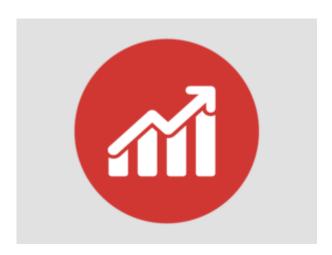
Cancer Sites Associated with Occupational Exposures



Is exposure to a specific carcinogen associated with a certain type of cancer?

In many cases, certain types of cancer are associated with specific carcinogens. The table below lists some of these associations.

Please note: This list was complied from information available from reputable sources, but it is not complete. It represents associations that have been reported in literature between certain types of cancer and specific carcinogen exposures.

Exposure to a carcinogen does not necessarily mean that you will develop cancer. The OSH Answers on Occupational Cancer has more information.

Some Cancer Sites Associated with Occupational or Environmental Carcinogen Exposures

Cancer Site Examples of High-risk Substances

Bladder (urinary) Aromatic amines (e.g. 4,4′-Methylene bis(2-chloroaniline) (MOCA), para-Chloroaniline, 2,6-Dimethylaniline (2,6-Xylidine)); Arsenic and inorganic arsenic compounds; Benzidine and benzidine-based dyes; Benzo[a]pyrene; Coal tars & pitches; Diesel engine exhaust; Tetrachloroethylene; ortho-Toluidine

Ionizing radiation

Brain and Central Nervous System (CNS)

Bone

Ionizing radiation

Examples of High-risk Processes, Industries and Occupations with Increased Risks

Barbers; Cable makers; Calendar operatives; Chemical/petroleum workers; Coke production; Dry cleaners; Firefighters; Gasretort house workers; Hairdressers; Machinists; Manufacturing of: aluminum, magenta, auramine, p-chloroo-toluidine, pigment chromate, textiles, and dyes; Miners; Painters; Pipefitters; Plumbers; Rubber production; Sheet metal workers; Synthetic latex production; Tire curing

Ethylene oxide; Ionizing radiation; Shiftwork that involves **Breast** Polychorinated biphenyls circadian disruption Colon and Asbestos; Ionizing radiation rectum Dry cleaning; Rubber Esophagus Ionizing radiation production industry Welding, Solar radiation Eye Arsenic and inorganic arsenic compounds; Kidney Cadmium and cadmium compounds; Printing processes Perfluorooctanoic acid; Trichloroethylene Insulation material production (pipes, sheeting, textiles, clothes, masks, asbestos cement products); Insulators and pipe Larynx Acid mists, strong inorganic; Asbestos coverers; Isopropanol manufacture (strong-acid process); Rubber production industry; Shipyard and dockyard workers Benzene; 1,3-Butadiene; Diazinon; Boot and shoe manufacturing Leukemia Formaldehyde; Ethylene oxide; Lindane; and repair; Firefighters; and/or Ionizing radiation; Malathion; Methylene Painting; Petroleum lymphoma chloride; Styrene; Trichloroethylene refining; Rubber industry Arsenic and inorganic arsenic compounds; Health care workers: 1,2-Dichloropropane, Methylene chloride; Smelting of ores containing Liver and Ionizing radiation; Occupational arsenic; Vinyl chloride bile duct infections with hepatitis B and C; production; Wood Polychlorinated biphenyls (PCBs); preservation Trichloroethylene Arsenic and arsenic compounds; Asbestos; Benzo[a]pyrene; Beryllium; 1,3-Butadiene; Aluminum production; Asphalt Cadmium & cadmium compounds; Chromium workers; Coal gasification; (hexavalent) compounds; Coal tars & Copper smelting; Hematite pitches; Diesel engine exhaust; mining (underground) with Epichlorohydrin; Fibrous silicon carbide; radon exposure; Iron and Ionizing radiation; Mineral oils steel founding; Isopropanol (untreated and mildly treated); Nickel and Lung manufacture (strong acid nickel compounds; Radon; Silica process); Painters; Printing (crystalline); Soots; Strong inorganic processes; Roofers; Rubber acid mists containing sulfuric acid; Talc production; Uranium mining; containing asbestiform fibers; 2,3,7,8-Vineyard workers; Welding Tetrachlorodibenzo-p-dioxin (TCDD); fumes Tobacco smoke — Involuntary (passive) smoking Blasters; Boilermakers; Bricklayers; Construction workers; Drillers; Electricians; Machinists; Asbestos; Talc containing asbestiform Mesothelioma fibres Mechanics; Miners; Pipefitters; Plumbers; Sheet metal workers; Shipbuilding workers; Welders Boot and shoe manufacturing and repair; Carpenters; Chromium (hexavalent) compounds; Furniture and cabinet Nasal Formaldehyde; Selected nickel compounds cavities and making; Isopropanol including combinations of nickel oxides manufacture (strong acid paranasal and sulfides in the nickel refining process); Miners; Plumbers; sinuses industry; Wood dust Pulp and paper mill workers; Textile workers; Welders

Nasopharynx Formaldehyde; Wood dust

Embalmers; Formaldehyde production; Laboratory workers; Medical personnel;

Plywood production /

particle-board production

0vary Asbestos; Ionizing radiation

Arsenic and inorganic arsenic compounds;

Cadmium and cadmium compounds; Ionizing Prostate

radiation; Malathion

Arsenic and inorganic arsenic compounds; Coal tar distillation; Creosotes; Mineral

oils (untreated and mildly treated);

Polycyclic aromatic hydrocarbons (PAHs) like benzo[a]pyrene, benz[a]anthracene,

and dibenz[a,h]anthracene; Shale oils or shale-derived lubricants; Solar radiation;

Soots

Skin

Asbestos; Lead compounds, inorganic; Stomach

Ionizing radiation

Rubber production industry

Coal gasification; Coke production; Outdoor workers; Petroleum refining; Vineyard

workers

Asbestos mining; Insulation material production (pipes, sheeting, textiles, clothes, masks, asbestos cement products); Insulators and pipe coverers; Rubber production industry; Shipyard and dockyard

workers

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