

A man and a woman are dancing in a bright, airy studio. The woman is wearing an orange top and white pants, and the man is wearing a green top and white pants. They are both smiling and looking at each other. The studio has large windows and a white floor.

# gastro intestinal health

*Nourishing Your  
Well-Being*

# Take Control of Your Digestive Health

“ *A basic healthy lifestyle that includes a good diet and exercise can prevent 70% of colorectal cancer, and, at the same time, help you be healthy for life.* ”

Colorectal Cancer Association of Canada

A healthy gastrointestinal system is central to our sense of well-being, and to our overall health. Yet for most of us, our inner workings are something of a mystery.

In fact we rarely give it a thought unless something's not working right. Yet, even minor gastrointestinal complaints can throw our lives completely off balance.



## In the upcoming pages learn:

---

How your digestive system works

---

Nutrition and lifestyle choices that have a major impact on colorectal cancer prevention and overall digestive health

---

Colorectal cancer risk factors

---

Symptoms to discuss with your doctor

---

The importance of regular screening

Did you know that more than 20 million Canadians suffer from digestive problems? Colorectal cancer is a big one. It strikes over 23,000 Canadians each year and is the second leading cause of cancer death in the country.

However the good news is that it's preventable and with early detection, 90% of colorectal cancer is also curable.



# Colorectal Cancer Prevention

## Feel Good for Life

The steps you take to help prevent colorectal cancer also help you avoid many of the passing gastrointestinal problems that can disrupt our quality of life. If your gastrointestinal system is healthy, you are much less likely to suffer from things like gas, bloating, heartburn, irregularity and diarrhea, to name a few.

## The Prevention Basics

---

Eat a healthy balanced diet that includes a variety of fruit and vegetables, whole grains, lean protein and milk products.

---

Make sure you get enough fibre.

---

Drink lots of water.

---

Maintain a healthy weight and avoid carrying too much weight around your abdomen.

Get regular exercise of at least moderate intensity.

---

Think moderation when consuming caffeinated and alcoholic drinks.

---

Avoid smoking.

