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This information pamphlet is produced by the Canadian Partnership Against Cancer.

It is designed to educate both people who are currently undergoing cancer screening programs and members of the general public who wish to learn more about these programs.

*Ce document est disponible en français*

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# cancer screening

YOUR QUESTIONS ANSWERED

CANADIAN PARTNERSHIP  
AGAINST CANCER



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CONTRE LE CANCER



## What's involved in screening?

Screening involves simple tests across healthy groups of people to identify specific individuals who have a disease, but do not yet have symptoms.

A screening test is a first round test. It determines who should be tested further to confirm whether or not cancer is present. A screening test does not decide who has cancer.

The only way to confirm cancer is to study human tissue under a microscope – this is called a biopsy. So, cancer screening is done to identify people who should get a biopsy.

# Q&A

## What is cancer?

Cancer is a disease that starts in our cells. Cancer is a generic term for a group of more than 100 diseases that can affect any part of our bodies. We have millions of cells throughout our bodies that are grouped together to form tissues or organs, such as our liver, or muscles and bones. Our cells usually work normally and we stay healthy. Cancer happens when cells start acting strangely. These abnormal cells can quickly and uncontrollably spread to other parts of the body.

## How do I know if I will get cancer?

There are many factors that can affect the answer to this question. But, health experts recommend having a preliminary test - a form of early detection - to check for a disease even when there are no indications of symptoms or anything out of the ordinary.

**Early detection is the best protection.**

## Why should I be screened?

### *Better chance of survival*

Generally, cancer screening reduces your chance of dying. The earlier cancer is found, the better your chance of survival. Cancer screening can also find pre-cancerous growth before it has the chance to further develop. It is beneficial to detect early or find small cancers before they advance and become harder and more expensive to treat. Finding cancer early offers more treatment options and an improved response to treatment.

As an example, breast screening reduces the chance of death by 25 to 45 per cent for those aged 50 to 69 - depending on specific age. Screening for cervical cancer reduces death by 65 per cent while screening for colon cancer reduces the risk of dying by six to 33 per cent for those aged 50 - 74.

### *Effectiveness*

High quality screening can find cancer before it is felt, or detect cancer at early cancer stages. For instance, screening for colon cancer can find pre-cancerous growth, known as polyps, which can take up to 10 years to develop, while breast screening can find abnormal growth a few years ahead of being felt.

Some screening programs can reduce the chances of cancer occurring. When screening finds something that may or may not be cancer, it can be removed before it becomes cancerous. For example, screening for colon cancer can reduce occurrence by 17 - 20 per cent.

Remember, screening is a preliminary test to see who needs further testing, not to see if someone has cancer. So, cancer screening is effective because it does just that. Cancer screening effectiveness is also measured in how often a screening test correctly determines when people do not have cancer and whether those who are screened for cancer and test positive actually have cancer.

### **Provides peace of mind**

Screening comforts and reassures people, particularly those who receive negative results and do not have cancer. Even for those people with high risk factors for cancer, such as family history, screening makes it possible for people to take positive steps to manage their health.

### **It is safe**

Screening is safe and does not cause major health side effects.

### **Simple procedures**

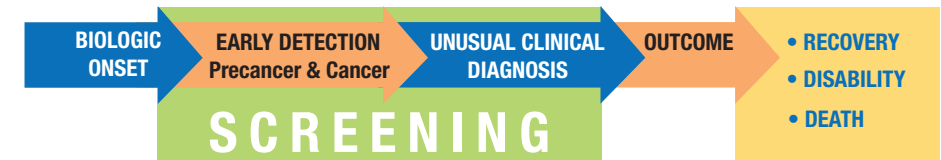
Screening is generally straightforward and not harmful or damaging to the body.

### **Experts recommend it**

Leading international health experts recommend screening. While it is not perfect, screening may find something that is not right when really it is OK. For example, screening for breast cancer – called a mammogram – may show a lump in a breast that is not cancer. Screening is the only proven way to detect cancer early enough to reduce the risk of dying.



## The Natural History of Disease



## What about the downsides?

Almost every test or procedure carries benefits and risks. The important thing is to be aware of them so that you can make an informed decision that is right for you.

While no screening test is 100 per cent accurate, a good screening test results in lower death rates in people diagnosed with cancer.

### **False positives**

A false positive cancer screening test suggests cancer even though cancer is not present. Results of a false positive test can cause anxiety, stress and possibly other tests that help to confirm cancer. In addition, over time, if screening tests are repeated, there is the likelihood of an increase in false positive test results. False positives can also result in unnecessary treatment/diagnosis and, in turn, diagnosis/treatment-related side effects and/or death.

### **False negatives**

A false negative can happen when cancer is not detected by screening even though it is there. False negative results can cause you or your doctor to ignore other symptoms that indicate the presence of cancer, causing a delay in diagnosis and treatment.

### **How cancer develops**

Finding cancer through screening doesn't mean someone will get sick from the cancer. If something is found, it may not need treatment, such as surgery if the cancer never progresses. But, because it's difficult to determine which cancers will progress, medical professionals may tend over treat, wishing to be 'better safe than sorry.'

On the other hand, some identified cancers may progress but more mildly. They may be detected later as lumps, such as polyps, without the person showing any symptoms.



Finding cancers that don't progress can result in unnecessary treatment, especially if it will never progress to the point of being life-threatening. This can happen when cancer grows so slowly that the person dies of something else before symptoms occur. It can also happen when cancer never grows, or stops or 'shrinks' on its own. However, it is difficult to know which cancers will progress and which won't.

A variety of factors affect whether cancer develops. Here are some ways cancer can behave:

- Some grow slow
- Some grow fast and become cancerous
- Some will be stopped naturally by the body's immune system
- Some never grow

So, positive screening results may result in unnecessary treatment because science can't currently determine which abnormal growth will progress. As a result, people may be treated unnecessarily; treatment for cancer can have negative side effects.

Also, some cancers take so long to develop that, for elderly people who are screened and where pre-cancerous growth is identified, it may not be beneficial to treat the growth when compared with the possible harm of doing this.

### **Cancer not curable**

Not all cancers found during screening can be cured because they are too aggressive when detected.

While certain factors, such as age, sex (according to the cancer) and family health history make screening appropriate, for some cancers that are detected, people will die because the disease was found too late and is no longer treatable.

### **Unpleasant procedures**

Some screening methods can be uncomfortable or embarrassing, for example, mammograms can be difficult because the x-ray machines used must apply pressure to the breast. Screening for cervical and colon cancer may be unpleasant.

### **Preparation for screening**

Specific preparation by people is needed for screening tests. Preparation can have an impact on the accuracy of the screening test.

▶ **While cancer screening does have its risks, medical professionals agree that these are outweighed by the benefits of detecting cancer early to reduce the risk of dying and improve your chance for survival.**

### ▶ **How can I find out more about screening programs?**

Cancer screening tests are free for patients so talk with your doctor to learn more about your risk of cancer and take advantage of any screening tests or programs that might help find cancer early.

