) ***Men*** Background: 1.00 Low or high: 1.03 (0.91; 1.16) **Ever exposed, duration (HR+ per 10 years)** Women and men: 0.98 (0.95; 1.02) Women: 0.87 (0.77; 0.98) Men: 0.97 (0.91; 1.02) **Cumulative exposure** ***Women and men*** 0.5–9 unit years: 1.07 (0.92; 1.24) 9.5–28 unit years: 1.04 (0.91; 1.19) >28 unit years: 0.99 (0.87; 1.14) ***Women*** 0.5–9 unit years: 1.09 (0.90; 1.31) 9.5–28 unit years: 0.86 (0.71; 1.04) >28 unit years: 0.91 (0.63; 1.31) ***Men*** 0.5–9 unit years: 0.97 (0.76; 1.24) 9.5–28 unit years: 1.14 (0.93; 1.33)	–

					>28 unit years: 1.00 (0.87; 1.16) Cardiovascular disease mortality and cumulative extremely low–frequency magnetic field exposure. HR (95% CI) adjusted for age at baseline, sex, smoking, attained education level, alcohol consumption and body mass index **Cumulative exposure 0.5–9 unit–years** Ischemic heart disease: 0.98 (0.84; 1.14) Acute myocardial infarction: 1.01 (0.84; 1.22) Sub-acute and chronic ischemic heart disease: 0.92 (0.71; 1.19) Cerebrovascular disease: 1.19 (0.96; 1.48)	
Kornitzer et al 2006 [66] Several European countries	Prospective cohort study. Data from the JACE (Job Stress Absenteeism and Coronary Heart Disease: European Cooperative Study) study Average follow-up 40 months General population 1993–1999 Baseline data sampled between 1993–1996	Participants were working men (35–59 years) from cohorts in Brussel, Ghent, Lille, Barcelona, Gothenburg and Malmoe n=21 111 All participants were men	**Job stress** To assess job stress the JCQ questionnaire on job strain was used	**Myocardial infarction** Main events were fatal and nonfatal myocardial infarction as well as sudden cardiac death. The Belgian arm also included procedures of revascularisation during hospitalisation for an acute coronary event Identification of events differed between cohort centres	Job stress and incident of fatal and non-fatal acute coronary events. HR (95% CI) adjusted for age. Scores for decision latitude and demand were stratified with regard to three main groups of ISCO and research centre (approximately country. This corresponds to adjustment for socioeconomic status) **Psychosocial factors** Demand (high/low): 1.46 (1.08; 1.97) Control (high/low): 1.04 (0.77; 1.39) ***Strain*** Relaxed: 1.0 Passive: 0.95 (0.59; 1.53) Active: 1.34 (0.88; 2.04) Strain: 1.53 (1.0; 2.35)	Job stress and incident of fatal and non-fatal acute coronary events. HR (95% CI) adjusted for age, smoking and systolic blood pressure. Scores for decision latitude and demand were stratified with regard to three main groups of ISCO and research centre (approximately country. This corresponds to adjustment for socioeconomic status) **Psychosocial factors** Demand (high/low): 1.46 (1.08; 1.97) Control (high/low): 1.0 (0.74; 1.34) ***Strain*** Relaxed: 1.0 Passive: 0.93 (0.58; 1.49) Active: 1.35 (0.89; 2.05) Strain: 1.47 (0.96; 2.25)
Kreuzer et al 2014 [67] Germany	Retrospective cohort study 62 years	Participants were former employees of a uranium mining company in East Germany, who had	**External radiation exposure** To determine the radon, external gamma radiation, long lived	**Cardio-vascular diseases** Information on the underlying cause of death, coded	Excess relative risk estimates for radon, external gamma radiation, long lived radionuclides and silica dust. ERR (95% CI) **Cardiovascular disease (I00–I99)**	–

	Industry 1946–2008	worked for at least 6 months during 1946–1990. The cohort include workers from different types of work places (under-ground, open pit, surface and milling) n=4 054 All participants were men	radio-nuclides and silica dust, a comprehensive job exposure matrix was used. The matrix assigned an average annual exposure value to each facility, work place and job type	according the International Classification of Disease (ICD-10), was based on death certificates from the Public Health offices and their archives and the autopsy files from the local pathology archive	Radon: 0.99 (–0.63; 0.81) External gamma radiation: –0.09 (–1.04; 0.86) Long lived radionuclides: –0.23 (–0.71; 0.25) Silica dust: –0.017 (–0.014; 0.011) **Ischemic heart disease (I20–I25)** Radon: 0.24 (–0.85; 1.32) External gamma radiation: –0.10 (–1.48; 1.27) Long lived radionuclides: –0.09 (–0.84; 0.65) Silica dust: 0.012 (–0.018; 0.021) **Cerebrovascular disease (I60–I69)** Radon: 0.41 (–1.26; 2.07) External gamma radiation: 0.55 (–1.72; 2.83) Long lived radionuclides: –0.17 (–1.14; 0.80) Silica dust: 0.035 (–0.025; 0.032)	
Kreuzer et al 2013 [68] Germany	Retrospective cohort study 62 years Industry 1946–2008	Participants were men employed for at least 180 days between 1946 and 1989 at a wismut company Cohort members selection was via random sampling from personnel files approximately 130 000 former employees with sufficient information on working history and data for follow–up and was stratified by date of first employment, place of work and area of mining Age: 14–67 years at first exposures	**External gamma radiation** Exposure to radiation and dust was estimated from detailed job–exposure matrices that provide annual values for each calendar year of work, and type of job (Kreuzer et al., 2010)	**Circulatory diseases** The underlying cause of death from either the certificates of death or the autopsy files of deceased men was coded according to the 10th revision of the International Classification of Diseases (ICD-10) The following codes were used: A all cardio-vascular diseases (I00–I99); ischemic heart diseases (I20–I25); cerebrovascular diseases (I60–I69)	Risk of death from circulatory diseases by cumulative exposure to external gamma radiation in mSv, among the Wismut cohort, 1946–2008. RR (95% CI) **All cardiovascular diseases** ***Cumulative gamma radiation*** 0: 1.00 >0–50: 1.00 (0.94; 1.06) 50–100: 0.96 (0.88; 1.04) 100–150: 0.98 (0.87; 1.09) 150–200: 0.92 (0.79; 1.06) 200–300: 1.01 (0.89; 1.13) 300–400: 0.97 (0.81; 1.13) 400–909: 0.89 (0.69; 1.09) **Ischemic heart diseases** ***Cumulative gamma radiation*** 0: 1.00 >0–50: 0.97 (0.89; 1.05) 50–100: 0.94 (0.83; 1.05) 100–150: 1.02 (0.86; 1.17) 150–200: 1.01 (0.81; 1.20) 200–300: 0.94 (0.78; 1.10) 300–400: 1.09 (0.85; 1.32)	–

		n=58 982 All participants were men			400–909: 0.86 (0.59; 1.12) **Cerebrovascular diseases** ***Cumulative gamma radiation*** 0: 1.00 >0–50: 1.08 (0.95; 1.21) 50–100: 0.12 (0.93; 1.31) 100–150: 1.02 (0.77; 1.27) 150–200: 0.90 (0.61; 1.18) 200–300: 1.14 (1.08; 1.74) 300–400: 0.87 (0.53; 1.21) 400–909: 1.35 (0.80; 1.90)	
Kubo et al 2013 [69] Japan	Retrospective cohort study Mean 12.7 years Industry 1981–2009	Participants were employees in the Japanese industry who were listed in a health care database system on employee records for annual health checks Age and health criteria was <30 years and without hypertension on first health examination Mean age: 23.6 years n=10 173 (9 209 daytime and 964 three–shift workers) All participants were men	**Shift work** The shift work was listed in a health care database system on employee records Shift work at the corporation primarily involved a rotating three–shift work schedule. The system maintained a 24–hours whole–day operation that consists of four teams working continually rotating shifts, which move counter-clock-wise	**Hypertension** Hypertension was defined as systolic blood pressure 140 mm Hg or more and diastolic blood pressure 90 mm Hg or more during a health examination	Incidence rate and relative risk of hypertension by type of work schedule. IR (95% CI), crude incidence rate per 100 person–years **Work schedule** Daytime work: 2.4 (2.3; 2.5) Three–shift work: 4.5 (4.1; 4.9)	Incidence rate and relative risk of hypertension by type of work schedule. HR (95% CI) adjusted for age, smoking, drinking, physical activity at leisure time and blood pressure at baseline **Work schedule** Daytime work: 1.00 Three–shift work: 1.88 (1.71; 2.07)
Kumar et al 2014 [70] India	Case–control study General working population	Cases were patients recruited from the Department of Neuroscience at an Indian hospital.	**Physical activity** The participants were asked about their type of work. The questions were adapted from a	**Ischemic stroke** The cases were included if they had a diagnosis of stroke as defined by World	Association of sitting occupations with ischemic stroke (n=119). OR (95% CI) **Physical activity** Sitting occupation: 1.9 (1.2; 2.9)	Multivariate analysis showing association of sedentary occupational physical activity with ischemic stroke. OR (95% CI) adjusted for hypertension, diabetes, dyslipidemia, body

Note: Results from subtypes of ischemic stroke are also available in the article	2010–2012	Inclusion criteria was stroke onset within three years of the recruitment, age 18–85 years and resident of North India one year or longer. Persons were excluded if they had a stroke associated with surgery Controls were selected from spouses of patients and unrelated friends of the patients visiting the Neurology Department for treatment other than stroke The controls were selected on the same criteria as the controls, except that they wore stroke–free determined by means of the Questionnaire for verifying Stroke–free status. The controls participants were selected from the same region, and were sex–matched to the cases The mean age was 53 years	study by Buchowski et al., 2010	Health Organization, non–contrast computed tomography–Head consistent with ischemic stroke		mass index, low economic status, exercise and occupation **Physical activity** Sedentary occupational physical activity: 2.2 (1.12; 3.8)

		n=448 (224 cases and 224 controls) 80 women and 368 men				
Kuper et al 2003 [71] United Kingdom	Prospective cohort study. Data from Whitehall study II The average follow-up was 11 years Civil servant departments 1985–2000 Baseline data 1985–1988 Follow-up 1997–2000	Participants were civil servants living in London (35–55 years) n=10 308 3 413 women and 6 895 men	**Psychosocial work factors** Work factors were assessed through a self-administered questionnaire. Reported items were derived from the known job strain model (job demands, decision latitude and social support at work) by Bosma et al	**Coronary heart disease** Coronary death was derived from the national health service central registry, ICD-9 code 410–414 Non-fatal myocardial and angina events were ascertained by questionnaire items. Clinical records were sought from all possible cases of myocardial infarction and angina	Hazard ratio for the association between baseline job control, job demands and job strain and incident of fatal coronary heart disease/non-fatal myocardial infarction and all coronary heart disease. HR (95% CI) adjusted for age **All coronary heart disease** ***Women*** Low control: 1.13 (0.83; 1.54) Medium control: 1.18 (0.85; 1.64) High control: reference Low demand: reference Medium demand: 0.92 (0.72; 1.18) High demand: 1.25 (0.94; 1.66) ***Men*** Low control: 1.55 (1.26; 1.9) Medium control: 1.35 (1.12; 1.64) High control: reference Low demand: reference Medium demand: 1.02 (0.83; 1.25) High demand: 1.07 (0.86; 1.33) ***All participants (also adjusted for sex)*** Low demand high control: reference High demand low control: 1.57 (1.26; 1.96) Low demand low control: 1.25 (1.0; 1.56) High demand high control: 1.17 (0.94; 1.45) **Fatal coronary heart disease/non-fatal myocardial infarction** ***Women*** Low control: 1.06 (0.53; 2.08)	Hazard ratio for the association between baseline job control and job demands and incident of fatal coronary heart disease/non-fatal myocardial infarction and all coronary heart disease. HR (95% CI) adjusted for age and coronary risk factors **All coronary heart disease** ***Women*** Low control: 1.12 (0.81; 1.55) Medium control: 1.21 (0.86; 1.72) High control: reference Low demand: reference Medium demand: 0.87 (0.66; 1.13) High demand: 1.2 (0.88; 1.63) ***Men*** Low control: 1.43 (1.15; 1.78) Medium control: 1.34 (1.1; 1.64) High control: reference Low demand: reference Medium demand: 0.98 (0.79; 1.21) High demand:1.04 (0.83; 1.31) ***All participants (also adjusted for sex)*** Low demand high control: reference High demand low control: 1.38 (1.1; 1.75) Low demand low control: 1.17 (0.92; 1.49) High demand high control: 1.2 (0.95; 1.5) **Fatal coronary heart disease/non-fatal myocardial infarction** ***Women*** Low control: 0.92 (0.45; 0.89)

					Medium control: 0.68 (0.3; 1.55) High control: reference Low demand: reference Medium demand: 1.38 (0.76; 2.5) High demand: 1.58 (0.74; 3.42) ***Men*** Low control: 1.14 (0.82; 1.59) Medium control: 1.32 (0.99; 1.76) High control: reference Low demand: reference Medium demand: 1.49 (1.06; 2.1) High demand: 1.22 (0.84; 1.78) ***All participants (also adjusted for sex)*** Low demand high control: reference High demand low control: 1.42 (0.99; 2.05) Low demand low control: 0.9 (0.6; 1.33) High demand high control: 1.11 (0.79; 1.56) HR (95% CI) for the association between baseline job strain and incidence of fatal coronary heart disease/non-fatal myocardial infarction and all coronary heart disease stratified by social support at work **All coronary heart disease** ***Low social support at work*** Low demand high control: reference High demand low control: 1.51 (1.11; 2.05) Low demand low control: 1.26 (0.92; 1.72) High demand high control: 1.16 (0.86; 1.57) ***High social support at work*** Low demand high control: reference High demand low control: 1.64 (1.18; 2.30) Low demand low control: 1.23 (0.89; 1.7) High demand high control: 1.16 (0.85; 1.57)	Medium control: 0.7 (0.3; 1.64) High control: reference Low demand: reference Medium demand: 1.31 (0.71; 2.4) High demand:1.85 (0.89; 3.85) ***Men*** Low control: 1.01(0.7; 1.45) Medium control: 1.32 (0.97; 1.79) High control: reference Low demand: reference Medium demand: 1.33 (0.93; 1.9) High demand: 1.17 (0.79; 1.73) ***All participants (also adjusted for sex)*** Low demand high control: reference High demand low control: 1.16 (0.78; 1.71) Low demand low control: 0.71 (0.46; 1.1) High demand high control: 1.14 (0.79; 1.65)

					Fatal coronary heart disease/non-fatal myocardial infarction ***Low social support at work*** Low demand high control: reference High demand low control: 1.54 (0.92; 2.58) Low demand low control: 0.87 (0.49; 1.53) High demand high control: 1.12 (0.67; 1.87) ***High social support at work*** Low demand high control: reference High demand low control: 1.31 (0.75; 2.26) Low demand low control: 0.97 (0.56; 1.69) High demand high control: 1.1 (0.69; 1.75)	
Kuper et al 2002 [72] United Kingdom	Prospective cohort study. Data from Whitehall study II Average follow-up 11 years Civil servant departments 1985–2000 Baseline data 1985–1988 Follow-up 1997–2000	Participants were civil servants living in London (35–55 years) n=10 308 3 413 women and 6 895 men	**Effort-reward imbalance** Baseline effort-reward imbalance scale differed from the follow-up scale (Siegrist). The baseline effort-reward imbalance scale was therefore derived using the follow-up scale as starting point Five questions assessed extrinsic effort and ten questions assessed rewards at baseline	**Coronary heart disease** Coronary death was derived from the national health service central registry, ICD-9 code 410–414 Non-fatal myocardial and angina events were ascertained by questionnaire items. Clinical records were sought from all possible cases of myocardial infarction and angina	Cox proportional derived hazard ratio of the association between baseline effort and reword at work and incident coronary heart disease at follow-up. HR (95% CI) adjusted for age and sex **All coronary heart disease** ***Effort reward ratio*** Quartile 1: reference Quartile2: 0.96 (0.8; 1.16) Quartile 3: 1.13 (0.94; 1.37) Quartile 4: 1.22 (1.01; 1.46) Low intrinsic effort: Baseline High intrinsic effort: 1.18 (1.03; 1.34) Low effort: reference Medium effort: 1.02 (0.87; 1.2) High effort:1.03 (0.88; 1.2) Low rewards: 1.19 (1.02; 1.38) Medium rewards: 0.99 (0.84; 1.16) High rewards: reference **Fatal coronary heart disease/non-fatal myocardial infarction** ***Effort reward ratio*** Quartile 1: reference	Cox proportional derived hazard ratio of the association between baseline effort and reword at work and incident coronary heart disease at follow-up. HR (95% CI) adjusted for age, sex, grade and coronary risk factors **All coronary heart disease** ***Effort reward ratio*** Quartile 1: reference Quartile2: 1.01 (0.82; 1.24) Quartile 3: 1.17 (0.96; 1.44) Quartile 4: 1.26 (1.03; 1.55) Low intrinsic effort: reference High intrinsic effort: 1.26 (1.09; 1.46) Low effort: reference Medium effort: 1.06 (0.89; 1.26) High effort: 1.07 (0.89; 1.28) Low rewards: 1.16 (0.98; 1.36) Medium rewards: 0.98 (0.82; 1.16) High rewards: Baseline **Fatal coronary heart disease/non-fatal myocardial infarction** ***Effort reward ratio*** Quartile 1: reference

					Quartile2: 1.23 (0.87; 1.73) Quartile 3: 1.36 (0.97; 1.89) Quartile 4: 1.06 (0.74; 1.51) Low intrinsic effort: reference High intrinsic effort: 1.22 (0.96; 1.54) Low effort: reference Medium effort: 1.28 (0.96; 1.71) High effort: 1.08 (0.82; 1.44) Low rewards: 0.99 (0.75; 1.29) Medium rewards: 0.99 (0.75; 1.3) High rewards: reference Effect modification of the association between the effort-reward ratio and health outcomes by social support at work. HR (95%) adjusted for age sex and employment grade **All coronary heart disease** ***Low support at work*** Effort reward ratio Quartile 1: reference Quartile2: 1.06 (0.69; 1.61) Quartile 3: 1.46 (1.0; 2.15) Quartile 4: 1.77 (1.24; 2.54) ***High support at work*** Effort reward ratio Quartile 1: reference Quartile2: 1.08 (0.86; 1.34) Quartile 3: 1.27 (1.01; 1.6) Quartile 4: 1.17 (0.9; 1.54) **Fatal coronary heart disease/non-fatal myocardial infarction** ***Low support at work*** Effort reward ratio Quartile 1: reference Quartile2: 1.79 (0.78; 4.13)	Quartile2: 1.44 (1.0; 2.08) Quartile 3: 1.52 (1.06; 2.19) Quartile 4: 1.21 (0.82; 1.78) Low intrinsic effort: reference High intrinsic effort: 1.24 (0.96; 1.6) Low effort: reference Medium effort: 1.42 (1.03; 1.95) High effort: 1.28 (0.92; 1.78) Low rewards: 0.96 (0.72; 1.26) Medium rewards: 1.0 (0.75; 1.34) High rewards: reference

					Quartile 3: 2.26 (1.03; 4.94) Quartile 4: 2.33 (1.10; 4.94) ***High support at work*** Effort reward ratio Quartile 1: reference Quartile2: 1.35 (0.92; 1.98) Quartile 3: 1.56 (1.05; 2.31) Quartile 4: 0.97 (0.58; 1.61)	
Kuper et al 2006 [73] Sweden *Note*: additional data on part-time workers is available in the article	Prospective cohort study. Data from the women´s lifestyle and health cohort study The average length of follow-up was 135 months General population 1991–2002 Baseline 1991–1992	Participants were women between 30–50 years and living in the city Uppsala. Women with missing vital status or education information, had emigrated or have had a previous myocardial infarction were excluded Reported results are based on full-time working participants n=48 066 (49 259 at baseline) All participants were women	**Psychosocial work factors** Work characteristics were measured by the self-administrated DCQ questionnaire	**Coronary heart disease** Information on myocardial infarction was gathered through the national hospital discharge register (ICD-9 code 410) and the national causes of death register (cases coded as coronary heart disease deaths)	Proportional-hazard-derived hazard ratio for the association of baseline job control, job demands and job strain with incidence of fatal coronary heart disease/nonfatal myocardial infarction. HR (CI 95%) adjusted for age **Job control** 1 (lowest): 1.0 (0.6;1.6) 2: 0.8 (0.5; 1.4) 3 (highest): reference **Job demands** 1 (lowest): reference 2: 0.9 (0.5; 1.6) 3 (highest): 1.4 (0.9; 2.3) **Job strain** Low: reference Strain: 1.4 (0.7; 2.7) Active: 1.3 (0.7; 2.4) Passive: 1.3 (0.7; 2.5) **Work social support** 1 (lowest): 1.3 (0.8; 2.0) 2: 0.8 (0.5; 1.4) 3 (highest): Reference	Proportional-hazard-derived hazard ratio (CI 95%) for the association of baseline job control, job demands and job strain with incidence of fatal coronary heart disease/nonfatal myocardial infarction. HR (CI 95%) adjusted for age, cigarette smoking, exercise, alcohol consumption, body mass index, self-reported diabetes and self-reported high blood pressure **Job control** 1 (lowest): 0.7 (0.4; 1.2) 2: 0.8 (0.5; 1.4) 3 (highest): reference **Job demands** 1 (lowest): reference 2: 0.8 (0.4; 1.5) 3 (highest): 1.4 (0.8; 2.3) **Job strain** Low: reference Strain: 1.0 (0.5; 1.9) Active: 1.2 (0.7; 2.2) Passive: 1.0 (0.5; 2.0) **Work social support** 1 (lowest): 1.2 (0.7; 2.1) 2: 1.0 (0.5; 1.7) 3 (highest): Reference
Kuper et al 2007	Prospective cohort study.	Participants were women between 30–	**Psychosocial work factors**	**Stroke**	Hazard ratio for the association between baseline job control, job demands and job	–

[74] Sweden	Data from the women´s lifestyle and health cohort study The average follow-up was more than 11 years General population 1991–2002 Baseline 1991–1992	50 years and living in the city Uppsala. Women with missing information on educational level, who had emigrated or who had a previous myocardial infarction or stroke were excluded n=47 942 (49 259 at baseline) All participants were women	Work characteristics were measured by the self-administrated DCQ questionnaire	Information on ischemic stroke, intracerebral haemorrhage or undefined stroke was collected through the national hospital discharge register (ICD-7 code 332, 331 and 334; ICD-8 433–434, 43 and 436; ICD-9 434, 431 and 436; ICD-10 I63.3- I63.9, I61 and I64) Information on deaths was gathered through the national death register	strain and incidence of fatal/nonfatal stroke in full- and part-time workers. HR (95% CI) adjusted for age **All Stroke** ***Job control*** 1 (lowest): 1.0 (0.7; 1.5) 2: 0.7 (0.4; 1.0) 3 (Highest): 1.0 ***Job demand*** 1 (lowest): 1.0 2: 0.8 (0.6; 1.3) 3 (Highest): 0.9 (0.6; 1.3) ***Job strain*** Low: 1.0 Strain: 1.2 (0.8; 1.9) Active: 0.9 (0.6; 1.5) Passive: 0.9 (0.6; 1.5) ***Work social support*** 1 (lowest): 0.9 (0.6; 1.4) 2: 1.2 (0.8; 1.7) 3 (Highest): 1.0 **Ischemic stroke** ***Job control*** 1 (lowest): 1.4 (0.9; 2.4) 2: 0.8 (0.4; 1.4) 3 (Highest): 1.0 ***Job demand*** 1 (lowest): 1.0 2: 0.8 (0.5; 1.4) 3 (Highest): 0.9 (0.5; 1.4) ***Job strain*** Low: 1.0 Strain: 1.6 (0.9; 3.0) Active: 1.1 (0.6; 2.0)	

