What is colon cancer?
Colon cancer is a disease in which cancerous cells form in the wall of the large intestine (colon) – the part of your digestive system that absorbs water and turns food waste into stool.

Here’s how it usually starts: the cells that line the colon can sometimes become abnormal and start to divide rapidly, forming benign growths called polyps (1). Over time, as the polyps grow (2), some of them turn malignant or cancerous (3). These cancers can grow into the wall of the colon and spread to other parts of the body (4). Depending on the amount of spread, colon cancer is assigned a number from 0 to 4 (called staging).

Caused by a mix of genetic and environmental factors, colon cancer can affect people of all ages, but is most common after age 50. While most colon cancers are not hereditary, you may have a genetic susceptibility if several of your relatives have been affected or if they got the disease before age 60.

Every year, about 23,000 Canadians are diagnosed with colon cancer and 9,000 will die of the disease. This makes colon cancer the third-most common cancer – behind prostate and breast cancer – and second-most common cause of cancer deaths in the country. For this reason everyone should participate in a provincial/territorial colon cancer screening program as soon as you turn 50 or earlier if your risk profile suggests an earlier start. Such a program ensures you’ll be tested and retested at the appropriate intervals and could save your life.

Good News: since 2003, death rates from colon cancer have been dropping by about 2.6% per year in men and 1.8% per year in women.

What are the symptoms of colon cancer?
Most colon cancer is detected through routine screening, though you need a doctor to make an official diagnosis. The symptoms listed below and on the next page may indicate colon cancer – though they often don’t – so it’s important to see your doctor right away if you have any of them. Your doctor can then decide if you need to have any tests.

In most cases, colon cancer doesn’t come with any symptoms, especially in the early stages of the disease. When symptoms do occur, they may include:
- **Altered bowel habits**, such as:
  a) Going to the bathroom more or less often than usual
  b) Constipation: This may happen if the tumour is blocking part of the bowel
• **Diarrhea** for more than a couple of weeks
• **Narrow stools**: This may signal an obstacle that is squeezing the waste
• **Blood in the stools**: The blood may be bright red if the tumour is near the end of the colon or anus, but usually it is hidden inside the stools
• **Loss of weight** without trying and/or loss of appetite
• **Sense of fullness** in the rectal area: A tumour toward the end of the colon or in the rectum may produce a sensation of “having to go.” You may also have a feeling that your bowels aren’t emptying completely
• **Nausea and vomiting**: A large tumour may block the colon and prevent the digestive contents from moving forward causing a backup of food which can lead to nausea and vomiting
• **Gas and bloating**: This may indicate that a tumour is obstructing the passage of stool which traps air and leads to gas and a bloated feeling.
• **Abdominal pain** or discomfort (e.g., cramps)
• **Fatigue**: Tumours tend to bleed, which means you lose iron. This can lead to iron-deficiency anemia and accompanying feelings of extreme fatigue. A blood test can determine whether you have anemia.

**Risk factors for colon cancer**
A risk factor is something that makes you more likely than average to develop a condition. Ask yourself the following:
• Are you 50 years of age or older?
• Do you have a family history of colon cancer?
• Do you have Crohn’s disease or ulcerative colitis?
• Have you had a prior diagnosis of polyps or early-stage colon cancer?
• Do you have a diagnosis or family history of hereditary syndromes linked to colon cancer?
• Do you eat a diet high in calories, fat and processed meats, and low in fibre, vegetable and fruits? Research suggests such a diet may raise the odds of developing colon cancer.
• Are you inactive? This can increase your chances of getting colon cancer because inactivity causes waste (stools) to stay in your colon longer.
• Are you obese?
• Do you smoke?
• Do you drink a lot of alcohol?

If you answered yes to some of these questions, you may have a higher-than-average risk of developing colon cancer and should speak to your doctor about screening.

**What is colon cancer screening and why is it important?**
Good communication with your doctor is an important part of managing your digestive health, regardless of your diagnosis. More than 90 per cent of colon cancer cases occur in people over 50, which makes age the biggest risk factor for the disease. Because many people experience no symptoms in the early stages of the disease, the Canadian Digestive Health Foundation recommends that all people over 50 get screened. You should also get screened if you have other risk factors that make you more likely to get the disease.