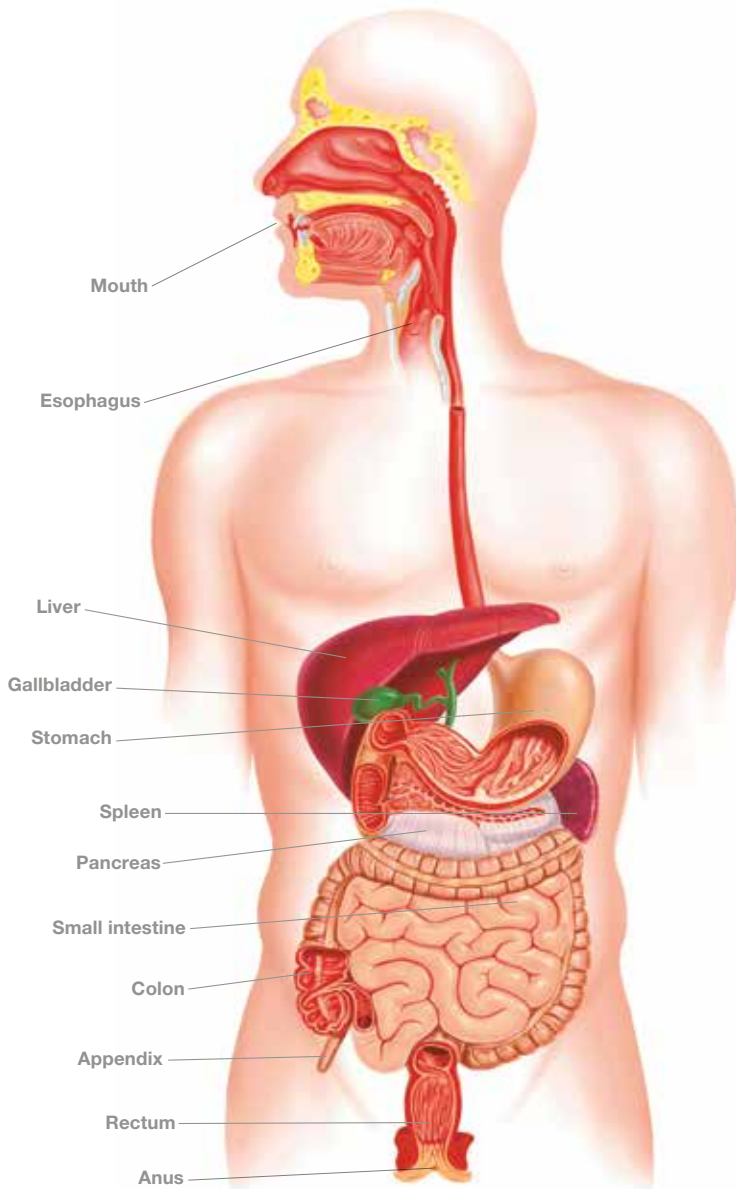
---

If you are over 50, have a family history of colorectal cancer or other genetic risk factors, get screened regularly.

# The Inner Workings of Your Gastrointestinal System

Intestinal health awareness should be right up there next to heart, lung and bone health. Why? Because your small intestine and your colon are responsible for some of life's most important functions. Ensuring they are healthy and working properly is essential to your health and your immune system's ability to fight off disease.

The food you eat is not in a form the body can use—the pieces are way too large. One of the main roles of your digestive system is to break down food and liquids into tiny molecules of nutrients your body can absorb and use.



## From Your Mouth to Your Stomach

Digestion begins as soon as you pop food into your mouth and start chewing. Saliva launches the digestion process, lubricates your food, and makes food easy to swallow. After you swallow, the food travels down your throat, through your esophagus and into your stomach.

Along the way, the food combines with digestive enzymes. In your stomach, muscle action

mixes the food and liquids together. After the mixture is further broken down, your stomach slowly empties the partially digested food into the small intestine.

## Into Your Intestinal Tract

It is in the small intestine that most of the molecules of food, water and minerals that sustain you, are absorbed into your body, and carried by your blood to nourish your every cell.

Indigestible matter that hasn't been absorbed by the small intestine proceeds into the large intestine, also called the colon. The colon is the final organ in the digestive process. It dries out the food residues by absorbing surrounding fluid. What's left is solid waste that is stored in the rectum until it passes out through the anus.



## Energizing Fact

Once in your digestive system, carbohydrates are broken down the fastest, protein takes longer and fat takes the longest. That's why carbs are known for being a quick source of energy, and foods containing protein and fat keep you satisfied longer.

## Love Garlic!

According to the *World Cancer Research Fund's* most recent *Diet and Cancer Report*, there is evidence that consuming garlic, cooked or raw, may help protect against colorectal cancer.

## Diet

### Where It All Starts

Eating is one of life's great pleasures and eating to maintain digestive health doesn't involve giving that up.

The focus here is not to be restrictive. It builds on *Canada's Food Guide* and encourages you to eat a wide variety of foods you like from each of the four food groups.

“Eating enough fruit, vegetables and milk, and getting enough vitamin D and fibre, are associated with a lowered risk of colorectal cancer.”

Colorectal Cancer  
Association of Canada



# Vegetables and Fruit

## Bring on Colour!

Many studies suggest it: diet that's high in a variety of vegetables and fruit lowers the risk of colorectal cancer for both men and women. Why? Because vegetables and fruit tend to be lower in calories and higher in fibre, nutrients and antioxidants.

Vegetables and fruit also help you maintain a healthy weight and help move food waste out of your body in quick order.

The more colourful the produce, the better. Eat at least one dark green and one orange vegetable every day. Green leafy vegetables such as broccoli and spinach are especially nutritious. Or think salads made with a variety of greens and lots of extras like tomatoes, onions, peppers, carrots and fresh garlic in the dressing. Try to eat most of your vegetables and fruit prepared with little or no added fat, sugar or salt.

