

Family Health Care

# Counselor

## Cancer Prevention

About a quarter of Canadians die every year because of cancer, and this number is increasing. Despite this trend, there are steps you can take to reduce your risk; stop smoking, eat healthy, lose weight if you are overweight, reduce sun exposure, be physically active, follow screening recommendations, and avoid cancer-linked substances. By taking action now, you can help prevent cancer.

# Your Health and Cancer

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## Treating Cancer

Cancer treatment is aimed at either removal of the cancer lesion or stopping its activity. Unfortunately, any cancer treatment can also affect healthy tissue and sometimes 100% removal or growth stoppage is not possible. Surgery, radiation and drug therapy are the most commonly-used approaches.

Surgery is possible when a cancer lesion is restricted to one location. CT scans and MRI visualizations pinpoint the lesion's location to make surgery more precise. Sometimes surgery can be disfiguring, disabling, or impossible. For example, think of someone who has lung cancer affecting all lung tissue – you cannot function without lungs.

Radiation can either be delivered by a radiation source placed right next to the lesion, or by a precise beam of radiation focused on the lesion. Radiation is associated with toxicities; thus, normal tissue, such as the surrounding skin, can be damaged with radiation.

Fatigue, nausea, vomiting, and diarrhea are common side effects. Radiation can be used in combination with surgery to shrink the tumor for easier removal. About half of people who have a cancer diagnosis receive radiation therapy.

It is in the area of drug therapy that cancer research is making much progress. An ideal drug for cancer is deadly to cancer cells, but harmless to healthy cells. Drugs fit into four general categories:

- Cytotoxic drugs, which are directly toxic to cancer cells.
- Hormones and Antihormones, which impact hormones that cancer cells depend upon.
- Biological agents, which impact the growth of cancer at a cellular level.

Drugs are often used in combination to achieve the best results with the fewest side effects. Cancer treatment depends upon several factors:

- The type of cancer – different cancers respond to different types of treatments or drugs.
- The stage of cancer – advanced cancer is less likely to respond to treatments; early detection means earlier and more effective treatment.
- Your overall health – if you have better health, you usually have a better prognosis.

## Cancer Demographics

Each day, about 500 Canadians are diagnosed with cancer and about 200 succumb to it. Cancers vary in their mortality rates. Skin cancers, or non-melanoma cancers, have a relatively low mortality rate compared to colorectal cancers, which are estimated at approximately 12%. Lung cancer is attributed with 25% of all cancer-related deaths.

Some people have a generally increased risk **in general** for obtaining cancer:

- Older individuals – the longer you live, the greater your chance for cancer.
- Family history of cancer – some types of cancer have a genetic or family tendency; for example, breast cancer and colorectal cancer.
- Men aged 55 and older – before this age risk is about the same for both men and women except in the case of sex-specific cancers such as prostate, ovarian and breast cancer.

There is some good news: in recent decades, the outcomes for prostate, colorectal and breast cancer have improved. This may be due to improved screening, earlier detection or more effective treatment. Also, with more people quitting smoking, lung cancer rates have decreased.

**April is Cancer Month**

## The Nature of Cancer

Cancer is characterized by an overgrowth of body cells in an unorganized manner and can occur anywhere in your body. It is not one condition, but rather a group of diseases in which cells spread and grow abnormally. These cancer cells do not respond to the normal processes that your body has to regulate cell growth and they are not able to carry out any normal body functions. These cells may remain immature and unable to function.

Cancer cells impair the proper functioning of the body; it is this impairment that causes death. The cells may be able to invade adjacent healthy tissue and may be able to break away from the main site, spreading through your body. Growths, such as moles, that remain in one localized site are called "benign". Cancer that is malignant grows rapidly and interferes with your body's normal functions. For example, colorectal cancer affects bowel functions. Tumor is the term used to refer to the growth itself.

When cancer metastasises, it moves to another area of the body. For example, breast cancer can spread to bones and cause secondary tumors that are like those in the original tumor. The lymph system can be involved in the spread of cancer throughout the body. Some cancer cells can actually form new blood vessels which combined with rapid cell growth, can account for the ability of cancer cells to thrive and spread.

# Your Health and Cancer

## Cancer Screening

Cancer screening provides a means for early detection and early detection can mean improved outcomes. With early detection, some cancers are more treatable than others:

- Breast cancer is screened through breast self-examination and mammograms.
- Cervical cancer is screened with a “pap” test, which reveals abnormal cells that may be an early warning of cancer.
- Prostate cancer is screened through a digital rectal examination (DRE) or a prostate specific antigen (PSA). These will screen for an enlarged prostate which could indicate abnormal growth.
- Colorectal cancer is screened through occult blood tests. These detect minute amounts of blood that may be the first sign of colorectal cancer – even before you may have any symptoms.

Ordinary examination of your skin will flag any unusual growths. Don't forget to use a mirror to look at your back – look for an asymmetrical appearance, irregular borders, variable colour, and diameter of 6 millimeters or more.

Ideally, you should know what screening tests are recommended for you based upon both your age and family history. If you feel well and have no symptoms, you may avoid screening tests because of their invasive nature. But wouldn't you rather take a few moments now and be screened than receive a cancer diagnosis later, perhaps even when it is too late?

