

Your Guide to Digestive Disorders

Symptoms, Risk Factors and
Advanced Treatments



What Are Digestive Disorders?

Nearly 70 million Americans suffer from digestive disorders that occur in the esophagus, liver, and pancreas including acid reflux, cancers and many more. As a designated Digestive Health Institute at AdventHealth Tampa, we understand that these conditions can profoundly affect your quality of life.

But there is hope on the horizon with many effective and advanced minimally invasive surgical treatments performed by our board-certified, fellowship-trained gastroenterologists and colorectal surgeons to help you heal.

Common Digestive Disorders and Symptoms

GERD

GERD is a condition of the esophagus, or food tube that affects about one out of five U.S. adults. GERD is a digestive disorder that causes gastric acid to flow from the stomach into the esophagus. It can cause symptoms such as heartburn, trouble swallowing, vomiting, cough, pneumonia and voice changes.

Without effective treatment, GERD can lead to Barrett's esophagus. This is a condition in which the cells in the lower part of the esophagus start to look like the cells that line the intestines. Barrett's esophagus dramatically increases the chances someone with GERD will develop esophageal cancer.

Anti-reflux (GERD) surgery repairs the muscle that prevents gastric acid from entering the esophagus. Surgical treatment for GERD is a reliable solution for long-term relief.

Inflammatory Bowel Disease

Up to 3 million Americans live with inflammatory bowel disease (IBD), a condition that involves inflammation in the lining of the colon, small intestine and other parts of the digestive tract.

Crohn's disease and ulcerative colitis are both forms of IBD. In addition to diarrhea, constipation

and abdominal pain, IBD can lead to tiredness, decreased appetite, nutritional deficiencies, bowel obstruction and liver damage — making it potentially dangerous.

Because nearly half of all patients with IBD will eventually need surgery to treat complications, it is beneficial to have a comprehensive digestive health team working together to personalize a treatment plan.

Achalasia

Achalasia is a rare motility disorder of the esophagus that affects only about 200,000 people each year in the United States.

Achalasia occurs when the nerve cells in the lower esophageal sphincter (LES) do not work properly. The LES is the muscle that allows food to travel from the esophagus to the stomach but not easily come back up again. When these nerve cells do not work, the esophagus spasms and contracts, and the LES relaxes unpredictably.

This makes it difficult for the esophagus to push down food to the stomach as usual. The LES may prevent food from entering the stomach. People with achalasia often experience difficulty swallowing, regurgitation and chest pain. They may feel that food is getting stuck in the throat or chest.

Esophageal Cancer

Esophageal cancer affects the esophagus, or the tube that allows food to go from the throat to the stomach. It is believed to be caused by chronic irritation. There are two main kinds of esophageal cancer.

One is squamous cell carcinoma, which is linked to smoking, chewing tobacco, alcohol use, poor nutrition and even drinking beverages that are too hot. The other kind of esophageal cancer, adenocarcinoma, is linked to gastroesophageal reflux disease (GERD), obesity and Barrett's esophagus.

Symptoms of esophageal cancer can include:

- Reverse flow of food back up through the esophagus
- Difficulty swallowing food or drink
- Pain or sensation that food is catching after swallowing
- Chest pain a few seconds after swallowing food
- Weight loss due to difficulties with eating
- Heartburn
- Vomiting blood
- Persistent cough

Colon and Rectal Cancer

Colorectal cancer is the most common cancer that affects both men and women, and it is the second largest cause of cancer-related death. Colorectal cancer is usually caused by one or more polyps that turn into cancer. While not all polyps on the colon or rectum will turn into cancer, more than 19 out of 20 of the ones that do are adenocarcinomas, the same type of glandular cancer tumor commonly found in the rest of the digestive tract.

Risk factors for colorectal cancer include being age 50 or older, having a family history of colorectal cancer, having inflammatory bowel disease, being obese and having a sedentary lifestyle.

Fortunately, many colorectal cancers can be prevented with routine screenings. This makes talking to your doctor about your colon and rectal cancer risk so important.