Eating whole vegetables and fruit instead of drinking their juice provides fibre you'd otherwise miss out on. It's also more satisfying.



**Canada's Food Guide recommends that adults eat 8-10 servings of Vegetables and Fruit every day.**

This is less to eat than many people imagine. A serving of vegetables or fruit is only half a cup (125 ml), so it adds up quickly.

An average homemade fruit smoothie, for example, can be 2-3 servings.

## Tips to Getting Enough

Add a banana or berries to your morning cereal.

Snack on fresh fruit with a yogurt dip.

Pile extra veggies onto your pizza and salads, and wedge them into your sandwiches and burgers.

Toss extra vegetables into your favourite pasta sauce.

Make it easy—buy fresh veggies pre-washed, or stock up on frozen.

Think beyond potatoes for your veg at dinner—add other veggies too.

Looking for a nibble? Crunch on baby carrots or sliced bell peppers.



**Canada's Food Guide recommends that adults 19-50 yrs consume 2 servings, and adults 51 yrs and older consume 3 servings of Milk and Alternatives, such as yogurt and cheese, every day.**

A serving of milk is one cup (250 mL), a serving of yogurt is 175 g, which is a little less than two individual-portion containers of 100 g. A serving of cheese is 1½ oz (50 g) or a piece about the size of half a deck of cards.

## Milk and Alternatives

“ *There is enough evidence to conclude that milk may protect against colorectal cancer.* ”

The World Cancer Research Fund and the American Institute for Cancer Research Diet and Cancer Report

### Get Enough Every Day

With the wide variety of milk products on the market, and the impressive list of health advantages milk products offer, it's surprising that only one out of three Canadians gets enough.

Milk products deliver a rich package of nutrients that confer important benefits like helping to build and maintain strong bones, reduce high blood pressure, achieve and maintain a healthy weight and prevent type II diabetes.

There is also the strong probability that drinking milk reduces your risk of colorectal cancer.

### What Is It about Milk?

The colorectal cancer protection appears to come from two key nutrients—calcium and vitamin D. However other milk components may also be involved.

### Tips for Getting What You Need

Make ice cold milk your main drink with meals, even when you eat out.

Have smoothies made with fruit, yogurt and milk for breakfast.

Double the milk in your cereal and cook your oatmeal with milk.

Make soups, pancakes and waffles with milk instead of water.

Use vanilla yogurt as a fruit dip.

Make salad dressings and veggie dips using plain yogurt seasoned with herbs.

Steep your tea in hot milk instead of water, or have a latte instead of a regular coffee.

For more ideas, tips and recipes, go to [getenough.ca](http://getenough.ca)



It seems that the calcium in milk helps prevent, as well as moderate, the growth of benign polyps in your colon, one of the early signs of colorectal cancer.

## The Essential Role of Vitamin D

The vitamin D in milk appears to play a significant role in helping the body absorb the risk-reducing calcium. In addition, emerging research suggests that vitamin D may inhibit the growth of cancerous cells in the colon.

Unfortunately, many Canadians don't get enough vitamin D. Why not? Natural sources of vitamin D include fatty fish, egg yolks and fish liver oil. We don't eat enough of these foods on a daily basis to meet our needs. Our lack of vitamin D is compounded by Canada's northern latitude, which makes the sun's rays too weak to synthesize vitamin D in our skin

between October and March. The use of sun blocks in summer further reduces the vitamin D we get from the sun. This is why Health Canada recommends we all drink

2 cups (500 mL) of milk every day. As a widely available, traditional part of our daily diet, milk, which is fortified with vitamin D by law, is easy to consume.

## Are You Lactose Intolerant?

As with beans, some people don't have enough of the enzyme needed to easily digest the natural sugar (lactose) in milk products. It is important to have your symptoms professionally diagnosed. Lactose intolerance is not an allergy and, in most cases, individuals can still take advantage of the benefits of milk products.