					Passive: 1.3 (0.7; 2.4) ***Work social support*** 1 (lowest): 0.8 (0.5; 1.3) 2: 1.1 (0.6; 1.7) 3 (Highest): 1.0 **Hemorrhagic stroke** ***Job control*** 1 (lowest): 1.1 (0.5; 2.4) 2: 0.7 (0.3; 1.6) 3 (Highest): 1.0 ***Job demand*** 1 (lowest): 1.0 2: 0.7 (0.3; 1.7) 3 (Highest): 0.9 (0.4; 1.9) ***Job strain*** Low: 1.0 Strain: 1.2 (0.5; 3.1) Active: 0.8 (0.3; 2.2) Passive: 0.9 (0.4; 2.5) ***Work social support*** 1 (lowest): 1.1 (0.5; 2.7) 2: 1.6 (0.7; 3.5) 3 (Highest): 1.0	
Lamy et al 2014 [75] France	Prospective cohort. Part of the ORSOSA study 2 years Health care 2006–2008	Participants were registered nurses at French teaching hospitals. Work units with at least 20 nurses and not schedules for closure in the following two years were eligible. Specific medical areas, e.g. geriatric, were chosen	**Organizational factors and physical exertion** Organizational factors were assessed by a French version of the Nursing Work Index-revised (NWI-EO) (Bonneterre et al, 2011) Physical work load was assessed by the 15 point Borg-scale	**Hypertension** Workers were considered hypertensive if, in 2008, they declared they were taking any antihyper-tensive medication or if they had a mean blood pressure >140 mm Hg for systolic blood pressure or 90 mm Hg for diastolic blood	Hypertension in 2008 in relation with psychosocial and organizational variables in 2006. OR (95% CI) Low support from nursing management staff: 0.88 (0.78; 1.02) Poor relationships with hierarchical superiors within the team: 1.09 (0.84; 1.41) High physical exertion: 2.52 (1.17; 5.44) Effort reward ratio >1: 2.10 (0.94; 4.72)	Hypertension in 2008 in relation with psychosocial and organizational variables in 2006. OR (95% CI) adjusted for work unity specialty, work schedule, working time, confounding factor, organizational work environment, physical work load and occupational stress Low support from nursing management staff: 0.77 (0.61; 0.97) Poor relationships with hierarchical superiors within the team: 0.89 (0.56; 1.44)

		Participants were normo-tensive and untreated for hypertension at baseline. They did not change unit or position during the study Mean age was 36 years n=1 091 Gender of the participants is not specified		pressure assessed by a validated automatic device at a medical examination		High physical exertion: 2.69 (1.03; 7.04) Effort reward ratio >1: 1.73 (0.66; 4.51)
Laurent et al 2010 [76] France *Note*: data according to different dosimetric datasets for a cumulative dose of 100 mSv also available in the article	Prospective cohort study The mean follow-up was 20 years Nuclear industry 1961–2003 Baseline data from 1961–1994	Participants were French nuclear industry workers who had worked for at least one year at the French electrical company between the years 1961–1994. For inclusion the participants had to be monitored for ionising radiation n=22 393 763 women and 21 630 men	**Ionizing radiation** High-energy photon radiation was monitored using personal Kodak type 2 film badge dosimeters worn at the chest	**Circulatory disease** Participant's vital status was obtained through the national vital status registry and through a complementary search using the French electricity company's internal sources For participants identified as diseased, cause of death was obtained through the national causes of death registry (ICD version 8 and 9)	Risk of death for a 100 mSv increase in cumulative photon dose. RR (90% CI) stratified on age, gender, calendar period and educational level at hiring Circulatory disease: 1.27 (0.77; 1.91) Ischemic heart disease: 1.41 (0.71; 2.37) Cerebrovascular disease: 2.74 (1.02; 5.39) Risk of death of death for a cumulative dose of 100 mSv, crude photon data set (all workers included). RR (90% CI) stratified on age, gender, calendar period and educational level at hiring Circulatory disease: 1.15 (0.73; 1.67) Ischemic heart disease: 1.24 (0.66; 2.01) Cerebrovascular disease: 2.31 (0.92; 4.37)	–
Lee et al 2004 [77] USA	Prospective cohort study. Data from the nurses' health study	Participants were working female registered nurses, 46–71 years old	**Job security** Participants reported their job security by answering strongly disagree, disagree,	**Coronary heart disease** All women who reported having a non-fatal myocardial	Risk of coronary heart disease by job security. RR (95% CI) adjusted for age **2 years follow-up (1992-1992)** ***Total coronary heart disease***	Risk of coronary heart disease by job security. RR (95% CI) adjusted for age in 5 years intervals, smoking, alcohol intake, body mass index, history of hypertension, diabetes mellitus, and hypercholesterolemia,

	4 years Health care 1992–1996 (follow-up at 1994 and 1996)	Nurses with previous coronary heart disease, stroke or cancer, and those who not had complete information on job security were excluded For the 1996 follow-up, loss to follow-up and non-responders to the 1994 questionnaire were also excluded n=36 910 All participants were women	agree or strongly agree to the following statement, "my job security is good"	infarction were asked for permission to review their medical records Cases were confirmed if they met the diagnostic criteria from the world health organization Diseased participants were identified through the national death index or next of kin and a written request was sent to next of kin for review of medical records	Secure: 1.0 Insecure: 1.47 (0.85; 2.53) ***Non-fatal myocardial infarction*** Secure: 1.0 Insecure: 2.01 (1.1; 3.66) ***Fatal coronary heart disease*** Secure: 1.0 Insecure: 0.49 (0.11; 2.08) **4 years follow-up (1992-1996)** ***Total coronary heart disease*** Secure: 1.0 Insecure: 1.14 (0.76; 1.7) ***Non-fatal myocardial infarction*** Secure: 1.0 Insecure: 1.39 (0.89; 2.17) ***Fatal coronary heart disease*** Secure: 1.0 Insecure: 0.52 (0.19; 1.47)	menopausal status, current use of post-menopausal hormones, average aspirin use, past use of oral contraceptives, saturated fat intake, vitamin E intake, physical activity, parental history of myocardial infarction before age 60, educational attainment, marital status, husbands educational status **2 years follow-up (1992–1994)** ***Total coronary heart disease*** Secure: 1.0 Insecure: 1.35 (0.78; 2.34) ***Non-fatal myocardial infarction*** Secure: 1.0 Insecure: 1.89 (1.03; 3.5) **4 years follow-up (1992–1996)** ***Total coronary heart disease*** Secure: 1.0 Insecure: 1.04 (0.69; 1.57) ***Non-fatal myocardial infarction*** Secure: 1.0 Insecure: 1.28 (0.82; 2.0)
Lee et al 2002 [78] USA	Prospective cohort study. Data from the nurses' health study Health care 4 years 1992–1996	Participants were working female registered US nurses, 46–71 years old. Participants not working with previous coronary heart disease, stroke or cancer, or had a not complete information on job strain were excluded n=35 038	**Psychosocial work factors** Psychological demands, job control and work related social support were measured by the self-administrated job content questionnaire (JCQ)	**Coronary heart disease** All women who reported having a non-fatal myocardial infarction were asked for permission to review their medical records Cases were confirmed if they met the diagnostic criteria from the world health organization	Risk of coronary heart disease. RR (95% CI) adjusted for age **Job strain (low strain: reference)** ***Total coronary heart disease*** Passive: 1.16 (0.75; 1.81) Active: 0.98 (0.58; 1.65) High strain: 0.8 (0.48; 1.34) ***Non-fatal myocardial infarction*** Passive: 1.21 (0.74; 1.99) Active: 0.81 (0.43; 1.52) High strain: 0.71 (0.39; 1.31) ***Fatal coronary heart disease*** Passive: 1.01 (0.4; 2.57)	Risk of coronary heart disease. RR (95% CI) adjusted for age in 5 years intervals, smoking, alcohol intake, body mass index, history of hypertension, diabetes mellitus, and hypercholesterolemia, menopausal status, current use of post-menopausal hormones, average aspirin use, past use of oral contraceptives, saturated fat intake, vitamin E intake, physical activity, parental history of myocardial infarction before age 60, educational attainment, marital status, husbands educational status **Job strain (low strain: reference)** ***Total coronary heart disease*** Passive: 1.08 (0.69; 1.68)

		All participants were women		Diseased participants were identified through the national death index or next of kin and a written request was sent to next of kin for review of medical records of medical records	Active: 1.51 (0.57; 3.98) High strain: 1.09 (0.4; 2.92) **Demand (low: reference)** ***Coronary heart disease*** Intermediate: 1.35 (0.93; 1.97) High: 0.85 (0.55; 1.32) **Control (high: reference)** ***Coronary heart disease*** Intermediate: 0.85 (0.57; 1.28) Low: 1.06 (0.72; 1.58) **Work related social support** ***Coronary heart disease*** High: reference Low: 1.28 (0.9; 1.83)	Active: 0.91 (0.54; 1.53) High strain: 0.71 (0.42; 1.19) ***Non-fatal myocardial infarction*** Passive: 1.12 (0.67; 1.84) Active: 0.75 (0.4; 1.42) High strain: 0.63 (0.34; 1.17) **Demand (low: reference)** ***Coronary heart disease*** Intermediate: 1.32 (0.9; 1.93) High: 0.8 (0.52; 1.24) **Control (high: reference)** ***Coronary heart disease*** Intermediate: 0.81 (0.54; 1.22) Low: 0.97 (0.65; 1.45) **Work related social support** ***Coronary heart disease*** High: reference Low: 1.15 (0.8; 1.64)
Lieu et al 2012 [79] USA	Prospective cohort study. Data from the Nurses' Health Study II 16 year Health care 1989–2005	Participants were female nurses participating in the Nurses' Health Study II who were non-hypertensive at baseline Participants who did not answer the questions about whether or not they performed rotating night shifts were excluded Age: 25–42 years n=26 294	**Shift work** A questionnaire was used to collect information on rotating night shift during each 2 year interval Rotating night shift was defined as working least three nights per month in addition to days or evenings in that month	**Hypertension** The follow-up questionnaire inquired about physician diagnosed hypertension and the year of diagnosis Self-reported diagnosis of hypertension was validated in a randomly selected subset of 147 women in Nurses' Health Study II, among whom 94% had their diagnosis confirmed	Ever compared to never rotating night shift work and hypertension risk by race. HR (95% CI) adjusted by age **Black (n=1 895)** Never: 1.00 Ever: 1.16 (0.93; 1.44) **White (n=24 399)** Never: 1.00 Ever: 1.08 (1.04; 1.12)	Ever compared to never rotating night shift work and hypertension risk by race. HR (95% CI) adjusted by age, body mass index, alcohol intake, physical activity, family history of hypertension, disabilities of the arm, shoulder and hand, hours of sleep per day, menopausal status, oral contraceptive use, analgesic use, folate supplementation and smoking status **Black (n=1 895)** Never: 1.00 Ever: 1.46 (1.07; 1.99) **White (n=24 399)** Never: 1.00 Ever: 0.97 (0.93; 1.01)

		All participants were women		upon review of medical records		
Lopes et al 2005 [80] Portugal	Case-control study. Part of the EPI-cardia study General population 1996–1999	Cases were men and women aged 40 and over, resident in Porto, admitted to hospital and diagnosed as presenting a first episode of myocardial infarction Controls were men and women aged 39 and over, resident in Porto. Random digit dialing was used to select dwellings with a telephone. Controls had no history of myocardial infarction according to the Rose criteria n=607 (297 cases and 310 controls) Results based on data from men	**Physical activity** Physical activity was assessed by a structured interview by trained interviewers using a questionnaire exploring frequency, duration and intensity of the activity	**Myocardial infarction** Diagnose of myocardial infarction was made by a consulting clinician at a cardiology department. The definition of a case was based om conventional criteria, including classic symptoms and alterations in electrocardio-gram and biomarkers	Odds ratios according to quartiles of physical activity in occupational activities in professionally active men. Overall OR (95% CI) **Quartiles of physical activity** 1st: 1.0 2nd: 0.98 (0.56; 1.70) 3rd: 0.87 (0.40; 1.87) 4th: 0.69 (0.35; 1.34)	Odds ratios according to quartiles of physical activity in occupational activities in professionally active men. OR (95% CI) adjusted for age, education, history of infarction, angina, dyslipedimia, smoking, use of aspirin and vitamins, waist-to-hip-ratio, alcohol consumption, energy intake, hypertension and diabetes **Quartiles of physical activity** 1st: 1.0 2nd: 1.70 (1.01; 2.87) 3rd: 0.68 (0.28; 1.61) 4th: 0.65 (0.31; 1.37)
Malinauskiene et al 2010 [81] Lithuania	Population-based case–control study General working population 2001–2004	Participants were employed women residing in Kaunas city, Lithuania. All surviving patients with first myocardial infarction that occurred in 2001–2004 were eligible for the study	**Psychosocial factors** The Swedish version of the demand-control questionnaire (DCQ) was used to evaluate current working conditions (Belkic et al., 2004)	**Myocardial infarction** Myocardial infarction was defined as code I21 according to the 10th revision of ICD	Adjusted odds ratio for myocardial infarction among employed women age 35–61 years (logistic regression analysis). OR (95% CI) adjusted for age, smoking, arterial blood pressure, and body mass index **Job demands** High: 0.86 (0.55; 1.34) **Job control** Low 2nd quartile: 1.82 (0.87; 3.81)	Adjusted odds ratio for myocardial infarction among employed women age 35–61 years (logistic regression analysis). OR (95% CI) adjusted for age, smoking, arterial blood pressure, and body mass index, job demands, job control, social support, material stress, educational level and occupation **Job demands** High: 1.15 (0.65; 2.01)

		Cases were 35–61 years old women with the first myocardial infarction. The control group was a random sample of women of the same age, drawn from the population registers in 12 districts, without signs of ischemic heart disease n=493 (122 cases and 371 controls) All participants were women	The demands, job control and social support scales were summed up and divided into quartiles and at the median scores		Low 3rd quartile: 2.31 (1.18; 4.52) Low 4th quartile: 3.81 (1.88; 7.75) **Social support** Low: 1.61 (0.99; 2.62)	**Job control** Low 2nd quartile: 2.01 (0.86; 4.72) Low 3rd quartile: 2.45 (1.11; 5.40) Low 4th quartile: 4.51 (1.90; 10.75) **Social support** Low: 1.39 (0.77; 2.52)
Malinauskiene et al 2005 [82] Lithuania	Case–control study General working population 2001–2002	Participants were employed men, living in the city Kaunas Cases were survivals of a first myocardial infraction. The control group was a random non-hospitalized sample of men between 25 and 64 years of age were free from ischemic heart disease, angina pectoris. Controls did not report chess pain or other evidence of ischemic heart disease	**Psychosocial factors** The cases and controls were interviewed by trained physicians in their local hospital, using identical standardized questionnaires. A Swedish version of the demand-control questionnaire was used (DCQ)	**Myocardial infarction** Myocardial infarction was defined as code I21 according to the 10th revision of ICD The persons with a clinical diagnosis coded I21 in the hospital were considered as cases	Risk of first myocardial infarction in reaction to job characteristics. OR (95 % CI) adjusted for age, material status, education, type of occupation, smoking, blood pressure and body mass index **Job control** High: 1.00 Low: 1.53 (1.04; 2.38) **Job demands** Low: 1.00 High: 0.56 (0.37; 0.85) **Demand and control** Low demand-high control: 1.00 Low demand-low control: 1.89 (0.99; 3.6) High demand-low control: 0.73 (0.38; 1.39) High demand-high control: 0.63 (0.35; 1.14)	–

		n=490 (203 cases and 287 controls) All participants were men				
Marcoux et al 1999 [83] Canada	Case-control study General population 1984–1986	Participants were primi-parous women who delivered in one of six hospitals in Quebec between 1984 and 1986. They had normal blood pressure during the first 20 weeks of pregnancy and no history of high blood pressure. Participants had worked at least one week during the first 20 weeks of pregnancy Cases had pre-eclampsia or gestrational hypertension, respectively For each case, the control was the woman who delivered immediately just after the case and had no more than one elevated blood pressure reading after 20 weeks of pregnancy	**Demand, control and job strain** Scores on psychological demand and decision latitude was assigned, based on job titles Scores on demand and control for various jobs were derived from a national Canadian health survey of women 18–45 years that took place between 1994–1995	**Pre-eclampsia, gestrational hypertension** Gestrational hypertension was defined as diastolic blood pressure ≥90 mmHg on at least two consecutive occasions 4 or more hours apart. The elevated blood pressure had to be observed after 20 weeks of pregnancy and not later than 24 hours after delivery Pre-eclampsia had the same criteria as described above, associated with proteinuria	Odds ratios for pre-eclampsia and gestrational hypertension according to job psychosocial factors. Crude OR (95% CI) **Pre-eclampsia** ***Psychological demands*** 1st quartile (low): 1.0 2nd quartile: 1.7 3rd quartile: 1.5 4th quartile (high): 1.6 ***Decision latitude*** 1st quartile (high): 1.0 2nd quartile: 1.0 3rd quartile: 1.7 4th quartile (low): 1.5 ***Job strain*** Low demand, high latitude: 1.0 Low demand, low latitude: 1.7 High demand, high latitude: 1.3 Low demand, low latitude: 2.0 **Gestrational hypertension** ***Psychological demands*** 1st quartile (low): 1.0 2nd quartile: 1.5 3rd quartile: 1.3 4th quartile (high): 1.3 ***Decision latitude*** 1st quartile (high): 1.0 2nd quartile: 1.2 3rd quartile: 1.2 4th quartile (low): 1.2	Odds ratios for pre-eclampsia and gestrational hypertension according to job psychosocial factors. OR (95% CI) adjusted for education and cigarette smoking **Pre-eclampsia** ***Psychological demands*** 1st quartile (low): 1.0 2nd quartile: 2.2 (1.1; 4.2) 3rd quartile: 1.9 (1.0; 3.5) 4th quartile (high): 2.7 (1.3; 5.6) ***Decision latitude*** 1st quartile (high): 1.0 2nd quartile: 1.0 (0.5; 2.0) 3rd quartile: 1.8 (0.8; 3.7) 4th quartile (low): 1.6 (0.8; 3.5) ***Job strain*** Low demand, high latitude: 1.0 Low demand, low latitude: 1.8 (1.0; 3.3) High demand, high latitude: 1.4 80.7; 2.8) Low demand, low latitude: 2.1 (1.1; 4.1) **Gestrational hypertension** ***Psychological demands*** 1st quartile (low): 1.0 2nd quartile: 2.0 (1.2; 3.4) 3rd quartile: 1.5 (0.9; 2.5) 4th quartile (high): 2.1 (1.1; 3.8) ***Decision latitude*** 1st quartile (high): 1.0 2nd quartile: 1.5 (0.9; 2.5) 3rd quartile: 1.5 (0.8; 3.0) 4th quartile (low): 1.7 (0.9; 3.2)

		n=730 (329 cases (128 with pre-eclampsia and 201 with gestrational hypertension) and 401 controls All participants were women			***Job strain*** Low demand, high latitude: 1.0 Low demand, low latitude: 0.8 High demand, high latitude: 0.9 Low demand, low latitude: 1.2	***Job strain*** Low demand, high latitude: 1.0 Low demand, low latitude: 0.9 (0.5; 1.4) High demand, high latitude: 0.8 (0.5; 1.3) Low demand, low latitude: 1.3 (0.8; 2.2)
Markovitz et al 2004 [84] USA *Note*: The analysis population includes homemakers	Prospective cohort study. Data from the CARIDIA study 8 years General population 1987–1996	Participants in the Coronary Artery Risk Development In young Adult (CARDIA) study were initially recruited in 1985 and 1986 from people living in a number of cities and states in the US Exclusion criteria were not attending both year 2 and year 10 examination, non-employment, taking antihyper-tensive medications at the year 2 examination, undiagnosed hypertension, pregnancy at the examination and sex change between examinations Age: 18–30 years n=3 200 1 757 women and 1 443 men	**Job strain** Job characteristics were assessed using the Job Content Questionnaire as described previously (Cutler et al., 1991) at both year 2 and year 10 examinations	**Hypertension** Blood pressure was assessed three times after a 5-min rest, using a random-zero sphyg-momano-meter Hypertension was defined systolic blood pressure ≥160 mm Hg and diastolic blood pressure of ≥95 mm Hg, or reporting being on antihyper-tensive medication	Incident hypertension for 8-year change in decision latitude and job demands: The CARDIA stud, 1987–1995. Adjusted OR (95% CI) (the study does not clearly state which adjustments that have been made) **Decision latitude** Change in decision latitude: 1.02 (0.98; 1.06) Baseline decision latitude: 1.01 (0.96; 1.06) **Job demands** Change in job demands: 1.05 (1.01; 1.09) Baseline job demands: 1.04 (0.99; 1.09)	Data not shown in article, but adjustment for significant covariates (education, age, body mass index, change in body mass index and baseline systolic blood pressure) did not alter these relationship of the formulation of job strain to incident hypertension including job demand and decision latitude at baseline as covariates

