

SPOTLIGHT ON DIGESTIVE HEALTH

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PREVENTIVE HEALTH

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THE BRAIN-GUT CONNECTION:
HOW MENTAL HEALTH
AFFECTS DIGESTION

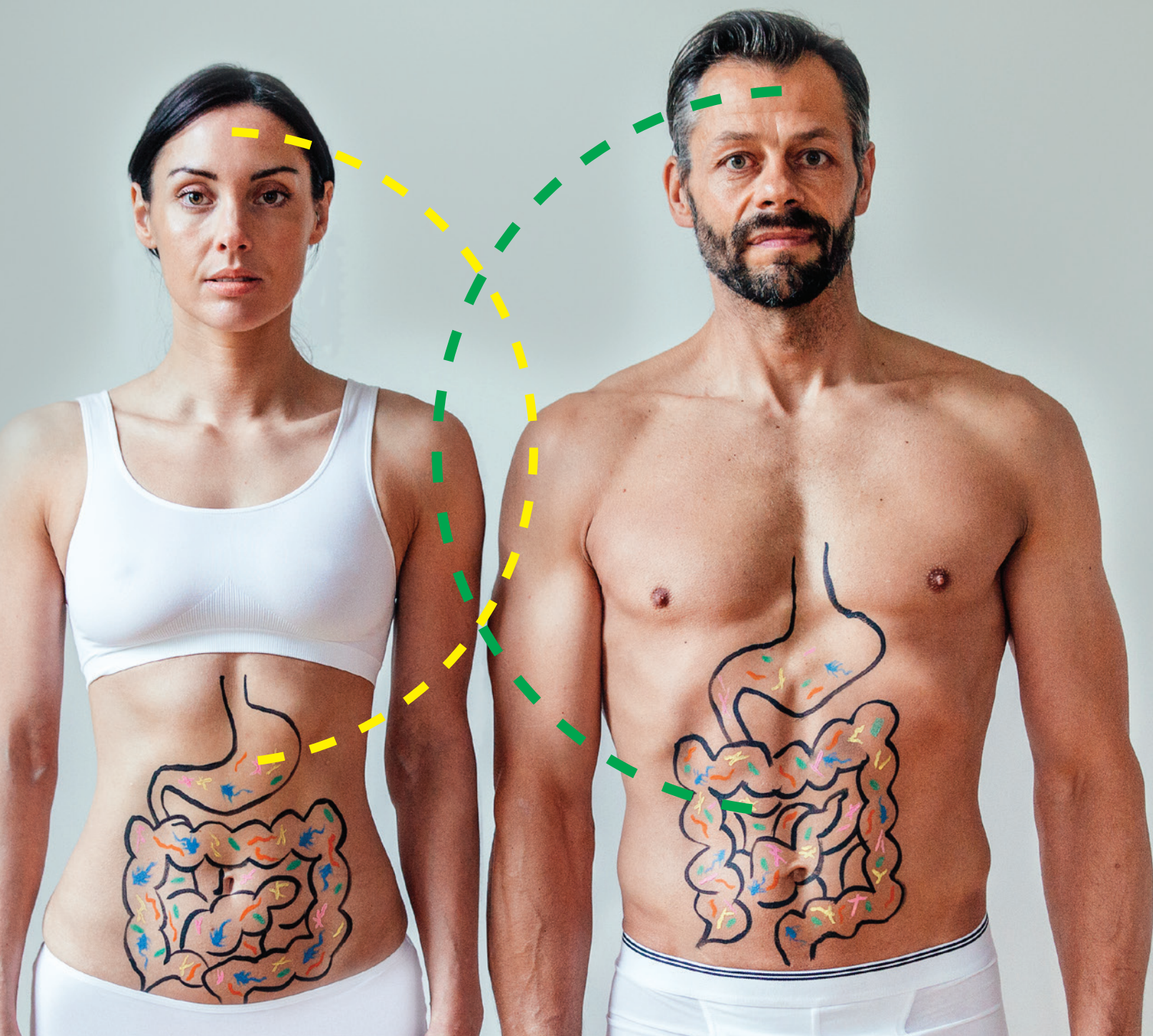
BOOST YOUR DIGESTIVE
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IRRITABLE BOWEL SYNDROME 101

