nsdf

SPECIALTY SURGICAL
ASSOCIATES

Paraesophageal Hernia Repair

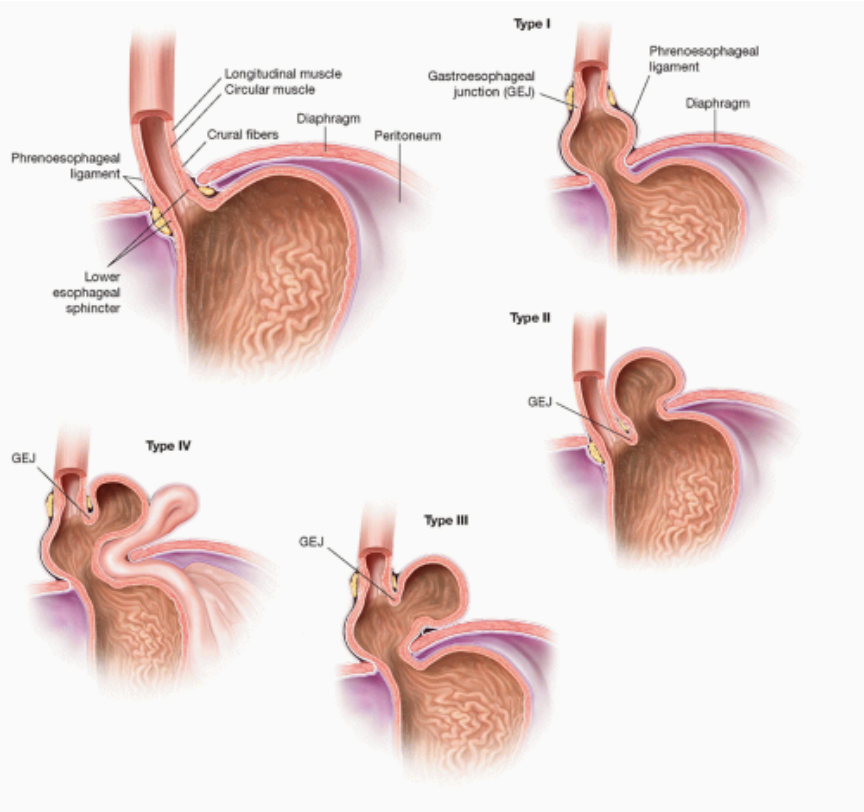
Information Booklet

Hiatal/Paraesophageal Hernia

Anytime an internal body part pushes into an area where it does not belong, it is called a ‘hernia.’ The esophageal hiatus is an opening in the diaphragm muscle. The diaphragm is the ‘breathing muscle’ and it separates the chest from the abdomen. It naturally has holes in it to allow things to pass through. One of the holes is for the esophagus, also known as the ‘food pipe,’ to bring food from the mouth into the stomach. A hiatal hernia, also known as a paraesophageal hernia, occurs when part of the stomach or other abdominal organs pass through this opening into the chest.

Types of Hiatal Hernia

There are four types of hiatal hernias.



- Type 1 hernias are the most common type of hernia. These are also sometimes referred to as a sliding hiatal hernia. This type accounts for about 95% of all hiatal hernias. In this type of hernia, the gastroesophageal junction is herniated into the chest cavity, as shown in the image above.
- Type 2 hernias occur when the gastroesophageal junction remains below the diaphragm, but another portion of the stomach herniates into the chest through the hiatus.
- Type 3 hernias are combined hernias where the gastroesophageal junction is herniated above the diaphragm and the stomach is herniated alongside the esophagus.
- Type 4 hernias occur when another organ, in combination with the stomach, herniates into the chest cavity. The other organ may be a portion of the intestines, the spleen, or the pancreas.

Symptoms of a Hiatal Hernia

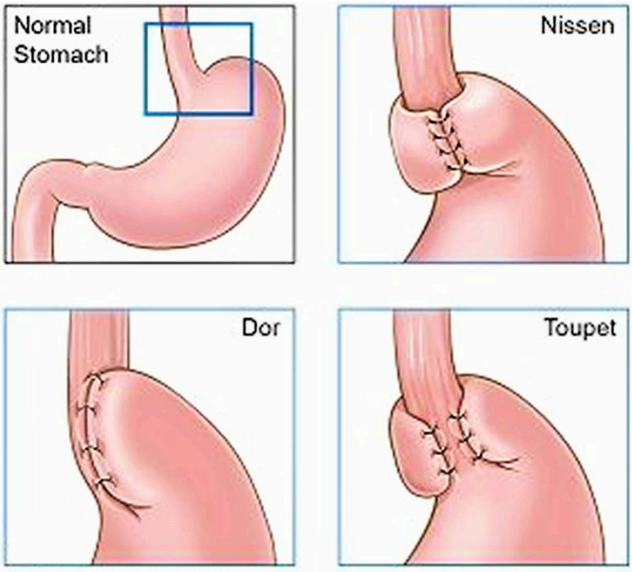
The most common symptoms of a hiatal hernia are heartburn or gastroesophageal reflux disease. This is often the first symptom that brings the patient to the doctor's office. While everyone gets heartburn from time to time, persistent heartburn that occurs with all types of food and at all times of the day could be an indication that you have a hiatal hernia. Other common symptoms are listed below:

