



Aging Digestive Tract

The digestive system is a vital collection of organs that is responsible for breaking down food into its components for the body to use. As we age, the risk of something going wrong in the digestive system continues to rise, due to the culmination of years of effects from diet, lifestyle, diseases, and medications. In the elderly individual, new medical issues can arise, such as diverticular disease or colorectal cancer, or the worsening of long-standing conditions, such as dyspepsia, irritable bowel syndrome, inflammatory bowel disease (Crohn's disease and ulcerative colitis), celiac disease, and GERD.

Here we will look at ways to maintain digestive health as you age, as well as disorders that commonly affect older individuals, and the treatment and management of these conditions.

Dietary and Lifestyle Changes

Maintaining healthy dietary habits can offer great benefits to your overall digestive health. Choose nutritious foods, as outlined in *Canada's Food Guide*, and eat a variety of foods. Getting enough fibre is important, to positively influence constipation, diarrhea, and diverticular disease. Women older than 50 years of age should aim for 21 g of fibre a day, and men in that age group should aim for 30 g. Getting enough vitamin D is also vital, especially during the winter, and our needs increase as we age. Those who are aged 51-70 should take 400 IU (10 micrograms) of vitamin D per day, and those who are 71 years and older should take 600 IU (15 micrograms) per day. Supplements are absolutely necessary, because we do not have enough dietary sources, and we do not get enough sunlight year-round in Canada to synthesize our own vitamin D. Calcium intake is also very important for the elderly, who should aim to consume 1,200 mg of calcium per day, by consuming three servings of dairy or alternatives per day, or through supplements.

It is important to remain active throughout life. A person who is older than 50 should take part in at least two and a half hours of moderate to vigorous intensity aerobic activity each week, spread out into sessions of ten minutes or more. This can

include activities such as walking, biking, and swimming. Add muscle and bone strengthening activities at least twice a week.

Getting enough sleep can also benefit digestive health and function, so it is important to get enough hours in. Stress can also contribute to worsening digestive symptoms, and while it is easier said than done, focusing on relieving stress can help you maintain good health. Some techniques for managing stress include regular exercise, taking time for yourself, having a good belly laugh, becoming a better breather, and monitoring negative thoughts. For more information on this, ask for our *Stress Management* pamphlet or search for this on www.badgut.org.

Dysphagia

Difficulty swallowing (dysphagia) is common in older individuals. There are a few things that contribute to this, including reduced saliva production, reduced strength in the upper esophageal sphincter, degeneration of nerves and muscles (which is a common consequence from Parkinson's and stroke), and impaired coordination of the process of swallowing. These symptoms become more frequent as we age. If you experience difficulty swallowing, there are a few techniques to mitigate symptoms. Thorough chewing, good dental health, properly fitting dentures, eating slowly, and sitting upright while eating can all help.

Functional Dyspepsia

Functional dyspepsia (FD) is a chronic disorder of sensation and movement (peristalsis) in the upper digestive tract that affects approximately 20-45% of the population. Symptoms include recurrent upper abdominal pain, nausea, belching, bloating, early fullness, and indigestion. The cause of functional dyspepsia is unknown; however, several hypotheses could explain this condition even though none can be consistently associated with FD. Excessive acid secretion, inflammation of the stomach or duodenum, food allergies, lifestyle and diet

influences, psychological factors, medication side effects (from drugs such as non-steroidal anti-inflammatory drugs and aspirin), and *Helicobacter pylori* infection have all had their proponents. To learn more, ask for our pamphlet on *Functional Dyspepsia*.

Gastroesophageal Reflux Disease

Gastroesophageal reflux disease (GERD) occurs when the upper portion of the digestive tract is not functioning properly, causing stomach contents to flow back into the esophagus. The most common symptom of GERD is acid reflux, and other symptoms include heartburn, acid or food regurgitation, persistent sore throat, chronic coughing, chest pain, and bad breath. 13-29% of Canadians experience recurring symptoms. To learn more, ask for our pamphlet on *Gastroesophageal Reflux Disease (GERD)*.

