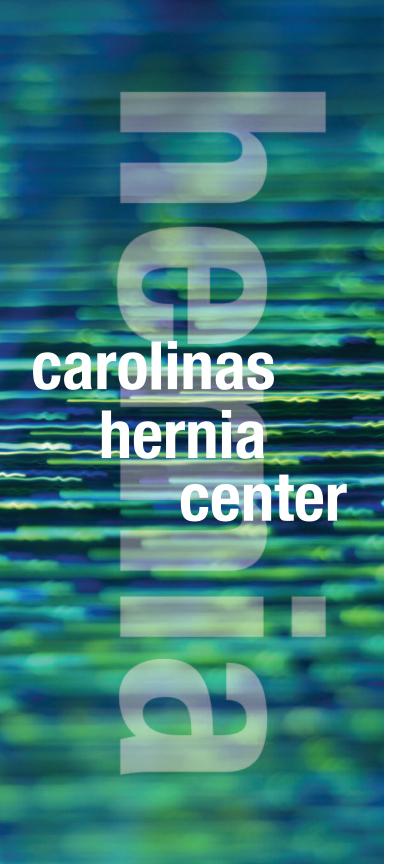


CAROLINAS HERNIA CENTER



Carolinas Medical Center

Uncompromising Excellence. Commitment to Care.



What is a Hernia?

A hernia is a weakness or tear in the abdominal muscles that allows organs, such as intestines or fatty tissue, to protrude through the weakened area. This can cause a noticeable bulge under the skin as well as pain and discomfort. Symptoms can feel worse when you stand for long periods, or if you strain your abdominal muscles such as when lifting heavy objects.

What Causes a Hernia?

Many hernias are the result of a defect or weakness in the abdominal wall that was present at birth. The area can be weakened by age or injury and can especially be weakened by a previous surgical incision. Although some hernias are more common in men, they can develop in anyone. Risk factors for a hernia include:

- Chronic cough
- Smoking
- Obesity
- Straining while lifting heavy objects
- Straining during bowel movements or urination
- Pregnancy
- *Certain medications* such as steroids

Types of Hernias

All hernias are not created equal. They are characterized by their location in the abdominal wall and occasionally by their specific cause. There are three types of hernias:

1. Inguinal Hernia

An inguinal hernia is the most common type of hernia—about two percent of all men will develop this type of hernia. Inguinal hernias occur in men about five times more frequently than in women due to a potential weak spot in the groin when a male's testicles descend during fetal development. An indirect inguinal hernia is the type of hernia that develops in this weak spot. The hernia may then descend into the scrotum in men or, in women, to the outer folds of the vagina. A direct inguinal hernia is less common and occurs very near the indirect inguinal hernia in the groin.

2. Umbilical Hernia

An umbilical hernia occurs in the naturally weakened area of the navel or belly button where the umbilical cord was attached. These are frequently seen in children, but are also often seen in adults. In small children, umbilical hernias will usually fade away as the child ages. In adults, the only way to treat an umbilical hernia is through surgery.

3. Incisional Hernia

An incisional hernia is located at the site of a previous surgical incision. Any area where someone has had surgery will remain somewhat weakened throughout his/her lifetime. Hernias can develop in these incisions during the weeks, months or even years after the initial operation. There are many factors that can affect the formation of an incisional hernia including smoking, weight, other medical problems and the type of healing tissue the patient naturally develops after a surgical incision.



Carolinas Hernia Center at CMC

The physicians and staff of Carolinas Hernia Center are nationally and internationally recognized experts in innovative hernia surgery and research in bioprosthetics. Our physicians have trained more than 2,000 surgeons from more than 35 states and nine countries in the methods to approach and perform simple and extremely complex hernia procedures. Physicians from all over the Southeast refer their patients to Carolinas Hernia Center for the most advanced care. We have four fellowship-trained minimally invasive surgeons with a special interest in hernia repair and biomaterials, as well as a dedicated plastic surgeon with 20 years of experience in abdominal wall reconstruction.

