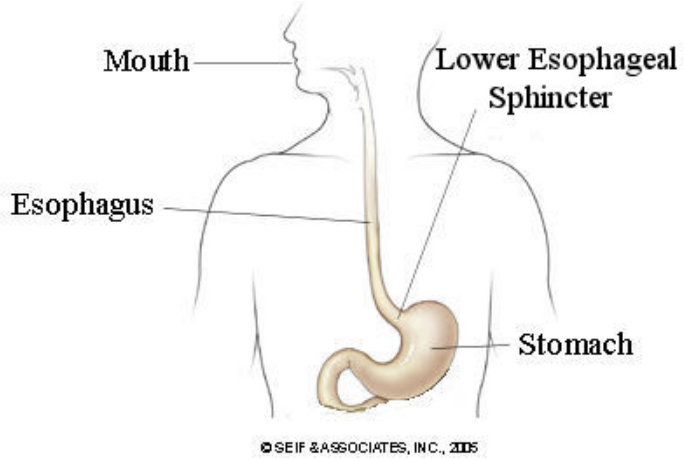
Esophageal Dilatation

Making a Narrowing in the Esophagus Larger

The esophagus is the long, narrow tube which carries food and liquid from the mouth to the stomach. Esophageal dilatation is the technique used to stretch a blocked or narrowed portion of the esophagus. This procedure is used when a part of the esophagus has become so narrow that it becomes difficult, painful or even impossible to swallow. This is generally an uncomplicated form of treatment. When this is not successful, chest surgery may be required. This is a much more extensive form of treatment with a longer recovery time.



CAUSES

Some of the more common causes of blockage or strictures of the esophagus are:

- Narrowing from longstanding *inflammation* (soreness and redness) of the lower esophagus. This comes from the constant exposure of the lower esophagus to the acid which bubbles up from the stomach. Over time this causes scarring and narrowing of the lower esophagus.
- Hiatal hernia in which a small part of the stomach bulges (*herniates*) up through the diaphragm. This can cause a gradual narrowing of the end of the esophagus.
- Schatzki's Ring is a narrow ring of *benign* (non-cancerous) fibrous tissue which constricts the lower esophagus. The reason for this is not known.
- Scleroderma is a connective tissue disorder that affects the esophagus and makes swallowing difficult.
- Achalasia is an absence of nerves to the lower esophagus and to the esophageal sphincter. This is the circular muscle between the stomach and esophagus that relaxes to allow food into the stomach. After swallowing, it contracts to keep food in the stomach. This absence of nerves may be *congenital* (present since birth). This can cause irregular spasms of the lower esophageal muscle. This spasm does not open up to allow food and fluid through. The result is a persistent blockage with subsequent slow trickling of the esophageal contents into the stomach.
- Strictures may develop from swallowing materials which damage the esophagus. Some examples are strong acids or alkalis such as lye.
- Growths such as *benign* (non-cancerous) and *malignant* (cancerous) tumors can block the esophagus.
- *Heredity* (present since birth) causes.

DIAGNOSIS

Your caregiver often suspects this problem by taking a medical history. They will also do a physical exam. They can then prove their suspicions using X-rays and endoscopy. Endoscopy is an exam in which a tube like a small flexible telescope is used to look at your esophagus.

TREATMENT AND PROCEDURE

There are different *dilating* (stretching) techniques which can be used. Simple bougie dilatation may be done in the office. This usually takes only a couple minutes. An *anesthetic* (numbing) spray of the throat is used. Endoscopy, when done, is done in an endoscopy suite, under mild sedation. When fluoroscopy is used, the procedure is performed in x-ray. Other techniques require a little longer time. Recovery is usually quick. There is no waiting time to begin eating and drinking to test success of the treatment. Following are some of the methods used.

Narrowing of the esophagus is treated by making it bigger.
Commonly this is a mechanical problem which can be treated with stretching. This can be done in different ways. Your caregiver will discuss these with you. Some of the means used are:

- A series of *graduated* (increasing thickness) flexible dilators called Bougies can be used. These are weighted tubes passed through the esophagus into the stomach. The tubes used become progressively larger until the desired stretched size is reached. Bougies are a simple and quick way of opening the esophagus. No visualization is required. The most commonly used mercury weighted bougies are the Maloney bougie dilators.
- Another method is the use of endoscopy to place a flexible wire across the stricture. The endoscope is removed and the wire left in place. A dilator with a hole through it from end to end is guided down the esophagus and across the stricture. One or more of these dilators are passed over the wire. At the end of the exam, the wire is removed. This type of treatment may be performed in the x-ray department under fluoroscopy. An advantage of this procedure is the examiner is visualizing the end opening in the esophagus. The most commonly used bougie over guide wire dilators are the Savary or Savary-Guillard dilators.
- Stretching of the esophagus may be done using balloons. Deflated balloons are placed through the endoscope and across the stricture. This type of balloon dilatation is often done at the time of endoscopy or fluoroscopy. Flexible endoscopy allows the examiner to directly view the stricture. A balloon is inserted in the deflated form into the area of narrowing. It is then inflated with air to a certain pressure that is pre-set for a given circumference. When inflated, it becomes sausage shaped, stretched, and makes the stricture larger.
- Achalasia requires a longer larger balloon-type dilator. This is frequently done under x-ray control. In this situation, the spastic muscle fibers in the lower esophagus are stretched.

All of the above procedures make the passage of food and water into the stomach easier. They also make it easier for stomach contents to reflux back into the esophagus. Special medications may be used following the procedure to help prevent further stricturing. Nexium® and other proton-pump inhibitors (Prevacid®, Prilosec®, Protonix®, and Aciphex®) are good at decreasing the amount of acid in the stomach juice. When stomach juice refluxes into the esophagus, the juice is no longer as acidic and is less likely to burn or scar the esophagus.

COMPLICATIONS

Esophageal dilatation is usually performed effectively and without problems. Some complications that can occur are:

- A small amount of bleeding almost always happens where the stretching takes place. If this is too excessive it may require more aggressive treatment.
- An uncommon complication is *perforation* (making a hole) of the esophagus. The esophagus is thin. It is easy to make a hole in it. If this happens, an operation may be necessary to repair this.
- A small, undetected perforation could lead to an infection in the chest. This can be very serious.

HOME CARE INSTRUCTIONS

- **If you received sedation for your procedure, do not** drive, make important decisions, or perform any activities requiring your full co-ordination. Do not drink alcohol, take sedatives, or use any mind altering chemicals unless instructed by your caregiver.
- You may use throat lozenges or warm salt water gargles if you have throat discomfort
- You can begin eating and drinking normally on return home unless instructed otherwise. Do not purposely try to force large chunks of food down to test the benefits of your procedure.
- Mild discomfort can be eased with sips of ice water.
- Medications for discomfort may or may not be needed.

SEEK IMMEDIATE MEDICAL CARE IF:

- You begin vomiting up blood.

- You develop black tarry stools
- You develop chills or an unexplained temperature of over 101° F (38.3° C)
- You develop chest or abdominal pain.
- You develop shortness of breath or feel lightheaded or faint.
- Your swallowing is becoming more painful, difficult, or you are unable to swallow.

MAKE SURE YOU:

- Understand these instructions.
- Will watch your condition.
- Will get help right away if you are not doing well or get worse.

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