Symptoms of colon or rectal cancer include:

- Abdominal cramping
- Blood in the stool
- Constipation
- Diarrhea
- Fatigue
- Nausea and vomiting
- Unintended weight loss



Stomach Cancers and Tumors

A large majority of stomach cancers are adenocarcinomas, caused by chronic inflammation of the stomach, a condition called gastritis. This condition is commonly seen with people infected with *Helicobacter pylori* bacteria.

Gastric cancer is also more common in people who eat a lot of smoked and salted meat and pickled foods. Smoking, obesity and previously having had gastric surgery are other factors that appear to contribute to stomach cancer.

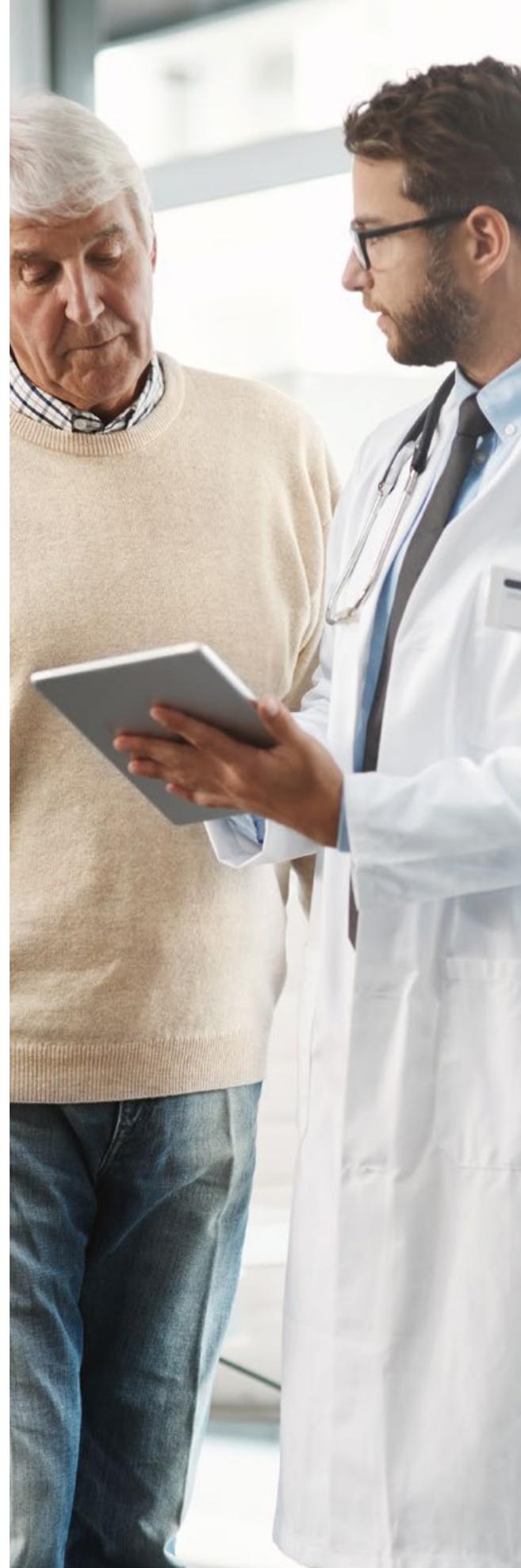
Some common symptoms of stomach cancer include:

- Poor appetite and resulting weight loss
- Stomach pain or discomfort above the belly button
- Feeling full soon after beginning eating
- Abdominal swelling
- Heartburn
- Nausea
- Vomiting, with or without blood
- Dark or bloody stools
- Anemia (low red blood cell count)

Small Bowel Cancer

Small bowel cancer occurs in the small intestine and it is very rare. When it does occur, it is most commonly an adenocarcinoma that appears in the duodenum, or the first foot of the small intestine. The duodenum is where bile from the gallbladder and insulin from the pancreas enter the small intestine to aid in digestion.

