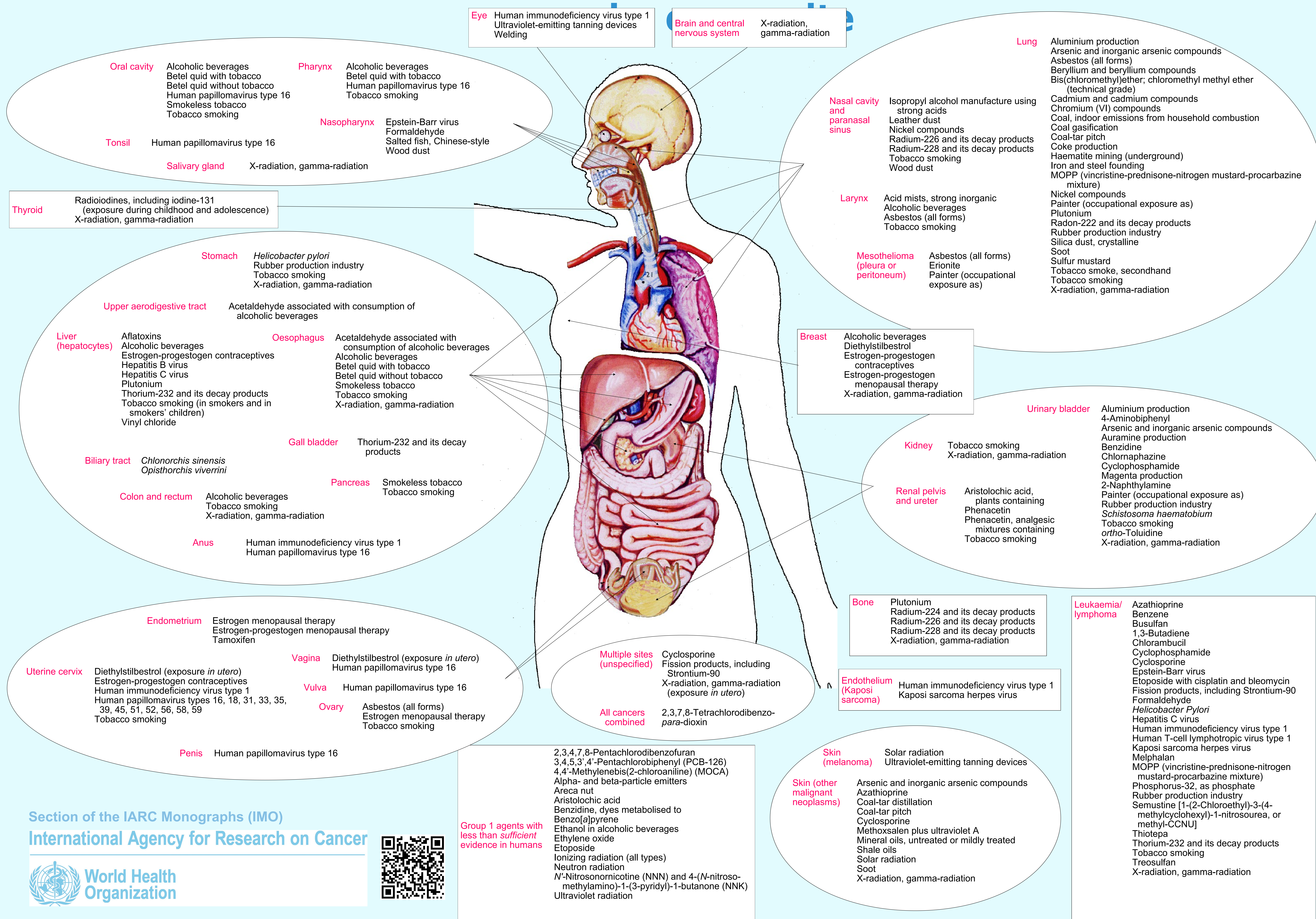


The IARC Monographs Volume 100 : The known causes of human



Section of the IARC Monographs (IMO)
International Agency for Research on Cancer



Eye Human immunodeficiency virus type 1
Ultraviolet-emitting tanning devices
Welding

Brain and central nervous system X-radiation,
gamma-radiation

Lung Aluminium production
Arsenic and inorganic arsenic compounds
Asbestos (all forms)
Beryllium and beryllium compounds
Bis(chloromethyl)ether; chloromethyl methyl ether (technical grade)
Cadmium and cadmium compounds
Chromium (VI) compounds
Coal, indoor emissions from household combustion
Coal gasification
Coal-tar pitch
Coke production
Haematite mining (underground)
Iron and steel founding
MOPP (vincristine-prednisone-nitrogen mustard-procarbazine mixture)
Nickel compounds
Painter (occupational exposure as)
Plutonium
Radon-222 and its decay products
Rubber production industry
Silica dust, crystalline
Soot
Sulfur mustard
Tobacco smoke, secondhand
Tobacco smoking
X-radiation, gamma-radiation

Nasal cavity and paranasal sinus Isopropyl alcohol manufacture using strong acids
Leather dust
Nickel compounds
Radium-226 and its decay products
Radium-228 and its decay products
Tobacco smoking
Wood dust