- Reflux
- Regurgitation
- Chest pain – may resemble pain that is associated with a heart attack
- Trouble swallowing
- Recurrent pneumonias
- Chronic cough
- Hoarseness of voice
- Shortness of breath
- Dental erosions

Surgical Procedures

Hiatal hernia repair involves pulling the abdominal organs out of the chest and back into the abdominal cavity. The hole in the diaphragm is then resized to the proper size. Mesh is commonly used to buttress the repair of the diaphragm. Please ask your surgeon if a mesh will be used in your surgery.

When repairing a hiatal hernia, it is common for the surgeon also to perform a fundoplication. This can be thought of as wrapping the stomach in on itself, much like how one folds their socks. The goal of this wrapping is to augment the closure of the lower esophageal sphincter. This will help prevent future reflux. The amount of augmentation required will vary from patient to patient. There are three different types of fundoplication, which are categorized based on the amount of circumference covered. Your surgeon may elect to measure your need during the surgery. This is done with the EndoFLIP catheter. This device is used during surgery to measure the strength of the lower esophageal sphincter. Depending on the readings, the type of fundoplication can be configured to better suit the patient's needs.



Preparing for Surgery

Your surgeon will require some testing prior to surgery. Some testing may have already been completed prior to your consultation. During your appointment with the surgeon, any required testing will be discussed, and prescriptions will be given.

Commonly required tests include

- *Upper GI series/Swallow Study* – This is a contrast x-ray study usually done at a hospital or radiology center. The patient is asked to drink oral contrast as X-rays are taken. The test will take pictures and video of how your esophagus is pushing the swallowed material downwards into the stomach. This will give information on the functional status of the esophagus.
- *Upper Endoscopy* – A gastroenterologist or a surgeon performs this procedure. It is also sometimes known as an EGD. The doctor will pass an endoscopic camera down your mouth and visually inspect the esophagus, stomach, and first portion of the small intestine. This test is done under anesthesia. This is done to get an idea of the size of the hernia and the condition of the stomach. The gastroenterologist often takes biopsies during these tests to check the stomach for bacteria
- *24-hour pH Testing* – This measures the amount of time stomach acid is refluxing into the esophagus and how high into the esophagus this acid goes. It usually requires placing a small implant probe into the esophagus, which is wirelessly connected to a receiver that you wear for 24 hours.
- *Esophageal Manometry* – This study measures the pressures within the esophagus. It measures how well the esophagus pushes food down into the stomach. It provides the surgeon with data used to determine the type of fundoplication that can be performed. It also helps to rule out other causes of reflux and chest pain.
- *Bloodwork, Chest X-ray, and EKG* – These tests are part of a standard preoperative evaluation.

Before Your Surgery

There are some common instructions before your surgery.

- **DO NOT** take any nonsteroidal anti-inflammatory medications (ex., Motrin, Ibuprofen, Advil, Aleve) or aspirin products for 1 week prior to surgery date
- **DO NOT** take Plavix for one week prior to surgery
- **DO NOT** smoke cigarettes for at least 4 weeks prior to your surgery
- **DO** let us know if you are taking an herbal medication, since some can result in excessive bleeding or other complications during the surgery
- **DO** speak to your surgeon about all blood thinners and other medications you are taking
- **DO** let us know if you are taking any oral birth control products, as these can increase the risk of blood clots
- **DO** walk as much as possible prior to your surgery date to get yourself as mobile as possible
- **DO** use your incentive spirometer (if you are given one) at least 30 times a day (10 slow breaths 3 times a day) and **DO** bring it to the hospital with you

On The Day of Surgery

You will be contacted by the preoperative nursing staff the day prior to your surgery. They usually call in the afternoon, one business day prior to the surgery. The nurse will tell you when to arrive at the hospital and where to go once you are in the hospital.

Generally, one family member is allowed to stay with you in the preoperative area until it is time for your surgery. The hospital has a waiting area for your family; however, they are also able to leave the hospital if they desire.