## Most People Can Build Tolerance

According to the **National Institutes of Health (NIH)**, the foremost health authority in the United States, most lactose-sensitive individuals can slowly build a tolerance to lactose-containing foods and drinks without gastrointestinal discomfort. How? Incorporate small amounts of milk (less than 125 mL) into your diet with meals, then slowly increase the amount over a few weeks.

## How to Get Milk's Benefits Symptom Free

Drinking milk with a meal or with other foods can help tolerance.

Firm cheeses such as Cheddar, Parmesan, Havarti and Gouda contain virtually no lactose.

Many people who have difficulty digesting milk find they can digest yogurt. This is because the beneficial bacteria in yogurt may help digest the lactose for you.

Lactose-free milk products are widely available in grocery stores.

Take lactase enzyme tablets before drinking milk.

---

***Canada's Food Guide***  
**recommends adults eat**  
**2-3 servings of Meat and**  
**Alternatives a day.**

The ideal serving of meat, poultry or fish is small—about the size of a deck of cards. A serving of peanut butter is two tablespoons (30 mL) and a serving of legumes is three quarters of a cup (175 mL). A 2-egg omelet is one serving of Meat and Alternatives.



# Meat and Alternatives

## Go for Variety

Meat and Alternatives are nutrient dense and are tasty sources of iron, B vitamins and zinc, as well as appetite-satisfying protein. However, eating too much red and processed meat, especially hot dogs, is linked to an increased risk of colorectal cancer, so limit your intake.

Familiarize yourself with what a single serving of meat looks like. It can be easy to eat more

than what is recommended. Always take care to cut off the visible fat.

## Love Legumes

Legumes like kidney, navy beans and chickpeas are tasty, economical sources of protein. Drain and rinse canned varieties well to reduce the salt. Or better yet, soak and cook dried legumes and freeze for later use. For super convenience, think lentils—they are quick cooking with no soaking needed.

“ *There is strong evidence that eating deli meats and other processed cold cuts can increase your risk of developing colorectal cancer.* ”

The World Cancer Research Fund

## Instead of Sliced Processed Meats

Wondering what to use for your protein in sandwiches? Why not use home-roasted chicken or lean cuts of home-roasted beef. Or hard-boil some eggs and slice them thinly. The benefit? You get less salt.

## Tips to Enjoying the ‘Alternatives’

There are many non-meat sources of protein such as poultry, eggs, fish, seafood, tofu, legumes and nuts—enjoy the variety.

Eat fish at least 2 times a week, favouring varieties that give you heart-healthy omega-3 fats such as salmon, mackerel, herring and sardines.

Legumes can be tossed into soups, salads and stews for a lean protein and fibre boost.

Blend your favourite legumes into a quick and delicious dip for raw vegetables, or make a chili.

Enjoy nuts raw or grilled, without added salt, for a portable source of satisfying protein, rich in healthy oils.

Sprinkle nuts or seeds like sunflower, pumpkin or sesame onto salads and stir-fries to make them more sustaining—and more interesting!

---

**Canada's Food Guide recommends adults eat 6-8 servings of Grain Products, every day.**

Familiarize yourself with what a serving of Grain Products actually is, so that you don't overdo it. For example, all these are a single serving: A slice of bread, ½ cup (125 mL) cooked rice or pasta, 1 ounce (30 g) of breakfast cereal. A medium-sized store-bought muffin or a bagel is two servings.



## Grain Products

### Whole Grain Goodness Tastes Great

Make at least half the grains you eat whole grain, and limit grain products that are high in sugar, salt or fat. Reading labels will give you the information you need to choose wisely.

Foods to be wary of include packaged cookies, commercial muffins, pies and other baked goods.

Eat a variety of grains, such as barley, brown rice, oats, quinoa and wild rice. You'll get a wider variety of nutrients, and your diet will be a lot more interesting.

“ *A high intake of dietary fibre, particularly from cereal and whole grains, is associated with a reduced risk of colorectal cancer.* ”

Colorectal Cancer Association of Canada

---

### Tips for Eating More Whole Grains

Replace usual staples like pasta, English muffins, frozen waffles, cereal bars and breads with their whole grain counterparts.

