

HEALTH AWARENESS: CANCER RISKS AND PREVENTION



Cancer is a word used to describe over 100 different diseases, but all of them occur when the normal control of cell growth, cell division, or cell death fail. This can happen when the genetic blueprint of a cell (called DNA) is damaged for some reason, like exposure to toxic chemicals, UV light or from aging. In most cases, when cells lose their normal controls they do not survive, either because they can't perform the required functions for survival, or because the immune system notices that that something is not right and attacks them. But if the damaged cell manages to replicate, and the change in the DNA becomes permanent, it's called a mutation. Another way mutations can occur is when they are inherited from the DNA of a parent. But because there are so many built in checks and balances its thought that a series of mutations have to occur before a cell becomes cancerous.

Different types of cancer have different degrees of effects on health. Some are very slow growing and are restricted to a certain tissues. These types of cancer are easier to treat because the growth (tumor) does not spread throughout the body and they can be surgically removed with good success. The greater danger is when the cancer spreads. In this case, cancer cells may infiltrate the different tissues of an organ making them difficult to remove completely. They may also travel through the body to other tissues and create new tumors – called metastasis. These types of cancers can be life threatening and early detection is very important for successful treatment. Cancers are rated on a scale of zero to four, with zero being pre-cancerous (some changes in the cell, but growth is not yet out of control) and four being a tumor, which has metastasized and spread to other tissues in the body.

Facts:

- Cancer is a word used to describe many different diseases. Some are life threatening, and some can be easily treated.
- Early detection is critical for survival from aggressive cancers. Screening tests save thousands of lives.
- Some cancers are inherited or occur spontaneously, but most involve exposure to something that causes a cell to mutate or lifestyle behaviors that lead to mutations.
- Smoking and chewing tobacco cause cancer. Alcohol also increases your risk of getting cancer.
- 20% of all cancers are linked to obesity.
- Exposure to certain environmental toxins can lead to cancer, some of which may be found in the forestry industry. Wood dust from hardwoods has been linked to sinonasal cancer, but most wood harvested in BC is softwood and the same risk has not been established here.
- Physical activity and a healthy diet with plenty of fiber and fresh fruits and vegetables, decreases the likelihood of developing cancer.
- Taking supplements for specific vitamins, antioxidants and other substances has not been shown to be effective in preventing cancer.

What To Expect:

- Cancer is a very common disease; almost everyone will lose a family member or friend to cancer.

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- The more alcohol you consume the higher your risk of getting cancer.
- If your diet is low in fiber and unprocessed foods, and high in animal meats cooked over high heat your risk of developing bowel cancer is increased.
- Physical activity helps strengthen the immune system. It's thought that this is why people who engage in regular exercise have lower rates of cancer.
- Your family practice provider will likely order screening tests like mammograms and colonoscopies as you age, or if you have other risk factors. The PSA test has been found to generate a lot of false positives, so now it's only ordered if there are other signs or symptoms of prostate cancer present. It's very important to follow up with these tests if your doctor feels they are warranted because early detection will greatly reduce the risk of dying from cancer.

What You Can Do:

- Join a stop smoking program.
- Avoid exposure to toxic chemicals. Use PPE and follow Safe Work Procedures when handling chemicals. Refer to the chemical's Safety Data Sheet for more information on safe handling procedures and PPE requirements.
- Get enough rest and reduce stress, people who are chronically stressed and chronically short of sleep have higher cancer rates.
- If you are obese see a dietician and an exercise specialist and get rid of at least some of the excess weight.
- Meet the recommended physical activity requirement of 150 minutes of moderately vigorous exercise every week.
- Clean your barbeque grills, charred fat creates a toxin that can cause cancer.
- Limit your consumption of deli meats; the preservatives can cause cancer.
- Reduce your consumption of alcohol. Even moderate alcohol intake is strongly linked to cancer.
- Get appropriate screening if you have risk factors for cancer. Check with your family practitioner at least every two years to see if they feel that you need a screening test.

What Employers And Supervisors Can Do:

- Follow WHMIS regulations for handling chemicals. Make sure that your employees are familiar with any chemicals that are used and that they understand both the risks and the proper procedures for their use. In addition, make sure that clean up plans are in place should a spill occur.
- Provide stop smoking resources.
- Encourage healthy eating and exercise. When possible provide access to healthy food on site and make sure that any catered events serve healthy food. Encourage walking meetings if possible, schedule physical activity breaks and run events like charting daily exercise for prizes.
- Invite a mental health professional to offer an information session for your employees and their families about the negative effects of stress on health and to provide some strategies for reducing daily stress levels.
- Host a health fair where practitioners are on site to provide confidential information on risk factors and can set up screening procedures.

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More information:

Good strategies for improving lifestyle factors: <https://www.cancer.ca/en/prevention-and-screening/reduce-cancer-risk/helpful-tools/?region=sk>

Canadian Cancer Society: Information and resources
https://www.cancer.ca/en/?region=bc&qclid=cjwkcajwlf3brabeiwa8q0gg2ibbwkqzbpjc4t-a3s0pbmgbnck2pboagjibazx5l1vyzedapq5xoclz4qavd_bwe

<https://www.cancer.ca/en/cancer-information/cancer-101/what-is-cancer/types-of-tumours/?region=bc>

National Center for Complementary and Integrative Health: Evidence based information on alternative treatments for cancers. <https://www.nccih.nih.gov/health/cancer-in-depth>

Specific information about different types of cancer
<https://www.cancer.gov/>