PREVENTING TYPE 2 DIABETES

THE BRAIN-GUT CONNECTION: HOW MENTAL HEALTH AFFECTS DIGESTION

By Dr. Beth Donaldson, Family Physician & Medical Director, Copeman, member of Medisys Health Group



Have you ever felt butterflies in your stomach when you're nervous? How about "going with your gut" when making a quick decision? Do you ever just have a "gut feeling" about something? If so, you're already well aware of the brain-gut connection. But what other effects can the brain have on your gut?

THE BRAIN-GUT CONNECTION

The brain has a direct effect on your digestive tract, including your stomach and intestines.

The gut is controlled by its own network of neurons in the lining of the gastrointestinal system, known as the enteric nervous system, but it's also controlled in part by the central nervous system in the brain and spinal cord.

The digestive system is sensitive to emotion, including anger, anxiety and sadness. This is why you might feel sick to your stomach when you're particularly stressed out. Stress, depression and other psychological factors can send the brain-gut connection out of whack and cause alterations to gut physiology.

These feelings (and others) can trigger symptoms in the gut that interfere with digestive functions such as swallowing, the release of enzymes to break down foods, and the categorization of foods as nutrients or waste products. Stress can affect movement and contractions of the gastrointestinal tract, increase inflammation and exacerbate gastrointestinal disorders, including irritable bowel syndrome (IBS), inflammatory bowel disease (IBD) and gastroesophageal reflux disease (GERD). There is also a strong relationship between mental health issues and gastrointestinal symptoms like heartburn, indigestion, acid reflux, bloating, pain, constipation and diarrhea.

Interestingly, the brain-gut connection is not a one-way street. Evidence has shown that when someone is dealing with gastrointestinal problems, their gut's enteric nervous system may send signals to the central nervous system that trigger emotional changes. These findings could help explain why a higher-than-average percentage of people with digestive problems develop depression and anxiety.

It's this connection that has many researchers hopeful that improving gut health and microbiota (bacteria in your digestive tract) through probiotics might one day be an option in treating mental illness. While we know probiotics can help support a healthy gut and can restore normal microbial balance, more research is required to see if probiotics can also support brain function and mental wellness.

WHAT CAN YOU DO IF YOU'RE EXPERIENCING DIGESTIVE PROBLEMS?

If you are experiencing digestive problems, try increasing your intake of foods that are rich in prebiotics or probiotics. Prebiotic foods are high in fibre and feed the "friendly" bacteria in your gut; these foods include asparagus, bananas, garlic and onions.

Healthy probiotic foods include yogurt, kefir, kombucha and other fermented foods. Supplemental probiotics are an option, but may not be right for everyone, so be sure to check with your healthcare team before consuming.

If you are experiencing digestive issues on a consistent basis, your body may be trying to tell you that there is a bigger problem to look into; speak with your physician or registered dietitian.

If you believe that your digestive health may be negatively impacted by your mental health, it's important that you speak with your physician or psychologist. Common signs and symptoms of mental illness include continually feeling sad or down, excessive fears or worries, sleep problems and a desire to withdraw from others. In many situations, psychological treatment can help ease digestive conditions and aid a person in coping with their gastrointestinal symptoms.

If you're being impacted by stress, there are several things that you can do to reduce stress and improve gut health. Practicing stress management techniques, such as exercising regularly, avoiding stressors, socializing, and getting enough sleep, can greatly minimize your stress levels.

Everybody goes through occasional episodes of stress, but when stress or anxiety comes with other symptoms like abdominal cramps or pain, you may consider talking to a doctor. Connect instantly with a healthcare professional from the comfort of your home with Medisys On-Demand. [Click here](#) to learn more about our virtual care platform.