Get into whole grain hot cereals such as oatmeal. Toss in nuts and dried fruit for added texture and nutrients.

Try unfamiliar grains in your meals, such as quinoa salads, spelt pasta and amaranth crackers. Variety is the spice of life.

Toss whole grain cereal into yogurt, use whole grain flatbread for wraps and a few baked whole grain crackers as platforms for healthy snacks like hummus, cheese and apple slices.

---

### Know What You're Getting

'Whole wheat' or 'multigrain' on a label does not mean that the product uses whole grains. To get the nutrients provided by whole grain, the list of ingredients must actually say 'whole grain'.

# Fibre

## What's Good about Fibre?

Fibre is a natural nondigestible component of all our edible plants, including grains, nuts, seeds, legumes, vegetables and fruits. It is not found in the other basic foods we eat such as meats, poultry, fish, eggs or milk products, unless it's been added in processing.

Fibre absorbs liquid and adds bulk to stool so that our food waste passes through our intestines quickly, absorbing carcinogens and other toxins as it travels.

Colorectal cancer may be linked to prolonged colonic and rectal exposure to the toxins formed when feces stay too long in the colon. That is why swift elimination of body waste is important to gastrointestinal health.



## Daily Fibre Recommendations

### Men

30 to 38 grams of fibre

### Women

21 to 25 grams of fibre

**Fast Fibre Tips** It's important to start increasing your daily fibre intake slowly, so that your gut can get used to it. And make sure you drink plenty of liquids to absorb your increased fibre load. Here are some practical ways to get more into your diet, easily.

Sprinkle nuts and fruit on your cereal and yogurt.

Snack on small amounts of plain nuts and dried fruits.

Use hummus as a veggie dip.

Add sunflower seeds to cereal and pancakes.

Eat whole fruits and vegetables instead of drinking their juice.

Check the fibre content of nutrition facts labels before buying packaged food.

Add legumes to salads, soups and stews.

## Create a Breakfast Habit

**Breakfast is a great time to get the jump on meeting your daily fibre needs. Why not start your day with a high fibre cereal—some breakfast cereals give you as much as 14 g of fibre per ½ cup (125 mL) serving—top with fresh or dried fruit for even more fibre.**

# Maintain a Healthy Weight

Many studies have found that excess body fat increases the risk of colorectal cancer in both men and women, but the link seems to be stronger in men. In addition, there is convincing evidence that people who carry too much weight around their waist are also at greater risk of developing colorectal cancer.

Excess weight is linked with the formation of colorectal polyps

that can become cancerous. The effect of being overweight is also thought to have an effect on hormone levels and increase inflammation that can promote the formation of cancer.

The best way to protect yourself from these risks is to maintain a healthy weight, lifelong. However, if you are overweight, losing weight can reduce risk, too.

## Does Your Weight Put You at Risk?

Whether your weight and/or your waist measurement put you at increased risk for colorectal cancer and other diseases is determined by your Body Mass Index (BMI) and the circumference of your waist. You can assess both at [yourhealthyweight.ca](http://yourhealthyweight.ca).

## Get Help from Milk

Many studies show that a diet rich in calcium or in milk products can make it easier to maintain a healthy weight or lose excess weight, especially around the waist.

## Tips to a Healthy Weight for Life

To make lasting positive differences in how you eat, make small, gradual changes.

Avoid fad diets—they don't work in the long run and are often unhealthy.

Watch your portion sizes—especially in restaurants—and take home the leftovers.

Integrate more physical activity into your day.

Eat lots of vegetables and fruit.

Snack on protein-rich foods such as milk, yogurt and nuts to keep you satisfied.

Drink smart—water and milk are among your best choices.

*“To avoid developing colorectal cancer, as well as other types of cancer, maintain a normal weight.”*

World Cancer Research Fund



---

Get a minimum of 150 minutes of activity of moderate to vigorous intensity, every week. Break it into chunks of 10 minutes rather than doing it all at one time.



