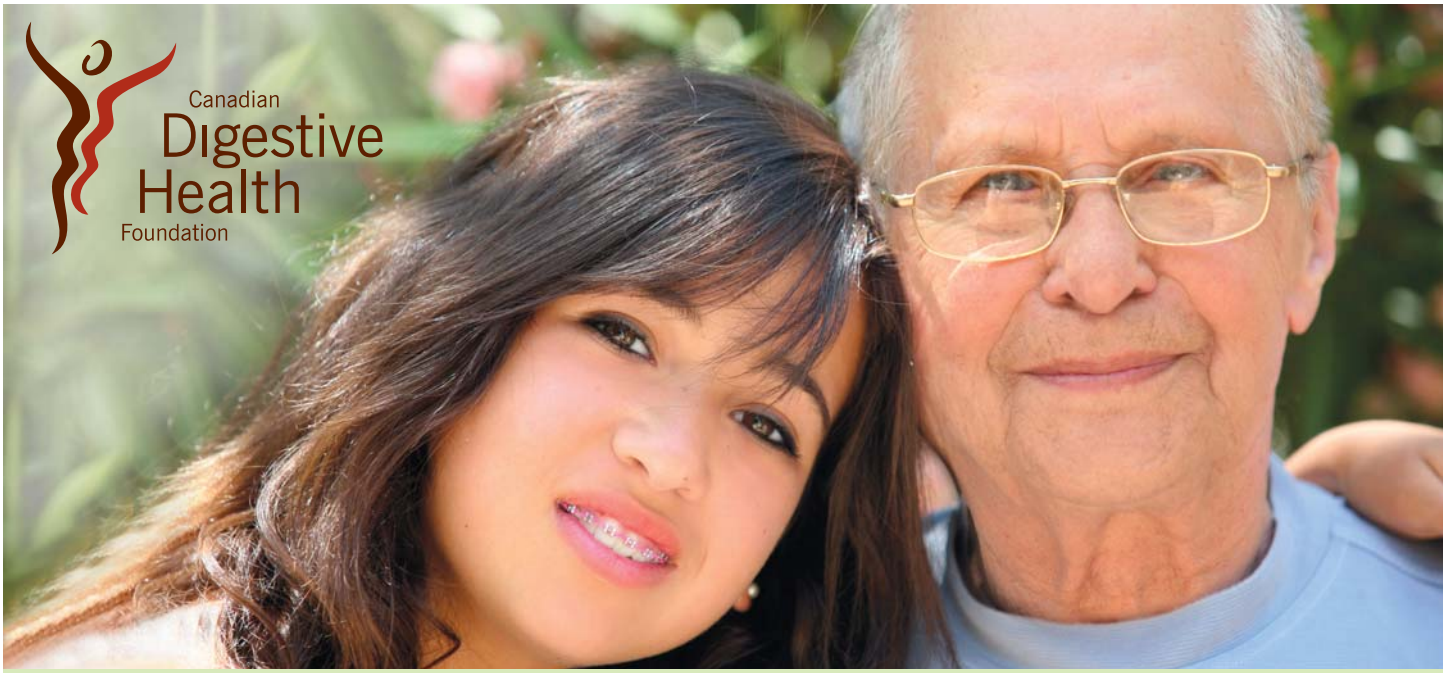

UNDERSTANDING COLON CANCER

Overview

Colon cancer is a disease where cancerous cells (tumours) are present in the wall of the large intestine (colon). A mix of genetic and environmental factors can cause cells in the lining of the bowel to turn cancerous. The first step in this transformation occurs when a collection of abnormal cells called a polyp forms.

Colon cancer can affect people of all ages but is most common after the age of 50. In 2009, it is expected that 22,000 Canadians will be diagnosed with colon cancer and that about 8,900 of those will die. Colon cancer is the third most prevalent cancer in Canada, the second most common cause of cancer deaths and, the second most expensive cancer to treat.

Regular colonoscopies every three years can detect almost 100% of colon cancers. Those with a family history of colon cancer, polyps and inflammatory bowel disease (IBD) and people over 50 should all be screened — even in the absence of any symptoms. Early colon cancer is more than 90 per cent curable with endoscopic removal or surgery and yet fewer than 20 per cent of Canadians who are eligible for screening are making use of this preventative option.

What causes colon cancer?

The cause of colon cancer is unknown, however, certain risk factors have been discovered. Colon cancer is more common in developed countries. This may be caused by dietary and other lifestyle factors in industrialized countries. It has been estimated that about 35% of all cancers in the United States might be attributable to dietary factors and that many colon cancers may be preventable through dietary modifications. A diet high in fat appears to increase the risk of colon cancer, whereas high fiber, including vegetables and fruits, may lower the risk. Some vitamins called antioxidants, like vitamin E, or others like vitamin D or the use of ASA (aspirin), may also lower the chance of getting colon cancer. Smoking and obesity appear to increase the risk of colon cancer, whereas physical activity and the use of aspirin/nonsteroidal anti-inflammatory drugs may decrease the risk.