- Abdominal pain, especially pain that starts or gets worse after eating
- Nausea and vomiting
- Unintended weight loss
- Jaundice, or yellowing of the skin and eyes
- Dark-colored stools
- Anemia, or low red blood cell count
- Feeling weak and tired
- Obstructed bowel if tumor grows large enough





Gallbladder Disorders

Gallbladder problems are common. Usually related to gallstones, gallbladder diseases can happen to anyone but tend to affect people who are older than 40, overweight or female.

Common gallbladder conditions include:

- Gallstones (cholelithiasis or cholecystolithiasis)
- Cholecystitis (inflamed gallbladder)
- Abnormal gallbladder contractions (biliary dyskinesia)
- Gallbladder cancer

Gallbladder disorder symptoms include:

- Pain mostly the right side of the abdomen, which may radiate to the back
- Abdominal pain after eating
- Intolerance of fatty foods
- Nausea, vomiting, and loss of appetite
- Bloating, gas, and indigestion

Hernias

A hernia is a bulge that occurs through the muscles of the abdominal wall. Weakness in the muscle wall allows these bulges to push through. In adults, the most common types of hernia are inguinal, incisional and hiatal.

Inguinal hernias occur in the upper thigh near the groin. An incisional hernia occurs after abdominal surgery as a result of the abdominal wall failing to heal properly. A hiatal hernia occurs when a hole in the diaphragm allows the upper part of the stomach to protrude upward into the chest cavity, allowing acid retention in the esophagus. It can be associated with gastroesophageal reflux disease.

During a laparoscopic hernia repair, our skilled surgeons insert a thin scope with a tiny camera through a few small incisions in the abdomen. The hernia can be repaired using special instruments that are inserted through this scope. Because the incisions are smaller than with an open repair, this procedure often requires a shorter recovery time.

Pancreatic Cancer

Pancreatic cancer occurs when cells in the pancreas develop genetic mutations. These mutations cause the cells to grow and divide uncontrollably. Pancreatic tumors often have a poor prognosis, even when diagnosed early, because cancer of the pancreas tends to spread rapidly.

People who smoke or who are obese are at an increased risk for pancreatic cancer, but sometimes it is caused by hereditary factors. Medical conditions that put people at a greater chance of developing pancreatic cancer are diabetes, chronic pancreatitis and cirrhosis of the liver.

Symptoms of pancreatic cancer include:

- Poor appetite and resulting weight loss
- Stomach pain or discomfort above the belly button
- Feeling full soon after beginning eating
- Abdominal swelling
- Heartburn
- Nausea
- Vomiting, with or without blood
- Dark or bloody stools
- Anemia (low red blood cell count)

Cholangiocarcinoma

Cholangiocarcinoma is cancer of the bile ducts, which are thin tubes that move a fluid called bile from the liver and gallbladder into the small intestine, where it helps digest fats.

Symptoms often do not appear until the later stages of this cancer. When symptoms do surface, it's usually because a bile duct is blocked. Some of these symptoms can include:

- Jaundice
- Itching
- Light-colored, greasy stool
- Dark urine
- Abdominal pain
- Loss of appetite/weight loss
- Fever
- Nausea and vomiting



Bile Duct Disorders

Bile duct obstruction is a blockage in the tubes that carry bile from the liver to the gallbladder and small intestine. When the bile ducts become blocked (due to a tumor, cyst or inflammation), bile builds up in the liver, and jaundice (yellow color of the skin) develops.

For some patients, surgery or minimally invasive surgery is recommended to treat the obstruction. When possible, minimally invasive surgical bile duct obstruction treatments are recommended to improve precision and reduce recovery time. Options may include:

- Biliary surgery to remove cancerous tissue, a blockage or gallstones
- Stenting to open the bile duct and prevent future blockages
- Gallbladder removal
- Bile duct bypass

Liver Cancer

There are several types of liver cancer. Primary liver cancer begins in the liver and can present as one large tumor or several smaller nodules throughout the liver. The latter is associated with chronic liver damage often associated with cirrhosis of the liver.

Secondary liver cancer is caused by cancer from another part of the body that has spread to the liver. Sometimes, a benign tumor can grow in the liver that is not cancerous.