Our physicians are dedicated to advancing hernia treatments. They have published extensively in the medical literature on inguinal, ventral, diaphragmatic and hiatal hernias and have lectured on four continents and throughout the United States about hernias and hernia repair. Dr. Todd Heniford, Co-Director, is the lead author of the medical article describing the largest series of patients undergoing laparoscopic abdominal hernia repair in the world.

Carolinas Hernia Center has won the American Hernia Society Research Award for nine consecutive years. Over the next three years, we are scheduled to spend more than \$2 million in research looking for ways to prevent and better repair hernias.



B. Todd Heniford, MD, FACS Co-Director, Carolinas Hernia Center Chief, Minimal Access Surgery

Dr. Heniford, originally from the Carolinas, is an honor graduate of the Medical University of South Carolina. He performed his residency and a surgical research fellowship at the University of Louisville. He remained on the faculty there in the Department of Surgery until moving to the Cleveland Clinic Foundation in Cleveland. At the Cleveland Clinic, he completed a minimally invasive surgery fellowship and joined the faculty in the Division of Minimally Invasive Surgery. He moved to Carolinas Medical Center in 1998 where he established the Carolinas Laparoscopic and Advanced Surgery Program, for which he continues to serve as Co-Director. His interests revolve around esophageal, solid organ and colonic surgery, hernias, biomaterials and cancer. Dr. Heniford has written numerous papers in these areas and has co-authored two textbooks, "Minimally Invasive Cancer Management" and "Problems in Surgery -Abdominal Hernias." He currently serves on the Board of Governors of the American Hernia Society and the Board of Directors of the Society of American Gastrointestinal and Endoscopic Surgeons.





Stanley B. Getz, Jr., MD, FACS

Chairman, Carolinas Cosmetic and Plastic Surgery Co-Director, Carolinas Hernia Center Associate Clinical Professor of Plastic Surgery University of North Carolina at Chapel Hill

Stanley B. Getz is a graduate of the University of Virginia, where he was elected to membership in the Alpha Omega Alpha Honor Medical Society. Dr. Getz was awarded a Navy scholarship and completed his general surgery residency at the Naval Hospital, Portsmouth, VA. He completed his plastic surgery residency at the Eastern Virginia School of Medicine and returned to the Portsmouth Naval Hospital as Staff Plastic Surgeon for six years. During that time, he was instrumental in establishing a Reconstructive Microvascular Surgical Service. Following seven months service with Fleet Hospital 5 in Saudi Arabia during Operation Desert Storm, Dr. Getz left the Navy as a Commander and assumed a position as Associate Professor of Plastic Surgery with the full-time faculty of Eastern Virginia Medical School for three years. Dr. Getz is Chairman of Carolinas Cosmetic and Plastic Surgery.

Board certified by the American Boards of General Surgery and Plastic Surgery, Dr. Getz is a Fellow of the American College of Surgeons and a member of the American Society of Plastic Surgery, the Southeastern Society of Plastic and Reconstructive Surgeons, the American Society of Aesthetic Plastic Surgery, and the Association of Military Surgeons of the United States. He has been actively involved in medical missions to the Philippines, Syria and Panama. His special interests include traumatic craniofacial and microvascular reconstruction and abdominal wall reconstruction.



Kent W. Kercher, MD, FACS

Co-Director, Carolinas Hernia Center Co-Director, Carolinas Laparoscopic and Advanced Surgery Program

Dr. Kercher is a North Carolina native and a cum laude graduate of Davidson College. He obtained his doctorate of medicine with distinction from the University of North Carolina prior to completing his general surgery training at Carolinas Medical Center in 1999. After completing fellowship training in minimally invasive surgery at the University of Massachusetts, he joined the Department of Surgery faculty at Carolinas Medical Center in August 2000. He currently serves as Co-Director of the Carolinas Laparoscopic and Advanced Surgery Program (CLASP).

Dr. Kercher's primary clinical focus includes minimally invasive solid organ, gastrointestinal, and hernia surgery, as well as hand-assisted laparoscopic surgery. In addition to directing the laparoscopic live donor nephrectomy program within the Department of Transplantation, he has a particular interest in laparoscopic nephrectomy for benign and malignant kidney diseases. Areas of focus for CLASP faculty include refinement of techniques for minimally-invasive hernia repair, as well as basic science research in the use of biomaterials for hernia repair.