Management of Dyspepsia and GERD

The management for these two upper GI disorders is similar. They involve a combination of dietary and lifestyle modifications, and medications where needed. It is important to find your own trigger foods, which are foods that make symptoms worse whenever you consume them. Some common trigger foods for FD and GERD are fatty foods, spices, alcohol, and caffeine, but each individual is unique and you may find that these foods don't bother you, but other foods do. Avoiding these foods, or consuming them only in small quantities, can help manage symptoms. Maintaining a healthy body weight and quitting or reducing cigarette smoking can also help, because obesity and nicotine can contribute to lower esophageal sphincter malfunction. Avoid lying down right after eating, and try elevating the head of the bed by six inches while sleeping.

There are two main types of medications that help reduce heartburn. There are those that neutralize acid, such as Maalox®, Tums®, and Pepto-Bismol®. These are generally only for short-term (two weeks or less) use. The other kinds of medication are those that suppress acid secretion, and are used for long-term GERD management. These include H2RAs (Pepcid®, Tagamet®, Zantac®) and PPIs (Losec®, Pantoloc®, Prevacid®, Nexium®, Tecta®, Dexilant®).

NSAID Complications

Non-steroidal anti-inflammatory drugs (NSAIDs) are a type of pain relief medication. The most common of these are acetylsalicylic acid (Aspirin®, ASA), ibuprofen (Advil®), and naproxen (Aleve®). While these medications are effective at relieving pain, and come with a relatively low side effect profile, they can cause damage in the upper digestive tract. As you get older, your risk of developing complications such as gastric ulcers increases. Other risk factors include high doses or frequent use of NSAIDs, prior GI bleed, concomitant steroid use, cardiovascular disease, and mixing multiple NSAIDs. To prevent gastrointestinal damage from NSAIDs, you can take

certain medications, such as H₂RAs and PPIs, which reduce the acid in your stomach, or a mucosal acting shield (Sucralfate®) to protect the stomach from acid. There are also alternative NSAIDs, such as COX-2 inhibitors (Celebrex®), but these have their own risks. If none of these options work, you might consider limiting or avoiding NSAIDs. If you have any concern about your NSAID use and its potential complications, please speak with your physician.

Bowel Habits – What's Normal?

Normal bowel habits vary from person to person, and the important thing to focus on is your comfort level. Typically, having a bowel movement three times a day to three times a week is considered normal, but if you fall within this range and have unpleasant symptoms, it might not be healthy for you, and if you fall outside of this range, but with no other symptoms, you might be fine. A healthy bowel movement will pass smoothly and without pain, and is not too loose and watery or too hard and lumpy. You shouldn't have to strain, and when you have to go, it should not be uncomfortably urgent.

Diarrhea

Diarrhea occurs when the digestive tract pushes matter through it too quickly (fast colonic transit time). This means that there is not enough time for the large intestine to adequately remove water out of the colon, and it leads to increased fluid, volume, and frequency of bowel movements. Abdominal discomfort is also quite common. There are many causes of diarrhea, some are temporary effects and some are from chronic disease. Examples include infection, medication side effects, lactose intolerance, celiac disease, irritable bowel syndrome, and inflammatory bowel disease (Crohn's disease and ulcerative colitis). Diarrhea affects approximately 7-14% of seniors.

Managing Diarrhea

There are two groups of medications that can help ease diarrhea.

The first group, bulk formers, work by soaking up water in the bowel to reduce stool looseness and frequency. These include fibre or psyllium (Metamucil®, Prodiem®, Benefibre®) and bile salt binders (Olestyr®).

The second group includes medications that alter the muscle activity of the intestine, slowing down transit time, allowing the intestine to absorb more water from the stool. These include non narcotic anti-diarrheal agents such as loperamide (Imodium®), narcotic anti-diarrheal agents such as Lomotil® and codeine, and anti-spasmodic agents such as Buscopan®.

Constipation

Constipation occurs when fecal matter takes too long moving through the digestive tract (slow colonic transit time). This leads to the large intestine absorbing excess water from

stool, creating hard, dry stools, reduced frequency, straining, rectal pressure or fullness, bloating, abdominal pain, and a sensation of incomplete evacuation. These symptoms can lead to poor appetite, back pain, and general malaise. Causes include consuming a diet that is too low in fibre and fluid, insufficient physical activity, medication side effect (opiates, tricyclic anti-depressants, calcium channel blockers), certain supplements (calcium and iron), irritable bowel syndrome, intestinal obstructions or strictures from surgery, diabetes, stroke, hypothyroidism, and Parkinson's. Constipation affects 15% of the Canadian population, but is much more common in older individuals, affecting 13% of those age 30-64, and 23% of those age 65-93.