Symptoms of liver cancer include:

- Weight loss
- Loss of appetite
- Feeling very full after a small meal
- Nausea or vomiting
- An enlarged liver
- An enlarged spleen
- Pain or swelling in the abdomen or near the right shoulder blade
- Itching
- Jaundice



PORTAL HYPERTENSION

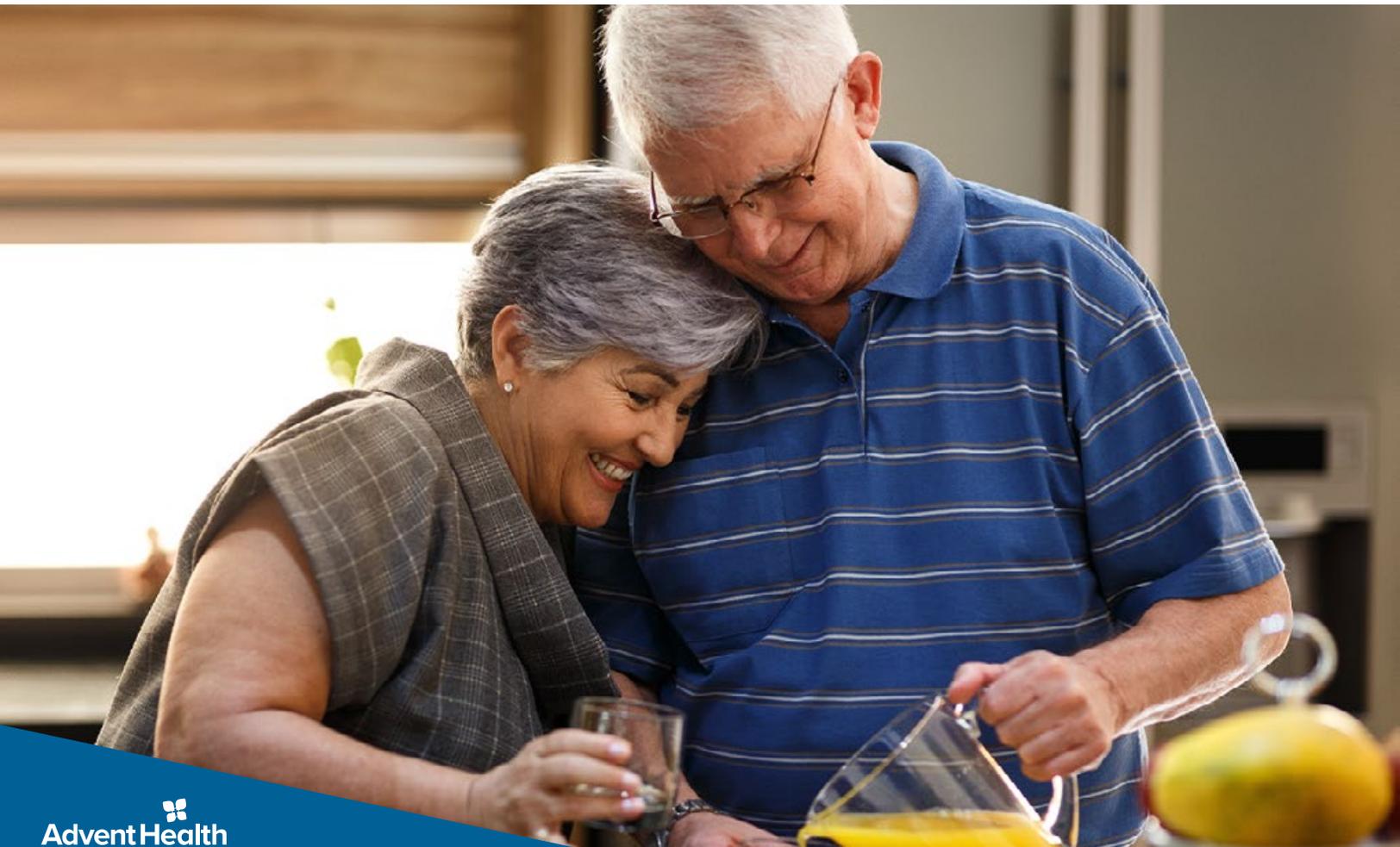
Portal hypertension causes an increase in the blood pressure within a system of veins called the portal venous system. This includes veins from the stomach, intestine, spleen and pancreas that merge into the portal vein and then branches into smaller vessels and travels through the liver.

