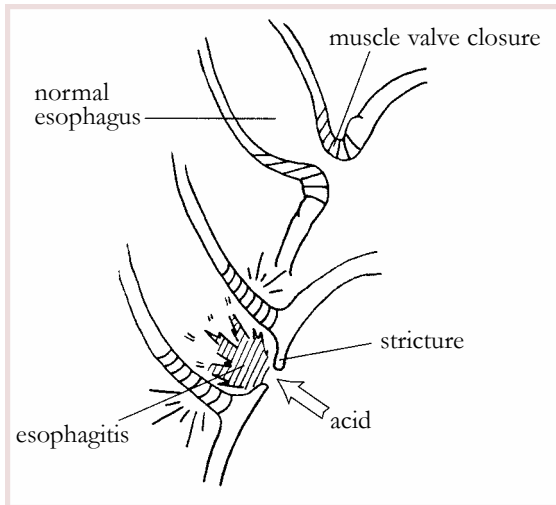


## Esophagitis and Stricture

The esophagus is the food pipe, or gullet, that carries food and liquid from the mouth to the stomach. The stomach churns the food and secretes a strong acid that aids in digestion. A specialized muscle, known as the lower esophageal sphincter (LES), is located at the end of the esophagus. This muscle normally contracts firmly and only allows food and liquid to pass from the esophagus into the stomach. The muscle maintains a certain pressure to keep the end of the esophagus closed, preventing stomach acid and digested food from moving back into the esophagus.

However, the LES muscle does not always work perfectly. It can easily be overcome by a number of factors, the most common being eating a large meal. Other agents that weaken the LES muscle and allow reflux of stomach juices are:

- Nicotine (cigarettes)
- Fried or fatty foods
- Chocolate
- Coffee
- Citrus fruits and juices
- Peppermints
- Pregnancy



## What is Esophagitis?

When stomach acid and digestive enzymes repeatedly reflux into the esophagus, the tissues become inflamed and ulcerated. This acute or chronic inflammation is known as esophagitis. When the inflammation is severe, esophageal ulcers develop.

## Does a Hiatus Hernia Cause Esophagitis?

A hiatus hernia exists when part of the stomach protrudes through the diaphragm muscle into the chest. When the hernia is fixed in this position, stomach acid and food do not drain out of it quickly and the LES pressure is overcome, resulting in tissue damage and esophagitis. A fixed hiatus hernia, therefore, is an important factor in causing esophagitis.

## Are There Other Causes of Esophagitis?

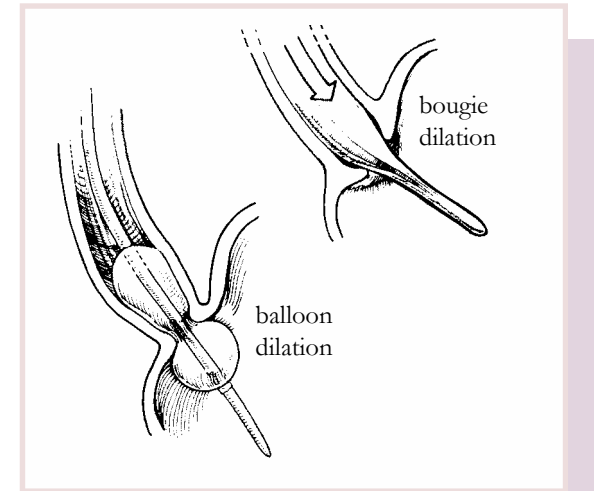
Certain infections, such as a fungus infection (Monilia Candida) and viruses, occur in the esophagus and cause inflammation. Irradiation and caustic substances, like lye, also can cause esophagitis. Acid reflux from the stomach, however, is by far the most common cause of the condition.