Mbanu et al 2007 [85] USA	Case-crossover study Firefighters 1994–2004	Participants were all US firefighters who died while on-duty, who became ill on-duty and later died, or who died within 24 h of an emergency response or training Fatalities that occurred during the first 48 h of the September 11 terrorist attacks were excluded Mean age: 53 years n=449 7 women and 442 men	**Temperature** Daily mean ambient temperature, barometric pressure, dew point and wind speed from the National Weather Service station closest to the location of each death for the day of death and control days was assessed Calculations on the apparent temperature, an index of human discomfort, was done	**Coronary heart disease** Based upon the narrative for each fatality, deaths were classified according to the specific duty performed during the onset of symptoms or immediately preceding sudden death Those cases were excluded in which death occurred more than 24h following the on-duty incident, or in which death resulted from a cardio-vascular problem other than coronary heart disease, e.g. certain arrhythmias, stroke, aneurysm and genetic cardio-myopathy	Relative risk of on-duty coronary heart disease death among US firefighters associated with a 1°C increase in apparent temperature or wind chill temperature. RR (95% CI) **Apparent temperature** All cases: 1.012 (0.983; 1.042) Mild/hot months: 0.989 (0.953; 1.026) Cold months: 1.051 (1.003; 1.102) **Wind chill temperature** All cases (1994–2004): 1.009 (0.983; 1.034) Mild/hot months: 0.980 (0.941; 1.020) Cold months: 1.028 (0.995; 1.063)	–
Mc Carthy et al 2012 [86] Ireland	Case–control study Health care 1999–2001	Cases were recruited consecutively from four coronary care and intensive care units. They were aged 35–74 years, and admitted with a first-time coronary event Incident density sampling was used to recruit controls matched on age and sex from the case's	**Job strain** Job characteristics were assessed using a form of the Job Content Questionnaire (JCQ) A Likert response format was employed, using often, sometimes, seldom and never/almost never as the options	**Coronary event** Diagnosis of each case was confirmed by review of available medical notes in the hospital where they were recruited A coronary event was defined as acute myocardial infarction or unstable angina	Odds ratio for the association between first coronary event and job characteristics. OR (95% CI) adjusted for age and body mass index **Younger workers (37–49 years of age)** High strain: 0.78 (0.21; 2.97) High job demands: 0.98 (0.77; 1.24) High job control: 0.97 (0.82; 1.15) **Older workers (50‑74 years of age)** High strain: 3.26 (1.17; 9.44) High job demands: 1.17 (0.99; 1.38) High job control: 0.85 (0.76; 0.96)	Odds ratio for the association between first coronary event and job characteristics. OR (95% CI) adjusted for age, body mass index, smoking status, socioeconomic position and family history of cardiovascular disease **Younger workers (37‑49 years of age)** High strain: 0.56 (0.13; 2.51) High job demands: 0.98 (0.76; 1.26) High job control: 1.05 (0.87; 1.27) **Older workers (50‑74 years of age)** High strain: 4.09 (1.29; 13.02) High job demands: 1.19 (0.99; 1.43)

		general practice surgery. Controls were exposed to the same living environment and had survived at least as long as the case, but did not have a cardiac event Exclusion criteria included those with a recorded history of prior myocardial infarction, angina, other cardiovascular disease, or stroke, severe mental or physical disability and other more specific cardiovascular events n=208 92 cases and 116 controls Gender of the participants was not stated in the article				High job control: 0.83 (0.72; 0.95)
McNamee et al 2006 [87] United Kingdom	Case–control study Industry 1950–1992	Participants were male manual workers who joined an industrial company between 1950 and 1992 and worked there for at least one months Cases were cohort members who died during the same	**Shift work** Work status (shift work or day work) was assigned to cases for their entire employment and to controls for that part of their employment which preceded the matching case's death	**Ischemic heart disease** Ischemic heart disease was assessed by the International classification of diseases (ICD) (410–414) coded from the death certificate Under an existing agreement with the	Mortality from ischemic heart disease by duration of shift work and by time since leaving shiftwork. Crude OR **Duration of shift work** ***Day workers*** Baseline ***Shift workers (years of shift work)*** 0.1–1.9: 0.87 2.0–4.9: 0.71 5.0–9.9: 0.72	Mortality from ischemic heart disease by duration of shift work. OR (90% CI) adjusted for body mass index, height, blood pressure, job status, cigarette consumption and duration of employment. Restricted to ≥10 years follow-up **Duration of shift work** ***Day workers*** Baseline ***Shift workers (years of shift work)*** 0.1–1.9: 0.95 (0.67; 1.35)

		period, aged 75 years or under, with ischemic heart disease For each case, a control worker was chosen, who joined the company at the same age and in the same period but who survived the case n=934 467 cases and 467 controls All participants were men	The main source of information was historical personnel records containing pay codes which differed for day work and shift work	United Kingdom Office of Population, Censuses, and Surveys, all deaths among study population members were notified to the company, together with cause of death	≥10.0: 0.74 **Time since leaving shiftwork** ***Day workers*** Baseline ***Shift workers*** Current: 0.41 ***Ex shift workers (years since leaving shiftwork)*** 0.1–4.9: 1.98 5.0–9.9: 0.57 10.0–19.9: 0.92 ≥20.0: 0.92	2.0–4.9: 0.98 (0.61; 1.57) 5.0–9.9: 0.89 (0.55; 1.45) ≥10.0: 0.76 (0.50; 1.17) **Time since leaving shiftwork** ***Day workers*** Baseline ***Shift workers*** Current: 0.64 (0.33; 1.22) ***Ex shift workers (years since leaving shiftwork)*** 0.1–4.9: 2.89 (0.74; 11.3) 5.0–9.9: 0.66 (0.30; 1.42) 10.0–19.9: 1.15 (0.75; 1.79) ≥20.0: 0.96 (0.60; 1.53)
Menotti et al 1985 [88] Italy	Prospective cohort study 5 years Railroad work Years of measurements are not stated	Participants were men aged 40–59 years, employed on the Italian railroad system n=99 029 All participants were men	**Physical activity and job responsibility** Ergonometric studies were carried out to attribute average energy expenditure to the several types of work on the railroad. On the basis of such measurements, heavy workers were defined as using more than 3 000 calories per day; moderate workers 2 400 to 3 000 calories per day; and sedentary workers less than 2 400 calories per day Responsibility at work was evaluated by occupational	**Myocardial infarction, stroke and other cardio-vascular diseases** A systematic registration of all deaths was performed on all men including those who retired Information on deaths and their causes was obtained from a register at the railroad and official national and regional registers. Most of the causes of death were validated by comparing the official causes with those	Significance (p of test on proportion) for age standardised death rates per 1 000 in five years for some specific causes of death in men classified by physical activity and job responsibility **Physical activity** ***Myocardial infarction*** Sedentary vs moderate: ns Sedentary vs heavy: <0.001 Moderate vs heavy: <0.001 ***Stroke*** Sedentary vs moderate: <0.05 Sedentary vs heavy: ns Moderate vs heavy: <0.05 ***Other cardiovascular diseases*** Sedentary vs moderate: ns Sedentary vs heavy: <0.05 Moderate vs heavy: <0.05	–

			psychologists who characterised types of jobs using a score which takes into account the economic and financial implications of decisions taken at work, as well as the relevance of possible damage and hazards both economic and for human life as a consequence of possible mistakes made at work	elicited from hospital and other medical records The causes of death was classified according to ICD-8 The term coronary heart disease implies a fatal case of myocardial infarction or its early or late complications or sudden death of probable coronary origin	**Job responsibility** ***Myocardial infarction*** Sedentary vs moderate: <0.001 Sedentary vs heavy: <0.001 Moderate vs heavy: <0.001 ***Stroke*** Sedentary vs moderate: <0.001 Sedentary vs heavy: ns Moderate vs heavy: ns ***Other cardiovascular diseases*** Sedentary vs moderate: ns Sedentary vs heavy: ns Moderate vs heavy: ns	
Mezei et al 2005 [89] USA	Case–control General population 1986 and 1993	Analyses made use of data from the national surveys on mortality in 1986 and 1993 conducted by a national authority. The data sets include information on a probabilistic sample of individuals aged 25 years or older (15 years or older in 1993) who resided and died in the United States The data were collected through death certificates and interviews with proxy respondents Sampling probabilities for inclusion in the	**Magnetic field exposure** A qualitative magnetic field exposure matrix was developed, based on job titles and published exposure measurements Occupational exposure to magnetic fields was assessed based on the longest held job during the decedent's lifetime as determined by the proxy respondent's interview The exposure cut points used to define magnetic field exposure groups were 0.15 µT (between low and medium exposure categories)	**Several outcomes** The outcomes were defined as follow: Arrhythmia-related deaths: ICD-9 codes 426 and 427, 2) Acute myocardial infarction: ICD-9 code 410 Chronic coronary heart disease: ICD-9 codes 411–414	Odds ratio estimates for categories of potential occupational magnetic field exposure and cardiovascular disease mortality. Crude OR (95% CI) without covariate adjustment **Magnetic field exposure** ***Acute myocardial infarction*** Low: 1.00 Medium: 1.27 (1.05; 1.53) High: 1.05 (0.84; 1.32) ***Arrhythmia*** Medium 0.97 (0.66; 1.42) High 0.98 (0.59; 1.60) ***Chronic coronary heart disease*** Medium 1.07 (0.89; 1.30) High 1.14 (0.90; 1.45)	Odds ratio estimates for categories of potential occupational magnetic field exposure and cardiovascular disease mortality. OR (95% CI) adjusted for age, sex, race, working status, level of education, and year of survey, number of years smoked, and mean number of cigarettes smoked daily **Magnetic field exposure** Acute myocardial infarction Low: 1.00 Medium: 1.21 (1.00; 1.47) High: 0.96 (0.76; 1.22) ***Arrhythmia*** Medium 1.07 (0.72; 1.59) High 0.99 (0.60; 1.63) ***Chronic coronary heart disease*** Medium 1.09 (0.89; 1.34) High 1.10 (0.86; 1.41)

		database varied by strata, which were defined by broad age groups, racial groups, sex, and cause of death n=41 690 Gender of the participants is not stated in the article	and 0.2 µT (between medium and high exposure categories)			
Moe et al 2013 [90] Norway	Prospective cohort study. Data from the HUNT 2 study Median 12.4 years General population 1995–2008	Participants were inhabitants aged 20 years or older from a county in Norway. Eligible participants completed a questionnaire and attended a clinical examination Persons who reported no paid work or self-employed, who reported prevalent cardiovascular disease or diabetes were excluded n=37 300 (5 672 with metabolic syndrome and 31 68 without metabolic syndrome) The gender distribution for the included participants is not stated in the article	**Occupational physical activity** Occupational physical activity was obtained from a questionnaire. The items are stated in the article	**Death of cardio-vascular disease** The cause of death registry in Norway constitutes the basis for the coding of underlying cause of death Deaths were classified according to ICD-9 and ICD-10 Cardio-vascular disease was defined by codes 390–459 (ICD-9) and I00–I99 (ICD-10)	The combined effect of metabolic syndrome and occupational physical activity on risk of death from all cause and cardiovascular disease. HR (95% CI) adjusted for age, sex, leisure-time physical activity, smoking status, alcohol consumption and education **Without metabolic syndrome** Most sedentary: 1.19 (0.84; 1.70) Much walking: 1.00 Much heavy physical work: 1.20 (0.82; 1.77) **With metabolic syndrome** Most sedentary: 2.74 (1.82; 4.12) Much walking: 1.79 (1.20; 2.66) Much heavy physical work: 3.02 (1.93; 4.75)	–

Moller et al 2005 [91] Sweden	Case-control and case-crossover. Data from the Stockholm heart epidemiology programme (SHEEP) General population 1992–1994	The study base included all Swedish citizens 45 to 70 years old, living in Stockholm County and with no earlier diagnosed myocardial infarction Male cases were identified from January 1992 until January 1994, and female cases until December 1994. For each case at least one referent was randomly selected from the study base, after stratification for sex, age, and hospital catchment area n=3 078 (1381 non-fatal cases and 1 697 referents) 962 women and 2 116 men	**Psychosocial exposure** Exposure information was obtained from a detailed self-administered questionnaire. Missing data in any record were filled in by means of a telephone interview The SHEEP questionnaire contained 14 items on the occurrence of specific life events during the past 12 months. Five of these life events were work related Each life event item was accompanied by an additional question regarding the subjective significance of the event	**Acute myocardial infarction, both fatal and non-fatal** Cases were identified through a special organisation set up at the coronary or intensive care units of the 10 emergency hospitals in the region (97% of all non-fatal cases), and from Sweden's computerised hospital discharge register Cases were included at time of disease onset and diagnosed according to standard criteria. At the time of an incident case, referents were identified through the computerised population register maintained by Stockholm County	Risk of myocardial infarction after exposure to work related life events during the past 12 months, stratified according to self-perceived affect of the event. A case-referent analysis. The reference group consists of subjects who did not experience the specific life event. OR (95% CI) adjusted for age and hospital catchment area **Women** ***Impaired economic situation*** All: 0.9 (0.7; 1.3) Affected me strongly: 3.6 (1.8; 7.2) Was noticeable: 0.7 (0.5; 1.1) Did not mean particularly much: 0.6 (0.3; 1.1) ***Conflict at work*** All: 1.5 (1.0; 2.4) Affected me strongly: 1.7 (0.9; 3.2) Was noticeable: 1.3 (0.7; 2.3) Did not mean particularly much: 2.0 (0.6; 6.4) ***Decreased responsibilities at work*** All: 0.5 (0.2; 1.1) Affected me in a very or fairly negative way: 0.7 (0.2; 2.5) Did not mean particularly much: 0.9 (0.2; 3.2) Affected me in a very or fairly positive way: 0.2 (0.05; 1.1) ***Increased responsibilities at work*** All: 1.0 (0.7; 1.6) Affected me in a very or fairly negative way: 3.2 (1.2; 8.4) Did not mean particularly much: 0.7 (0.2; 1.9) Affected me in a very or fairly positive way: 0.8 (0.5; 1.4) **Men** ***Impaired economic situation***	Risk of myocardial infarction after exposure to work related life events during the past 12 months, stratified according to self-perceived affect of the event. A case-referent analysis. The reference group consists of subjects who did not experience the specific life event. OR (95% CI) adjusted for age, hospital catchment area, hypertension, physical inactivity, diabetes, over-weight, smoking and socioeconomic status **Women** ***Impaired economic situation*** All: 0.7 (0.5; 1.0) Affected me strongly: 3.0 (1.3; 6.7) Was noticeable: 0.6 (0.4; 0.9) Did not mean particularly much: 0.5 (0.2; 1.0) ***Conflict at work*** All:1.6 (1.0; 2.5) Affected me strongly: 1.8 (0.9; 3.5) Was noticeable: 1.4 (0.7; 2.6) Did not mean particularly much: 1.6 (0.5; 5.8) ***Decreased responsibilities at work*** All: 0.5 (0.2; 1.2) Affected me in a very or fairly negative way: 0.4 (0.1; 1.5) Did not mean particularly much: 1.0 (0.2; 4.7) Affected me in a very or fairly positive way: 0.4 (0.1; 2.1) ***Increased responsibilities at work*** All: 1.2 (0.8; 2.0) Affected me in a very or fairly negative way: 3.8 (1.3; 11.0) Did not mean particularly much: 0.8 (0.3; 2.5)

					All: 1.0 (0.8; 1.2) Affected me strongly: 1.7 (1.2; 2.4) Was noticeable: 1.0 (0.8; 1.3) Did not mean particularly much: 0.5 (0.3; 0.7) ***Conflict at work*** All: 1.7 (1.3; 2.2) Affected me strongly: 1.8 (1.2; 2.6) Was noticeable: 2.0 (1.4; 2.8) Did not mean particularly much: 1.0 (0.6; 1.7) ***Decreased responsibilities at work*** All: 1.1 (0.8; 1.4) Affected me in a very or fairly negative way: 1.1 (0.7; 1.7) Did not mean particularly much: 1.0 (0.5; 1.7) Affected me in a very or fairly positive way: 1.1 (0.6; 1.8) ***Increased responsibilities at work*** All: 1.1 (0.8; 1.3) Affected me in a very or fairly negative way: 5.6 (2.5; 12.9) Did not mean particularly much: 1.5 (0.9; 2.3) Affected me in a very or fairly positive way: 0.7 (0.5; 0.9) Risk of myocardial infarction after exposure to work related life events, testing induction periods of either one day or one week. A case-crossover analysis. OR (95% confidence intervals) ***Exposure or not during the period 0–24 hours, compared with exposure or not during the period 25–48 hours, before the myocardial infarction*** Had a high pressure deadline at work: 6.0 (1.8; 20.3)	Affected me in a very or fairly positive way: 1.0 (0.6; 1.8) **Men** ***Impaired economic situation*** All: 0.8 (0.6; 1.0) Affected me strongly: 1.3 (0.9; 1.9) Was noticeable: 0.8 (0.6; 1.0) Did not mean particularly much: 0.4 (0.2; 0.7) ***Conflict at work*** All: 1.8 (1.4; 2.3) Affected me strongly: 2.0 (1.3; 2.9) Was noticeable: 2.0 (1.4; 2.9) Did not mean particularly much: 1.0 (0.6; 1.8) ***Decreased responsibilities at work*** All: 1.1 (0.8; 1.6) Affected me in a very or fairly negative way: 1.2 (0.8; 1.8) Did not mean particularly much: 1.0 (0.5; 1.8) Affected me in a very or fairly positive way: 1.2 (0.7; 2.2) ***Increased responsibilities at work*** All: 1.1 (0.9; 1.5) Affected me in a very or fairly negative way: 6.3 (2.7; 14.7) Did not mean particularly much: 1.5 (0.9; 2.4) Affected me in a very or fairly positive way: 0.8 (0.5; 1.0)

					Event where felt pressure of competition: 2.0 (0.6; 6.6) Praised by the boss: 2.6 (0.7; 10.0) Shared positive event with co-workers: 4.0 (0.4; 35.8) Shared negative event with co-workers: 0.7 (0.1; 4.0) Experienced a negative event with regard to personal finances: 3.0 (0.3; 28.7) ***Exposure or not during the period 25–168 hours, compared with exposure or not during the period 193–336 hours, before the myocardial infarction*** Had a high pressure deadline at work: 1.4 (0.7; 2.5) Event where felt pressure of competition: 6.0 (1.3; 26.8) Had major changes in job tasks or responsibilities: 1.0 (0.6; 16.0) Praised by the boss: 2.8 (1.4; 5.8) Promoted or given a raise: 1.0 (0.1; 7.1) Shared positive event with co-workers: 2.0 (0.5; 8.0) Experienced a positive event with regard to personal finances: 1.5 (0.3; 9.0)	
Morikawa et al 1999 [92] Japan	Prospective cohort study 5 years	Participants were male manual workers, 18–49 years of age, in a Japanese zipper and	**Shift work** The type of shift work was assessed from a questionnaire	**Hypertension** Hypertension was diagnosed on the basis of the following	Relative risk for hypertension among the shift workers on different work schedules according to multiple logistic analyses for each age category. RR (95% CI) adjusted for age	Relative risk for hypertension among the shift workers on different work schedules according to multiple logistic analyses for each age category. RR (95% CI) adjusted for age, body

	Industry 1990–1995	sash factory who had at least 5 annual health examinations during the 5-years period Participants with high blood pressure in the base-line health examination (systolic ≥140 mmHg and diastolic ≥90 mmHg), history of cardio-vascular disease, diabetes, kidney disease, or any other chronic diseases were excluded n=1 551 All participants were men		criteria: systolic ≥140 mmHg and diastolic ≥90 mmHg in the annual health examination at least twice or the initiation of antihyper-tensive treatment Blood pressure measurements were taken with a mercury sphyg-momano-meter from the right arm of the subjects while seated after five minutes of rest	**18–29 years** Day–day: 1.00 Day–shift: 1.3 (0.015; 10.4) Shift–day: 1.0 (0.20; 4.59) Shift–shift: 4.0 (1.67; 9.67) **30–39 years** Day–day: 1.00 Shift–day: 1.1 (0.37; 2.28) Shift–shift: 0.6 (0.19; 1.69) **40–49 years** Day–day:1.00 Day–shift: 2.0 (0.56; 7.47) Shift–day: 2.5 (1.08; 5.91) Shift–shift: 1.4 (0.69; 2.80)	mass index, systolic blood pressure and drinking **18–29 years** Day–day: 1.00 Day–shift: 1.3 (0.15; 11.3) Shift–day: 1.0 (0.22; 5.4) Shift–shift: 3.6 (1.41; 9.1) **30–39 years** Day–day: 1.00 Shift–day: 0.9 (0.28; 2.9) Shift–shift: 0.4 (0.14; 1.4) **40–49 years** Day–day:1.00 Day–shift: 2.6 (0.57; 12.2) Shift–day: 2.4 (0.93; 6.0) Shift–shift: 1.2 (0.55; 2.7)
Morikawa et al 2007 [93] Japan	Prospective cohort study 10 years Industry 1993–2003	Participants were male manual workers, 18–49 years of age, in a Japanese zipper and sash factory n=1 529 All participants were men	**Shift work** The type of shift work was assessed from a questionnaire	**Change in blood pressure** Blood pressure measurements were taken while seated after five minutes of rest	Relationship between changes in parameters over a 10 year period and work schedule and baseline characteristics in a multiple linear regression analysis. Std β, p-value **Work schedule** ***Systolic blood pressure*** Day–day: reference Shift vs day-day: -0.028, ns Day-shift vs day-day: -0.034, ns* Shift-shift vs day-day: -0.019, ns* ***Diastolic blood pressure*** Day–day: reference Shift vs day-day: 0.039, ns* Day-shift vs day-day: 0.006, ns* Shift-shift vs day-day: 0.004, ns*	–

					*ns=not significant	
Moseeva et al 2014 [94] Russia *Note*: See also articles by Azizova above	Retrospective cohort study Follow-up 5–20 years Workers in reactors, radiochemical or plutonium production plants 1948–2005	Participants were employed at of the main Mayak plants (reactors, radiochemical or plutonium production plants) during 1948–1972 The mean age was 24 years for men and 26 years for women n=18 856 4 771 women and 14 085 men	**Radiation** Radiation was assessed with improved Mayak Worker Dosimetry System See also articles by Azizova above	**Ischemic heart disease and cerebro-vascular disease** Outcome was assessed by incidence and mortality from ischemic heart disease (ICD-9 codes 410–414) and cerebrovascular disease (ICD-10 codes 430–438)	Incidence and mortality by external radiation dose based on 0 year lag. RR (95% CI) **Calculations by "Doses-2005"** ***Ischemic heart disease incidence*** 0.2–0.5 Gy: 0.896 (0.821; 0.979) 0.5–1.0 Gy: 0.946 (0.858; 1.043) >1.0 Gy: 1.096 (0.992; 1.210) ***Ischemic heart disease mortality*** 0.2–0.5 Gy: 0.947 (0.834; 1.075) 0.5–1.0 Gy: 0.943 (0.815; 1.090) >1.0 Gy: 1.091 (0.946; 1.259) ***Cerebrovascular disease incidence*** 0.2–0.5 Gy: 1.123 (1.036; 1.218) 0.5–1.0 Gy: 1.208 (1.103; 1.323) >1.0 Gy: 1.608 (1.466; 1.764) ***Cerebrovascular disease mortality*** 0.2–0.5 Gy: 0.909 (0.765; 1.079) 0.5–1.0 Gy: 1.093 (0.906; 1.319) >1.0 Gy: 0.972 (0.800; 1.180) **Calculations by "MWDS-2008"** ***Ischemic heart disease incidence*** 0.2–0.5 Gy: 0.944 (0.868; 1.028) 0.5–1.0 Gy: 1.038 (0.945; 1.140) >1.0 Gy: 1.222 (1.109; 1.346) ***Ischemic heart disease mortality*** 0.2–0.5 Gy: 0.895 (0.789; 1.016) 0.5–1.0 Gy: 0.984 (0.855; 1.132) >1.0 Gy: 1.047 (0.906; 1.211) ***Cerebrovascular disease incidence*** 0.2–0.5 Gy: 1.146 (1.061; 1.239) 0.5–1.0 Gy: 1.311 (1.200; 1.432) >1.0 Gy: 1.717 (1.567; 1.882)	–