Screening can detect up to 95 percent of colon cancer cases and is considered an essential part of digestive healthcare. While each province/territory has its own screening recommendations, common screening tests include:

• **Fecal occult blood test (FOBT)**: You collect samples from three separate bowel movements and mail them to a laboratory where the samples are analyzed for traces of blood not visible to the naked eye. If you have a positive result – which doesn’t necessarily signal cancer – you will be referred for a colonoscopy. Recommended frequency: every 2 years.
• **Fecal immunochemical test (FIT)**: This newer test, which yields more accurate results than FOBT and requires only one fecal sample, is replacing FOBT in many provinces. Recommended frequency: every 2 years.
• **Sigmoidoscopy**: This test uses a lighted, flexible instrument called a sigmoidoscope to examine the sigmoid colon (lower part of the colon) and rectum. Recommended frequency: every 5 years.

[www.CDHF.ca](http://www.CDHF.ca)
Colonoscopy: This is the most sensitive of all colon cancer tests. You’ll probably be under sedation while your doctor carries out this safe procedure which uses a lighted, flexible tube called an endoscope to examine the entire colon. The tube is inserted into the anus and rectum and carefully guided up through the colon. Recommended frequency: every 10 years for people at average risk of colon cancer.

The procedure usually takes 20 to 30 minutes, but can occasionally last up to an hour. You may be asked to avoid solid food for 24 to 48 hours before the examination and to take a laxative to purge the colon of any stool.

Virtual colonoscopy: This test uses a CT scan (a type of X-ray procedure) to capture images of the colon which are generated by a computer. It takes less time than standard colonoscopy and requires no sedation, but does not allow the doctor to remove tissues for biopsy and can’t detect polyps smaller than 10 mm. Availability of the procedure varies from province to province.

Colon cancer blood tests: These recently developed tests, which are currently not included in standard screening recommendations, detect material in the blood that may signal colon cancer.

How do I know if I have colon cancer?
If a test identifies growths that may be cancerous, a sample of suspicious tissue can be extracted (biopsied) for laboratory analysis. If cancer is detected, a pathologist will study the tissue to determine the stage of cancer. You may also have further tests to find out more about the cancer.

Once the details about your cancer are known, your doctor will develop an appropriate treatment plan for you.

How is colon cancer treated?
The appropriate treatment depends on the stage of the cancer.

- **Stage 0 and 1**: Standard treatment involves surgery to remove the tumour.
- **Stage 2**: In addition to surgery, treatment may involve drug therapy as a precaution against cancer recurrence.
- **Stage 3**: Along with surgery and drug therapy, radiation therapy may be required if the tumor is large and aggressive.
- **Stage 4**: Treatment may include surgery to remove the tumour and parts of other organs where the cancer may have spread, along with drug therapy and radiation.

Types of drug therapy
Drug therapy for colon cancer may include:

- **Chemotherapy**: drugs that stop the growth of cancer cells either by killing them or preventing them from dividing
- **Targeted therapy**: drugs that attack specific cancer cells without harming normal cells.

Types of radiation therapy
Radiation therapy uses high-energy X-rays or other types of radiation to kill cancer cells or prevent them from growing. This therapy falls into two categories:

- **External radiation therapy**: a machine outside the body sends radiation toward the cancer.
- **Internal radiation therapy**: A radioactive substance is placed directly into or near the cancer.

Living positively with colon cancer
A diagnosis of colon cancer can be upsetting and confusing. Informing yourself about your diagnosis and treatment will help you make good decisions and cope with your treatment.

Remember that you don’t have to figure everything out at once, and to ask for help when you need it. Your doctor can put you in touch with professionals specially trained to support people with cancer. If you have supportive friends and relatives, consider talking to them as well.

www.CDHF.ca
Preventing colon cancer
In addition to appropriate screening, there is convincing evidence that diets low in fat and meat and higher in fruits and vegetables can help protect against colon cancer. Eating whole rather than processed wheat may also help reduce your risk, along with getting enough Vitamin D. Health Canada recommends that everyone over 50 take 400 units of Vitamin D per day (unless there is a reason not to). Some experts also recommend taking folic acid unless someone in your family has had polyps or cancer.

Preparing for your appointment
Below are some questions you may want to ask your doctor about colon cancer screening:
• Based on my personal and family history, am I more likely than average to develop colon cancer?
• Is there anything I can do to lower my risk?
• What signs and symptoms should I watch for?
• Do you recommend any screening test(s) for me? If yes, which ones and why? If not, why not?
• What should I expect during the test? Does it involve any risk? Who will administer it?
• Should someone be with me on the day of the test?
• Do I need to do anything to prepare for the test, such as changing my diet or medication schedule?
• When will I get the results?
• How often will I require further testing?

