



Leading the Field in Minimally Invasive Surgery

Advancing medicine using the most innovative surgical procedures is at the heart of AdventHealth's surgical programs. Surgeons, specialists, nurses and staff at AdventHealth work together closely to ensure that procedures are handled with the utmost professionalism, always keeping in mind the well-being of the whole patient. It's not enough to perform a procedure – a patient's comfortable recovery and return to health is an essential part of the surgical plan.

Renowned for leadership in minimally invasive surgery (MIS) and robotic surgery, AdventHealth

continues to redefine the very concept of surgery itself. The innovative ways in which we perform surgery are rapidly making highly invasive operations – the standard procedure over the last century – obsolete. AdventHealth is fortunate to be home to some of the most respected surgical experts in the country who are not only pioneering new MIS techniques, but teaching them to other surgeons worldwide.

Conditions and Treatments

Hernia

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.

Some infants are born with hernias. Types of **pediatric hernias** include inguinal, umbilical, diaphragmatic and epigastric.

During a laparoscopic hernia repair, a
AdventHealth surgeon inserts 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.

Gallbladder Disease

The gallbladder stores the bile used for digestion. When gallstones or tumors block the bile duct,

it can cause backup of bile or inflammation of the gallbladder, which can result in pain (mild to severe), fever, nausea and vomiting.

At AdventHealth, we have the latest ultrasound and CT technology to rapidly diagnose suspected gallbladder disease. Laparoscopic gallbladder removal (cholecystectomy) requires smaller incisions than traditional surgery to remove the gallbladder. This minimally invasive procedure reduces pain, allows faster recovery time and minimizes scarring.

Acid Reflux and GERD

Gastroesophageal reflux disease (GERD) is a digestive disorder that causes gastric acid to flow from the stomach into the esophagus. If GERD is left untreated, the digestive disorder may develop into Barrett's Esophagus. Longterm GERD can cause cancer to develop in the esophagus due to gastric acid.

Anti-reflux surgery for GERD repairs the muscle that prevents gastric acid from entering the esophagus. Surgical treatment for GERD is a reliable solution for long-term relief. The most common GERD surgery is fundoplication, a surgical procedure that tightens the muscle that divides the chest and the stomach, also referred to as the diaphragm. Surgeons at AdventHealth are experts in multiple types of GERD procedures, and are specialized in providing GERD relief based on each individual's specific diagnosis.

Achalasia and Esophageal Motility Disorders

Achalasia is a rare, but serious condition. It affects the lower esophageal sphincter, the ring-shaped muscle that controls the food going into your stomach. Difficulty swallowing is the most common symptom of this disease, others include chest pain, frequent coughing and heartburn.

Myotomy for achalasia is the most common surgical solution for achalasia. Peroral Endoscopic Myotomy (POEM) is a newer procedure used to treat this disorder. Surgeons use an endoscope inserted through the mouth to cut the muscle fibers of the lower esophageal sphincter. This is considered a short-term treatment to relieve symptoms.

Laparoscopic Heller myotomy is an inpatient surgical procedure that uses minimally invasive laparoscopy. Laparoscopy uses long, pencil-like instruments for surgery. They are inserted into the body through small incisions. The surgery can be done manually or with the help of medical robotics.

A small portion of the outer layer of the esophagus and stomach is cut. The stomach is wrapped behind the opening (called a fundoplication) and sewn to the edges. This helps control stomach acid from backing up into the esophagus. It's a long-term treatment, but some patients need retreatment at a later time.

Adrenal Disorders

The adrenal glands are small glands located on top of each kidney. They produce hormones that you can't live without, including sex hormones and cortisol. Cortisol helps you respond to stress and has many other important functions.

If a non-cancerous tumor or adrenal cancer is discovered, AdventHealth surgeons perform an adrenalectomy to remove the tumor and adrenal gland. When one adrenal gland is removed, the other takes over all functions without the need for additional medications

Appendicitis

Appendicitis is an inflammation of the appendix. This is a life-threatening condition that can occur only a day or two after the patient feels symptoms, which can include dull pain near the navel or the upper abdomen that becomes sharp as it moves to the lower right abdomen, loss of appetite, and vomiting.

AdventHealth surgeons perform both open surgery and the minimally invasive appendectomy. During open surgery, doctors make a 3 to 5-inch incision on the abdomen to remove the appendix. Laparoscopic and robotic appendectomy result in reduced trauma to the body and risks to the patient.

Bile Duct Obstruction

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, AdventHealth physicians recommend minimally invasive surgical bile duct obstruction treatments 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; and bile duct bypass.



Esophageal Diverticulum

An esophageal diverticulum is a pouch that protrudes outward in a weak portion of the esophageal lining. The condition can cause difficulty swallowing and a feeling like there's a lump in your throat. Patients can vomit food into the mouth, and often report a feeling of choking.

AdventHealth surgeons use specialized, minimally invasive myotomy procedures to repair remove the pouch and repair the weakened esophageal muscles. These include: Cricopharyngeal myotomy, Diverticulopexy with Cricopharyngeal myotomy, Diverticulectomy and Cricopharyngeal myotomy, Endoscopic Diverticulotomy.