## What Are the Signs and Symptoms?

Heartburn occurs when acid refluxes into the esophagus. It is experienced as a burning sensation in the lower chest and may be felt up the esophagus and into the mouth. At times, bitter-tasting liquid regurgitates. When esophagitis is severe and ulcers are present, food may cause pain when it reaches this part of the esophagus. Furthermore, if the lower esophagus narrows due to scarring, food may stick in this area. This symptom is called dysphagia and is uncomfortable. Esophagitis also may cause bleeding. Black stools, anemia (low red-blood cell count), and vomiting of blood are signs of bleeding.

## Diagnosis

An upper GI series x-ray is usually done to outline the esophagus. An endoscopy also is performed during which a flexible, fiberoptic scope is passed into the esophagus while the patient is lightly sedated.



The tissues can be visualized and biopsied during this procedure. This examination is important since cancer of the esophagus can mimic esophagitis.

## Treatment

General measures the patient can take to treat esophagitis are:

- Eat smaller and more frequent meals.
- Avoid eating before going to bed.
- Eliminate bending, lifting, abdominal exercises, girdles, and tight belts, all of which increase abdominal pressure and provoke reflux.
- If overweight, lose weight. Being overweight causes reflux.
- Eliminate or significantly reduce consumption of nicotine (cigarettes), fatty foods, alcohol, coffee, chocolate, and peppermint.
- Elevate the head of the bed 8" to 10" by placing pillows or a wedge under the upper part of the mattress. In this way, gravity keeps stomach juices out of the esophagus during sleep.

## Other Treatments Include:

**Antacids** - These can and should be used often. Generally, antacids should be taken 30 to 60 minutes after eating and at bedtime. Liquids are preferred to tablets, with the strongest being Maalox II, Mylanta II, Gelusil II and Extra Strength Riopan.

**Alginic acid and antacids** - Two products, Gaviscon and Algicon, place a layer of foam over the fluid in the stomach to prevent reflux. These tablets should be chewed well and used 30 to 60 minutes after eating and at bedtime.

**Drugs** - Medicines are now available that effectively reduce or stop the secretion of stomach acid and so increase the strength of the LES muscle. These medicines are usually the most important part of treating esophagitis.

**Surgery** - Surgery is occasionally required to treat esophagitis, especially if a hiatus hernia is present and when the above steps have been ineffective.

## What is Stricture?

Normally, the lower esophagus remains closed and contracted, except when food moves down the esophagus into the stomach. The lower esophagus can open to the size of a quarter or wider. When recurrent inflammation occurs in the esophagus, scarring develops, underlying tissues become fibrous, and the opening narrows. In advanced cases, this narrowing, or stricture, can be severe. The opening may be reduced to the size of a pencil or narrower. Food and fluid are delayed and only move slowly across the opening into the stomach. A large piece of food, such as meat, may completely block the esophagus. As mentioned, cancer can narrow the esophagus in the same way and, therefore, it is critical that the physician rule out this diagnosis.

## Treatment

The physician can use a variety of methods to gently but forcefully open, or dilate, a stricture. Dilatation is often performed in conjunction with an upper endoscopy. One of the following dilatation methods may be used:

- **Bougie** - A series of increasingly wider, soft rubber or plastic dilators are moved across the stricture, gently opening it.
- **Guided wire** - A thin wire, placed across the stricture, is used to guide increasingly wider dilators over it.
- **Balloons** - Different types of sausage-shaped balloons can be placed across the stricture. The balloon is sharply inflated to open the narrowed area.

The physician chooses the type of dilatation that is most appropriate for each patient.

## Are There Any Alternatives to Dilatation?

The only alternative to dilatation for opening a stricture is surgery. It is recommended only in the most extreme cases and when dilatation fails.

## Complications

With dilatation, minimal bleeding always occurs, although it is rarely excessive or serious. A rare, but serious, complication is a perforation, or tearing, of the esophagus. This causes increasing pain after the procedure and may require surgery to correct.

## In Summary...

Esophagitis usually can be treated easily with a conservative program of medical care. When scarring becomes severe, a stricture can occur. This condition can be treated by simple dilatation. While complications can occur, they are uncommon. Most patients no longer feel food sticking in the esophagus. By working with the physician, the correct program can be developed for each patient.

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