					Cerebrovascular disease mortality 0.2–0.5 Gy: 1.016 (0.853; 1.211) 0.5–1.0 Gy: 1.066 (0.878; 1.295) >1.0 Gy: 1.061 (0.868; 1.298)	
Moulin et al 1993 [95] France	Prospective cohort study 16 years Industry 1968–1984	Participants were all male workers who had been employed in the plant between 1968 and 1984 and restricted to workers having at least three years of employment n=4 227 All participants were men	**Exposure to heat** Exposure to heat was assessed as workplace classified as "hot" Individual job histories included data on workshops where each subject had been employed and data on job titles describing all the jobs performed by each worker during the periods of time spent in a given workshop	**Circulatory system and ischemic heart diseases** The causes of death were ascertained through the French national file of causes of death managed by the French National Institute for Medical Research and Health Certificates and causes of death collected from general practitioners were coded using ICD-8 codes 390–459 (circulatory system) and 410–414 (ischemic heart diseases)	Mortality from selected causes according to duration of exposure to heat. Standardize mortality ratios **Circulatory system** Non–exposed: 0.96 Exposed <10 years: 0.88 Exposed 10–19 years: 0.88 Exposed 20–29 years: 0.64 Exposed 30+ years: 0.81 **Ischemic heart diseases** Non–exposed: 1.09 Exposed <10 years: 1.06 Exposed 10–19 years: 1.02 Exposed 20–29 years: 1.24 Exposed 30+ years: 0.70	–
Nakamura et al 2012 [96] Japan	Prospective cohort study 1 year Industry 2004–2005	Participants were male workers aged 20–59 years without hypertension who carried out a variety of jobs in a light-metal products manufacturing plant Exclusion criteria were absence during the period that overtime work hours were measured; baseline	**Overtime** Overtime was defined as hours that exceeded scheduled work hours (not including lunch time) of ~40 hours per week Overtime work hours for each participant were ascertained from data recorded on timecards	**Blood pressure** Data were obtained on blood pressure and anthropo-metric indices measured by trained nurses Duplicate measure-ments of blood pressure were recorded, using an automatic manometer after the participants had rested for five	Multivariate-adjusted mean of 1-year change in blood pressure in male assembly-line workers, male clerks and male engineers without hypertension (2004–2005), grouped according to monthly overtime work hours. Mean for systolic and diastolic blood pressure with 95% confidence intervals adjusted for age, body mass index, alcohol intake, smoking habits, exercise, sleep hours, blood pressure at baseline and 1-year change in body mass index **Assembly–line workers** ***Systolic blood pressure*** <40.0: 2.0 (1.0; 2.9) 40.0–79.9: 1.4 (0; 2.7)	–

		hypertension, a history of cardiovascular disease; missing baseline information; and prescribed hypertensive medication in the follow-up survey n=1 235 All participants were men	No active intervention was provided for participants undertaking long hours of overtime during the study period	minutes in a seated position The mean value of the first and second readings was used in the analysis	≥80.0: 4.5 (0.8; 8.1) ***Diastolic blood pressure*** <40.0: 1.5 (0.8; 2.2) 40.0–79.9: 2.3 (1.3; 3.2) ≥80.0: 5.3 (2.7; 7.9) **Clerks** ***Systolic blood pressure*** <40.0: -0.4 (-2.0; 1.2) 40.0–79.9: 0.1 (-1.3; 1.4) ≥80.0: 2.7 (-1.1; 6.5) ***Diastolic blood pressure*** <40.0: 0.3 (-0.9; 1.4) 40.0–79.9: 0.8 (-0.1; 1.8) ≥80.0: 2.9 (0.2; 5.7) **Engineers/special technicians** ***Systolic blood pressure*** <40.0: 0 (-1.4; 1.3) 40.0–79.9: -1.1 (-2.5; 0.2) ≥80.0: -3.0 (-6.6; 0.6) ***Diastolic blood pressure*** <40.0: 1.4 (0.4; 2.4) 40.0–79.9: 0.4 (-0.6; 1.4) ≥80.0: -0.8; (-3.5; 1.8)	
Netterstrom et al 1993 [97] Denmark	Prospective cohort study 10 year Public sector 1978–1988	Participants were male bus drivers, aged 21–64 years, employed in the three major cities in Denmark: Copenhagen, Aarhus and Odense n=2 045 All participants were men	**Psychosocial factors** Factors were assessed with a questionnaire The questionnaire items are stated in the article	**Ischemic heart disease** The Danish register of cause of death (1 April 1978 until December 1988) was used to assess death from ischemic heart disease Ischemic heart disease was defined	Death from ischemic heart disease among bus drivers in relation to self-assessed psychosocial factors in 1978. Relative risk estimate. RR (95% CI) adjusted for age I cannot use my skills: 1.5 (0.9; 2.5) Work pace too high: 0.9 (0.5; 1.6) The job is very varied: 2.5 (1.4; 4.5)	Relative risk for death due to ischemic heart disease among bus drivers. Final logistic regression model including variables having significant association (p<0.05) with death from ischemic heart disease. RR (95% CI) I cannot use my skills: 1.9 (1.1; 3.3) The job is very varied: 2.1 (1.0; 4.3)

				according to ICD-8, codes 410–414		
Netterstrom et al 1999 [98] Denmark	Case–control study General working population 1991–1992	The survey was carried out on a representative random sample of the Danish population. Participants were wage earners currently in employment and under 60 years of age at the time of the inclusion Cases were interviewed by a nurse or doctor in the coronary care unit in the days after the diagnosis of myocardial infarction The control group consisted of men in active employment, who in 1990 participated in a survey of work environment factors. The control group was selected on the basis of place of residence, sex, and age n=255 (79 cases and 176 controls) All participants were men	**Job strain** Job strain was assessed by use of the JCQ questionnaure	**Myocardial infarction** The cases were consecutive patients with myocardial infarction admitted to two departments of cardiology in Denmark during 1991 and 1992 The criteria for myocardial infarction were severe chest discomfort or electrocardio-graphic signs of myocardial infarction accompanied by increased creatine phosphor-kinase to at least twice the normal upper limit	Prevalence of scores on the psychosocial indices among 76 cases with myocardial infarction and 176 controls. OR (95% CI) **Psychosocial indices** Low skill discretion: 1.50 (0.8; 2.9) Low decision authority: 1.28 (0.7; 2.3) Low decision latitude: 1.21 (0.7; 2.1) High demands: 1.62 (0.9; 2.8) Poor social network: 0.81 (0.5; 1.4) Logistic regression analyses of the relation between myocardial infarction and job strain. OR (95% CI) adjusted for age **Job strain groups** Strain: 2.1 (1.2; 3.8) Passive: 0.8 (0.5; 1.3) Active: 0.7 (0.4; 1.1) Relaxed: 1.00	Logistic regression analyses of the relation between myocardial infarction and job strain adjusted for different possible confounders. OR (95% CI) adjusted for age, employment sector, job category, smoking and social network **Job strain groups** Strain: 2.3 (1.2; 4.4) Passive: 0.9 (0.5; 1.5) Active: 0.6 (0.3; 1.0) Relaxed: 1.00

Nugteren et al 2012 [99] The Netherlands	Population-based prospective cohort study 4 years General working population 2002–2006	Participants were all pregnant women who had an expected delivery date between April 2002 and January 2006 and lived in Rotterdam The study included women who were prenatally enrolled, with paid employment before or during pregnancy, with no history of pre-existing hypertension and with a spontaneously conceived singleton live born pregnancy Women were excluded if they had twin pregnancies, a pregnancy of non–spontaneous origin, fetal death, if a mother already was included in the study with an earlier pregnancy or if the women had pre–existing hypertension n=4 465 All participants were women	**Several factors** Information was collected by questionnaire completed during mid-pregnancy Items on physically demanding work were based on the Dutch Musculoskeletal Questionnaire (Hildebrandt et al., 2001) and concerned manual handling, standing, walking, driving, night shifts, and working hours Further questions on job title, type of business, name of employer, and activities in the job were used to classify jobs into the Dutch Classification of Occupations and subsequently to link these codes to a Job-Exposure-Matrix for chemical exposure	**Pregnancy induced hypertension and pre-eclampsia** Information on pregnancy complications was obtained from medical records Women who delivered in hospital and who had chronic hypertension or were reported to have experienced pregnancy induced hypertension (>140/90 mm Hg) or hypertension related complications (pre-eclampsia, proteinuria, eclampsia, and/or HELLP syndrome), were selected from hospital registries. Their individual medical records were studied by qualified medical doctors Pregnancy induced hypertension, preeclampsia and eclampsia were defined according to the criteria of the International Society for the Study of Hypertension in Pregnancy and	Associations in a birth cohort study among pregnant women on physically demanding work, chemical exposure and hypertensive disorders during pregnancy. OR (95% CI) **Pregnancy induced hypertension** ***Long period of standing*** No: 1.00 Occasionally: 1.02(0.58; 1.80) Often/very often: 1.00 (0.56; 1.78) ***Long period of walking*** No: 1.00 Occasionally: 1.55 (0.95; 2.55) Often/very often: 1.45 (0.77; 2.74) ***Lifting or carrying weights >25kg*** No: 1.00 Often/very often: 0.84 (0.36; 1.95) ***Night shift (each month)*** No: 1.00 Often/very often: 0.57 (0.24; 1.32) ***Working hours*** <25 hours per week: 1.00 25–40 hours per week: 0.91 (0.53; 1.54) >40 hours per week: 0.71 (0.32; 1.38) ***Exposure to chemicals (JEM)*** PAH: 2.99 (0.91; 9.77) Pesticides: – Phthalates: – Organic solvents: 0.72 (0.22; 2.29) Alkylphenolic: 1.04 (0.32; 3.34) Metals: – Any chemicals: 1.05 (0.45; 2.44) **Preeclampsia** ***Long period of standing*** No: 1.00	Associations in a birth cohort study among pregnant women on physically demanding work, chemical exposure and hypertensive disorders during pregnancy. OR (95% CI) adjusted for maternal age, educational level, parity, ethnicity and body mass index **Pregnancy induced hypertension** ***Long period of standing*** No: 1.00 Occasionally: 1.05(0.59; 1.88) Often/very often: 1.16 (0.62; 2.15) ***Long period of walking*** No: 1.00 Occasionally: 1.68 (1.00; 2.81) Often/very often: 1.74 (0.87; 3.47) ***Lifting or carrying weights >25kg*** No: 1.00 Often/very often: 0.92 (0.39; 2.18) ***Night shift (each month)*** No: 1.00 Often/very often: 0.59 (0.25; 1.42) ***Working hours*** <25 hours per week: 1.00 25–40 hours per week: 0.67 (0.38; 1.20) >40 hours per week: 0.43 (0.20; 0.90) ***Exposure to chemicals (JEM)*** PAH: 2.64 (0.74; 9.35) Pesticides: – Phthalates: – Organic solvents: 0.94 (0.29; 3.09) Alkylphenolic: 1.56 (0.46; 5.29) Metals: – Any chemicals: 1.22 (0.51; 2.94) **Preeclampsia**

				according to criteria of the College of Obstetricians and Gynecologists	Occasionally: 1.12(0.60; 2.11) Often/very often: 1.00 (0.51; 1.94) ***Long period of walking*** No: 1.00 Occasionally: 0.82(0.46; 1.47) Often/very often: 1.00 (0.49; 2.05) ***Lifting or carrying weights >25kg*** No: 1.00 Often/very often: 0.98 (0.35; 2.72) ***Night shift (each month)*** No: 1.00 Often/very often: 0.89 (0.28; 2.88) ***Working hours*** <25 hours per week: 1.00 25–40 hours per week: 1.14 (0.57; 2.26) >40 hours per week: 1.74 (0.85; 3.59) ***Exposure to chemicals (Job-Exposure-Matrix)*** PAH: 1.28 (0.17; 9.43) Pesticides: 3.14 (0.42; 23.73) Phthalates: 1.05 (0.14; 7.72) Organic solvents: 0.96 (0.30; 3.08) Alkylphenolic: 0.91 (0.22; 3.75) Metals: 2.72 (0.65; 11.43) Any chemicals: 1.17 (0.46; 2.93)	***Long period of standing*** No: 1.00 Occasionally: 1.01(0.52; 1.93) Often/very often: 0.87 (0.43; 1.78) ***Long period of walking*** No: 1.00 Occasionally: 0.74(0.41; 1.35) Often/very often: 0.77 (0.37; 1.67) ***Lifting or carrying weights >25kg*** No: 1.00 Often/very often: 1.07 (0.38; 3.01) ***Night shift (each month)*** No: 1.00 Often/very often: 0.86 (0.26; 2.80) ***Working hours*** <25 hours per week: 1.00 25–40 hours per week: 0.81 (0.40; 1.66) >40 hours per week: 1.04 (0.48; 2.26) ***Exposure to chemicals (JEM)*** PAH: 0.89 (0.12; 6.75) Pesticides: 3.15 (0.38; 25.94) Phthalates: 0.82 (0.11; 6.16) Organic solvents: 0.92 (0.28; 3.04) Alkylphenolic: 0.81 (0.19; 3.45) Metals: 2.21 (0.50; 9.67) Any chemicals: 1.04 (0.40; 2.68)
Nusinovici et al 2010 [100] France	Retrospective cohort study The mean follow-up was 30.1 years Industry 1946–1999	Participants were French uranium miners employed for one year or longer between 1946 and 1990. The miners were located in four regions and were active over different period of times	**Radon** Exposure to radon and its radioactive decay products was estimated individually for each year of employment Since 1983, radon exposure was measured by individual	**Ischemic heart disease and cerebro-vascular disease** Vital status and cause of death was obtained from the national registers Cause of death was coded according to	Relative risk of death from diseases of the circulatory system and trend tests with duration of employment and cumulative radon exposure. RR (95% CI) Ischemic heart disease: 0.90 (0.60; 1.35) Cerebrovascular disease: 1.39 (0.81; 2.38)	–

		The cohort included underground and open–pit miners and miners working both above and below the surface Mean age: 28 years n=5 086 All participants were men	dosimeters that determined the potential alpha energy of radon decay products	ICD, 8th and 9th revisions Ischemic heart disease was defined as ICD-8 and 9 codes 401–414 Cerebro-vascular disease was defined as ICD-8 and 9 codes 430–438	Excess relative risk associated with cumulative radon exposure estimated with 5–, 10–, 20– and 30–year lag periods. ERR (95% CI) **Ischemic heart disease** 5 year lag: 0.007 (-0.06; 0.25) 10 year lag: 0.008 (-; 0.28) 20 year lag: -0.025 (-; 0.25) 30 year lag: -0.126 (-) **Cerebrovascular disease** 5 year lag: 0.44 (0.037; 1.16) 10 year lag: 0.46 (0.047; 1.21) 20 year lag: 0.53 (0.0066; 1.37) 30 year lag: 0.85 (0.17; 2.17)	
Nyberg et al 2009 [101] Sweden	Prospective cohort study. Data from the Work, Lipids, and Fibrinogen Stockholm study (WOLF) 11 years General working population 1992–2003	Participants were male employees aged 19–65 years working in companies in the Stockholm area Cases of prevalent ischemic disease at baseline in 1992–1995 were identified by hospital admission for ischemic disease between 1963 and baseline screening were excluded from the analysis Persons above 65 years of age at the start of the study were excluded n=3 122 All participants were men	**Leadership** The participants rated their managers' behaviors using an assessment instrument which included 10 items with structured response scales. The items constituted one dimension (leadership climate) of the psychosocial work environment measured in the Stress Profile The Stress Profile is a validated instrument based upon consultation at work sites and established theories and research on work stress	**Ischemic heart disease** Hard endpoint outcomes for ischemic heart disease were defined as hospital admission with a main diagnosis registered as acute myocardial infarction (ICD-9 code 410; ICD-10 code I21) or unstable angina (ICD-9 code 411; ICD-10: code I20.0); or death with a registered underlying cause of ischemic heart disease (ICD-9: codes 410–414; ICD-10 codes I20–I25) or cardiac arrest (ICD-9 code 427; ICD-10 code I46)	Risk for incident ischemic heart disease (including unstable angina) per 1 SD increase in leadership score. HR (95% CI) **Leadership** ***Years at current workplace prior to survey*** Any amount of years: 0.80 (0.64; 0.99) At least 1 year: 0.76 (0.61; 0.96) At least 2 years: 0.77 (0.61; 0.97) At least 3 years: 0.69 (0.54; 0.88) At least 4 years: 0.61 (0.47; 0.80) Association of standardized leadership score with incident ischemic heart disease among employees after adjustment for different risk factors at baseline. Hazard ratio for ischemic heart disease per 1 SD increase in leadership score (95% CI) adjustment variables in addition to age Leadership: 0.65 (0.49; 0.87)	Association of standardized leadership score with incident ischemic heart disease among employees after adjustment for different risk factors at baseline. Hazard ratio for ischemic heart disease per 1 SD increase in leadership score (95% CI) adjustment variables in addition to age, education, supervisory status, social class, income and physical load at work, smoking, physical exercise, body mass index, systolic and diastolic blood pressure, total cholesterol, total/HDL cholesterol ratio, triglycerides, fibrinogen, diabetes Leadership: 0.63 (0.46; 0.86)

				Records of hospital admissions and deaths from 1963–2003 were obtained. Incidence was defined as the first event occurring after baseline screening, excluding prevalent cases at baseline		
Oishi et al 2005 [102] Japan	Prospective cohort study 10 years Steel industry 1991–2001	Participants worked in a Japanese steel company. Only participants with mild hypertension at baseline were included Participants treated for diabetes mellitus, cardio-cerebro-vascular disease, hyperlipedemia and/or malignant neoplasm, those who had an irregular shift-work or initiated antihyper-tension treatment before the endpoint were excluded n=2 941 (2 911 included had systolic hypertension and 2 917 had diastolic hypertension at baseline) All participants were men	**Shift work** The shift schedule type were determined using the payment ledger for May each year Shift schedules were planned based on a four team, three shift with clockwise orientation Day, evening and night shift started at 7.00, 15.00 and 23.00 respectively	**Severe hypertension** Blood pressure was measured at the company annual health examination in a sitting position after 5 minutes of rest Severe hypertension was defined as a systolic blood pressure ≥160 mmHg, diastolic blood pressure ≥100 mmHg or both	Pooled regression analysis for shift work/day work impact on progression of mild hypertension to severe hypertension. OR (95% CI) **Shift work** ***Severe hypertension*** Shift/day: 1.23 (1.05; 1.44) ***Severe systolic hypertension*** Shift/day: 1.13 (0.94; 1.35) ***Severe diastolic hypertension*** Shift/day: 1.28 (1.07; 1.52)	–

Oksanen et al 2012 [103] Finland	Prospective cohort. Data from the Finnish Public Sector Study The mean follow-up was 3.5 years Public sector 2000–2005	Participants were male and female public sectors employees free of hypertension and cardio-vascular disease at baseline. They had worked at municipal services and public hospitals for at least 6 months The mean age was 44 years n=60 930 49 146 women and 11 777 men	**Several psychosocial factors** A scale by Kouvonen et al (2006), specifically designed to assess workplace social capital, was used Job strain was assessed by standard questionnaire	**Hypertension** Hypertension was defined from a national drug re-imbursement register Entitlement for reim-bursement required repeated documentations of high blood pressure (at least 105 mmHg diastolic or at least 200 mmHg systolic or at least 95 mmHg in precense of other cardio-vascular risc factors) measure-ments over 6 months	Association between workplace social capital and onset of hypertension. HR (95% CI) adjusted for age **Workplace social capital - Women** ***Self-assessed*** 0 (low): 1.09 (0.92; 1.30) 1: 1.09 (0.91; 1.30) 2: 1.03 (0.87; 1.23) 3 (high): 1.00 ***Co-worker-assessed*** 0 (low): 0.96 (0.81; 1.14) 1: 1.05 (0.89; 1.24) 2: 0.96 (0.81; 1.14) 3 (high): 1.00 **Workplace social capital - Men** ***Self-assessed*** 0 (low): 1.57 (1.15; 2.15) 1: 1.09 (0.77; 1.55) 2: 1.05 (0.74; 1.47) 3 (high): 1.00 ***Co-worker-assessed*** 0 (low): 1.41 (1.01; 1.97) 1: 1.30 (0.91; 1.87) 2: 1.10 (0.75; 1.63) 3 (high): 0 Risk of incident hypertension as a function of baseline characteristics. HR (95% CI) adjusted for age **Job strain** Low: 1.0 Moderate: 0.98 (0.86; 1.12) High: 1.10 (0.97; 1.25)	Association between workplace social capital and onset of hypertension. HR (95% CI) adjusted for age, socioeconomic status, marital status, employer, employment time, work place parameters and comorbid conditions (diabetes or depression) **Workplace social capital - Women** ***Self-assessed*** 0 (low): 1.10 (0.92; 1.31) 1: 1.09 (0.91; 1.31) 2: 1.03 (0.87; 1.23) 3 (high): 1.00 ***Co-worker-assessed*** 0 (low): 1.01 (0.84; 1.21) 1: 1.04 (0.87; 1.23) 2: 0.92 (0.77; 1.09) 3 (high): 1.00 **Workplace social capital - Men** ***Self-assessed*** 0 (low): 1.38 (1.00; 1.90) 1: 1.03 (0.73; 1.47) 2: 0.96 (0.67; 1.36) 3 (high): 1.00 ***Co-worker-assessed*** 0 (low): 1.29 (0.90; 1.85) 1: 1.17 (0.80; 1.70) 2: 1.09 (0.73; 1.63) 3 (high): 0
Padyab et al 2014 [104]	Prospective cohort study	Participants were men and women aged 40, 50 and 60	**Job demands and decision latitude**	**Cardio-vascular disease death**	Association between work stress and conventional risk factors and incidence of	Association between work stress and conventional risk factors and incidence of cardiovascular mortality. HR (95% CI) adjusted

Sweden	16 years General population 1990–2006	years from the Västerbotten Intervention Program. The design of the program and patterns of participation have previously been described in detail elsewhere (Norberg et al., 2012) Age: 40–60 years n=74 988 38 320 women and 36 668 men	Work stress was assessed by the Swedish version of the Karasek demand/control model (DCQ)	Cardio-vascular disease was assessed according to ICD-9 and ICD-10 from the existing nationwide health registers, using the unique national registration number of the participants Death due to stroke (ICD-9: 431, 434, 436, and ICD-10: I61, I63, I64) and myocardial infarction (ICD-9: 410–412, 414, 427F and ICD-10: I21–123, I25, I46) were identified	cardiovascular mortality. HR (95% CI) adjusted for age **Women-Work stress** ***Psychosocial demands*** Low: 1.0 High: 0.58 (0.39; 0.86) ***Decision latitude*** Low: 1.21 (0.83; 1.76) High: 1.0 **Men-Work stress** ***Psychosocial demands*** Low: 1.0 High: 0.73 (0.59; 0.89) ***Decision latitude*** Low: 1.37 (1.12; 1.67) High: 1.0	for age, work–stress, non–work stress, and conventional risk factors **Women-Work stress** ***Psychosocial demands*** Low: 1.0 High: 0.75 (0.47; 1.19) ***Decision latitude*** Low: 0.91 (0.58; 1.43) High: 1.0 **Men-Work stress** ***Psychosocial demands*** Low: 1.0 High: 0.81 (0.64; 1.03) ***Decision latitude*** Low: 1.07 (0.85; 1.36) High: 1.0
Peter et al 2002 [105] Sweden *Note*: additional data on association between indicators of job stress (effort-reward imbalance and job strain adjusted for each other) is also available	Case-control study. Data extracted from the SHEEP study General population Cases identified between 1992–1994	The study base were Swedish citizens living in Stockholm County, who were 45–64 years of age Cases were all persons with non-fatal myocardial infarction Referents were chosen from a computerised register of the county population at the same time as cases. Referents were matched by age, gender and hospital catchment area	**Psychosocial work environment** Job strain and was measured by the DCQ questionnaire Effort-reward imbalance was measured by a standardised questionnaire containing 42 Likert scaled items	**Myocardial infarction** Cases were identified by ten cardiology units at emergency hospitals. Cases were diagnosed with myocardial infarction by specific diagnostic criteria including information on symptoms, electrocardio-gram and blood chemistry data	Association between indicators of effort-reward imbalance or job strain and myocardial infarction. Multivariate OR (95% CI) adjusted for hypertension, total cholesterol, diabetes, family history of coronary heart disease. Effort-reward ratio was additionally adjusted for over commitment **Women** Effort-reward ratio >1: 0.92 (0.53; 1.61) Job strain present: 1.68 (1.12; 2.51) **Men** Effort-reward ratio >1: 1.41 (1.05; 1.89) Job strain present: 1.39 (1.08; 1.78) Combined effect of effort-reward imbalance and job strain on risk of myocardial infarction. Multivariate OR (95% CI) adjusted for over commitment, hypertension, total cholesterol,	Association between indicators of effort-reward imbalance or job strain and myocardial infarction. Multivariate OR (95% CI) adjusted for hypertension, total cholesterol, diabetes, family history of coronary heart disease, cigarette smoking, body mass index ≥ 27 and lack of physical exercise. Effort-reward ratio was additionally adjusted for over commitment **Women** Effort-reward ratio >1: 0.73 (0.4; 1.33) Job strain present: 1.39 (0.9; 2.16) **Men** Effort-reward ratio >1: 1.58 (1.16; 2.15) Job strain present: 1.45 (1.11; 1.89) Combined effect of effort-reward imbalance and job strain on risk of myocardial infarction. Multivariate OR (95% CI) adjusted for over commitment, hypertension, total cholesterol,

		n=2 098 (951 cases and 1 147 controls) 550 women and 1 548 men			history of diabetes, family history of coronary heart disease **Women** ***Effort-reward ratio ≤1*** No job strain present: 1.00 Job strain present:1.45 (0.9; 2.34) ***Effort-reward ratio >1*** Job strain absent: 0.49 (0.18; 1.37) Job strain present: 1.53 (0.77; 3.03) **Men** ***Effort-reward ratio ≤1*** No job strain present: 1.00 Job strain present: 1.28 (0.93; 1.74) ***Effort-reward ratio >1*** Job strain absent: 1.31 (0.87; 1.97) Job strain present: 1.75 (1.18; 2.59)	history of diabetes, family history of coronary heart disease, cigarette smoking, body mass index and lack of physical exercise **Women** ***Effort-reward ratio ≤ 1*** No job strain present: 1.00 Job strain present:1.31 (0.78; 2.2) ***Effort-reward ratio >1*** Job strain absent: 0.5 (0.17; 1.44) Job strain present: 1.05 (0.5; 2.19) **Men** ***Effort-reward ratio ≤1*** No job strain present: 1.00 Job strain present:1.3 (0.94; 1.82) ***Effort-reward ratio >1*** Job strain absent: 1.42 (0.92; 2.18) Job strain present: 2.02 (1.34; 3.07)
Pieper et al 1989 [106] USA	Retrospective cohort 21 years General working population, mainly white-collar workers and federal employees (deepening on database) 1959–1980	Participants were men aged 18–64 years at baseline Data was collected from five health databases Persons coded positive for myocardial infarction, coronary heart event, ischemic heart disease, history of heart attack or angina were excluded, depending on database n=12 555	**Decision latitude and psychological demands** The measure of occupation was used as a bridge between the databases Decision latitude was assessed with the weighted sum of a 10 item scale Psychological demands were assessed with a five-item scale The computational procedure for assessing data from the	**Blood pressure** Data was collected from three national US databases (NHANES I and II, NHES) and two from California (WCGS and EHS)	Relation of job decision and psychological demands to cardiovascular risk factors. Estimated regression coefficient, controlled for age, type A behavior pattern, education, race and body mass index **Diastolic pressure** ***WCGS database*** Decision latitude: -0.011 Psychological demands: -0.446, p<0.05 ***EHS database*** Decision latitude: -0.304 Psychological demands: 0.286 ***NHANES I database*** Decision latitude: 0.328 Psychological demands: 0.144 ***NHANES II database***	–