Intestinal Obstruction

An intestinal obstruction is a blockage in the bowels that prevents the contents to pass. Symptoms include: abdominal pain, cramps, and swelling. Obstructions may be mechanical, caused by impacted stool, hernias, scar tissue from other surgery, tumors, and volvulus (twisted intestine).

The type of intestinal obstruction repair surgery used depends on the cause of the blockage. Some intestinal repair surgeries can be performed laparoscopically, minimizing pain and recovery time.

Lymph Node Disease

The lymph nodes are part of the lymphatic system which helps fight infections in the body. When lymph nodes become inflamed and are enlarged, tender or hard, or skin over the lymph nodes appears red, your doctor may recommend surgery to dissect the node to determine if disease is present.

Axillary lymph node dissection is a diagnostic procedure for breast cancer. During the procedure, doctors remove the axillary lymph nodes located under the arm. Once the nodes are removed, they are tested and analyzed for cancer cells.

Skin and Soft Tissue Conditions

Skin and soft tissue conditions that could require expert surgery include: benign skin lesions, cellulitis (often occurring in people with diabetes) and soft tissue infections.

Procedures

Thyroid Disease

Hyperthyroidism is a condition in which the thyroid overproduces hormones. Symptoms include weight loss, weakness, irregular heartbeat and difficulty sleeping.

Hypothyroidism is a condition which the thyroid is underactive. Symptoms can include fatigue, fever, dry skin, changes in menstrual cycle, constipation, depression, weight gain and puffy face. Other thyroid conditions include **enlargement of the gland, goiter, and cancer of the thyroid**.

When surgery is needed to correct thyroid disorders, AdventHealth surgeons often employ minimally invasive laparoscopic or robotic assisted techniques, which are highly effective in partial or total thyroid removal surgery and minimizing post-surgical pain, scarring and recovery time.

Ulcer

A peptic ulcer is a perforation or hole in the lining of the small intestine, lower esophagus or stomach. Symptoms include severe upper abdominal pain, burning stomach pain, heartburn, nausea, feeling full, and fatty food intolerance.

Pyloroplasty surgery at AdventHealth is a minimally invasive procedure to treat peptic ulcers. The lower portion of the stomach, the pylorus, is thick and muscular. When it narrows, or becomes more thickened, food cannot pass from the stomach to the small intestine. Pyloroplasty is used to widen the passage so that food can move down the gastrointestinal tract.



Minimally Invasive Surgery: Where Expertise Meets Innovation

By remaining ahead of the curve with research and technology, we strive to always provide our patients and their families with the latest advancements and innovative treatment options to care for a variety of conditions. Our team of multidisciplinary experts work together to ensure patients receive an individualize care plan that includes minimally invasive and robotic surgical treatments, when applicable.

At AdventHealth, our talented surgical team utilizes the da Vinici® Surgical System, enhancing their capabilities through high-definition 3D vision and a magnified view, while micro-instruments increase precision — greatly reducing pain, scarring, recovery time and hospital stays. A surgeon controls the da Vinci Surgical System, which translates their hand movements into smaller, more precise movements made by tiny instruments. This innovative robotic tool provides surgeons a minimally invasive application in which to perform complex surgeries.

AdventHealth was also the first hospital system in the country to perform surgery using the SenHance® Surgical System. This system allows the surgeon to have 3D magnified vision and allows the surgeon to act more precisely and allows for a quicker recovery for the patient.

Though these are robotic-assisted systems, they cannot act on their own. Instead, the surgery is performed entirely by your surgeon. Together,

robotic technology and your surgeon can perform complex procedures through just a few small openings.

Laparoscopy

Laparoscopy is a procedure that allows a surgeon to clearly examine the organs of the abdominal cavity without the need for major surgery. The surgeon inserts a laparoscope — a thin, flexible tube that contains a video camera — through a small incision in the abdomen; the laparoscope produces images of the internal organs that appear on a computer monitor. Laparoscopy is also used for biopsies or to perform surgical procedures such as the removal of the appendix or gallbladder.

After the patient is sedated, the doctor will make small incisions around belly button. The abdominal cavity will be inflated with carbon dioxide gas so that the surgeon can visualize the internal organs easily, then the laparoscope will be inserted, and the procedure performed.





We're Designed to Help People Like You.

AdventHealth's highly experienced, specialty trained general surgeons provide state-of-the-art diagnostics and treatment for the entire spectrum of diseases affecting the abdomen. Wherever possible, our physicians employ minimally invasive surgical techniques to promote quicker healing, minimize side effects, and reduce the time you have to spend in the hospital.

We have a dedicated team of specialized physicians, nurses and technologists – all of whom help us to attain best-in-class results.

Our specialists work together to deliver truly comprehensive medicine, from prevention and diagnosis to the latest advancements in minimally invasive surgical techniques. Our focus is on delivering whole-person care that doesn't just address the symptoms of your disease but helps you live life to the fullest.

Take Charge of Your Health.

Let's talk in person. For more information or for a physician referral, please call 800-975-8014.

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 quidelines.

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