## Steps to Prevent Cancer

Increasing your knowledge about cancer and knowing what your risk factors are can help prevent the disease:

- Don't ignore cancer and don't accept it as inevitable. There are many preventative actions you can take; you need to be proactive about disease prevention.
- Know what your risk factors are by examining family history, environmental exposure, age, and health history as these all impact your risk for cancer. If you know what your risk is, you may be able to reduce it.
- Follow all lifestyle recommendations such as smoking cessation, healthy eating, maintaining of ideal weight, reduced sun exposure, and moderate alcohol consumption.
- Avoid risky behaviors that could contribute to cancer; for example, drug abuse can impact your health which increases your risk for cancer.
- Get regular health checks and don't ignore symptoms that could be early warning signs.
- Follow all screening recommendations for your age, health and sex; for example, mammograms, occult blood tests and prostate exams.

A link between cancer and infections is currently being studied by researchers. It is thought that infections, mainly viruses, are able to alter body cells predisposing you to cancer. One example is the human papillomavirus or HPV, which is linked to cervical cancer. A recent vaccine has been developed which provides girls and women with protection against HPV; thus, protection against cervical cancer. Other examples of infections include the Epstein-Barr virus, H pylori and HIV infections – any of which may increase your cancer risk. Prevention of these infections and appropriate treatment can help reduce your risk for cancer.

## Lifestyle Factors that can Impact Cancer

Lifestyle plays a role in cancer susceptibility. Smoking, alcohol consumption, diet, obesity, and sun exposure all have been linked to cancer. Smoking cessation, moderate alcohol consumption, a high fibre/low fat diets, weight loss, and sun protection will help reduce your risk.

The role of diet in cancer prevention is interesting. Studies suggest that a diet high in fruit and vegetables and low in fat can lower your risk for cancer, but a direct correlation between the two has not been clearly determined. Still, check your lifestyle and see where you can make improvements to reduce your cancer risk:

- Quit smoking – even second hand smoke is linked to cancer.
- Drink only in moderation – up to one alcoholic beverage daily for women and up to two for men.
- Pay attention to your diet – a high fibre, low fat diet is ideal with an emphasis on fruits and vegetables. Canada's Food Guide is a good place to start.
- Watch your consumption of fats, salt, and sugar – people with diets high in these substances seem to have an increased risk for cancer.
- Maintain a healthy weight – increased physical activity and a healthy diet will help you maintain the right weight for you.
- Protect yourself from sun exposure – you can do this through using sun screens, staying indoors, hats, and avoiding tanning beds.

Improving your lifestyle will not only help you prevent cancer, but will also have other health benefits such as heart health, lower cholesterol and better diabetes control.



# Q & A

## Ask Your Helpful FHCP Pharmacist

**Provided by Marie Berry, Your  
Family Health Care Pharmacist**

**Q. Is it true that vitamin D will prevent cancer?**

A. Low vitamin D levels seem to occur with some cancers; however, researchers haven't yet identified a link. Vitamin D is needed for bone health and is manufactured in your skin. About 30 minutes of sun exposure each day is recommended but unfortunately at northern latitudes, like in Canada, sunlight is not as strong as at more southerly locations. Dietary sources include fortified foods and cold water fish. Dietary supplements are available, but first check to see how much vitamin D you do have in your diet.

**Q. Will antioxidants help treat my cancer?**

A. Antioxidant agents include vitamins A, C, and E as well as minerals such as zinc and selenium. Oxidation is the addition of oxygen; for example, rust or oxidation of metal. Antioxidants prevent the oxidation of cells in your body, meaning healthier cells that are less susceptible to cancer. Researchers have not been able to show a direct effect that antioxidants have on cancer, but they do make for a healthy diet and overall good health is very important in treating cancer.

**Q. For my sun vacation, which sun screen should I use?**

A. The majority of skin cancer is the result of sun exposure so wearing sun screen on your holiday is important. Choose a product that has a sun protection factor or SPF of 15 or greater and apply it about 15 to 20 minutes before going outdoors. This gives your skin time to absorb it. Reapply it after swimming or sweating, and about every 2 hours. Don't forget to cover up as well – wear a hat, long sleeves, long pants, and stay in the shade.

## A Healthy Position Chemistry of Carcinogens

Carcinogens are substances that predispose you to cancer. These substances, along with your genetic background and factors like infections, increase your susceptibility to cell changes that lead to cancer. However, it may be difficult to identify specific carcinogens especially if exposure occurs decades before a cancer diagnosis.

Environmental carcinogens are external substances that, with exposure, increase your risk for cancer. Some estimates place about 6% of cancers as being related to environmental factors. A wide variety of substance can increase your risk such as tobacco, second hand smoke, air pollution, industrial solvents, inhaled fibers and dust, and radiation.

The molecular level of cancer initiates the rapid or cancerous growth of cells; thus, cancer research is focused on the molecular level. In normal cells, DNA genetic material is considered the "on" switch for cells to multiply. Researchers are looking for things that turn "on" and "off" this process. Damage to the genetic material itself may account for some of the effects of infections and exposure to radiation. Your risk for cancer will be similar to other members in your family because you and your family have similar genetic material.

### Take The Check-Up Challenge

Track your fibre intake. The recommendations for men 19-50 years of age are about 38 grams daily; women 19-50 about 25 grams; men 50 and older about 30 grams; and women 50 and older about 21 grams.

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### Next Month's Feature!

MAY 2013

### TLC for Your Blood Pressure

Over half of Canadians are considered to be overweight. Maintaining a healthy weight is heart healthy and is also good for cholesterol levels, diabetes control and osteoarthritis symptoms. Even slight weight loss will have health benefits. Being more active and eating a low fat, high fibre diet is an ideal way to start. A change in habits may be needed, but if you view it as a long term goal and start slow you can succeed!

In Next Month's Feature Find Out More About:

- Measuring weight.
- Cardiovascular health and weight.
- Cholesterol levels.
- Weight control in diabetes.
- Strategies for losing weight.
- Different diets.

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