The graphic features a large, light blue speech bubble shape. Inside the bubble, the Medisys logo is displayed at the top, consisting of a stylized 'm' in blue and orange followed by the word 'medisys' in blue. Below the logo, the text '30 DAYS FOR YOUR MENTAL HEALTH' is written in a bold, blue, sans-serif font. Below the speech bubble, the text 'Join the 30-day mental health e-challenge' is written in a bold, blue, sans-serif font. Underneath this, a paragraph reads: 'By committing only 10 minutes a day to mental health exercises, you'll learn to implement tools and strategies proven to lower everyday levels of stress and anxiety.' At the bottom of the graphic, the text '[Click here](#) to join the challenge' is written in a blue, sans-serif font. A small, stylized hand icon is located at the bottom right corner of the graphic.

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**30 DAYS FOR YOUR
MENTAL
HEALTH**

**Join the 30-day mental
health e-challenge**

By committing only 10 minutes a
day to mental health exercises,
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[Click here](#) to join the challenge

BOOST YOUR DIGESTIVE HEALTH THROUGH EXERCISE

By Ernesto Rosario, Kinesiologist, Medisys Health Group

We all know that regular exercise is good for our overall health, but did you know that exercise can improve digestive health as well? Being physically active plays a huge role in maintaining optimal digestive systems function.

HOW EXERCISE AFFECTS DIGESTIVE FUNCTION

Over time, regular exercise helps strengthen the digestive tract and keeps the gut healthy. Evidence suggests that regular exercise has other benefits for the digestive system including enhancing the microbiota found in the gut and reducing the risk of colon cancer. Conversely, as you become less active, your intestinal flow tends to slow down.

Physical activity can also have short-term benefits for digestion. Exercising increases blood flow towards the muscles and digestive tract, which can help move food through the digestive tract. Exercise has also been shown to alleviate heartburn, gas, stomach cramps and constipation.

WHEN AND WHAT TO EAT BEFORE EXERCISING

For the most part, exercise is beneficial to digestive health, however too much exercise or improperly timed exercise as it relates to meals can have negative effects on digestion.

For example, if you've just eaten a meal before a workout, you can experience gastrointestinal problems such as upset stomach, abdominal pain, heartburn, bloating and constipation. This is especially true if you've eaten a meal high in fats and proteins. When you eat, the blood flow around your stomach and intestines increases to help your body digest the food.

Therefore, if you start exercising without giving your body enough time to digest the food, most of the blood will be pulled back from your stomach to your heart and other muscles.

Give yourself at least 1-2 hours to digest before intense exercise and 2-3 hours if you've eaten a meal high in fats and proteins. If you need to eat closer to a workout, try to eat easily digestible foods - whole grain toast, fruit, veggies, and oats are all good options. Also, be sure to keep yourself hydrated while exercising, as dehydration is a leading cause of gastrointestinal issues.

EXERCISES THAT PUMP UP DIGESTION

If you're unable to perform aerobic exercises, the good news is that there are other less-demanding ways to improve your gut health. Even low impact exercise, such as walking, can support digestive health.

If you're unable to perform aerobic exercises, the good news is that there are other less-demanding ways to improve your gut health, as even less strenuous exercises help with digestive health.