If liver damage leads to a blockage of vessels in the liver, blood doesn't flow properly through the liver and creates a high pressure in the portal system. This can cause large, swollen veins in the esophagus, stomach, rectum or belly button area. This condition is serious because varices can rupture and bleed.

The most common cause of portal hypertension is cirrhosis of the liver.

Symptoms of portal hypertension include:

- Stools that appear black, tarry or with blood
- Vomiting blood
- Fluid in the abdomen
- Confusion and forgetfulness caused by poor liver function
- Low platelet levels



Minimally Invasive Surgical Treatment Options

All of our Digestive Health Institute surgeons are trained in minimally invasive and robotic surgical options for a variety of digestive disorders and cancers. These operations provide better patient outcomes with less risk of complications, less pain and a faster recovery. Our physicians and surgeons are located in the same practice, providing seamless transitions and convenience throughout your care.

A minimally invasive approach to surgery requires skilled, highly trained surgeons and has many benefits for patients. Less pain, less external scarring, less blood loss, a reduced chance for infection and a faster recovery are all reasons a patient should seek out a surgeon who is experienced in offering this approach.

While surgeons at the Digestive Health Institute perform minimally invasive laparoscopic surgery, they are also renowned in performing two of the most advanced minimally invasive surgical options available to treat digestive diseases, including robotic and scarless surgery.

Robotic Surgery

With robotic surgery, the physician sits at a booth a few feet away from the patient and sees a high definition view of the surgical site. By gripping the controls located at the booth with both hands, the surgeon moves the instruments of the robot.

These controls translate the motions of the surgeon's hands and fingers exactly as if he or she was operating at the surgical site with miniature hands and instruments. The surgeon is performing the surgery. The robot merely translates the surgeon's movements to the operating table.



Scarless Surgery

There are a few surgical techniques performed at the Digestive Health Institute that significantly minimize the incision required to perform the procedure. These include:

Laparo-Endoscopic Single Site (LESS) Surgery

With the development of smaller surgical instruments, it is now possible to place all of these instruments through a single incision, or port. With laparo-endoscopic single site surgery, the camera and the surgical instruments are all inserted through a patient's belly button. While technically there will be a scar in this area, it will be hidden by the belly button's natural scar.

Transoral Surgery

Some procedures are performed through the mouth in much the same way as laparo-endoscopic surgery. In this case, the camera and instruments are placed down the throat and into the esophagus to the surgical site. The patient will have no external scars whatsoever after surgery.

Transanal Endoscopic Microsurgery (TEM)

The same principle as transoral surgery above works on the other end of the digestive tract as well. TEM can be used to remove rectal polyps. Very few U.S. hospitals offer TEM, but the Digestive Health Institute at AdventHealth Tampa is one of them.



Specialized Surgical Treatments for Common Digestive Disorders

GERD

Our surgeons specialize in operations that correct the anatomy of the esophagus and stomach so that gastroesophageal reflux no longer occurs with a surgical procedure called fundoplication.

A fundoplication fixes the lower esophageal sphincter valve (LES). When the LES does its job properly, stomach contents stay out of the esophagus. If you have a hiatal hernia, which is very common, it will also need to be repaired during surgery.

Our expert surgeons have treated thousands of patients with GERD, performing fundoplication using minimally invasive procedures that include robotic techniques and more commonly, scarless, laparoscopic single site, or LESS, surgery.

Esophageal Surgery

Sometimes the best treatment for esophageal tumors is esophagectomy. With this procedure, some of the esophagus is removed and replaced with either part of the stomach or colon. Esophagectomy is the best treatment option for some patients with esophageal cancer, and it can work even after other treatments have failed.

