

levels are usually several times higher than ambient levels, but the effects have been less studied. We investigated the association between occupational exposure to particles from various sources and the incidence of myocardial infarction.

**Methods** A cohort was created including all workers in the Swedish National Census in 1980, with information on occupation from censuses in 1980, 1985 and 1990. Information on hospital admissions or death from acute myocardial infarction was obtained from nation-wide registers. Information on exposure was obtained from a job-exposure matrix (JEM) including particulate matter of twenty different agents. The cohort was limited to workers in order to reduce confounding from tobacco smoking.

**Results** Exposure to quartz dust, ferrous dust, Benzo(A)pyrene, paper dust and oil mist was associated with a significantly increased risk ratio (RR) for acute myocardial infarction. The highest RR was noted for exposure to Benzo(A)pyrene, RR 1.32 (95% CI 1.20 to 1.45) and oil mist, RR 1.32 (1.23 to 1.42). Women had a consistently higher RR of acute myocardial infarction than men. The highest RR for women occurred in occupations exposed to Benzo(A)pyrene, RR 2.09 (1.56 to 2.81).

**Conclusions** Occupational exposure to several particulate agents was associated with an increased risk of acute myocardial infarction, with consistently higher relative risks in women than in men. No individual data on tobacco smoking were available, but the potential bias from this was reduced by limitation to workers.

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#### MYOCARDIAL INFARCTION AND OCCUPATIONAL EXPOSURE TO PARTICLES FROM VARIOUS SOURCES

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10.1136/oemed-2011-100382.171

**Objectives** Ambient particulate air pollution has been linked to cardiovascular disease. Occupational particle exposure