Learning more about colon cancer
The Canadian Digestive Health Foundation provides information, tools and support to help you take control your digestive health with confidence and optimism. Visit www.CDHF.ca to view free recorded on-line seminars, read personal stories and access other helpful resources.

Watch our information videos on colon cancer:
The Importance of Screening for Colon Cancer
Ann Brown was diagnosed with colon cancer and given a 50% chance of surviving when she was 54 years old. In this video she speaks about her diagnosis, fears, treatment and return to health. Dr. Clarence Wong, a gastrointestinal oncologist, also provides advice on risk factors and how to protect yourself from developing colon cancer.
http://www.CDHF.ca/en/videos/video/1

Understanding Colon Cancer
At the 2012 CDHF Digestive Health Public Education Forum, Dr. Linda Rabenek gave an educational presentation on Colon Cancer to a capacity crowd. Watch and learn how to protect yourself from this deadly, but highly preventable, disease. http://www.CDHF.ca/en/videos/video/62

Death is not an Option - the Importance of Colon Cancer Screening
Colon Cancer is more than 95% preventable. Learn from Dr. David Morgan about the dramatic magnitude of CRC in Canada, screening programs, determinants and barriers to participation screening programs, and how CRC screening programs save lives.

Read a Personal Story About Colon Cancer:
Committed To Colonoscopy
With both his parents having succumbed to colon cancer, Richard Grzymek knows that genes aren’t on his side. Still, when he noticed a bit of blood in his stool two years ago, he assumed his hemorrhoids were simply acting up. Read Richard’s story on protecting himself from this deadly disease. http://www.CDHF.ca/en/news/details/id/81

Please note: The information contained in this digestive disorder guide is not a substitute for medical care and the advice of your physician. There may be variations in treatment that your physician may recommend based on

CDHF App helps track information
The CDHF has developed a smart phone app for iPhone and Android called Gi BodyGuard to help you quickly, easily and privately track and share your digestive symptoms with your physician. Gi BodyGuard has a built-in symptom tracker (stool, pain, blood), food, fitness and medication trackers, a health history form and appointment/medication reminders. Using Gi BodyGuard is quick, easy and private.

As well, Gi BodyGuard lets you produce comprehensive reports so you can share important information with your physician during your next appointment. You can download Gi BodyGuard for free at: www.CDHF.ca/Gibodyguard

The CDHF is the foundation of the Canadian Association of Gastroenterology.
YES! I want to donate to the Canadian Digestive Health Foundation

Please accept my donation to support:
[ ] Canadian Digestive Health Foundation Programs as needed
[ ] Canadian Digestive Health Foundation Endowment Fund

My donation is:
[ ] Personal [ ] In honour of [ ] In memory of
_____________________________________________________ (person’s name)

[ ] Yes, please send notification of my gift to:
Full name: __________________________________________
Email: ____________________________________________
Mailing address: ___________________________________
Personal message: __________________________________
________________________________________________________________
________________________________________________________________

Donate by Cheque:
[ ] I have enclosed a cheque for $________
[ ] I have enclosed a blank cheque marked “VOID” and authorize
the Canadian Digestive Health Foundation to deduct $________
from my account on the 28th day of each month

Signature: __________________________ Date: ___ / ___ / ______ (dd/mm/yy)

Donate by Credit Card:
I would like to make a donation using my credit card. Please charge my
[ ] VISA [ ] MasterCard
[ ] $ 100 [ ] $ 250 [ ] $ 500 [ ] $ 1000 [ ] Other $________.
I want to support the Canadian Digestive Health Foundation with
a monthly donation charged to my credit card on the 28th day of
each month. My signature below is authorization for this transaction.
[ ] $ 250 [ ] $ 100 [ ] $ 75 [ ] Other $_______ per month

Card #: ____________________________
CCV2 Exp. _____ / _____ mm/yy

Signature: __________________________
Tel: (_____) _______ – __________________________
Name: ____________________________
Email: ____________________________
Address: __________________________
City: ____________________________ Prov: _____ PC: _______

[ ] Please send me information about protecting and improving
my digestive health.

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:

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.

Contact us/Donate to
Canadian Digestive Health Foundation
2525 Old Bronte Road
Oakville, ON L6M 4J2
Tel: 905.847.2002
info@CDHF.ca
or donate on line at www.CDHF.ca.

www.CDHF.ca

Ch.Reg.No.: 88996 8269 RR0001