Genetic predisposition (heredity) greatly increases the risk of colon cancer. A close relative with colon cancer or polyps is a strong risk factor. It appears that an inherited, genetic risk factor is present in at least half of all cases of colon cancer. The more relatives affected, and the younger they are when diagnosed with the disease, the higher the risk to the individual of developing colon cancer.

Most colon cancers arise from polyps. These are small growths within the colon that usually do not cause any symptoms. They appear as small bulges from the bowel wall (much like a mushroom protrudes from the ground). Over time the polyps will grow and, under appropriate conditions, turn into colon cancer. If detected early, polyps can be easily removed through colonoscopy, thereby eliminating the polyps and their risk. Since colon cancer typically arises from colonic polyps, and since polyps do not lead to symptoms, early testing may help to detect and remove polyps and prevent progressive disease. It is important for patients at risk to be checked early to prevent cancer from developing.

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COLON CANCER

Persons without symptoms but with a first degree relative (brother, sister, parent or child) who has had colon cancer should begin screening between the age of 40 — 50 or when they are at least ten years younger than the affected relative was when diagnosed. Symptoms may justify earlier testing. The best method of screening is colonoscopy as it is most accurate and allows removal of polyps.

Other risk factors include age (anyone over the age of 50), previous colon cancer and/or polyps, and a personal history of inflammatory bowel disease (IBD). Screening of people without these risk factors has been recognized to prevent colon cancer and save lives worldwide.

How do I know if I have colon cancer?

Colon cancer may be present without symptoms, particularly early in its course. The passage of bright red blood in the stool or a change in the frequency, consistency or thickness of stool are the most typical symptoms. Other symptoms may include tiredness due to anemia (low blood count) or weight loss.

Tests for colon cancer may include digital rectal examination using a glove and lubricant, where the physician may feel for a lump. Physicians may order a fecal occult blood test (FOBT). This is when stool is collected and sent to the laboratory to be checked for the presence of blood. Other tests include the introduction of an instrument into the rectum, called a sigmoidoscope, to look for a growth in the lower bowel. The whole colon can be examined for the presence of any growth using a longer, flexible tube (colonoscopy). This is inserted after the patient uses a special solution to clear the bowel. The procedure is often done in a hospital clinic as an outpatient test where the patient goes home afterward. If the doctor finds a growth he/she may remove it completely or take small tissue samples (biopsies) to be examined under a microscope for cancer.

If colonoscopy is not available, an X-ray of the bowel, called a barium enema, can be done instead. During this test a special white liquid is inserted into the rectum and X-rays are taken. This is not as accurate as colonoscopy. If this is used it should be combined with a flexible sigmoidoscopy (flexible tube examination of the lower bowel, typically without sedation). A new X-ray test called virtual or capsule endoscopy, which involves swallowing a small capsule the size of a pill, is also now available. Photos are taken as the capsule passes through the intestine. In general, blood tests cannot determine the presence of colon cancer.

How is colon cancer treated?

Most patients with colon cancer have resection surgery where the diseased segment is removed and the bowel on either side of the cancer is reunited. Surgical removal of colon cancer offers a potential for cure. When the growth of the tumor is small, where the cancer has not spread outside the bowel wall, the patient will do well. Larger cancers are typically treated with surgery and afterward the patient may receive chemotherapy (a special drug that kills cancer cells and may be given by mouth or injected through a vein), sometimes in combination with radiation.

Survival is closely linked with the stage of the disease at the time of surgery. When cancers are still localized to the bowel, the 5-year survival rate is 85-95%.

Unfortunately, by the time colon cancer causes advanced symptoms, most cancers have spread beyond the bowel and the survival rate is less than 40%. Screening, therefore, is designed to detect polyps while they are asymptomatic and can be completely removed.

It is now well established that effective colon cancer screening using stool tests, sigmoidoscopy and colonoscopy can prevent colon cancer. These screening methods lead to detection and removal of polyps and small cancers that can be easily removed. The use of screening is critical to the prevention of colon cancer.

More information

For more information about protecting and enhancing your digestive health, please visit **www.CDHF.ca**

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Over 20 million Canadians suffer from digestive disorders every year. The Canadian Digestive Health Foundation believes this is unnecessary and unacceptable.

We reduce suffering and improve quality of life by empowering Canadians with trusted, up to date, science-based information about digestive health and disease.

As the Foundation of the Canadian Association of Gastroenterology, we work directly with leading physicians, scientists, and other health care professionals to help you understand and take control of your digestive health with confidence and optimism.

Through research and public education, we aim to:

REDUCE the incidence and prevalence of digestive disorders

IMPROVE understanding of digestive health issues

SUPPORT those suffering from digestive disorders

ENHANCE quality of life for those living with digestive disorders

Request for support

The Canadian Digestive Health Foundation is a national charity governed by a volunteer board of directors. We rely on donations from the public and the generosity of our partners to develop and deliver our programs. Please consider including our Foundation as one of your chosen charities.

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