Wear comfortable, loose-fitting clothes to the hospital. Remove all jewelry and piercings before coming to the hospital. Do not wear your contact lenses; opt for glasses instead. Your personal belongings can be placed in a locker while you are in the

operating room; however, the safest place will be at your home or with your family.

After Your Surgery

You will be taken to the PACU (Post Anesthesia Care Unit) where the nurses and anesthesiologists will care for you until you have completely awakened from anesthesia. It is common for you to be in the PACU for at least one hour, sometimes longer, depending on how you are doing and bed availability. Once you have recovered, you will be taken to the surgical floor and will generally stay there for 1 night. On occasion, patients require a second night in the hospital.

Your surgeon will decide when they will start you on an oral diet and if any postoperative testing is required on the day after surgery. The nurses will have orders for pain medication; however, you will need to ask them for it, as they do not give it without a request. We will also place SCD (sequential compression devices) on both legs and give you an injectable blood thinner after surgery to help prevent the formation of blood clots. You can help prevent blood clots by making your best effort to get out of bed and walk around in the hallways.

You will be connected to a heart monitor that is connected to the nurses' station, allowing your heart rhythm and rate to be recorded. It is important to use the incentive spirometer after surgery. Deep breathing can help prevent pneumonia after surgery and can help your lungs to recover.

Discharge Information

Upon discharge from the hospital, you will be given an After Visit Summary document by the nurses. This document will have information regarding the procedures performed, where to pick up your prescriptions, and follow-up instructions.

Returning to normal activities will take a few weeks to months. Most patients feel significantly better a few days after surgery, especially once they return to their own beds. Most patients do not have a lot of pain after this operation. A prescription pain

medication is commonly given upon discharge, but most patients can manage their pain with over-the-counter Tylenol and an ice pack for incisional pain.

If your surgery was done minimally invasively (laparoscopic or robotic), then you will have 5-6 small cuts on the abdomen. The cuts are closed with absorbable sutures that are under the skin and do not need to be removed. The skin is then closed with skin glue. You can shower 24 hours after the surgery. Do not scrub the incisions, but allow the soapy water to wash over them.

You can restart driving when you are no longer taking prescription pain medication and can react and move quickly without pain. Most patients can do this between 7 and 10 days after their surgery.

Returning to work is not standard for everyone. Depending on the physical activity required to complete your responsibilities, the timing will change. It is recommended that you speak with your surgeon about the nature of your work and when to expect a return to your duties. If there is any paperwork that needs to be completed for your employer, please notify the office, and we will take care of our portion.

Normal bowel habits may be altered by surgery. Constipation is common after surgery, and it can be worsened with narcotic pain medications. You can take over-the-counter stool softeners to help with constipation, but ensure that you're drinking enough water.

Exercising and strenuous activity should be avoided until at least your first post-operative visit. At that time, you should ask your surgeon about the restrictions that are placed. Walking, however, is always permitted and encouraged.

Post Operative Dietary Guidelines

After surgery, you will need to adjust your diet as you recover. This progression will help you control diarrhea, swallowing problems and increased gas that can occur. Be sure to chew well.

Clear liquid diet – Post op day 1 to 5 – Discharge diet

Start with small sips and limit the amount to 2 to 4 ounces at a time
No carbonated beverages or alcohol
Choose from the following liquids

- Apple, cranberry, or grape juice
- Chick, beef, or vegetable broth
- Jell-o
- Popsicles
- Decaffeinated tea
- Clear protein shakes (Ensure clear)
- Low sugar Gatorade

Full liquid diet – Post op day 6 to 10

Includes food and beverages on the clear liquids diet and the following foods

- Milk, cream of wheat, cream of rice, strained cream soups, smooth ice cream or frozen yogurt, sherbert, smooth yogurts, regular protein smoothies/shakes

The addition of dairy may cause diarrhea in some people just after surgery. Using lactose-free products may help avoid these problems. Try dairy products in small amounts at first to see how well they are tolerated

Soft diet – Post op day 11 until your post-operative appointment

This diet level includes all the items from the previous two levels, and soft foods can be added. This includes:

- Cottage cheese
- Cooked soft vegetables (no crunch)
- Soft-cooked pasta
- Flaky fish
- Ground meat (i.e., taco meat consistency)

We recommend avoiding dry solid meats such as chicken breast, steaks and pork chops.

Notes / Questions

Specialty Surgical Associates
10 Industrial Way East
Suite 104
Eatontown, NJ 07724

T: 732-389-1331

F: 732-542-8587

www.CJSpecialtySurgical.com