Patients from all over Florida seek out Digestive Health Institute's advanced foregut surgeons for their ability to provide minimally invasive, robotic surgery procedures.



Achalasia

Symptoms of achalasia can be alleviated permanently with an operation called a Heller myotomy. In this procedure, the surgeon cuts the muscle fibers of the LES. While this removes the function of the LES, food is once again able to reach the stomach without problems.

To prevent acid reflux disease caused by a malfunctioning LES, our surgeons often create a new valve using a procedure called fundoplication. It is very similar to the minimally invasive procedures they use to treat GERD.

Pancreatic Surgery

The Digestive Health Institute's extensive pancreatic surgery experience now allows its surgeons to offer pancreatectomy as a minimally invasive surgery in many cases. The ability of patients to have minimally invasive procedures depends on their medical status and body mass index, where their tumors are, how close they are to key blood vessels and the biological nature of the tumors.

The two main minimally invasive approaches to pancreatectomy used at DHI include laparo-Endoscopic Single Site (LESS) "scarless" pancreatectomy and robotic pancreatectomy assisted by the da Vinci® Surgical System. The Digestive Health Institute ranks as the nation's top center in volume of robotic pancreatectomies.

Gallbladder Surgery

Pain and other symptoms related to an inflamed gallbladder (cholecystitis) or gallstones are the main reasons why a patient may need gallbladder removal, or cholecystectomy. Surgery is the only treatment that can completely cure a gallbladder disease.

The Digestive Health Institute's expert surgeons are highly skilled in performing laparoscopic and LESS (scarless) cholecystectomy procedures that offer patients the many benefits of a minimally invasive approach.

Bile Duct Surgery

The advanced gastroenterologists and hepatopancreatobiliary (HPB) surgeons at the Digestive Health Institute have the necessary experience and skill to treat patients with bile duct obstruction.

To remove the blockage, a specific surgical treatment plan is developed for each patient depending on the cause and location of the blockage. This could include minimally invasive endoscopic procedures or more complex operations.

World-Renowned Care for Your Digestive Health

The Digestive Health Institute at AdventHealth Tampa is the region's most comprehensive medical care provider for conditions of the digestive system. When it comes to nearly any disorder of the esophagus, stomach, liver, pancreas, gallbladder, small intestine, colon, rectum or anus, our team has unmatched experience in providing effective, compassionate care.

Many of our physicians are fellowship-trained, which enhances the depth of their medical knowledge. Across all of its centers, the medical team includes a group of gastroenterologists (GI physicians), a speech language pathologist, and highly experienced surgeons.

Our specialists offer some of the most advanced treatments available anywhere to help you reclaim your life from the pain and discomfort of a digestive disease. Many of our physicians are fellowship trained, and all are board certified. All of our surgeons are experts in minimally invasive surgery.





Specialized Centers for Your Specialized Digestive Condition

Our subspecialty centers are dedicated to treating some of the most common digestive disorders, including acid reflux and other conditions of the esophagus, irritable bowel disease and other colorectal conditions, and disorders of the liver, pancreas and gallbladder.

We give patients with cancer priority for prompt appointments, so they can be treated as quickly as possible, as treatment often starts with surgery. That is why we prioritize patients who call for cancer consultations and second opinions, promising an appointment within five days of their initial call.

We treat patients as individuals. No two patients are exactly alike, and neither is the way they experience the same digestive condition. We make the effort to get to know each of our patients so that we can customize a level of care based on their needs and goals. We want all of our patients to achieve lifestyles that help them thrive and feel whole.



Start Your Journey Back to Whole Health with Us

If you are suffering with a digestive disorder, or are experiencing the uncomfortable symptoms of one, turn to Tampa's digestive health experts who can help bring you comfort with compassion and a specialized treatment plan. We're here to guide you back to whole health.

**Call 813-580-5423 to
speak to one of our care
coordinators today.**

This guide is provided to the general public to disseminate health-related information. The information is not intended to be used for diagnosing or prescribing. Please consult your physician before undertaking any form of medical treatment and/or adopting any exercise program or dietary guidelines.