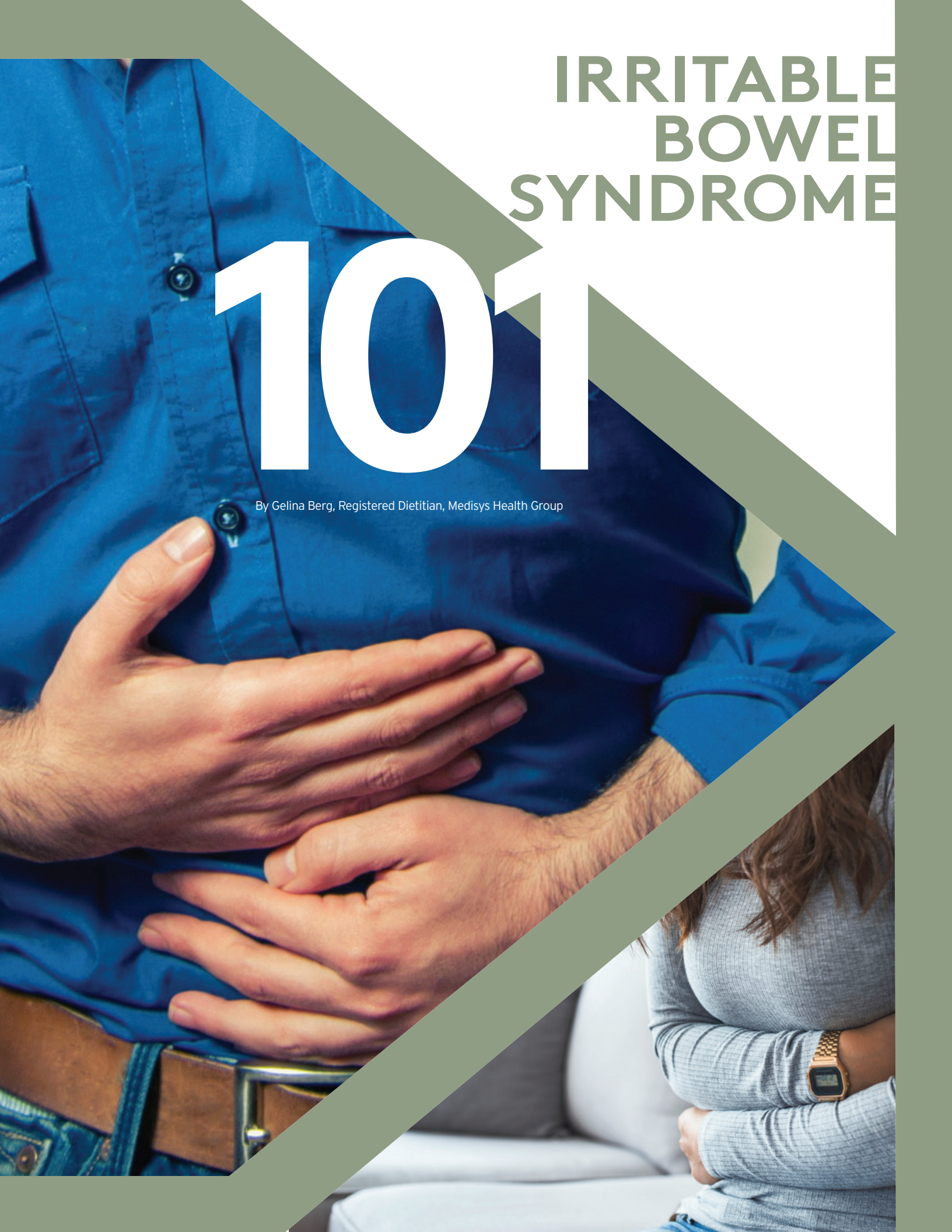
Certain types of abdominal stretches and yoga poses can help increase blood flow to the digestive system and can strengthen surrounding muscles, both which help promote digestion. If you've experienced digestive health issues and would like to learn more about building an exercise plan that can help, please reach out to your Medisys healthcare team. **[Click here](#)** to learn more about our health services or to book an appointment.



IRRITABLE BOWEL SYNDROME

101

By Gelina Berg, Registered Dietitian, Medisys Health Group



Irritable bowel syndrome, or IBS, is the most common disorder of the gastrointestinal tract.

Symptoms may consist of recurrent abdominal pain (that often improves after a bowel movement), bloating, gas, mucous in stool, fecal urgency after eating and one or both of diarrhea and constipation. Heartburn may also accompany IBS. IBS differs from diseases of the bowel, as it does not include structural issues, inflammation, ulcers and other physical damage.

