Cancers and their work causes
An ITUC/Hazards at-a-glance guide to cancer hazards at work

Bladder cancer: Organo-solvents including benzene, some evidence for benzene at high exposure levels. Also some evidence for workers in the petroleum industry and those exposed to metallic dusts and metalworking fluids. Excess risks have been found for exposure to metallic dusts and metalworking fluids, PAHs and liquid fuel combustion products, and farmers and pesticide applicators.


Lung cancer: Arsenic; beryllium; cadmium; chromium; nickel; solvents, particularly aromatic (benzene and toluene); ionising radiation, including radon exposure; radon and uranium; haematite and other iron ores; reactive chemicals including BCM, CCME, mustard-gas, welding fumes, plus some evidence for sulphuric acids; environmental tobacco smoke; petrochemicals and combustion byproducts, including PAHs and diesel exhaust fumes; some inconsistent evidence on pesticides, including DDT; asbestos; silica; wood dust; some man-made fibres, including ceramic fibres. Some evidence supports excess risks in specific industries, including the rubber industry, work as a painter.

Skin cancer: Solvents, with some evidence for tetrachloroethylene; dry-cleaning solvents and benzene; pesticides; woodworking.

Leukaemia: Organic solvents, notably benzene, with quite strong evidence for childhood leukaemia and paternal exposure to aromatic and chlorinated solvents, paints and pigments; reactive chemicals, ionising radiation; conflicting evidence on non-ionising radiation; pesticides, including carbon disulphide, phosphine, styrine, and methyl bromide, plus limited evidence for DDT. Some evidence of increased risk in the petroleum industry and those exposed to ethylene oxide.

Soft tissue sarcomas: Vinyl chloride monomer (angiosarcoma of the liver); pesticides. Ewing’s sarcoma in pesticide-exposed workers.

Laryngeal cancer: Metalworking fluids and mineral oils; natural fibres including asbestos; some evidence for wood dust exposure; exposure to reactive chemicals including sulphuric acids. Excesses seen in rubber workers, nickel refining, and chemical production using the “strong acid” process.

Oesophageal cancer: Suggestive evidence for solvent exposure, particularly tetrachloroethylene. Metalworking fluids; asbestos; work in the rubber industry.

Brain and other CNS cancers: Lead; arsenic; mercury; solvents, including benzene, toluene, xylene and methylene chloride; pesticides; n-nitroso compounds; work in the rubber industry.

Testicular cancer: Evidence for endocrine disrupting chemicals (e.g., phthalates, PCBs and polyhalogenated hydrocarbons). A literature review found significantly elevated risks in men working in agriculture, tanning and mechanical industries, and consistent associations with painting, mining, plastics, metalworking and occupational use of hand-held radi.

Rectal cancer: Metalworking fluids and mineral oils. Some evidence for solvents, including toluene and xylene.

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Prostate cancer: Links to cadmium, arsenic and some pesticides, notably herbicides and other endocrine disruptors. Excess risks have been found for exposure to metallic dusts and metalworking fluids, PAHs and liquid fuel combustion products, and farmers and pesticide applicators.

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