Managing Constipation

A combination of lifestyle and dietary modifications can help ease constipation in many cases. Consuming adequate fibre, and ensuring that you consume plenty of fluids adds bulk to the stool, which makes it move more quickly through the digestive tract. Prunes are a high-fibre food that are effective at treating constipation, and contain nutrients for general good health.

Getting enough physical activity can also help move the stool through the colon more quickly. You can also reduce complications of constipation, such as hemorrhoids, by ensuring that you take your time in the bathroom, and avoid straining. Keeping your feet slightly elevated, and leaning forward, can put your colon in a more ideal position for comfortable stool passage.

When these lifestyle changes aren't enough, there are many medications that can help speed up transit time to prevent and relieve constipation. These include a wide variety of laxatives, such as stool softeners, lubricants, stimulants, and hyperosmotics, including saline, lactulose, glycerin, and polymer. Enemas can also help some individuals.

In more severe cases, a prescription medication called linaclotide (Constella®) can improve stool consistency by increasing intestinal fluid secretion. This helps ease the passage of stool through the digestive tract and relieve associated symptoms.

Diverticular Disease

Diverticular disease occurs when small sac-like out-pouchings that balloon through the outer colon wall form in the colon lining. These out-pouchings, called diverticula (diverticulum if it is only one) are typically 0.5-1 cm in diameter, but can become much larger in rare cases. They are most frequently found in the lower section of the colon. Diverticular disease is a disease of the elderly. It affects 5% of the Western adult population younger than 40 years of age, but affects 50% of those who are aged 60 years and older, and rises to 65% in those who are 85 years of age and older.

There are two main states in diverticular disease: diverticulosis and diverticulitis. Diverticulosis occurs when

there are diverticula present, but they are not inflamed. It is often present without symptoms (85% of the time), and can be managed through healthy dietary habits, including adequate fibre and water intake, and moderate exercise. Diverticulitis occurs during a flare-up, when the diverticula become inflamed and/or infected, and occurs in 10-25% of diverticular disease cases. Symptoms can include an increase in diarrhea, cramping, and bowel irritability, as well as bleeding, bloating, fever, and intense pain and tenderness in the left lower portion of the abdomen. Treatment for diverticulitis involves a low-fibre or liquid diet to allow for bowel rest, and sometimes antibiotics or surgery are necessary. To learn more, ask for our pamphlet on *Diverticular Disease*, and view our video on diverticular disease at www.badgut.org/diverticular-disease-video.

Colorectal Cancer

Colorectal cancer is a serious, life-threatening disease. It is more common in the elderly than in young people, but still has a low lifetime risk of development. Approximately 5-6% of the population develops colorectal cancer, and it is more common in men than in women. Individuals who have had ulcerative colitis or Crohn's disease in the colon for more than ten years, and those with a family history of colorectal cancer are also at an increased risk. While it is a devastating disease, if caught early, treatment is very effective.

It takes up to ten years for colorectal cancer to develop from a polyp. This is why the recommendation of a colonoscopy every ten years is effective. This allows physicians to remove any risky polyps before they can become cancerous. Another option is to have an annual or bi-annual stool test, then if your physician sees anything abnormal he or she can recommend a colonoscopy. Just make sure to get tested! However, most physicians advise the cessation of colon screening once you reach the age of 75 years or if you are experiencing significant health issues.

Warning Signs

If you experience a recent/sudden onset of the following symptoms, discuss with your doctor:

- bleeding/anemia
- unplanned weight loss
- fever
- nocturnal bowel movements
- family/personal history of colon cancer

Outlook

While your risk of developing digestive diseases and disorders increases moderately as you age, a well balanced diet, exercise, and letting your physician know of any sudden changes in your digestive system can all go a long way in maintaining healthy function well into those wiser years.

NOTES:



ABOUT US

As the Canadian leader in providing trusted, evidence-based information on all areas of the gastrointestinal (GI) tract, the Gastrointestinal Society is committed to improving the lives of people with GI and liver conditions, supporting research, advocating for appropriate patient access to health care, and promoting gastrointestinal and liver health.

The *Inside Tract*[®], our quarterly newsletter, provides the latest news on digestive and liver research, disease and disorder treatments (e.g., medications, nutrition), and a whole lot more. If you have any kind of digestive problem, then you will want this timely, informative publication.



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