## Regular Physical Activity

### You Can Actively Prevent Colorectal Cancer

People who engage in regular, moderate exercise such as brisk walking, dancing or skating have a 40% lower risk of developing colorectal cancer compared with people who are inactive.

In addition, they improve their overall gastrointestinal health, experience less constipation, sleep better and find themselves in better humour. To top it all off, they reduce their risk of death from all causes, such as heart diseases and other conditions.

If your regular physical activity is more energetic, like running, cycling, aerobics, or cross-country skiing, your risk of developing colorectal cancer is reduced even more.

Why? Studies point to three possible factors. Physical activity helps you maintain a healthy weight, activates protective hormones and helps move potentially disease-promoting toxic wastes through your intestines and out of your body, faster.

15

### Moving Everyday Tips

---

**If sports or going to the gym aren't for you, you can also integrate more physical activity into your everyday life. Do things like:**

---

Park your car farther away.

Go for walks.

---

Bike for groceries.

Wash the car.

---

Take the stairs.

Play with the kids.

---

**You get the idea... Just do things you enjoy and move more.**



## Regularity

Moving food waste out of your system promptly is important to your health. The longer feces stay in your colon, the more time toxins have a chance to build up and come in contact with your tissues. Prolonged exposure to these potentially carcinogenic food residues is linked to colorectal cancer.

### Listen to Your Body

If you feel the urge, go in a timely manner. The longer you wait before eliminating, the more water is removed in your colon. This makes your stool harder and more difficult to pass, leading to discomfort and constipation.

### Tips to Maintain Intestinal Regularity

---

#### **Eat lots of fibre-rich foods, such as:**

- Vegetables and fruit
- Whole grain bread, breakfast cereals, pasta and brown rice
- Legumes like kidney beans, lentils and chickpeas

If your diet is currently low in fibre, add it to your diet, gradually, over the course of a few weeks.

---

#### **Drink plenty of liquids, mainly water.**

- Other liquids count too. Think milk, 100% fruit and vegetable juices, herbal teas, etc.
- 

#### **Eat regular meals and snacks.**

---

#### **Be physically active.**

## Is Cheese Constipating?

---

No individual food, let alone cheese, causes constipation. However, like meat, fish, eggs and poultry, cheese contains no fibre. When you consume cheese, make sure to pair it with high-fibre foods like whole grain crackers or whole grain bread, and fruit, or fresh veggies on the side.



## Probiotics

### For Inner Well-being

Our intestines, primarily the large intestine or colon, host hundreds of billions of bacteria. These live bacteria make up what we call intestinal *microflora*. They help break down food, act as a protective barrier against disease-causing bacteria, stimulate the immune system and help absorb nutrients.

Generally, beneficial and disease-causing bacteria co-exist in our intestines in a kind of balance. However, age,

antibiotics, some illnesses, dietary changes, food sensitivities and many other factors can upset that balance, allowing the nasty bacteria in our microflora to overwhelm the good.

### What Are Probiotics?

Probiotics are live bacteria in the intestines considered beneficial to human health. The most common probiotic bacteria are *Bifidobacterium* and *Lactobacillus*. Eaten in the right amount, probiotics such as these may have health benefits.

### What You Should Know

How much probiotic you need to eat to derive a benefit is not yet clear, and the positive effects vary from person to person.

For probiotics to have any health benefits, it is suggested that you need to keep them in your system. This requires consuming some every day.

Probiotics are found in a number of milk products, such as certain yogurts and cheeses, and kefir.

Other foods where you may find probiotics in Canada include some juices, chewy bars and breakfast cereals.

To know if a product contains probiotics, look for the Latin name of the strain in the list of ingredients. Examples include *Bifidobacterium lactis*, as well as *Lactobacillus acidophilus* and *Lactobacillus casei*.