Hernia Repair Techniques

Several hernia repair techniques are available for patients:

Suturing

A few muscular defects can simply be sutured closed with good results. Most, however, require more.

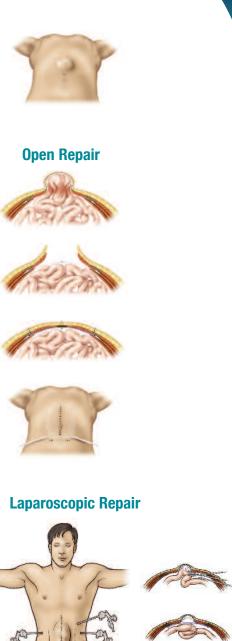
Mesh

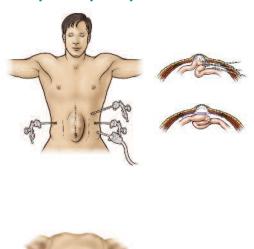
Mesh is a piece of prosthetic material. The mesh is inserted through an incision in the abdomen or groin and sutured into position. The placement of a mesh helps reduce tension on the wound, reduce the chance of recurrence of the hernia and reduce pain.

Laparoscopic Placement of Mesh

This technique is often described as a minimally invasive approach. It requires three or four small incisions. The mesh is secured below the abdominal muscles and hernia.

Each technique has its benefits and it is important to have several options when choosing a repair technique.







As the problem of obesity increases in the general population, we see individuals with exceptionally large hernias and extensive over-hanging skin; its removal is essential to decrease the pull on the abdominal wall and the incidence of recurrent hernias. In such cases, a combined approach with plastic surgery is performed to excise these large aprons of skin. Muscle flaps are also occasionally used in reconstructing the abdominal wall. Carolinas Hernia Center surgeons work as a team to ensure the best possible results.

The Consult

The patient is first seen by the general surgeons and the plastic surgeons to plan the operation. The surgeons discuss the case and a plan of action. Postoperatively, the patient will be seen by members of the general surgery and plastic surgery team.

The Procedure

During the operation, Carolinas Hernia Center surgeons will plan the incisions to be used to repair the hernia and excise the excessive skin. The procedure is then carried out in a staged fashion in one setting.

Before



After



)

10

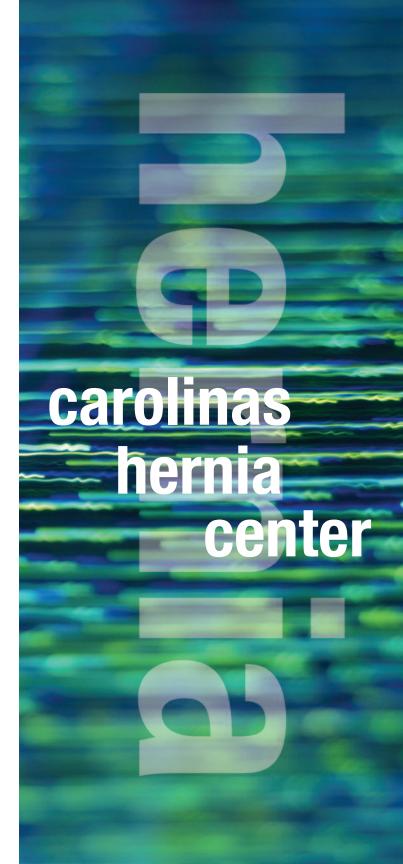
For more information about Carolinas Hernia Center call 704-697-3223, or toll free 866-325-8204.

CMC General Surgery

1025 Morehead Medical Dr., Suite 275 Charlotte, NC 28204 704-355-1813

Carolinas Cosmetic and Plastic Surgery

900 East Blvd. Charlotte, NC 28203 704-446-6810





1025 Morehead Medical Dr., Suite 275 Charlotte, NC 28204



www.carolinasmedicalcenter.org