WHAT CAUSES IBS?

The exact causes of IBS aren't particularly well understood, but possible factors can include:

- **Change in the population of microbes that live in the gut:** Bacteria and other microbes digest carbohydrates and fibre and produce gas as a byproduct. Shifts in the microbiome can change our food tolerance, gut motility, the amount of water in the stool and the amount of gas produced.

- **Hypersensitivity of the gut:** In people with IBS, the nerves that connect the gut and brain are generally more sensitive than in those without IBS. Therefore, gas and muscular movements are often felt more strongly.

- **Emotional stress:** The brain and gut have a direct link. Stress, anxiety and depression can have a direct impact on how our digestive tract functions. In addition, many neuroactive molecules, such as serotonin and dopamine, are produced by bacteria in the gut, so our gut health impacts our mental health, too!

- **Bacterial overgrowth in the small intestine:** Bacteria can grow in the wrong place in some individuals. Causes include gastrointestinal motility issues, reduced acidity in the stomach or structural abnormalities of the GI tract.

HOW CAN YOU MANAGE IBS?

- **Diet and Lifestyle:** Diet and lifestyle changes, supplements and medication can all be used to improve IBS symptoms. As symptoms of IBS are highly individualized, it is important to determine what works best for you and then create a management plan based on your unique symptoms. Diet and lifestyle adjustments are a good starting place if you're dealing with IBS. Take detailed notes on what you eat and the symptoms you experience, as well as the severity of your symptoms each time they occur. This information can help your healthcare team understand your IBS

- **Fibre and Fluids:** Ensure you're getting enough fibre through your diet or through supplements. If you plan to increase your fibre intake, do so gradually, as it may reduce constipation for some people but can worsen gas and cramping for others depending on the source of the fibre. It's also important to drink lots of water.

- **Targeted Food Elimination:** You may need to eliminate certain foods from your diet to reduce IBS symptoms. The support of a dietitian during an elimination trial is highly recommended. A dietitian can help you identify triggers, recommend alterations to your current diet, provide meal and snack ideas and ensure you're still meeting your nutritional needs. Foods to eliminate may include carbonated beverages, caffeine and foods high in FODMAPs (fermentable oligo-, di-, monosaccharides and polyols). FODMAPs are categories of carbohydrates found in many foods, including certain grains, dairy and specific fruits and vegetables. Undigested or poorly digested carbohydrates can cause water to be drawn into the bowel resulting in loose stool or urgency. They also provide food for bacteria, which ferment the carbohydrates, producing gas as a byproduct.

- **Stress Management:** Stress can also trigger IBS, in which case counselling has been shown to be an effective treatment option. Optimal sleep and exercise can also help with symptom management.

- **Supplementation:** Supplements can help with IBS symptom relief. Fibre supplements assist in absorbing water from stool when stool is too loose, and can aid in softening stool when stool is too hard. Probiotics may help to rebalance your microbiome and assist in improving symptoms, such as the form of stool or gas. Peppermint oil can help relax muscles in the digestive tract. Iberogast is a herbal remedy that can help with abdominal pain, bloating and nausea, as well as improve bowel motility. Finally, digestive enzymes may aid with digestion of excess FODMAPs for some individuals.

- **Medication:** Medication, either over the counter or prescribed by your doctor, alleviates symptoms as well. Laxatives and IBS medications can increase fluid drawn into the digestive tract to help with constipation, anti-diarrheals can control diarrhea, tricyclic antidepressants can calm the neurons that control the intestines and help reduce pain, prokinetics can improve motility, antispasmodics can relax the smooth muscle of the GI tract and antibiotics can help reduce diarrhea for some individuals, as well as control bacterial overgrowth.

ARE YOU SUFFERING FROM IBS?