		All participants were men	databases are described in the article		Decision latitude: -0.094 Psychological demands: 0.150 ***NHES database*** Decision latitude: 0.157 Psychological demands: 0.029 **Systolic pressure** ***WCGS database*** Decision latitude: -0.014 Psychological demands: -0.795, p<0.05 ***EHS database*** Decision latitude: -0.989, p<0.01 Psychological demands: -0.009 ***NHANES I database*** Decision latitude: -0.853 Psychological demands: 0.185 ***NHANES II database*** Decision latitude: -0.991, p<0.01 Psychological demands: 0.605, p<0.05 ***NHES database*** Decision latitude: -1.029, p<0.05 Psychological demands: -0.174	
Radi et al 2005 [107] France	Case-control study. Cases identified through the IHPAF cohort General working population Year of case identification is not stated	Participants were members of the French working population. Included participants had stable working conditions (at least one year) Cases were hypertensive persons enrolled during a visit at worksite physician	**Job constraints** Working conditions were assessed through a self-administered questionnaire before medical examination. Working conditions were assessed before knowing the status of their blood pressure Psychological demands were assessed through the JCQ questionnaire	**Hypertension** Blood pressure was measured during work hours at workplace or at the physician's office. Pressure was measured in a sitting position after 5, 6 and 7 minutes of rest. The mean of the three measurements was used to define blood pressure	Psychosocial risk factors and hypertension in women and men. OR (95% CI) **Women** ***Job strain etc*** Job strain: 3.2 (0.92; 11.12) Passive: 4.73 (1.36; 16.42) Active: 4.51 (1.24; 16.43) Low strain: 1.0 ***Support*** Low social support at work 0.98 (0.93; 1.04) **Men**	–

		Reference were the two first following normotensive subjects visiting same physician, matched for age and sex n=608 (203 cases and 406 controls) 183 women and 426 men		Subjects with a pressure above 140/90 or under current antihyper-tension treatment were considered hypertensive	***Job strain etc*** Job strain: 2.6 (1.15; 5.85) Passive: 2.3 (1.01; 5.26) Active: 2.39 (1.1; 5.18) Low strain: 1.0 ***Support*** Low social support at work 1.31 (0.8; 2.12)	
Rau et al 2001 [108] Sweden	Case control General population 1985	Participants were identified through a blood pressure screening program. All participants were men between 35–55 years of age and living in a small Swedish town 75 borderline hypertensive (supine diastolic blood pressure 84–93 mm Hg) and 74 normotensive men Controls were age-matched men from the same population n=149 All participants were men	**Physical job demand and control** Control was assessed by diary ratings on a 9 point scale Demands was assessed by questions regarding job title and work tasks. Answers were analysed using an occupational group-based classification system by Johnson et al	**Blood pressure** Ambulatory 24 hour recordings of blood pressure were conducted. Readings were taken by the Korotkoff method	Hierarchical regression analysis for predicting blood pressure. ΔR^2; R^2; β and β' **At work** ***Systolic blood pressure*** Physical job demand: 0.9; 0.18; 2.38; - ***Diastolic blood pressure*** Physical job demand: 0.5; 0.13; 1.15; 1.01 Perceived control: 0.5; 0.19; -1.04; -	–
Reuterwall et al 1999 [109] Sweden	Case control study. Data extracted from the SHEEP study	The study base were Swedish citizens living in Stockholm County who were 45–70	**Job strain** Exposure to job strain was assessed by the Swedish version of the	**Myocardial infarction** Cases were identified from coronary and intensive care units,	Risk of myocardial infarction when exposed to job strain. OR (95% CI) adjusted for age, hospital catchment area, overweight and smoking	–

	General population Cases identified between 1992–1994 (male cases 1992–1993, female cases 1992–1994)	years of age and free of previous clinically diagnosed myocardial infarction One referent per case were randomly selected from the study base population at the same time as cases. Referents had never have had myocardial infarction Referents were matched by age, gender and hospital catchment area n=5 452 (2 246 cases and 3 206 controls) 1 841 women and 3 475 men	JCQ questionnaire (i.e. DCQ) sent by post. For fatal cases the questionnaire was sent to a close relative	hospital discharge register and death certificates were identified from the national register of death causes at statistics Sweden Criteria for myocardial infarction included specific enzyme changes in blood, specific electrocardio-gram changes or autopsy findings Participants identified through death certificates should have ICD-9 code 410 as underlying or contributing cause of death	**Women** Job strain: 1.51 (1.13; 2.02) **Men** Job strain: 1.35 (1.09; 1.67)	
Roosli et al 2008 [110] Switzerland	Retrospective cohort 30 years Railroad workers 1972–2002	Participants were Swiss railway employees, including train drivers shunting yard engineers, train attendants and station masters n=20 141 All participants were men	**Extremely low frequency magnetic fields** For each occupational group and year, the average extremely low frequency magnetic fields exposure was determined based on measurements and modelling Cumulative exposure for each individual was obtained by adding up annual workplace specific exposures	**Several outcome measures** Cause of death information was obtained from death certificates. From 1972–1994, deaths were coded according to ICD-8, and since 1995, according to the ICD-10	Hazard ratios for various cardiovascular diagnostic groups among male Swiss railway workers. HR (95% CI) adjusted for age and 5 year calendar periods as well as stratified for the period before and after 1995, when coding changed from ICD-8 to ICD-10 **Heart and circulation diseases, all** ***Median cumulative lifetime exposure*** 13.3 µT-years: 1.09 (1.00; 1.19) 42.1 µT-years: 1.13 (0.98; 1.30) 120.5 µT-years: 0.99 (0.91; 1.08) **Arrhythmia related diseases** ***Median cumulative lifetime exposure*** 13.3 µT-years: 1.30 (0.87; 1.93) 42.1 µT-years: 0.58 (0.24; 1.37)	–

			according to the start and end date of employment obtained from occupational records		120.5 µT-years: 1.04 (0.68; 1.59) **Acute myocardial infarction** ***Median cumulative lifetime exposure*** 13.3 µT-years: 1.14 (0.85; 1.53) 42.1 µT-years: 1.56 (1.04; 2.32) 120.5 µT-years: 1.00 (0.73; 1.36) **Atherosclerosis related mortality** ***Median cumulative lifetime exposure*** 13.3 µT-years: 1.17 (0.76; 1.81) 42.1 µT-years: 1.34 (0.63; 2.85) 120.5 µT-years: 1.02 (0.65; 1.62) **Sub-acute and chronic coronary heart disease** ***Median cumulative lifetime exposure*** 13.3 µT-years: 1.10 (0.94; 1.28) 42.1 µT-years: 1.37 (1.09; 1.72) 120.5 µT-years: 1.04 (0.89; 1.22)	
Rosengren et al 1997 [111] Sweden	Prospective cohort study The mean follow-up was 20 years General working population 1970–1993	Participants were part of the Multifactor Primary Prevention Study, which started in Gothenburg in 1970 and included all men in the city born between 1915 and 1925, except those born in 1923 Age 47–55 years n=7 142 All participants were men	**Physical activity** Data on present occupation and physical activity at work were collected by postal questionnaire Physical activity at work was graded from 1–4. Grade 1 was defined as mainly sedentary, grade 2 as predominantly walking on one level but no heavy lifting, grade 3 as mainly walking, including climbing stairs, or walking uphill or lifting heavy objects, and grade 4 as heavy physical labor	**Coronary heart disease** The Swedish national register on deaths due to specific causes from the years 1970–1993 was matched against a computer file of the men in the study In 1987, there was a change from the 8th to the 9th revision of the ICD, but for the broad groupings used in the present study this change makes no difference	Deaths from coronary heart disease by physical activity at work. RR (95% CI) age-adjusted of the most active group compared to the sedentary group Strenuous work: 1.05 (0.83; 1.32)	Deaths from coronary heart disease by physical activity at work. RR (95% CI) age-adjusted of the most active group compared to the sedentary group adjusted for age, diastolic blood pressure, serum cholesterol, smoking, alcohol abuse, body mass index, diabetes, and manual versus non-manual occupational class Strenuous work: 0.83 (0.62; 1.12)

Rosengren et al 2004 [112] 52 countries in Asia, Europe, the Middle East, Africa, Australia, and North and South America	Case-control General working population 1999–2003	Participants were 12 461 incident cases of acute myocardial infarction from 262 centres in 52 countries representing all geographic regions, and 14 637 age-matched, sex-matched, and site-matched controls free of clinical heart disease The mean age of cases was 58 years and of controls 57 years 24% (2 686) of cases and 26% (3 619) of controls were women n=12 813 answered the stress at work question (24 767 in the total population) 6 303 women and 18 464 men in the total population	**Stress** Trained staff administered a questionnaire before patients left the hospital. A standard yet simple set of questions that inquired about psychosocial conditions during the previous 12 months was included in an interview Psychological stress was assessed with two single-item questions relating to stress at work and home. Stress was defined as feeling irritable, filled with anxiety, or as having sleeping difficulties as a result of conditions at work or at home. Patients were specifically asked to respond about their condition before their acute myocardial infarction	**Acute myocardial infarction** Patients admitted to the coronary care unit or equivalent cardiology ward of participating centres were screened to identify incident cases of acute myocardial infarction and enrolled within 24 h	Psychosocial risk factors in cases and controls OR (99% CI). The findings presented are for models fitted with unconditional logistic regression, adjusted for age, sex, geographic region, and potential confounders **Stress at work** Never: 1 Some of the time: 0.95 (0.84; 1.08) Several periods: 1.38 (1.19; 1.61) Permanent: 2.14 (1.73; 2.64)	–
Sahl et al 2002 [113] USA *Note*: data is also presented for various time-lags, e.g. 0	Retrospective cohort 32 years Industry 1960–1992	Participants were male workers at the Southern California Edison Company n=35 291 All participants were men	**Magnetic fields** Exposure was estimated according to duration of employment in occupations associated with high levels of magnetic field exposure	**Mortality from acute myocardial infarction and chronic coronary heart disease** Information regarding workers' age, sex, race, and occupational history was abstracted from	Exposure estimated according to duration of employment in occupations associated with high levels of magnetic field exposure. RR (95% CI) adjusted for age, calendar time, socioeconomic status, race, and worker status (active or inactive). Data expressed in RR per 1 µT-year **Acute myocardial infarction**	–

years, 5 years and 20 years *See also* Savitz, below			A classification system was used to organize and categorize the set of occupational titles. It was based on an evaluation of measured magnetic fields, job titles, work tasks, and environments. Magnetic field measurements were obtained for personnel in actual work environments On the basis of the combination of field measurements, the occupational classification system, and individual occupational history, each worker in the cohort was assigned a cumulative magnetic field exposure level	company records. Vital status was established by record linkage of former personnel to a variety of California and US mortality registries The cause of death was coded from the death certificate by using ICD-9 and the following codes acute myocardial infarction: code 410, chronic coronary heart disease: codes 411–414	Total calculated cumulative exposure to magnetic fields as a continuous variable: 1.01 (0.99; 1.02) Cumulative exposure during the most recent 5-year period: 1.14 (1.06; 1.24) **Chronic coronary heart disease** Total calculated cumulative exposure to magnetic fields as a continuous variable: 1.00 (0.99; 1.02) Cumulative exposure during the most recent 5-year period: 1.09 (0.99; 1.19)	
Sakata et al 2003 [114] Japan	Prospective cohort study 5 years Industry 1991–2001	Participants were male workers in a Japanese steel company. The subjects who had health examinations every year during the observation periods were included Subjects diagnosed with hypertension and/or cerebrovascular disease within or	**Shift work** Job schedule type was determined using the payment ledger for March of each year The schedule was divided into shift work and daytime work	**Hypertension** Hypertension was assessed by annual health examination and medical history by individual interviews conducted by occupational physicians Hypertension was diagnosed on the following criteria: systolic blood pressure ≥140 mm Hg	Association between job schedule and hypertension. Result of the pooled logistic regression analysis. OR (95% CI) Job schedule type (shift/day) 1.099 (1.010; 1.197)	–

		before the entering year were excluded Workers engaged in irregular shift work were excluded n=5 338 All participants were men		and/or diastolic blood pressure ≥90 mm Hg or taking antihyper-tensive medication		
Salonen et al 1988 [115] Finland	Prospective cohort 6 years General population 1972–1983	Participants were aged 30–59 years and living in one of two provinces in Finland. They had no history of cardio-vascular disease or other condition which hindered physical activity n=15 088 Both women and men participated, but the number of each gender is not specified	**Physical activity at work** Data was gathers by use of a self-administered questionnaire by Karvonen, 1982	**Ischemic heart disease death** Blood pressure was measured at a physical examination using a mercury sphyg-momano-meter Data on deaths were obtained from a national death certificate register	Excess risk of ischemic heart disease death. RR (95% CI) adjusted for age, health status, family history and body mass index Sedentary at work: 1.3 (1.1; 1.6)	Excess risk of ischemic heart disease death. RR (95% CI) also adjusted for education years Sedentary at work: 1.4 (1.1; 1.7)
Savitz et al 1999 [116] USA *Note*: data is also presented for various time-lags, eg 0 years, 5 years and 20 years	Retrospective cohort 38 years Industry 1950–1988	Participants were male workers at the Southern California Edison Company Information regarding workers' age, sex, race, and occupational history was abstracted from company records	**Magnetic fields** Exposure was estimated according to duration of employment in occupations associated with high levels of magnetic field exposure A classification system was used to organize and categorize the set	**Mortality from several types of heart disease** Vital status was established by record linkage of former personnel to a variety of California and US mortality registries The cause of death was coded from the	Cardiovascular disease mortality in relation to magnetic field exposure. RR (95% CI) adjusted for age, calendar time, socioeconomic status, race, and worker status (active or inactive) **Arrhythmia related** ***Total exposure*** RR per 1 µT-year: 1.08 (1.03;1.12) ***Past 5 years*** Not employed: 1.0 Low exposure: 0.52 (0.31; 0.88)	–

See also Sahl et al, 2002, above		n=138 903 All participants were men	of occupational titles. It was based on an evaluation of measured magnetic fields, job titles, work tasks, and environments. Magnetic field measurements were obtained for personnel in actual work environments Each worker was assigned a cumulative magnetic field exposure level on the basis of combination of field measurements, occupational classification system, and individual occupational history	death certificate by using ICD-8 ICD-9 and the following codes: Arrhythmia related (ICD-8 code 427, ICD-9 code 426 or 427); acute myocardial infarction (ICD-8 code 410, ICD-9 code 410); and chronic/subchronic coronary heart disease (ICD-8 codes 411–413, ICD-9 codes 411–114)	High exposure: 0.94 (0.49; 1 78) **Acute myocardial infarction** ***Total exposure*** RR per 1 µT-year: 1.04 (1.03; 1.06) ***Past 5 years*** Not employed: 1.0 Low exposure: 1.25 (1.14; 1.37) High exposure: 1.33 (1.18; 1.51) **Chronic coronary heart disease** ***Total exposure*** RR per 1 µT-year: 1.01 (0.99; 1.02) ***Past 5 years*** Not employed: 1.0 Low exposure: 1.03 (0.91; 1.18) High exposure: 0.92 (0.75; 1.14)	
Schnall et al 1990 [117] USA	Case-control study Several work places Year when study was performed is not stated in the article	Participants were working men at seven New York working sites (e.g. newspaper typography, health agency, stock-brokerage) that employed at least 150 men Inclusion criteria were age 30–60 years, employed >30 hours per week, educated in the US and able to read English, body mass index ≤30kg/m^2, no second job, and ≥3 years at current job	**Job strain** Job strain was assessed according to the Job Content Questionnaire (JCQ)	**Hypertension** Cases were defined as men who had a diastolic blood pressure ≥85 mm Hg or were taking antihyper-tensive drugs Subjects were wearing a device during a normal work day for blood pressure measurements	Association of job strain and hypertension. Logistic regression analysis. OR (95% CI) adjusted for race, education, smoking, type A behavior, physical exertion level, 24–hour urine sodium excretion, and work site High job strain vs other: 3.09 (1.30; 7.30)	–

		Cases with a history of high blood pressure had to have entered their current job at least 3 years prior to diagnosis Subjects were excluded if they had a history of coronary, cerebro-vascular, or peripheral vascular disease, hypertension or took drugs affecting the blood pressure The controls were randomly selected from the same working population and hade a diastolic blood pressure ≤85 mmHg n=215 (87 cases and 128 controls) All participants were men				
Selander et al 2013 [118] Sweden	Case-control study. Data from the SHEEP study General working population 1992–1994	Participants were living in Stockholm 1992–1994, aged 45–70 years and had no history of myocardial infarction Cases were identified from coronary and intensive care units at	**Job strain** **Noise** Job strain was assessed by the Swedish version of the Job Content Questionnaire (DCQ) Occupational noise exposure was assess by a job exposure matrix	**Myocardial infarction** The diagnose criteria for myocardial infarction used to determine case inclusion were those applied by the Swedish Association of Cardiologists**.** They required at least two	Logistic regression analysis for job strain and occupational noise exposure in association with myocardial infarction. OR (95% CI) **>75th percentile** Job strain: 1.46 (1.26; 1.69) Occupational noise: 1.35 (1.18; 1.55)	Logistic regression analysis for job strain and occupational noise exposure in association with myocardial infarction. OR (95% CI) adjusted for age, sex, hospital catchment area, physical inactivity, smoking, air pollution and socioeconomic position **>75th percentile** Job strain: 1.39 (1.17; 1.65) Occupational noise: 1.17 (0.98; 1.41)

		emergency hospital in Stockholm County, the Hospital Discharge Register for the county or death certificates from a national cause of death register Controls were randomly selected from the study base within two days of the inclusion of a case, matched on age and gender and hospital catchment area. All controls were checked for myocardial infarction n=3 050 (1 252 cases and 1 798 controls) Both women and men participated, but the gender distribution was not clearly stated		of three conditions to be met regarding certain symptoms, specific blood enzyme changes, or specific electrocardio-gram changes. In addition myocardial necrosis detected at autopsy that could be related to the time of disease onset was also included		
Simonetto et al 2014 [119] Russia *Note*: see also articles by Azizova The data is an up-dated analysis of the data presented	Retrospective cohort study More than 50 years Nuclear power industry 1948–2005	Participants were employed at of the main Mayak plants (reactors, radiochemical or plutonium production plants) during 1948–1972 n=18 763 4 744 women and 14 019 men	**Radiation** Individual monitoring of external gamma-ray (Gy) and internal exposure (^{239}Pu) were recorded in individual diametric cards and journals Work histories and dose estimates from the dosimetry system "Dose–2005"	**Ischemic heart disease** Outcome was assessed by incidence and mortality from ischemic heart disease (410–414 ICD-9 codes). Among the information sources on incidence, there were achieved and current medical cards, and case	Excess relative risk by categories of cumulative external doses. ERR (95% CI) **Incidence (no restriction)** ***Women*** 0.02-0.05 Gy: 0.13 (-0.11; 0.41) 0.05-0.1 Gy: 0.20 (-0.03; 0.47) 0.1-0.2 Gy: 0.09 (-0.10; 0.32) 0.2-0.5 Gy: -0.03 (-0.20; 0.18) 0.5-1 Gy: -0.08 (-0.026; 0.13) 1 Gy: 0.02 (-0.18; 0.27) 2-4 Gy: 0.13 (-0.14; 0.48) >4 Gy: 0.68 (-0.7; 4.4)	–

in the article by Azizova 2012			established in the framework of Russian–American project on radiation health effects research	histories, as described earlier (Azizova et al., 2008)	***Men*** 0.02-0.05 Gy: 0.16 (-0.05; 0.42) 0.05-0.1 Gy: 0.05 (-0.12; 0.27) 0.1-0.2 Gy: 0.23 (0.05; 0.45) 0.2-0.5 Gy: 0.11 (-0.05; 0.29) 0.5-1 Gy: 0.21 (0.03; 0.41) 1 Gy: 0.29 (0.10; 0.53) 2-4 Gy: 0.44 (-0.20; 0.74) >4 Gy: 0.22 (-0.31; 1.0) **Mortality (no restriction)** ***Women*** No data preseted ***Men*** 0.02-0.05 Gy: 0.11 (-0.12; 0.40) 0.05-0.1 Gy: 0.05 (-0.15; 0.31) 0.1-0.2 Gy: 0.08 (-0.12; 0.31) 0.2-0.5 Gy: -0.09 (-0.24; 0.09) 0.5-1 Gy: 0.02 (-0.16; 0.24) 1 Gy: 0.11 (-0.09; 0.35) 2-4 Gy: 0.34 (0.08; 0.67) >4 Gy: -0.08 (-0.52; 0.60)	
Sjol et al 2003 [120] Denmark	Prospective cohort. Part of the data came from the MONICA study 27 years General population 1964–1991	Participants were randomly selected subjects in age groups 30, 40, 50 and 60 years from a suburb to Copenhagen n=13 925 Approximately 50% of the participants were women; exact number per gender is not stated in the article	**Occupational physical activity** Occupational physical activity was assessed by self-administered questionnaire. Questionnaire items are listed and described in the study	**Acute myocardial infarction** Mortality data was obtained from death certificated, hospital records and autopsies ICD-8, codes 410–414, was applied	Relative risk of acute myocardial infarction in relation to physical activity at work. RR (95% CI) **Whole material** No difference between physically active groups **Period 1964–1976** Moderately active: 0.61 (0.44; 0.84) Highly active: 0.71 (0.49; 1.04) **Later periods** No difference between levels of physical activity at work	–

