



Cancer Prevention (World Health Association)

Between 30-50% of all cancer cases are preventable. Prevention offers the most cost-effective long-term strategy for the control of cancer.

Tobacco

Worldwide, tobacco use is the single greatest avoidable risk factor for cancer mortality and kills approximately 6 million people each year, from cancer and other diseases. Tobacco smoke has more than 7000 chemicals, at least 250 are known to be harmful and more than 50 are known to cause cancer.

Tobacco smoking causes many types of cancer, including cancers of the lung, oesophagus, larynx (voice box), mouth, throat, kidney, bladder, pancreas, stomach and cervix. Second-hand smoke, also known as environmental tobacco smoke, has been proven to cause lung cancer in non-smoking adults. Smokeless tobacco (also called oral tobacco, chewing tobacco or snuff) causes oral, oesophageal and pancreatic cancer. Nearly 80% of the 1 billion smokers in the world live in low- and middle-income countries.

- Tobacco smoking: causes cancers of the lung, oesophagus, larynx (voice box), mouth, throat, kidney, bladder, pancreas, stomach and cervix;
- Second-hand smoke (also known as environmental tobacco smoke): causes lung cancer in non-smoking adults; and
- Smokeless tobacco (also called oral tobacco, chewing tobacco or snuff): causes oral, oesophageal and pancreatic cancer.

Nearly 80% of the 1 billion smokers in the world live in low- and middle-income countries.

Physical inactivity, dietary factors, obesity and being overweight

Dietary modification is another important approach to cancer control. There is a link between overweight and obesity to many types of cancer such as oesophagus, colorectum, breast, endometrium and kidney. Diets high in fruits and vegetables may have an independent protective effect against many cancers. Regular physical activity and the maintenance of a healthy body weight, along with a healthy diet, considerably reduce cancer risk. In addition, healthy eating habits that prevent the development of diet-associated cancers will also lower the risk of other noncommunicable

Alcohol use

Alcohol use is a risk factor for many cancer types including cancer of the oral cavity, pharynx, larynx, oesophagus, liver, colorectum and breast. Risk of cancer increases with the amount of alcohol consumed. For several types of cancer, heavy drinking of alcohol combined with tobacco use substantially increases the risks of cancer. In 2010, alcohol-attributable cancers were estimated to be

Infections

In 2012, approximately 15% of all cancers were attributable to infectious agents such as helicobacter pylori, human papilloma virus (HPV), hepatitis B and C, and Epstein-Barr virus. The fraction of infection-attributable cancers varied between countries and development status, from less than 5% in Australia, Canada, New Zealand, the United States and select countries in western and northern Europe to more than 50% in some countries in sub-Saharan Africa. Two-thirds of infection-attributable cancers (1.4 million cases) occur in less developed countries. Vaccines are available for hepatitis B virus and some types of HPV and can reduce the risk of liver and cervical cancers, respectively.

Environmental pollution

Pollution of air, water and soil with carcinogenic chemicals contributes to the cancer burden to differing degrees depending on the geographical settings. Outdoor air pollution is classified as carcinogenic, or cancer-causing, for humans. It has been estimated that outdoor air pollution contributed to 3.2 million premature deaths worldwide in 2012 including more than 200,000 lung cancer deaths. Additionally, over 4 million people die prematurely from illness attributable to the household air pollution from cooking with solid fuels, 6% of these deaths are from lung cancer. Indoor air pollution from coal fires doubles the risk of lung cancer, particularly among non-smoking women. Exposure to carcinogens also occurs via the contamination of food, such as aflatoxins or dioxins.

Occupational carcinogens

More than 40 agents, mixtures and exposure circumstances in the working environment are carcinogenic to humans and are classified as occupational carcinogens. Occupational cancers are concentrated among specific groups of the working population, for whom the risk of developing a particular form of cancer may be much higher than for the general population. It is well documented that occupational carcinogens are causally related to lung cancer, mesothelioma, and bladder cancer. For example, mesothelioma (cancer of the outer lining of the lung or chest cavity) is to a large extent caused by work-related exposure to asbestos.

Radiation

Exposure to all types of ionizing radiation, from both natural and man-made sources, increases the risk of various types of malignancy including leukaemia and a number of solid tumors. Risks increase when the exposure occurs at a young age and also when the exposure amount is higher. Ultraviolet (UV) radiation, and in particular solar radiation, is carcinogenic to humans, causing all major types of skin cancer, such as basal cell carcinoma (BCC), squamous cell carcinoma (SCC) and melanoma. Avoiding excessive exposure, use of sunscreen and protective clothing are effective preventive measures. UV-emitting tanning devices are now also classified as carcinogenic to humans based on their association with skin and ocular melanoma cancers.

Radiation is used in medicine and can help save lives as well as prevent the need for more invasive procedures. However, inappropriate use may cause harm because of unnecessary and unintended radiation doses for patients. Radiologic tests and procedures should be appropriately prescribed and properly performed to reduce unnecessary radiation doses, particularly in children.

Residential exposure can also arise from radon, a naturally radioactive gas sometime present in soil and building materials increase risk of lung cancers. Radon levels in homes can be reduced by improving the ventilation and sealing floors and walls.