Table 2

Occupational agents and their effects on male fertility

Some occupations involve exposure to hazards that can reduce male or female fertility and therefore a specific enquiry about occupation should be made to people who are concerned about their fertility and appropriate advice should be offered.

Occupational agents	Occupational groups	Effects on male fertility
Physical		
Shift work/long working hours	Shift workers	No association
Heat (increase in scrotal temperature)	Welders, bakers, drivers	Abnormal sperm parameters
X-ray	Radiotherapists	Azoospermia, reduced sperm count, may be reversible
Non-ionising radiation: electromagnetic fields	Metal workers	Inconsistent association
Vibrations	Engine drivers, diggers	Oligozoospermia, asthenozoospermia
Chemical		
Dibromochloropropane (pesticide)	Agricultural workers	Oligozoospermia and azoospermia, reversible in most cases, reduced fertilisation rate
Ethylene dibromide (pesticide)		Abnormal sperm parameters
Carbaryl (pesticide)		No association
Polychlorinated biphenyls	Agricultural workers	Abnormal sperm parameters
Lead, cadmium, manganese	Metal workers, smelters, battery factory workers	Reduced fertility, mainly affecting female partners, or no association
Mercury	Dental amalgam	No association
Acetone, carbon disulphide, glycol ethers (solvents)	Chemists, laboratory workers, painters	Abnormal sperm parameters, reduced fecundability, oligospermia
Toluene, styrene (solvents)	Plastic and printing industry	No association
Anaesthetic gases	Dentists, anaesthetists	No association

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