Larynx Acid mists, strong inorganic
Alcoholic beverages
Asbestos (all forms)
Tobacco smoking

Mesothelioma (pleura or peritoneum) Asbestos (all forms)
Erionite
Painter (occupational exposure as)

Breast Alcoholic beverages
Diethylstilbestrol
Estrogen-progestogen contraceptives
Estrogen-progestogen menopausal therapy
X-radiation, gamma-radiation

Urinary bladder Aluminium production
4-Aminobiphenyl
Arsenic and inorganic arsenic compounds
Auramine production
Benzidine
Chlornaphazine
Cyclophosphamide
Magenta production
2-Naphthylamine
Painter (occupational exposure as)
Rubber production industry
Schistosoma haematobium
Tobacco smoking
ortho-Toluidine
X-radiation, gamma-radiation

Kidney Tobacco smoking
X-radiation, gamma-radiation

Renal pelvis and ureter Aristolochic acid, plants containing
Phenacetin
Phenacetin, analgesic mixtures containing
Tobacco smoking

Bone Plutonium
Radium-224 and its decay products
Radium-226 and its decay products
Radium-228 and its decay products
X-radiation, gamma-radiation

Endothelium (Kaposi sarcoma) Human immunodeficiency virus type 1
Kaposi sarcoma herpes virus

Skin (melanoma) Solar radiation
Ultraviolet-emitting tanning devices

Skin (other malignant neoplasms) Arsenic and inorganic arsenic compounds
Azathioprine
Coal-tar distillation
Coal-tar pitch
Cyclosporine
Methoxsalen plus ultraviolet A
Mineral oils, untreated or mildly treated
Shale oils
Solar radiation
Soot
X-radiation, gamma-radiation

Leukaemia/ lymphoma Azathioprine
Benzene
Busulfan
1,3-Butadiene
Chlorambucil
Cyclophosphamide
Cyclosporine
Epstein-Barr virus
Etoposide with cisplatin and bleomycin
Fission products, including Strontium-90
Formaldehyde
Helicobacter Pylori
Hepatitis C virus
Human immunodeficiency virus type 1
Human T-cell lymphotropic virus type 1
Kaposi sarcoma herpes virus
Melphalan
MOPP (vincristine-prednisone-nitrogen mustard-procarbazine mixture)
Phosphorus-32, as phosphate
Rubber production industry
Semustine [1-(2-Chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea, or methyl-CCNU]
Thiotepa
Thorium-232 and its decay products
Tobacco smoking
Treosulfan
X-radiation, gamma-radiation

Multiple sites (unspecified) Cyclosporine
Fission products, including Strontium-90
X-radiation, gamma-radiation (exposure *in utero*)

All cancers combined 2,3,7,8-Tetrachlorodibenzo-*para*-dioxin

2,3,4,7,8-Pentachlorodibenzofuran
3,4,5,3',4'-Pentachlorobiphenyl (PCB-126)
4,4'-Methylenebis(2-chloroaniline) (MOCA)
Alpha- and beta-particle emitters
Areca nut
Aristolochic acid
Benzidine, dyes metabolised to Benzo[a]pyrene
Ethanol in alcoholic beverages
Ethylene oxide
Etoposide
Ionizing radiation (all types)
Neutron radiation
N'-Nitrosornicotine (NNN) and 4-(*N*-nitroso-methylamino)-1-(3-pyridyl)-1-butanone (NNK)
Ultraviolet radiation

Group 1 agents with less than sufficient evidence in humans

Oral cavity Alcoholic beverages
Betel quid with tobacco
Betel quid without tobacco
Human papillomavirus type 16
Smokeless tobacco
Tobacco smoking

Pharynx Alcoholic beverages
Betel quid with tobacco
Human papillomavirus type 16
Tobacco smoking

Nasopharynx Epstein-Barr virus
Formaldehyde
Salted fish, Chinese-style
Wood dust

Tonsil Human papillomavirus type 16

Salivary gland X-radiation, gamma-radiation

Thyroid Radioiodines, including iodine-131 (exposure during childhood and adolescence)
X-radiation, gamma-radiation

Stomach *Helicobacter pylori*
Rubber production industry
Tobacco smoking
X-radiation, gamma-radiation

Upper aerodigestive tract Acetaldehyde associated with consumption of alcoholic beverages

Liver (hepatocytes) Aflatoxins
Alcoholic beverages
Estrogen-progestogen contraceptives
Hepatitis B virus
Hepatitis C virus
Plutonium
Thorium-232 and its decay products
Tobacco smoking (in smokers and in smokers' children)
Vinyl chloride

Oesophagus Acetaldehyde associated with consumption of alcoholic beverages
Alcoholic beverages
Betel quid with tobacco
Betel quid without tobacco
Smokeless tobacco
Tobacco smoking
X-radiation, gamma-radiation

Gall bladder Thorium-232 and its decay products

Biliary tract *Chlonorchis sinensis*
Opisthorchis viverrini

Colon and rectum Alcoholic beverages
Tobacco smoking
X-radiation, gamma-radiation

Pancreas Smokeless tobacco
Tobacco smoking

Anus Human immunodeficiency virus type 1
Human papillomavirus type 16

Ovary Asbestos (all forms)
Estrogen menopausal therapy
Tobacco smoking

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