

C A R O L I N A S

# hernia

C E N T E R



Carolinus Medical Center

# carolinas hernia center

## 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—approximately two percent of all men will develop this type of hernia. Inguinal hernias occur in men approximately five times more frequently than in women due to a potential weak spot in the groin when a male's testicle descends 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 bioprosthesis. Our physicians have trained more than 500 surgeons from more than 30 states and nine countries in the methods to approach and perform both 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 three 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.

4 } The physicians of Carolinas Hernia Center are dedicated to advancing hernia treatments. Our physicians have published extensively in the medical literature on inguinal, ventral, diaphragmatic and hiatal hernias and have lectured on four continents and around the United States about hernias and hernia repair. Dr. Todd Heniford, Co-Director of Carolinas Hernia Center, 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 five consecutive years. Over the next three years, we are scheduled to spend more than \$1.5 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*

5 } Dr. Heniford, originally from the Carolinas, is an honor graduate of the Medical University of South Carolina. He performed his residency at the University of Louisville as well as a Surgical Research Fellowship. He remained on the faculty there in the Department of Surgery until moving to the Cleveland Clinic Foundation in Cleveland, Ohio. 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 and continues to serve as Co-Director for the Carolinas Laparoscopic and Advanced Surgery Program. His interests revolve around esophageal, solid organ and colonic surgery, hernias and 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*

6 } Stanley B. Getz is a graduate of the University of Virginia Medical School 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, Virginia. 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 both 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, 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*

7 } 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 Medical Center, he joined the Department of General 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. The refinement of techniques for minimally-invasive hernia repair as well as basic science research in the use of biomaterials for hernia repair remains an area of focus for CLASP faculty.

## 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 deciding the choice of repair technique.



### Open Repair



### Laparoscopic Repair



## Plastic Surgery

As the problem of obesity increases in the general population, we see individuals with exceptionally large hernias and extensive over-hanging skin. The removal of this large panniculus 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 in order to excise these large aprons of skin. Muscle flaps are also occasionally used in reconstructing the abdominal wall. Carolinas Hernia Center surgeons work closely together as a team to ensure the best possible results.

### The Consult

The patient is first seen by both the general surgeons and the plastic surgeons to plan the operation. The surgeons will then 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



For more information about

Carolinas Hernia Center

call 704-697-3223,

or toll free at

866-325-8204.

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Carolinus Medical Center

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