“*Daily consumption of sufficient quantities of probiotics contributes to healthy microflora in the intestinal tract.*”

Denis Roy, PhD, Tier 1 Canada Research Chair, Food Science, Laval University



colorectal-cancer.ca

## Risk Factors, Screening and Symptoms

18

Colorectal cancer can strike even the healthiest individuals. However, some of us are more at risk than others.

### Importance of Proper Screening

Colorectal cancer develops in the large intestine. Almost all cases begin with the development of small, non-cancerous growths called *polyps*. Over time, polyps can become cancerous and invade the

colon wall and surrounding blood vessels, then spread to other parts of the body.

When discovered early, colorectal cancer is very treatable. However, it can grow for years without causing symptoms. When signs do appear, they can vary a great deal, and many can be mistaken for symptoms of other conditions.

This is why it's best to get regular screenings rather than

rely on symptoms. Screening is especially important if you are over 50 years old, or having immediate family members who have had colorectal cancer.

“ 90% of colorectal cancer can be cured with early detection. ”

Colorectal Cancer Association of Canada

## Risk Factors You Can't Change

**If you have one or more of these risk factors, consult your doctor and think about a program of regular screening.**

Being over 50 years old

Having a history of colorectal polyps or colorectal cancer

Having a history of inflammatory bowel disease such as ulcerative colitis or Crohn's disease

Close family members have had colorectal cancer

Being of North American or African descent

Being a Jew of Eastern European descent

Having a history of other cancers

Having been treated with radiation therapy for certain cancers

Having a growth hormone disorder

## Risk Factors You Can Change

**Do you have one or more of these risk factors? If so, making a few positive changes could make a big difference. Remember, over 70% of colorectal cancers are preventable. Why not discuss the issue with your healthcare professional.**

Eating a diet high in fat and calories

Eating too much red meat and processed meats

Having a diet that is low in fibre, vegetables and fruit

Eating fried, broiled or grilled meats

Having a sedentary lifestyle or being generally physically inactive

Having type II diabetes

Carrying excess weight around the abdomen

Smoking

Having more than two alcoholic drinks a day if you are a man, or more than one a day if you are a woman

*“ If 80% of Canadians aged 50+ were screened over the next 10 years, it is estimated that 10,000 to 15,000 deaths from colorectal cancer could be prevented. ”*

Canadian Cancer Society

## Symptoms of Colorectal Cancer

None of these symptoms by itself is a certain indicator of colorectal cancer. Nor is it a complete description of possible symptoms. If you have any questions or worries, consult your doctor. Remember, early detection is key to a successful outcome.

Constipation

Diarrhea

Narrow stools

Abdominal cramps

Bloody stools

Unexplained weight loss

Loss of appetite

Sense of fullness

Gas and bloating

Fatigue



## REFERENCES

World Cancer Research Fund and American Institute for Cancer Research. Food, nutrition, physical activity, and the prevention of cancer. A global perspective. Washington, DC: AICR, 2007.

Huncharek M et al. Colorectal cancer risk and dietary intake of calcium, vitamin D, and dairy products: a meta-analysis of 26,335 cases from 60 observational studies. *Nutr Cancer* 2009;61(1):47-69.

National Institutes of Health. NIH Consensus Development Conference Statement: Lactose Intolerance and Health. *NIH Consens State Sci Statements* 2010 Feb 24;27(2).

Colorectal Cancer Association of Canada. [www.colorectal-cancer.ca](http://www.colorectal-cancer.ca)

## Colorectal Cancer Association of Canada

For a more in-depth explanation of colorectal cancer symptoms and screening procedures, go to the **Colorectal Cancer Association of Canada (CCAC)** website at [colorectal-cancer.ca](http://colorectal-cancer.ca) and look under **Just the Facts**. Or call CCAC toll-free at 1-877-50COLON (26566) to order a free publication.

This brochure has been developed in collaboration with the team of dietitians at Dairy Farmers of Canada.



**NUTRITION**  
DAIRY FARMERS OF CANADA

[dairygoodness.ca](http://dairygoodness.ca)