If you suffer from or suspect you may have IBS, set up an appointment with your Medisys doctor and dietitian. They can help you determine the appropriate management path and get you started on the right path toward relief. [**Click here**](#) to learn more about our health services or to request an appointment.



PREVENTING TYPE 2 DIABETES

By Andrea Stokes, Registered Dietitian, Medisys Health Group

November 14, 2019 is World Diabetes Day.

About 3.0 million Canadians are living with diagnosed diabetes and an additional 1.5 million have diabetes and don't know it! Diabetes is a chronic disease affecting Canadians of all ages, and causing high blood sugar levels due to the body either not producing enough insulin, or not properly using the insulin it does produce. If left uncontrolled, consistently high blood sugar levels can cause damage to organs, nerves, and blood vessels, and lead to serious complications such as cardiovascular disease, vision loss, kidney failure and amputation. Therefore, it is very important to keep blood sugar levels tightly regulated. Making healthy lifestyle choices like eating well, exercising, and maintaining a healthy weight can play a major role in controlling and, more importantly, preventing the disease.

In fact, according to the International Diabetes Federation, over 50% of type 2 diabetes cases could have been prevented through early detection and healthy lifestyle choices. The following nutrition and lifestyle guidelines can help you get started.

NUTRITION RECOMMENDATIONS

- Eat three regular meals, spaced evenly apart, comprising nutrient-rich, whole foods.
- Eat a balanced breakfast within an hour of waking.
- Space your meals no more than 4-6 hours apart.
- You may benefit from the addition of small snacks throughout the day, especially if you go long stretches between meals.
- Include a combination of protein and unrefined carbohydrate at each meal and snack.
- Choose high-fibre, complex carbohydrates (limit sweets and simple carbs).
- Choose low glycemic index (GI) and low glycemic load (GL) carbohydrates most often.
- Limit your intake of saturated fat and avoid trans fats altogether.
- The bulk of your daily fat intake should be in the form of monounsaturated and polyunsaturated fats, including omega-3 fats.
- Try to consume fatty fish, such as salmon, twice each week, or take an omega-3 supplement.

- Consider opting for a vegetarian meal at least once or twice each week.
- Drink at least 8 cups of water per day and avoid juice, pop, and other sweetened beverages.
- Follow the "Plate Method" when serving your meals: fill 1/2 your plate with vegetables, 1/4 with lean protein, and 1/4 with complex carbohydrates.
- Aim for at least 5 servings of vegetables each day to help increase your fibre intake and maintain a healthy weight, as well as provide important vitamins, minerals, and antioxidants.

LIFESTYLE RECOMMENDATIONS

- **Exercise regularly:** Aim to get moving for at least 30 minutes each day or 150 minutes of moderate to vigorous activity per week (like walking, bicycling or jogging). Include both cardio and resistance training activities into your regular routine.
- **Maintain a healthy weight:** Diabetes Canada recommends people with pre-diabetes to lose just 5% of their initial body weight, as this can delay or prevent type 2 diabetes from developing. [Click here](#) to download our healthy eating guide.
- **Get regular preventive health assessments:** You could be one of the 1.5 million Canadians who has diabetes and doesn't know it. According to Diabetes Canada, anyone over the age of 40 should be tested for diabetes every three years, and anyone presenting one or more risk factors should be tested earlier and more frequently. Risk factors include high blood pressure, being overweight, and having high levels of cholesterol. [Click here](#) to learn more about our preventive health assessments.
- **Manage stress:** When you're stressed, your blood sugar levels go up. You may also forget to exercise and eat well. Find ways to relieve stress through activities like meditation, yoga, and seek professional advice if needed. [Click here](#) to join the 30-day mental health e-challenge.

Diet and exercise are the cornerstones of diabetes. At Medisys, our registered dietitians can help you adapt your diet to control and stabilize your diabetes, and make wise choices while preserving the pleasure of eating.

[Click here](#) to learn more about our nutrition and preventive health services.



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