Slopen et al 2012 [121] USA	Prospective cohort study. Data from the Women's health study 10 years Health care 1993–2007	Participants were women in health professions, recruited from across the entire United States Women were eligible if they were without known cardiovascular disease at the time of the study start The mean age was 58 years n=22 086 All participants were women	**Job strain and job insecurity** An assessment of job strain was derived from the Job Content Questionnaire (JCQ)), which assessed job demand and job control using 14 Likert-style items An assessment of job security was derived from responses to the question: "My job security is good"	**Cardio-vascular disease** Cardio-vascular events included non-fatal myocardial infarction, non-fatal ischemic stroke, re-vascularization procedure (coronary artery bypass grafting and/or percutaneous transluminal coronary angioplasty), and cardio-vascular disease death Outcomes were reported via mail questionnaire, letters and telephone calls. Information about deaths was acquired from the National Death Index, or reports from family members or the postal service Blinded physicians reviewed medical records to confirm symptoms met criteria for each outcome Myocardial infarctions were confirmed according to criteria specified by World Health Organization, as well	Cardiovascular disease by job strain and job insecurity. HR (95% CI) adjusted for age, race, and study drug of randomization **Total cardiovascular disease** ***Job strain etc*** Low strain: 1.00 Passive: 1.37 (1.10; 1.70) Active: 1.39 (1.08; 1.79) High strain: 1.63 (1.28; 2.08) ***Job security*** Job secure: 1.00 Job insecure: 1.23 (1.02; 1.48) **Myocardial infarction** ***Job strain etc*** Low strain: 1.00 Passive: 1.47 (0.95; 2.28) Active: 1.20 (0.71; 2.02) High strain: 1.88 (1.18; 3.01) ***Job security*** Job secure: 1.00 Job insecure: 1.39 (0.98; 1.97) **Ischemic stroke** ***Job strain etc*** Low strain: 1.00 Passive: 1.39 (0.89; 2.16) Active: 1.39 (0.82; 2.35) High strain: 1.83 (1.12; 2.97) ***Job security*** Job secure: 1.00 Job insecure: 0.97 (0.65; 1.45) **Cardiovascular death** ***Job strain etc*** Low strain: 1.00 Passive: 0.89 (0.43; 1.85)	Cardiovascular disease by job strain and job insecurity. HR (95% CI) adjusted for age, race, and study drug of randomization, health profession education, bachelor's degree, master's degree and income **Total cardiovascular disease** ***Job strain etc*** Low strain: 1.00 Passive: 1.16 (0.93; 1.45) Active: 1.38 (1.07; 1.77) High strain: 1.38 (1.08; 1.77) ***Job security*** Job secure: 1.00 Job insecure: 1.19 (0.99; 1.43) **Myocardial infarction** ***Job strain etc*** Low strain: 1.00 Passive: 1.31 (0.84; 2.05) Active: 1.21 (0.72; 2.03) High strain: 1.67 (1.04; 2.70) ***Job security*** Job secure: 1.00 Job insecure: 1.35 (0.95; 1.92) **Ischemic stroke** ***Job strain etc*** Low strain: 1.00 Passive: 1.12 (0.71; 1.76) Active: 1.35 (0.80; 2.29) High strain: 1.43 (0.87; 2.34) ***Job security*** Job secure: 1.00 Job insecure: 0.94 (0.63; 1.40) **Cardiovascular death** ***Job strain etc***

				as diagnostic electro-cardogram criteria or abnormal levels of cardiac enzymes Ischemic strokes were confirmed if symptoms were consistent with a new neurological deficit that lasted more than 24 hours; computed tomographic scans and magnetic resonance images were used to differentiate ischemic and hemorrhagic strokes Deaths were confirmed based on reviews of death certificates, autopsy reports, family reports and medical records	Active: 1.55 (0.68; 3.49) High strain: 1.07 (0.45; 2.55) ***Job security*** Job secure: 1.00 Job insecure: 1.52 (0.81; 2.85)	Low strain: 1.00 Passive: 0.68 (0.32; 1.44) Active: 1.59 (0.70; 3.61) High strain: 0.84 (0.35; 2.06) ***Job security*** Job secure: 1.00 Job insecure: 1.41 (0.75; 2.65)
Smith et al 2013 [122] Canada	Prospective cohort study. Part of the Ontario, Canadian Community Health Survey 9 years General working population 2000–2010	Participants were 35–65 year old labor market participants who had not been previously diagnosed with hypertension, were not self–employed, and were working more than 10 hours per week, more than 20 weeks in the previous 12 month	**Psychosocial work conditions** Psychosocial work conditions were derived from the Job Content Questionnaire , (JCQ)	**Hypertension** Incidence of hypertension was classified if respondents had one hospital admission with a hypertension diagnosis, or two physician service claims with a hypertension diagnosis with a two-year period	Adjusted hazard ratio for psychosocial work conditions and health behavior on risk of hypertension during 9–years follow-up stratified by gender. HR (95% CI) adjusted for age, immigration status, ethnicity, marital status, urban or rural living location, body mass index, education, heart disease at baseline, diabetes at baseline, activity limitation at work due to health problem, shift schedule, occupational physical activity, work hours, weeks working in the previous 12 months and multiple jobs **Women**	–

		The participants were part of the Ontario, Canadian Community Health Survey linked to the Ontario Health Insurance Plan database covering physician service n=6 611 3 394 women and 3 217 men		The following diagnoses were applied: ICD-9 (codes 401, 402, 403, 404 or 405) and ICD-10 (codes I10, I11, I12; I13 or I15)	***Job control*** 1st quartile (high): 1.00 2nd quartile: 0.97 (0.68; 1.39) 3rd quartile: 1.01 (0.71; 1.44) 4th quartile (low): 0.96 (0.64; 1.44) ***Psychosocial demands*** 1st quartile (low): 1.00 2nd quartile: 0.95 (0.63; 1.44) 3rd quartile: 1.24 (0.88; 1.74) 4th quartile (high): 1.14 (0.79; 1.64) ***Social support*** 1st quartile (high): 1.00 2nd quartile: 1.00 (0.67; 1.48) 3rd quartile: 1.00 (0.71; 1.40) 4th quartile (low): 1.10 (0.78; 1.54) ***Men*** ***Job control*** 1st quartile (high): 1.00 2nd quartile: 1.28 (0.92; 1.80) 3rd quartile: 1.25 (0.90; 1.75) 4th quartile (low): 1.85 (1.26; 2.71) ***Psychosocial demands*** 1st quartile (low): 1.00 2nd quartile: 1.23 (0.85; 1.77) 3rd quartile: 1.00 (0.72; 1.39) 4th quartile (high): 1.30 (0.94; 1.79) ***Social support*** 1st quartile (high): 1.00 2nd quartile: 1.01 (0.68; 1.49) 3rd quartile: 0.82 (0.58; 1.16) 4th quartile (low): 0.91 (0.67; 1.25)	
Sokejima et al 1998 [123] Japan	Case–control study General working population	Cases were male patients, 30–69 years, who had been admitted to hospital for a first attack of	**Working hours** A self-administrated questionnaire about working hours was	**Myocardial infarction** During medical examination, the diagnose was defined as typical chest pain	Categorization of working hours of 195 Japanese men with acute myocardial infarction and 331 controls match for age and occupation, and odds ratios for infarctions in	Categorization of working hours of 195 Japanese men with acute myocardial infarction and 331 controls match for age and occupation, and odds ratios for infarctions in relation to working hours. Crude OR (95% CI)

	1990–1993	acute myocardial infarction Controls were free of coronary heart disease and matched to the cases for age (within three years) and occupation. These men were selected at routine medical examinations conducted at their workplace n=526 (195 cases and 331 controls) All participants were men	completed for all subjects Cases answered questions on working hours per day (excluding holidays and days of rest) for two months preceding their acute myocardial infarction and or each of the months with the shortest and longest mean daily working hour for the year before their infection The controls were asked about working hours the months before their recruitment to the study	lasting at least 20 minutes, and electro-cardiogram showing ST elevation at least 2 mm in two or more contiguous leads with subsequent evolution of the typical electrocardio-graphic changes, and diagnostic enzyme changes	relation to working hours. OR (95% CI) adjusted for age and occupation categories **Mean daily working hours** ***In last month before infarction*** ≤7.00: 3.07 (1.77; 5.32) 7.01–9.00: 1.00 9.01–11.00: 1.06 (0.68; 1.67) ≥11.01: 2.44 (1.26; 4.73)	adjusted for age, occupation category, hypertension, hypercholesterolemia, diabetes, body mass index, smoking habits, proportion of sedentary work and burnout index **Mean daily working hours** ***In last month before infarction*** ≤7.00: 2.83 (1.52; 5.28) 7.01–9.00: 1.00 9.01–11.00: 0.96 (0.58; 1.60) ≥11.01: 2.94 (1.39; 6.25)
Sorahan et al 2004 [124] United Kingdom	Retrospective cohort 24 years Industry 1973–1997	Participants were employees of the former Central Electricity Generating Board of England and Wales. Cohort members were employed for at least 6 months from 1973–1982 n=83 997 11 043 women and 72 954 men	**Magnetic fields** Occupational exposures to the elevated magnetic fields encountered in parts of the UK electricity generation and transmission industry were assessed by the EMF Research Section of the National Grid Company	**Several outcomes** Follow-up data was received from the National Health Service Central Register of the Office for National Statistics Underlying cause and multiple-cause coding were supplied by for all deaths (ICD-8 1973–1978, ICD-9 1979–1997) Code for underlying diagnosis:	Relative risks of mortality (underlying cause of death) for categories of circulatory disease by levels of estimated cumulative magnetic field exposure. RR (95% CI) analysed simultaneously with sex, calendar period and attained age **Arrhythmia related** RR per 10 µT x year: 1.18 (0.84; 1.66) **Acute myocardial infarction** RR per 10 µT x year: 1.03 (1.00; 1.07) **Chronic coronary heart disease** RR per 10 µT x year: 1.02 (0.96; 1.07) **Other diseases of circulatory system** RR per 10 µT x year: 0.99 (0.93; 1.04)	Relative risks of mortality (underlying cause of death) for categories of circulatory disease by levels of estimated cumulative magnetic field exposure. RR (95% CI) analysed simultaneously with sex, attained age, calendar period, year of commencing employment and negotiating body **Arrhythmia related** RR per 10 µT x year: 1.13 (0.79; 1.62) **Acute myocardial infarction** RR per 10 µT x year: 1.00 (0.96; 1.04) **Chronic coronary heart disease** RR per 10 µT x year: 0.98 (0.92; 1.04) **Other diseases of circulatory system**

				Arrhythmia related: ICD-9, 426–427 Acute myocardial infarction: ICD-9, 410 Chronic coronary heart disease: ICD-9, 411–414 All diseases of circulatory system: ICD-9, 390–458	**All diseases of circulatory system** RR per 10 µT x year: 1.02 (0.99; 1.04)	RR per 10 µT x year: 0.94 (0.89; 1.00) **All diseases of circulatory system** RR per 10 µT x year: 0.98 (0.95; 1.01
Stamatakis et al 2013 [125] United Kingdom	Retrospective cohort Mean follow-up time was 13 years General working population 1994–2009	Participants were aged 40 years and over at study induction. They were drawn from the Health Survey for England and the Scottish Health Survey–a series of seven independent cohort studies The studies are general population-based, sampling individuals living in households in each country Sample stratification was based on geographical areas n=10 834 5 214 women and 5 620 men	**Sitting at work** Main activity at work (occupational activity) was assessed with the following question: ''When you're at work are you mainly sitting down, standing up or walking about?''	**Cardio-vascular mortality** Participants were flagged by the British National Health Service Central Registry, who notified the researchers the date and cause of death where applicable Diagnoses for primary (underlying) cause of death was based on ICD-9 and ICD-10 Codes corresponding to cardio-vascular disease mortality were 390–459 for ICD-9 and I01–I99 for ICD-10	Cox regression models for main activity while at work and cardiovascular mortality in women who were in employment at baseline. HR (95% CI) adjusted for age **Predominant activity at work** ***Women and men*** Sitting: 1.00 Standing/walking about: 1.14 (0.83; 1.55) ***Women*** Sitting: 1.00 Standing/walking about: 1.63 (0.82; 3.25) ***Men*** Sitting: 1.00 Standing/walking about: 1.03 (0.73; 1.46)	Cox regression models for main activity while at work and cardiovascular mortality in women who were in employment at baseline. HR (95% CI) adjusted for age and also adjusted for waist circumference, self-reported general health, psychological health, frequency of alcohol intake, cigarette smoking, non-occupational physical activity, prevalent cardiovascular disease at baseline (angina/stroke/ischaemic heart disease), prevalent cancer at baseline, occupational social class and age finished educations **Predominant activity at work** ***Women and men*** Sitting: 1.00 Standing/walking about: 1.06 (0.75; 1.49) ***Women*** Sitting: 1.00 Standing/walking about: 1.53 (0.72; 3.24) ***Men*** Sitting: 1.00 Standing/walking about: 0.98 (0.66; 1.45)

Steenland et al 1997 [126] USA	Prospective cohort. Data from the National Health and Nutrition Survey I (NHANES1) Approximately 15 years General population 1971–1987	Participants were 25–74 years of age at baseline who were currently working at baseline interview and had jobs for which scores for demand and control were available Those reporting a history of heart failure, heart attack, or taking pills for heart disease were excluded n=3 575 All participants were men	**Job control and job demands** Scores for job control and job demands were assigned to each subject based on current occupation at baseline Job scores were provided by current occupation in 1970 and were adjusted within occupation for age, education, geographical region of residence, race, marital status, urban vs. rural residence, and employment status Two principal scores were analyzed: job control (decision authority and decision latitude) and job demand The scores for each occupation were derived from Quality of Employment Surveys, sponsored by the US Department of Labour	**Heart disease** Cases were defined as any incident heart disease (ICD-9 codes 410–414) on either hospital discharge records or death certificates The date of diagnosis was taken from hospital discharge when possible. For those with heart disease identified only from death certificate, the date of death was used for date of diagnosis	Results for Job Scores for occupation as reported at baseline interview in 1971–1975, for those then currently working. OR (95% CI) adjusted for age, blood pressure, education, body mass index, cholesterol, smoking and self-reported diabetes **All** ***Job control quartiles*** 2^{nd} vs. 1^{st}: 0.80 (0.62; 1.02) 3^{rd} vs. 1^{st}: 0.82 (0.64; 1.06) 4^{th} vs. 1^{st}: 0.71 (0.54; 0.93) ***Job demand quartiles*** 2^{nd} vs. 1^{st}: 0.77 (0.60; 0.98) 3^{rd} vs. 1^{st}: 0.94 (0.72; 1.21) 4^{th} vs. 1^{st}: 0.81 (0.61; 1.09) ***Demand and control*** Low control, high demand: 1.08 (0.81; 1.49) High control, high demand: 0.97 (0.78; 1.20) **Blue collar** ***Job control quartiles*** 2^{nd} vs. 1^{st}: 0.87 (0.66; 1.16) 3^{rd} vs. 1^{st}: 0.67 (0.48; 0.93) 4^{th} vs. 1^{st}: 0.69 (0.46; 1.02) ***Job demand quartiles*** 2^{nd} vs. 1^{st}: 0.83 (0.62; 1.12) 3^{rd} vs. 1^{st}: 0.83 (0.58; 1.18) 4^{th} vs. 1^{st}: 0.64 (0.40; 1.03) ***Demand and control*** Low control, high demand: 1.14 (0.80; 1.63) High control, high demand: 0.69 (0.48; 0.99) **White collar** ***Job control quartiles*** 2^{nd} vs. 1^{st}: 0.71 (0.40; 1.28) 3^{rd} vs. 1^{st}: 0.97 (0.57; 1.65)	–

					4th vs. 1st: 0.74 (0.43; 1.26) ***Job demand quartiles*** 2nd vs. 1st: 0.69 (0.45; 1.06) 3rd vs. 1st: 1.09 (0.73; 1.64) 4th vs. 1st: 0.93 (0.61; 1.44) ***Demand and control*** Low control, high demand: 1.05 (0.63; 1.77) High control, high demand: 1.19 (0.89; 1.62)	
Stokholm et al 2013 [127] Denmark	Prospective cohort 20 years Companies 1964–2007	Participants were employees at 625 companies from 10 trades with high levels of compensation claims for occupational hearing loss and 100 reference financial companies Persons living outside Denmark were excluded as well as those diagnosed with stroke before baseline n=164 247 Both men and women participated, but information on the number of each sex is not specified	**Occupational noise** Mean full-shift noise exposure levels were measured in 2001–2003 and 2009 and 2010 by personal dosimeters for 1 077 workers at 168 randomly selected companies Predicted exposure levels were made since 1964	**Stroke** Cases were defined by first diagnose in a national patient register, ICD-10 codes DI61 (intra-cerebellar hemorrhage), DI63 (cerebral infarction) and DI64 (stroke, un-specified) Information on vital status were obtained from national registers	Association of stroke with noise exposure. Crude RR (95% CI) **Cumulative noise exposure (dB(A)-year)** <75: 1.00 75–89: 1.16 (0.81; 1.65) 80–84: 1.95 (1.42; 2.68) 85–89: 1.97 (1.44; 2.72) 90–94: 2.09 (1.53; 2.86) 95–99: 3.01 (2.14; 4.23) ≥100: 7.88 (4.39; 14.15) **Duration of exposure >80 dB(A) and >85 dB(A)** ***>80 dB(A) (<70 dB(A) reference)*** <3 years: 1.19 (0.98; 1.43) 3–9 years: 1.31 (1.11; 1.55) 10–19 years: 1.87 (1.50; 2.32) ≥20 years: 2.66 (1.94; 3.64) ***>85 dB(A) (<70 dB(A) reference)*** <3 years: 1.55 (1.29; 1.88) 3–9 years: 1.47 (1.15; 1.87) 10–19 years: 2.90 (2.06; 4.09) ≥20 years: 4.20 (2.29; 7.69)	Association of stroke with noise exposure. RR (95% CI) adjusted for age, socioeconomic status, calendar year and employment status **Cumulative noise exposure (dB(A)-year)** <75: 1.00 75–89: 1.04 (0.75; 1.44) 80–84: 1.11 (0.79; 1.55) 85–89: 1.97 (1.44; 2.72) 90–94: 1.08 (0.77; 1.51) 95–99: 0.99 (0.68; 1.42) ≥100: 1.49 (0.82; 2.73) **Duration of exposure >80 dB(A) and >85 dB(A)** ***>80 dB(A) (<70 dB(A) reference)*** <3 years: 1.38 (1.10; 1.73) 3–9 years: 1.22 (0.99; 1.51) 10–19 years: 1.28 (0.99; 1.64) ≥20 years: 1.13 (0.99; 1.02) ***>85 dB(A) (<70 dB(A) reference)*** <3 years: 1.30 (1.01; 1.68) 3–9 years: 1.07 (0.80; 1.44) 10–19 years: 1.49 (1.02; 2.19) ≥20 years: 1.39 (0.74; 2.61)
Suadicani et al 2012 [128] Denmark	Cohort. Data from the Copenhagen Male Cohort Study 16 years	Participants were Caucasian men aged 53–75 years without overt cardio-vascular disease employed at 14 large work-places	**Occupational noise** All men were interviewed by a physician at baseline	**Fatal ischemic heart disease** Information on incidence was obtained from death certificate diagnoses	Hazard ratios for ischemic heart disease mortality according to occupational exposure following different adjustment criteria. Cox proportional hazards regression analyses with forced entry of variables. HR (95% CI) adjusted for age	Hazard ratios for ischemic heart disease mortality according to occupational exposure following different adjustment criteria. Cox proportional hazards regression analyses with forced entry of variables. HR (95% CI) adjusted

	General working population Baseline: 1985–1986 Follow-up: 2001	in Copenhagen, Denmark The mean age was 63 years Workers with angina pectoris, acute myo-cardial infarction, stroke and/or intermittent claudication were excluded n=2 998 All participants were men	Occupational exposure to noise was assessed by questionnaire (items stated in the article) Long-term exposure was defined as exposure for 5 years or longer	between 1985/66 to 2001 Included diagnoses were codes 410–412 from the ICD-8th revision and codes I20–I25 from the ICD-10th revision	**Occupational noise exposure** ***All*** 1–4 years: 0.60 (0.22; 1.63) ≥5 years: 1.13 (0.84; 1.51) ***High social classes*** 1–4 years: 0.42 (0.06; 3.03) ≥5 years: 0.95 (0.59; 1.54) ***Low social classes*** 1–4 years: 0.63 (0.20; 2.01) ≥5 years: 1.14 (0.78; 1.66)	for age, lifestyle, social class and clinical confounders **Occupational noise exposure** 1–4 years: 0.64 (0.24; 1.75) ≥5 years: 0.97 (0.71; 1.33) ***High social classes*** 1–4 years: 0.44 (0.06; 3.21) ≥5 years: 0.72 (0.42; 1.22) ***Low social classes*** 1–4 years: 0.77 (0.24; 2.48) ≥5 years: 1.13 (0.75; 1.68)
Suwazono et al 2008 [129] Japan	Retrospective cohort 14 years Industry 1991–2005	Participants were male workers at a Japanese steel company. The cohort included only subjects who attended annual health examinations during the observation period Persons treated previously for hypertension were excluded. Also, workers engaged in irregular shift work, such as 24-hour work and fixed night work, were excluded n=8 251	**Shift work** The type-of-job schedule (i.e., shift work or day work) was determined from the payment ledger in May of each year	**Increased blood pressure** At the annual health examination, blood pressure was measured once in the sitting position with an automatic sphygmomanometer after 5 minutes of rest The workers' medical history was recorded during the annual health examinations using a self-administered questionnaire. Responses were confirmed by individual interviews conducted by	Odds ratios of shift work compared with day work for increases in systolic blood pressure. Odds ratios were estimated as the ratio of the former to the latter for job-schedule type and the ratio for a 1-SD increase in age, body mass index, HbA1c, total serum cholesterol, creatinine, AST, GGT, and UA using pooled logistic regression including all of the covariates in the model. OR (95% CI) **Systolic blood pressure** ***Increase 10%*** Shift work: 1.15 (1.07; 1.23) ***Increase 15%*** Shift work: 1.21 (1.12; 1.31) ***Increase 20%*** Shift work: 1.15 (1.04; 1.28) ***Increase 25%*** Shift work: 1.20 (1.06; 1.37)	–

		6 711 workers (3 963 day workers and 2 748 alternating shift workers) composed the cohort used for all of the analyses All participants were men		occupational physicians	***Increase 30%*** Shift work: 1.23 (1.03; 1.47) **Diastolic blood pressure** ***Increase 10%*** Shift work: 1.19 (1.11; 1.28) ***Increase 15%*** Shift work: 1.22 (1.13; 1.33) ***Increase 20%*** Shift work: 1.24 (1.13; 1.37) ***Increase 25%*** Shift work: 1.16 (1.03; 1.30) ***Increase 30%*** Shift work: 1.04 (0.89; 1.22)	
Tenkanen et al 1998 [130] Finland	Prospective cohort. Data from the Helsinki Heart Study The mean follow-up was 6 years Industry 1986–1993	Participants were 40–44 years old men employed in industry Participants were eligible if their serum cholesterol was ≥5.2 mmol/l and if they had no evidence of coronary heart disease or other major illness n=1 806 All participants were men	**Shift work** Shift work was assessed by a questionnaire (items described in the article)	**Coronary heart disease** The end points were obtained from the Hospital Discharge Register and Register of Deaths kept by Statistics Finland The definition of coronary heart disease was based on codes 410–414 of the ICD-9	Joint effect of shift work and life-style factors on the risk of coronary heart disease. RR (95% CI) adjusted for age **Smoking** ***Day work*** Non or past smoker: 1 Smoker: 1.61 (1.05; 2.48) ***Shift work*** Non or past smoker: 1.34 (0.88; 2.06) Smoker: 2.69 (1.76; 4.12) **Leisure-time physical activity** ***Day work*** Physically active: 1 Sedentary: 1.19 (0.76; 1.85) ***Shift work*** Physically active: 1.42 (0.83; 2.42) Sedentary: 1.87 (1.19; 2.94) **Obesity**	Joint effect of shift work and a number of life-style factors (smoking, sedentary life-style, obesity) on the risk of coronary heart disease. RR (95% CI) **Day work** 0 factors present: 1 1 factor present: 1.98 (1.04; 3.77) 2–3 factors present: 1.92 (0.99; 3.71) **Shift work** 0 factors present: 1.04 (0.41; 2.63) 1 factor present: 2.54 (1.27; 5.05) 2–3 factors present: 3.62 (1.90; 6.90)

					Day work Body mass index<28: 1 Body mass index≥28: 1.19 (0.75; 1.90) ***Shift work*** Body mass index<28: 1.29 (0.87; 1.91) Body mass index≥28: 2.32 (1.50; 3.57)	
Tenkanen et al 1997 [131] Finland	Prospective cohort. Data from the Helsinki Heart Study The mean follow-up was 5.6 years Industry 1986–1993	Participants were 40–44 years old men employed in industry Participants were eligible if their serum cholesterol was ≥5.2 mmol/l and if they had no evidence of coronary heart disease or other major illness n=1 806 All participants were men	**Shift work** Shift work was assessed by a questionnaire (items described in the article)	**Coronary heart disease** The end points were obtained from the Hospital Discharge Register and Register of Deaths kept by Statistics Finland The definition of coronary heart disease was based on codes 41–-414 of the ICD-9	Relative risk for coronary heart disease among shift workers compared with corresponding day workers. RR (95% CI) adjusted for age **No exclusions** Shift work: 1.52 (1.11; 2.07) Blue collar shift work: 1.35 (0.94; 1.93) Shift work in plant or machine operation: 1.39 (0.94; 2.08) **Exclusions: those on medication or with previously diagnosed cardiovascular disease** Shift work: 1.70 (0.92; 3.14) Blue collar shift work: 1.73 (0.84; 3.57) Shift work in plant or machine operation: 1.75 (0.78; 3.92) Relative risk of coronary heart disease. RR (95% CI) adjusted for age and systolic blood pressure **Academic and clerical workers** Day work: 1 (reference) **Industrial workers in plant or machine operation** Day work: 1.2 (0.8; 1.9) Two-shift work: 1.7 (0.96; 3.1) Three-shift work: 1.6 (0.98; 2.5)	Relative risk for coronary heast disease among shift workers compared with corresponding day workers. RR (95% CI) adjusted for age, smoking, cholesterol, systolic blood pressure, body mass index, physical activity and alcohol consumption **No exclusions** Shift work: 1.38 (1.01; 1.89) Blue collar shift work: 1.30 (0.91; 1.87) Shift work in plant or machine operation: 1.33 (0.89; 1.99) **Exclusions: those on medication or with previously diagnosed cardiovascular disease** Shift work: 1.50 (0.80; 2.81) Blue collar shift work: 1.61 (0.77; 3.33) Shift work in plant or machine operation: 1.59 (0.70; 3.61) Relative risk of coronary heart disease. RR (95% CI) adjusted for age, alcohol consumption, smoking and leisure time physical activity **Academic and clerical workers** Day work: 1 (reference) **Industrial workers in plant or machine operation** Day work: 1.2 (0.8; 2.0) Two-shift work: 1.9 (1.0; 3.3) Three-shift work: 1.7 (1.0; 2.7)

Theorell et al 1998 [132] Sweden	Population-based case-referent Study. Data from the SHEEP study General population 1992–1994	Participants were 45–64 year-old men resident in the Stockholm county, who were free of previous clinically diagnosed myocardial infarction Cases were all first events of myocardial infarction, fatal and nonfatal Referents (1 per case patient) were chosen randomly from the study base after stratification for sex, age, and hospital catchment area Participants had been working mainly full time during the previous 5 years n=2 094 (1 047 cases; 809 nonfatal and 238 fatal)	**Decision latitude and job strain** Information was collected by means of a questionnaire and a supplementing telephone interview. For fatal cases, the questionnaire was completed by a close relative Self-reported data regarding decision latitude and psychological demands were obtained from a Swedish version of the demand-control questionnaire (DCQ) For inferred scoring of job characteristics, psychosocial exposure categories were assigned by linking each subject's occupational history. This was done with a work organization exposure matrix for every year of paid work in the subject's life	**Myocardial infarction** Myocardial infarction was assessed according to specified diagnostic criteria including information on symptoms, electro-cardiogram, blood chemistry, and autopsy findings Patients were included at the time of disease incidence, and referents were chosen at the same time (incidence density sampling)	Odds ratios of Inferred Decision Latitude (IDL), Negative Change of Inferred Decision Latitude (NCIDL), Self-Reported Decision Latitude (SDL), and self-reported job strain. OR (95% CI) adjusted for age and hospital catchment area **Decision latitude** IDL: 1.7 (1.3; 2.2) NCIDL: 1.3 (1.0; 1.7) SDL: 1.3 (1.0; 1.6) **Job strain** All: 1.4 (1.1; 1.8) Age 45–54: 1.8 (1.1; 2.9) Age 55–64: 1.0 (0.6; 1.6) Blue collar: 1.8 (1.0; 3.3) White collar: 1.2 (0.8; 1.7)	Odds Ratios and 95% Confidence Intervals of Inferred Decision Latitude (IDL), Negative Change of Inferred Decision Latitude (NCIDL), Self-Reported Decision Latitude (SDL), and self-reported job strain. OR (95% CI) adjusted for hospital catchment area, smoking, LDL-HDL ratio, history of hypertension, history of chest pain and social class **Decision latitude** IDL: 1.2 (0.8; 2.0) NCIDL: 1.4 (1.0; 2.0) SDL: 1.3 (0.9; 1.8) **Job strain** All: 1.3 (1.0; 1.8)
Toivanen 2008 [133] Sweden	Prospective cohort 13 years General working population	Participants were all people in Sweden aged 30–64 years who had a job at baseline People were excluded if they had a prior	**Job control** Job control was aggregated to occupations in the 1990 census using a psychosocial job-exposure matrix. The matrix was based on	**Stroke** The cohort was followed for nonfatal stroke by record linkage to the Swedish Hospital Discharge Register during 1991–2003	Hazard ratio for incident stroke, intracerebral haemorrhage and brain infarction by job control quartiles for working women and men in Sweden. HR (95% CI) adjusted for age and work hours **Any stroke** ***Job control, women***	Hazard ratio for incident stroke, intracerebral haemorrhage and brain infarction by job control quartiles for working women and men in Sweden. HR (95% CI) adjusted for age, work hours, education, marital status and income. High job control=1 **Any stroke**

	1991–2003	stroke diagnosis in the Hospital Discharge Register in 1980–1990 and if they had emigrated during the follow-up as recorded in the Total Population Register. Also people were excluded if they had missing values n=2 945 078 1 434 253 women and 1 510 825 men	survey data from the Swedish Work Environment Survey in 1989–1997, including almost 49 000 women and men representative of the working population Job control was constructed as combined measure of decision authority and skill discretion A total of 320 occupational categories were attributed mean scores for job control as stratified by gender and age groups	and for fatal stroke by linkage to the Cause of Death Register during 1991–2002 (data on fatal events were missing for 2003)	High intermediate: 1.07 (1.00; 1.14) Low intermediate: 1.09 (1.02; 1.16) Low: 1.25 (1.17; 1.32) ***Men*** High intermediate: 1.24 (1.21; 1.28) Low intermediate: 1.13 (1.10; 1.17) Low: 1.24 (1.21; 1.28) **Intracerebral haemorrhage** ***Women*** High intermediate: 1.09 (0.93; 1.28) Low intermediate: 1.15 (0.99; 1.34) Low: 1.33 (1.15; 1.55) ***Men*** High intermediate: 1.02 (0.95; 1.09) Low intermediate: 1.03 (0.95; 1.11) Low: 1.30 (1.21; 1.40) **Brain infarction** ***Women*** High intermediate: 1.09 (1.00; 1.17) Low intermediate: 1.07 (1.00: 1.15) Low: 1.22 (1.14 (1.31) ***Men*** High intermediate: 1.05 (1.02; 1.09) Low intermediate: 1.14 (1.10; 1.18) Low: 1.23 (1.19; 1.28)	***Job control, women*** High intermediate: 1.02 (0.96; 1.09) Low intermediate: 1.00 (0.94; 1.07) Low: 1.07 (1.01; 1.14) ***Men*** High intermediate: 0.96 (0.93; 1.00) Low intermediate: 1.01 (0.94; 1.29) Low: 1.08 (1.04; 1.12) **Intracerebral haemorrhage** ***Women*** High intermediate: 1.06 (0.90; 1.24) Low intermediate: 1.10 (0.94; 1.29) Low: 1.22 (1.04; 1.40) ***Men*** High intermediate: 1.03 (0.95; 1.22) Low intermediate: 0.91 (0.83; 1.00) Low: 1.12 (1.03; 1.22) **Brain infarction** ***Women*** High intermediate: 1.04 (0.96; 1.12) Low intermediate: 0.98 (0.91: 1.06) Low: 1.04 (0.97: 1.12) ***Men*** High intermediate: 0.97 (0.94; 1.00) Low intermediate: 1.03 (1.00; 1.07) Low: 1.08 (1.04; 1.13)
Toren et al 2014 [134] Sweden *Note*: data is also presented for a large number of sub-analyses on e.g.	Prospective cohort. Data from the Primary Prevention Study The participants were followed from baseline examination, until death, until	Participants were men living in Gothenburg, born between 1915 and 1925, free from previous history of coronary heart disease and stroke at baseline	**Job strain** Psychosocial workplace exposure was assessed using a job-exposure matrix) for the Job-Demand-Control model based on occupation at baseline	**Coronary heart disease and stroke** The Swedish national register on cause of death, the Swedish hospital discharge register and the Gothenburg stroke register were used	Cox regression models of 6 070 men followed from 1974–1977 until event or until 75 years of age. HR (95% CI) adjusted for age **Coronary heart disease** ***All*** Active: 1.06 (0.85; 1.32) High strain: 1.31 (1.01; 1.70) Passive: 1.23 (1.00; 1.53)	Cox regression models of 6 070 men followed from 1974–1977 until event or until 75 years of age. HR (95% CI) adjusted for age, adiposity, diabetes, smoking and hypertension. **Coronary heart disease** ***Participants with events for the first 5 years after baseline are excluded*** Active: 1.08 (0.85; 1.38) High strain: 1.29 (0.97; 1.72)

smokers, blue/white collar workers, stress and medical conditions	hospital discharge or until 75 years of age, whichever occurred first General population Baseline 1974	The mean age was 55 years n=6 070 All participants were men	The current occupation at baseline was classified at three-digit level according to the Nordic Classification of Occupations	ICD codes listed in the registries were used to identify events Ischaemic stroke was defined as ICD codes 431–438 and I61–I69 Non-fatal coronary heart disease was defined as 410 and I21. Fatal coronary heart disease was defined as 410–414 and I20–I25	**Stroke** ***All*** Active: 0.91 (0.70; 1.22) High strain: 1.05 (0.74; 1.48) Passive: 0.96 (0.74; 1.28)	Passive: 1.22 (0.97; 1.56) **Stroke** ***Participants with events for the first 5 years after baseline are excluded*** Active: 0.93 (0.70; 1.25) High strain: 0.91 (0.63; 1.32) Passive: 0.94 (0.70; 1.26)
Tsutsumi et al 2011 [135] Japan	Prospective cohort. Data from the Jichi Medical School Cohort Study 11 years General working population Baseline measurements 1992–1995. Endpoint was year 2004	Participants were working men and women from 12 communities located across Japan Participants were under 65 years and free from cancer and cardiovascular disease at baseline n=6 553 at baseline 3 363 women and 3 190 men at baseline	**Job strain** Data was assessed by questionnaire using a Japanese version of the WHO-MONICA psychosocial study questionnaire (Uehata, 1993)	**Stroke** Incident stroke was assessed by a follow-up system. The participants were contacted annually by direct interview, telephone or letter to determine their health status. When an incident e was sus-pected, all medical records were reviewed according to specified diagnostic criteria In addition, mortality data was collected from the cause-of-death register at the public health centre in each community	Incidence rate of stroke. HR (95% CI) adjusted for age, education, smoking, alcohol intake, physical activity and area. Low strain: 1 **All women** Active: 1.2 (0.6; 2.7) Passive: 1.1 (0.5; 2.5) High strain: 1.3 (0.8; 3.0) **White-collar women** Active: 4.2 (0.8; 21.6) Passive: 3.2 (0.6; 18.7) High strain: 5.6 (1.0; 32.1) **Blue-collar women** Active: 0.9 (0.3; 2.4) Passive: 1.0 (0.4; 2.4) High strain: 1.0 (0.4; 2.5) **All men** Active: 2.1 (0.9; 5.0) Passive: 2.3 (1.0; 5.4) High strain: 2.8 (1.2; 6.4) **White-collar men** Active: 2.1 (0.6; 7.6)	–

					Passive: 2.1 (0.5; 8.0) High strain: 1.4 (0.3; 5.6) **Blue-collar men** Active: 1.5 (0.5; 5.0) Passive: 2.0 (0.7; 6.0) High strain: 3.2 (1.0; 9.3)	
Tsutsumi et al 2006 [136] Japan	Prospective cohort. Data from the Jichi Medical School Cohort Study 9 years General working population Baseline measurements 1992–1995. Endpoint was year 2002	Participants were working men and women from 12 communities located across Japan Participants were under 65 years and free from cancer and cardiovascular disease at baseline. The mean age for both sexes were 51 years n=6 509 at baseline 3 331 women and 3 178 men at baseline	**Job strain** Data was assessed by questionnaire using a Japanese version of the WHO-MONICA psychosocial study questionnaire (Uehata, 1993)	**Cardio-vascular disease mortality** Mortality data was collected from the cause-of-death register at the public health centre in each community	Risk of cardiovascular disease mortality. RR (95% CI) adjusted for age and sex **Job strain etc** Low strain: 1.00 Active job: 1.18 (0.34; 4.05) Passive job: 1.63 (0.52; 5.06) Strain job: 2.47 (0.81; 7.51)	Risk of cardiovascular disease mortality. RR (95% CI) adjusted for age, sex, education, occupation, smoking, alcohol intake, physical activity, body mass index, total cholesterol, hypertension, diabetes and the community **Job strain etc** Low strain: 1.00 Active job: 1.15 (0.33; 4.01) Passive job: 1.74 (0.54; 5.64) Strain job: 1.98 (0.59; 6.70)
Vaananen et al 2008 [137] Finland *Note:* data stratified by age is also available in the article	Prospective cohort Data from the Still Working Cohort 18 years for entire study. 4 years for psychosocial work characteristics Industry 1986–2004	Participants were employees at a private-sector multinational forest industry with domicile in Finland. Most white-collar workers were managers, foremen, supervisors, secretaries, technical designers and laboratory technicians. Blue-collar workers usually	**Several work factors** Job characteristics were assessed with the Occupational Stress Questionnaire by Elo et al	**Myocardial infarction** Acute myocardial infarction was assessed through hospitalization and mortality registers The causes of death were coded according to ICD-9 and ICD-10 Data on nonfatal disease were obtained from the Hospital discharge	Cox proportional Hazard ratios for acute myocardial infarction by conventional risk factors. HR (95% CI) adjusted by age and gender **Work environment** Hazardous work environment: 1.02 (0.83; 1.26) Multivariate Cox proportional hazards models for acute myocardial infarction at 4-year follow-up by levels of work characteristics. HR (95% CI) adjusted for age, gender, marital status, prevalent hypertension, prevalent diabetes, psychological distress, smoking	Multivariate Cox proportional hazards models for acute myocardial infarction at 4-year follow-up by levels of work characteristics. HR (95% CI) adjusted for age, gender, marital status, prevalent hypertension, prevalent diabetes, psychological distress, smoking status, alcohol use and physical activity at baseline. Also adjusted for occupational status and education attainment at baseline **Psychosocial factors** Skill discretion: 1.12 (0.98; 1.28) Decision authority: 1.06 (0.94; 1.19) Predictability: 1.13 (1.01: 1.26)

		worked as machine operators, maintenance workers, cleaners or laboratory assistants Participants were initially free of heart disease and had works at least 2 years. The mean age at baseline was 40 years n=7 663 1 716 women and 5 947 men		register; information on both primary and subsidiary diagnoses was used	status, alcohol use and physical activity at baseline **Psychosocial factors** Skill discretion: 1.11 (0.99; 1.25) Decision authority: 1.06 (0.95; 1.18) Predictability: 1.13 (1.01: 1.27)	
Wamala et al 2000 [138] Sweden	Case-control Data from the Stockholm Female Coronary Risk Study General working population 1991–1994	Cases were all women aged 65 or younger who were admitted to the cardiac clinics of all hospitals in Stockholm for an acute coronary heart disease (acute myocardial infarction or unstable angina pectoris) between February 1991 and February 1994 Controls were healthy and matched by age Women not employed and homemakers were excluded n=584 (292 cases and 292 controls)	**Demand, control and job stress** Psychosocial work factors were assessed by a Swedish version of the demand- control questionnaire (DCQ)	**Coronary heart disease** Women were considered as having coronary heart disease if their hospital records indicated one or several of a list of specified criteria	Risk for coronary heart disease in women. OR (95% CI) Job control: 1.71 (1.04; 3.63) Job stress[1]: 2.32 (1.21; 4.45) [1] ratio of job demands to control	

		All participants were women				
Wang et al 2010 [139] Finland	Prospective cohort The mean follow-up was 18 years General working population 1972–2002	Participants were Finnish men and women who were 25–74 years of age and free of heart failure at baseline Data was gathered from seven independent population surveys carried out in six geographic areas of Finland between 1972 and 2002. Since 1982, the sample was stratified by area, gender, and 10-year age group n=58 208 29 874 women and 28 334 men	**Occupational physical activity** Occupational physical activity levels were assessed using a self-administered questionnaire at baseline A detailed description of the questions has been presented elsewhere (Hu 2003, Hu 2004, Hu 2005 and Hu 2007)	**Heart failure** Follow-up information on lethal and non-lethal heart failure was obtained from several national registers The ICD codes 427.00 and 427.10 (ICD-8); 428, 4029B (hypertensive heart disease with heart failure), and 4148A-X (ischemic heart failure with chronic coronary heart disease) (ICD-9); and I50, I11.0 (hypertensive heart disease with heart failure), I13.0, and I13.2 (hypertensive heart and renal disease with heart failure) (ICD-10) were used to identify cases in the databases	Hazard rates of heart failure according to different levels of occupational physical activity. HR (95% CI) adjusted for age and study year **Occupational physical activity** ***Women*** Low: 1.0 Moderate: 0.67 (0.59; 0.76) High: 0.87 (0.78; 0.97) ***Men*** Low: 1.0 Moderate: 0.75 (0.66; 0.85) High: 0.74 (0.67; 0.82) ***Women and men combined*** Low: 1.0 Moderate: 0.70 (0.64; 0.77) High: 0.79 (0.74; 0.85)	Hazard rates of heart failure according to different levels of occupational physical activity. HR (95% CI) adjusted for age, study year, education, smoking, alcohol consumption, history of myocardial infarction, history of valvular heart disease, history of diabetes, systolic blood pressure, total cholesterol, history of using antihypertensive drugs, history of lung disease, body mass index, and other 2 types of physical activity **Occupational Physical Activity** ***Women*** Low: 1.0 Moderate: 0.80 (0.70; 0.92) High: 0.92 (0.82; 1.05) ***Men*** Low: Moderate: 0.90 (0.78; 1.03) High: 0.83 (0.73; 0.93 ***Women and men combined*** Low: 1.0 Moderate: 0.85 (0.77; 0.93) High: 0.87 (0.80; 0.94
Wild et al 1995 [140] France	Prospective cohort 10 years Mining 1977–1987	Participants were French potash miners employed three years or longer. All miners in the mining company personnel file year 1977, or subsequently hired, participated. 45 percent of the cohort	**Heat from underground work** Total duration of underground work was assessed by company files The temperature at 1 000 meters down in the mine is	**Heart disease** Causes of death was obtained by matching the file of each diseased subject with the national file of causes of death coded according to ICD-8	Poisson regression for ischemic heart disease by expose. RR (95% CI) **Daylight** Yes: 1.00 Working underground: 2.78 (1.38; 5.62) Standardized mortality rate per 100 000 person-years by exposure groups. SMR (95% CI)	–

		had never worked underground n=8 199 Gender of the participants is not stated in the article	approximately 40 degrees Celsius	Mortality of the cohort was compared to local death rates. Also, participants working underground were compared to those without such working conditions	**Heat from underground work** All cardiovascular diseases: 90 (76; 107) Ischemic: 90 (69; 115) Cerebrovascular: 69 (44; 105)	
Willich et al 2006 [141] Germany	Case–control study General population 1998–2001	Participants were living in Berlin and aged below 70. Patients with deafness or hearing impairment were excluded Cases were recruited from coronary care units at major hospitals in Berlin; all patients consecutively admitted with a diagnosis of acute myocardial infarction Controls were matched for gender, age, and hospital. They were recruited from the departments of trauma and general surgery with one of the following diagnoses presumably not related to noise exposure: accidents, inguinal hernia, goiter, or colon disorder. The case–	**Noise** The sound levels of work noise were assessed using international standards for workplaces	**Myocardial infarction** Diagnosis of acute myocardial infarction was according to the cardiologist-in-charge	Exposure to work sound levels in cases and controls, corresponding odds ratio. Univariate OR (95% CI) **Work noise** ***Women*** ≤55 decibels: 1.0 (reference) 55–70 decibels: 0.73 (0.47; 1.14) >70 decibels: 1.21 (0.64; 2.30) ***Men*** ≤55 decibels: 1.0 (reference) 55–70 decibels: 1.19 (0.98; 1.44) >70 decibels: 1.27 (1.02; 1.58)	Exposure to work sound levels in cases and controls, corresponding odds ratio. Multivariate OR (95% CI) adjusted for diabetes, hypertension, smoking, family history of myocardial infarction, hyperlipidaemia, obesity, education, living alone, currently working, work >40 h per week and shift work **Work noise** ***Women*** ≤55 decibels: 1.0 (reference) 55–70 decibels: 0.88 (0.53; 1.48) >70 decibels: 1.11 (0.54; 2.26) ***Men*** ≤55 decibels: 1.0 (reference) 55–70 decibels: 1.19 (0.89; 1.40) >70 decibels: 1.25 (0.97; 1.60)

		control ratio was 1:1 in men and 1:2 in women n=4 115 1 061 women and 3 054 men				
Virkkunen et al 2006 [142] Finland	Prospective cohort. Part of the Helsinki Heart study Industrial work 9, 13 and 18 years follow-up 1982–1999	Participants were men 40–65 years at entry. At baseline, the cholesterol level was ≤5.2 mmol/l. Only industrially employed participants were included. The group comprised iron and metal work, machine work in plants, woodworking and chemical process work n=1 804 All participants were men	**Noise, shift work and physical work load** Data came from a job exposure matrix developed by the Finnish Institute for occupational health	**Coronary heart disease** The cardiac end points were obtained from the Hospital Discharge Register Definition of coronary heart disease was based on codes 410–414 of the ICD 8th and 9th versions	Noise, shift work, and physical workload as a predictor of coronary heart disease risk among industrially employed men for different follow-ups. RR (95% CI) un-adjusted **Noise** ***9 years follow-up (no noise: 1.00)*** Continuous noise: 1.48 (1.00; 2.19) Continuous or intermittent: 1.28 (0.68; 2.41) ***13 years follow-up (no noise: 1.00)*** Continuous noise: 1.27 (0.96; 1.70) Continuous or intermittent: 1.42 (0.93; 2.17) ***18 years follow-up (no noise: 1.00)*** Continuous noise: 1.16 (0.93; 1.46) Continuous or intermittent: 1.58 (1.15; 2.18) **Shift work** ***9 years follow-up (day: 1.00)*** Shift work: 1.59 (1.10; 2.31) ***13 years follow-up (day: 1.00)*** Shift work: 1.41 (1.08; 1.84) ***18 years follow-up (day: 1.00)*** Shift work: 1.34 (1.08; 1.66) **Physical work load** ***9 years follow-up (1st tertile: 1.00)*** 2nd tertile: 1.07 (0.66; 1.74) 3rd tertile: 1.18 (0.77; 1.80)	Noise, shift work, and physical workload as a predictor of coronary heart disease) risk among industrially employed men for different follow-ups. RR (95% CI) noise adjusted for day/shift work, day/shift work adjusted for noise, physical workload adjusted for day/shift work **Noise** ***9 years follow-up (no noise: 1.00)*** Continuous noise: 1.29 (0.85; 1.96) Continuous or intermittent: 1.12 (0.58; 2.14) ***13 years follow-up (no noise: 1.00)*** Continuous noise: 1.16 (0.86; 1.57) Continuous or intermittent: 1.28 (0.83; 1.99) ***18 years follow-up (no noise: 1.00)*** Continuous noise: 1.07 (0.84; 1.37) Continuous or intermittent: 1.45 (1.04; 2.02) **Shift work** ***9 years follow-up (day: 1.00)*** Shift work: 1.47 (0.98; 2.19) ***13 years follow-up (day: 1.00)*** Shift work: 1.32 (0.99; 1.76) ***18 years follow-up (day: 1.00)*** Shift work: 1.27 (1.01; 1.60) **Physical work load** ***9 years follow-up (1st tertile: 1.00)***

					13 years follow-up (1st tertile: 1.00) 2nd tertile: 1.01 (0.71; 1.44) 3rd tertile: 1.17 (0.87; 1.59) ***18 years follow-up (1st tertile: 1.00)*** 2nd tertile: 1.11 (0.83; 1.46) 3rd tertile: 1.31 (1.03; 1.67)	2nd tertile: 0.85 (0.50; 1.42) 3rd tertile: 1.10 (0.71; 1.68) ***13 years follow-up (1st tertile: 1.00)*** 2nd tertile: 0.85 (0.58; 1.24) 3rd tertile: 1.11 (0.82; 1.50) ***18 years follow-up (1st tertile: 1.00)*** 2nd tertile: 0.96 (0.71; 1.29) 3rd tertile: 1.26 (0.99; 1.60)
Virkkunen et al 2007 [143] Finland *Note*: data only listed for follow-up until 1999 and for exposure to work factors. More data available in the article	Prospective cohort. Part of the Helsinki Heart study 8 years follow-up for blood pressure 11 years follow-up for coronary heart disease Industrial work 1982–1999	Participants were men 40–65 years at entry. At baseline, the cholesterol level was ≤5.2 mmol/l. Only industrially employed participants were included. The group comprised iron and metal work, machine work in plants, woodworking and chemical process work n=1 288 for coronary heart disease follow-up and 884 for blood pressure follow-up All participants were men	**Noise, shift work and physical work load** Data came from a job exposure matrix developed by the Finnish Institute for occupational health	**Coronary heart disease and systolic blood pressure** The cardiac end points were obtained from the Hospital Discharge Register Definition of coronary heart disease was based on codes 410–414 of the ICD 8th and 9th versions Blood pressure was measured by an experienced nurse Hypertension was defined as a systolic blood pressure of 90 mm Hg or higher	Systolic blood pressure (SBP) during the first year of the study, change in SBP and shift work, noise or physical work load as predictor of coronary heart disease in 1999. RR (95% CI), unadjusted **Shift work** ***No elevated SBP at follow-up*** <140 SBP (1st year), day work: 1 <140 SBP (1st year): 1.55 (1.04; 2.31) ≥140 SBP (1st year): 2.11 (1.37; 3.23) ***Elevated SBP at follow-up*** <140 SBP (1st year), day work: 1 <140 SBP (1st year): 2.43 (1.52; 3.90) ≥140 SBP (1st year): 3.59 (1.99; 6.48) **Noise** ***No elevated SBP at follow-up*** <140 SBP (1st year), no noise: 1 <140 SBP (1st year): 1.43 (0.96; 2.13) ≥140 SBP (1st year): 2.11 (1.71; 5.51) ***Elevated SBP at follow-up*** <140 SBP (1st year), no noise: 1 <140 SBP (1st year): 2.90 (1.90; 4.44) ≥140 SBP (1st year): 3.06 (1.71; 5.51) **Physical workload** ***No elevated SBP at follow-up*** <140 SBP (1st year), no exposure: 1	Systolic blood pressure during the first year of the study, change in SBP and shift work, noise or physical work load as predictor of coronary heart disease in 1999. RR (95% CI) adjusted for day/shift work, day/shift work adjusted for noise, physical workload adjusted for day/shift work **Shift work** ***No elevated SBP at follow-up*** <140 SBP (1st year), day work: 1 <140 SBP (1st year): 1.41 (0.93; 2.14) ≥140 SBP (1st year): 1.94 (1.25; 3.02) ***Elevated SBP at follow-up*** <140 SBP (1st year), day work: 1 <140 SBP (1st year): 2.28 (1.41; 3.67) ≥140 SBP (1st year): 3.28 (1.80; 5.98) **Noise** ***No elevated SBP at follow-up*** <140 SBP (1st year), no noise: 1 <140 SBP (1st year): 1.34 (0.88; 2.03) ≥140 SBP (1st year): 2.00 (1.32; 3.03) ***Elevated SBP at follow-up*** <140 SBP (1st year), no noise: 1 <140 SBP (1st year): 2.77 (1.79; 4.26) ≥140 SBP (1st year): 2.86 (1.58; 5.20) **Physical workload**

					<140 SBP (1st year): 1.21 (0.81; 1.81) ≥140 SBP (1st year): 1.99 (1.36; 2.93) ***Elevated SBP at follow-up*** <140 SBP (1st year), no exposure: 1 <140 SBP (1st year): 2.27 (1.49; 3.46) ≥140 SBP (1st year): 3.27 (1.96; 5.46)	***No elevated SBP at follow-up*** <140 SBP (1st year), no exposure: 1 <140 SBP (1st year): 1.15 (0.77; 1.73) ≥140 SBP (1st year): 1.91 (1.29; 2.82) ***Elevated SBP at follow-up*** <140 SBP (1st year), no exposure: 1 <140 SBP (1st year): 2.17 (1.41; 3.33) ≥140 SBP (1st year): 3.09 (1.84; 5.19)
Virkkunen et al 2005 [144] Finland	Prospective cohort. Part of the Helsinki Heart study 9, 13 and 18 years follow-up Industrial work 1982–1999	Participants were men 40–65 years at entry. At baseline, the cholesterol level was ≤5.2 mmol/l. Only industrially employed participants were included. The group comprised iron and metal work, machine work in plants, woodworking and chemical process work n=6 005 All participants were men	**Noise** Data on noise came from a job exposure matrix developed by the Finnish Institute for occupational health	**Coronary heart disease** The cardiac end points were obtained from the Hospital Discharge Register Definition of coronary heart disease was based on codes 410–414 of the ICD 8th and 9th versions	Noise as predictor of heart disease. RR (95% CI) **All workers** ***9 years follow-up (no noise: 1.00)*** Continuous noise: 1.37 (1.15; 1.64) Continuous or intermittent: 1.38 (1.04; 1.82) ***13 years follow-up (no noise: 1.00)*** Continuous noise: 1.37 (1.19; 1.59) Continuous or intermittent: 1.47 (1.18; 1.84) ***18 years follow-up (no noise: 1.00)*** Continuous noise: 1.35 (1.19; 1.59) Continuous or intermittent: 1.54 (1.28; 1.86) **Blue-collar workers** ***9 years follow-up (no noise: 1.00)*** Continuous noise: 1.11 (0.90; 1.37) Continuous or intermittent: 1.11 (0.82; 1.51) ***13 years follow-up (no noise: 1.00)*** Continuous noise: 1.17 (0.99; 1.40) Continuous or intermittent: 1.26 (0.99; 1.60) ***18 years follow-up (no noise: 1.00)*** Continuous noise: 1.13 (0.97; 1.30) Continuous or intermittent: 1.29 (1.05; 1.57) **Continuous noise; all workers** ***9 years follow-up (un-exposed: 1.00)*** 80-85 dB: 1.32 (1.08; 1.60) >85 dB: 1.45 (1.18; 1.79)	Noise as predictor of heart disease. RR (95% CI) adjusted for age, systolic blood pressure, total serum cholesterol, smoking and body mass index **All workers** ***9 years follow-up (no noise: 1.00)*** Continuous noise: 1.27 (1.06; 1.52) Contin./intermittent: 1.16 (0.98; 1.54) ***13 years follow-up (no noise: 1.00)*** Continuous noise: 1.28 (1.11; 1.48) Contin./intermittent: 1.26 (1.01; 1.58) ***18 years follow-up (no noise: 1.00)*** Continuous noise: 1.27 1.13; 1.44) Contin./intermittent: 1.35 (1.12; 1.62) **Blue-collar workers** ***9 years follow-up (no noise: 1.00)*** Continuous noise: 1.13 (0.92; 1.40) Contin./intermittent: 1.04 (0.77; 1.41) ***13 years follow-up (no noise: 1.00)*** Continuous noise: 1.19 (1.00; 1.42) Contin./intermittent: 1.18 (0.93; 1.51) ***18 years follow-up (no noise: 1.00)*** Continuous noise: 1.15 (0.99; 1.33) Contin./intermittent: 1.22 (0.99; 1.49)

					13 years follow-up (un-exposed: 1.00) 80-85 dB: 1.37 (1.18; 1.60) >85 dB: 1.42 (1.20; 1.69) ***18 years follow-up (un-exposed: 1.00)*** 80-85 dB: 1.32 (1.10; 1.51) >85 dB: 1.48 (1.28; 1.71) **Impulse noise; all workers** ***9 years follow-up (un-exposed: 1.00)*** Exposed: 1.19 (0.91; 1.55) ***13 years follow-up (un-exposed: 1.00)*** Exposed: 1.27 (1.03; 1.56) ***18 years follow-up (un-exposed: 1.00)*** Exposed:1.34 (1.12; 1.60) **Continuous noise; blue-collar workers** ***9 years follow-up (un-exposed: 1.00)*** 80-85 dB: 1.06 (0.85; 1.33) >85 dB: 1.17 (0.92; 1.49) ***13 years follow-up (un-exposed: 1.00)*** 80-85 dB: 1.17 0.98; 1.41) >85 dB: 1.22 (1.00; 1.48) ***18 years follow-up (un-exposed: 1.00)*** 80-85 dB: 1.10 (0.94; 1.29) >85 dB: 1.23 1.05; 1.46) **Impulse noise; blue-collar workers** ***9 years follow-up (un-exposed: 1.00)*** Exposed: 1.04 (0.79; 1.36) ***13 years follow-up (un-exposed: 1.00)*** Exposed: 1.13 (0.92; 1.40) ***18 years follow-up (un-exposed: 1.00)*** Exposed: 1.19 (1.00; 1.42)	

Virtanen et al 2010 [145] United Kingdom	Prospective cohort. Data from the Whitehall study Average follow-up time was 11 years Civil servants 1991–2004	Participants were civil servants aged 39–61 years who were free of coronary heart disease at baseline and who worked full time at baseline n=6 014 1 752 women and 4 262 men	**Overtime work** Working hours were assessed by questionnaire. Items are described in the article	**Coronary heart disease** Occurrence of coronary heart disease between 1991–1994 and 2002–2004 was assessed Participants were flagged by the British National Health Service Central Registrar, who notified deaths classified as coronary if ICD-9 codes 410–414 or ICD-20 codes 120–125 were present at the death certificate Non-fatal coronary heart disease included first non-fatal myocardial infarction (defined by MONICA criteria) or first definite angina (based on clinical records and nitrate medication, excluding solely self-reported data)	Association between exposure to overtime work at baseline and incident coronary heart disease. HR (95% CI) adjusted for age, sex, marital status and occupational grade **Fatal coronary heart disease, non-fatal myocardial infarction or definite angina pectoris** ***Hours of overtime*** None: 1.00 1 hour: 1.01 (0.76; 1.34) 2 hours: 1.28 (0.95; 1.74) 3–4 hours: 1.60 (1.15; 2.23) **Non-fatal myocardial infarction** ***Hours of overtime*** None: 1.00 1 hour: 0.95 (0.61; 1.49) 2 hours: 1.46 (0.93; 2.30) 3–4 hours: 1.90 (1.17; 3.06)	Association between exposure to overtime work at baseline and incident coronary heart disease. HR (95% CI) adjusted for age, sex, marital status, occupational grade, diabetes, blood pressure, triglycerides, smoking, alcohol use, fruit and vegetable consumption, exercise level, body mass index, sleeping hours, sickness absence, psychological distress, job demands, decision latitude at work and type A behavioural pattern **Fatal coronary heart disease, non-fatal myocardial infarction or definite angina pectoris** ***Hours of overtime*** None: 1.00 1 hour: 1.04 (0.78; 1.38) 2 hours: 1.23 (0.90; 1.69) 3–4 hours: 1.56 (1.11; 2.19) **Non-fatal myocardial infarction** ***Hours of overtime*** None: 1.00 1 hour: 0.93 (0.59; 1.47) 2 hours: 1.26 (0.79; 2.02) 3–4 hours: 1.67 (1.02; 2.76)

Virtanen et al 2002 [146] Finland	Prospective cohort. Data from the Finnish Longitudinal Census file 13 years Working men 1981–1994	Participants were between 25 and 64 years in 1980. They had the same occupation in both 1975 and 1980 Mining work, military work and agricultural work were excluded n=507 000 All participants were men	**Several occupational factors** Data on working condition came from a job exposure matrix developed by the Finnish Institute for occupational health Data on occupation was assessed by a questionnaire developed within the Finnish Longitudinal Census study	**Cardio-vascular death** Causes of death were retrieved from the national register and the Finnish translation of the ICD-9 was used for disease classification Cardio-vascular death included acute myocardial death (codes 390–459), acute myocardial infarction (410) and cerebrovascular deaths (430–438)	Rate ratio of work exposure on mortality. Disease group/exposure variable level. RR (95% CI) **All cardiovascular diseases** ***Chlorinated hydrocarbon solvents*** Low, unexposed:1.00 High: 1.09 (0.98; 1.21) ***Cadmium (unexposed: 1.00)*** High: 1.01 (0.93; 1.10) ***Diesel exhaust (unexposed: 1.00)*** Exposed: 1.06 (1.00; 1.14) ***Lead (unexposed: 1.00)*** Low: 1.00 (0.93; 1.08) High: 1.12 (1.03; 1.23) ***Sedentary work (low, unexposed: 1.00***) High: 1.04 (0.93; 1.17) ***Noise (unexposed: 1.00)*** Low: 1.01 (0.96; 1.06) High: 1.07 (0.99; 1.15) ***Working hours (regular day: 1.00)*** Two-shift, evening: 1.02 (0.96; 1.08) Three-shift, night: 1.02 (0.94; 1.10) ***Control (high, medium: 1.00)*** Low: 1.05 (1.00; 1.11) ***Work load (low: 1.00)*** Medium: 1.06 (1.00; 1.12) High: 1.11 (0.98; 1.25) **Myocardial infarctions** ***Chlorinated hydrocarbon solvents*** Low, unexposed:1.00 High: 1.09 (0.95; 1.25)	–

					Diesel exhaust (unexposed:1.00) Low: 1.07 (0.95; 1.20) High: 1.09 (0.95; 1.24) ***Lead (Unexposed:1.00)*** Low: 1.01 (0.93; 1.10) High: 1.13 (1.00; 1.28) ***Sedentary work (low, unexposed: 1.00***) High: 1.11 (0.93; 1.34) ***Noise (unexposed: 1.00)*** Low: 1.03 (0.96; 1.11) High: 1.10 (0.99; 1.22) ***Control (high, medium: 1.00)*** Low: 1.11 (1.04; 1.19) ***Work load (low: 1.00)*** Medium: 1.05 (0.97; 1.13) High: 1.13 (0.96; 1.33) **Cerebrovascular disease** *Arsenic* Low, unexposed:1.00 High: 1.04 (0.75; 1.45) ***Cadmium (unexposed: 1.00)*** High: 1.07 (0.91; 1.24) ***Diesel exhaust (unexposed:1.00)*** Exposed: 1.12 (0.97; 1.29) ***Lead (low, unexposed:1.00)*** High: 1.24 (1.00; 1.55) ***Organic solvents (low, unexposed:1.00)*** High: 1.11 (0.92; 1.35) ***Working hours (regular day: 1.00)***	

					Two-shift, evening: 1.19 (1.01; 1.39) Three-shift, night: 1.06 (0.86; 1.31) ***Control (high, medium: 1.00)*** Low: 1.19 (1.05; 1.36) ***Work load (low: 1.00)*** Medium: 1.02 (0.98; 1.17) High: 1.13 (0.84; 1.53)	
Vollebregt et al 2008 [147] The Netherlands	Prospective cohort. Part of the Amsterdam Born Children and their development study (ABCD study) During pregnancy Pregnant women 2003–2004	Participants were pregnant women in Amsterdam, The Netherlands. Only nullparious women with a singleton pregnancy who completed the questionnaire before 24 weeks and delivered after 24 weeks were included n=3 679 All participants were women	**Psychosocial factors** Psychosocial factors were assessed by questionnaire Total working hours were defined as the weekly hours of paid work, the other factors were assessed by a scale defined by the Work Experience and Appreciation Questionnaire by Van Velthoven et al, partly based on the Job Content Questionnaire, (JCQ)	**Pre-eclampsia** Pre-eclampsia was defined by the combination of gestational hypertension (≥90 mm Hg after 20 weeks) and proteinuria ≥0.3 k/24 hours or dipstick ≥++ after 20 weeks of gestation	Odds ratios of pre-eclampsia of psychosocial stress. Univariate analysis. OR (95% CI) **Working hours** <32 hours/week:1 ≥32 hours/week: 1.04 (0.67; 1.63) **Work load** Low: 1 Moderate: 1.30 (0.86; 1.97) High: 1.60 (0.88; 2.92) **Work control** High: 1 Moderate: 0.98 (0.64; 1.49) Low: 1.49 (0.85; 2.62) **Job strain** Low: 1 Moderate: 1.39 (0.92; 2.91) High: 1.36 (0.65; 2.85)	Odds ratios of pre-eclampsia of psychosocial stress. Multivariate analysis. OR (95% CI) adjusted for body mass index, chronic hypertension, diabetes mellitus, smoking in pregnancy, previous miscarriage, age, ethnicity, education and marriage/co-habitation **Working hours** <32 hours/week:1 ≥32 hours/week: 0.93 (0.59; 1.49) **Work load** Low: 1 Moderate: 1.16 (0.75; 1.78) High: 1.76 (0.94; 3.29) **Work control** High: 1 Moderate: 1.07 (0.69; 1.65) Low: 1.51 (0.81; 2.82) **Job strain** Low: 1 Moderate: 1.27 (0.83; 1.95) High: 1.61 (0.75; 3.49)
Yong et al 2014 [148] Germany	Retrospective cohort Industry 1995–2009	Participants were male workers from a chemical manufacturing plants, who were employed for at least one year	**Shift work** Shift workers had at least one year of fast-forward-rotating shift work	**Mortality caused by ischemic heart disease** Vital status was followed from 2000–2009 via personnel	Hazard ratios of mortality due to diseases in circulatory system and ischemic heart disease among shift- versus day-work employees. HR (95% CI) with the following co-factors in the model: age	Hazard ratios of mortality due to diseases in circulatory system shift- versus day-work employees. HR (95% CI) with the following co-factors in the model: age, manual work, cigarette smoking, alcohol intake, job duration,

		between 1995 and 2005 n=31 143	A referent population was based on workers who never had performed shift work or whose job titles were indicative of office work	records and pension records Cause-specific mortality was obtained from death certificates Diagnoses from I20.0–I25.9 according to ICD-10 was included	**Diseases in circulatory system** Shift work: 1.12 (1.10; 1.14) **Ischemic heart disease** Shift work: 1.12 (1.10; 1.15)	body mass index, diseases of the liver, diabetes mellitus and hypertensive diseases **Diseases in circulatory system** Shift work: 3.46 (2.35; 5.08) **Ischemic heart disease** Shift work: 2.05 (1.30; 3.26)
Yoshimasu 2001 [149] Japan	Case-control General working population 1996–1998	Cases were patients aged 40–79 years who were admitted to collaborating hospitals for the first acute myocardial infarction during a specified period, and who survived to receive rehabilitation Two controls, matched for gender, age and proximity of residence, were recruited for each case by using resident registers 476 men (173 cases, 303 controls) Both men and women participated in the study (total n=779 of which 303 were women). However, only men were used in the analysis of	**Psychosocial work factors** Factors were assessed by the Job Content Questionnaire, JCQ	**Acute myocardial infarction** Diagnosis was set by a cardiologist	Relation between job-related psychosocial factors and acute myocardial infarction in male workers. OR (95% CI) adjusted for age **Job control** High: 1 Middle: 0.9 (0.5; 1.5) Low: 1.0 (0.6; 1.7) **Job demand** Low: 1.0 Middle: 0.9 (0.6; 1.6) High: 1.4 (0.9; 2.4) **Job Strain** Low: 1.0 Middle: 1.2 (0.7; 2.0) High: 2.3 (1.2; 4.3) **Job support** High: 1.0 Middle: 0.7 (0.4; 1.4) Low: 0.6 (0.3; 1.1)	Relation between job-related psychosocial factors and acute myocardial infarction in male workers. OR (95% CI) adjusted for age, several medical conditions, smoking, alcohol intake, parental heart disease and shift work **Job control** High: 1 Middle: 0.8 (0.5; 1.5) Low: 1.0 (0.5; 1.7) **Job demand** Low: 1.0 Middle: 0.8 (0.5; 1.5) High: 1.3 (0.7; 2.2) **Job Strain** Low: 1.0 Middle: 1.2 (0.7; 2.1) High: 2.2 (1.1; 4.5) **Job support** High: 1.0 Middle: 0.7 (0.4; 1.5) Low: 0.7 (0.3; 1.4)

		psychosocial work factors				
Zielinski et al 2009 [150] Canada *Note*: data on fitted relative risks is also available (not listed here due to limited space)	Prospective cohort Mean duration of follow-up was 15 years (women) and 16.5 years (men) Individuals occupationally exposed to ionizing radiation 1951–1995	Participants were occupationally exposed to ionizing radiation and included in the National Dose Registry of Canada Miners were excluded, because the radiation exposure records based on personal dosimeters were only available since 1980 The mean age at death was 58.5 for males and 52.5 for females n=337 397, but only 10 888 were linked with the mortality database 168 141 women and 169 256 men	**Ionizing radiation** External dosimetry was used. External whole body doses could include exposures to X rays, γ rays, β particles, and neutrons. A quality factor was applied to these exposures for dose assessment Internal exposures to tritium, found mainly among nuclear workers, were determined from measurement of urinary levels. In this study, the whole body dose estimates included the contribution from tritium, but excluded that from neutrons or from other radionuclides as they were considered negligible	**Cardio-vascular disease mortality** Vital status and causes of death were determined via probabilistic linkage to the Canadian Mortality Database. This database records all deaths in Canada since 1950 Causes of death were re-coded according to ICD-9 The analysis included all cardiovascular diseases: ICD-9 codes 390–459 Vital status was confirmed by linkage to tax records	Observed relative risk of cardiovascular disease mortality by dose category. RR (no confidence interval presented) **All** ***Dose category (mSv)*** 0: 1.00 >0: 1.02 5–: 1.19 10–: 1.19 20–: 1.10 50–:1.26 100–: 1.15 200–: 1.44 400–: 1.64 **Women** ***Dose category (mSv)*** 0: 1.00 >0: 0.90 5–: 1.40 10–: 1.40 20–: 1.30 50–: 1.50 100–: 2.30 200–: – 400–: – **Men** ***Dose category (mSv)*** 0: 1.00 >0: 1.04 5–: 1.16 10–: 1.17 20–: 1.09 50–: 1.26 100–: 1.13 200–: 1.42 400–: 1.60	Risk of cardiovascular disease mortality presented as excess relative risk (ERR) per Sievert adjusted for sex, age, job type, calendar year and time since first exposure, excess absolute risk (EAR) per Sievert per 10 000 person-years, and attributable risk (AR) percentage for a dose of 0.01 Gy. Data presented with 90% CI **All** ERR: 1.35 (0.59; 2.24) EAR: 37.5 (17.0; 60.1) AR: 9.46 (4.42; 14.7) **Women** ERR: 7.37 (0.95; 18.1) EAR: 59.1 (8.33; 129.2) AR: 24.5 (4.08; 43.7) **Men** ERR: 1.22 (0.47; 2.10) EAR: 37.6 (15.0; 62.5) AR: 8.84 (3.65; 14.2)

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