

Zenker's Diverticulum

Symptoms, diagnosis, and treatment

This handout explains Zenker's diverticulum, a condition that affects the digestive tract.

What is Zenker's diverticulum?

Diverticulum is a medical term. It refers to an abnormal, pouch-like structure. These pouches can form in nearly all parts of the digestive tract.

A pouch can form where the *pharynx* and the *esophagus* meet. This pouch is called *Zenker's diverticulum*. The pharynx is at the back of your throat, behind your nasal cavity and mouth. The esophagus is the tube that food passes through as it goes from your mouth to your stomach.

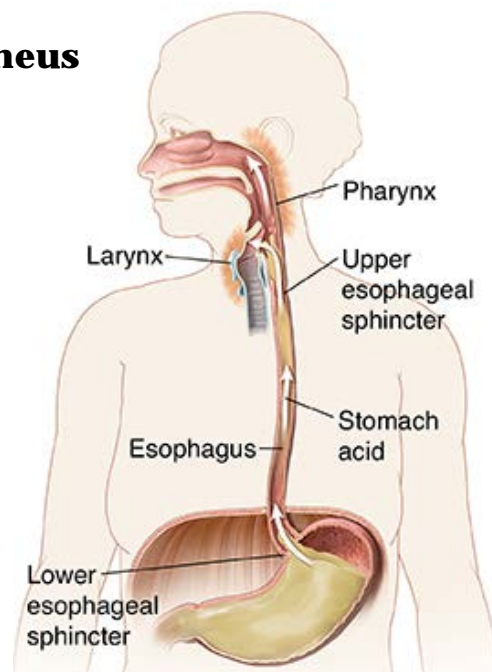
What causes it?

We do not know the exact cause of Zenker's diverticulum. It may occur when there is a weakness in the wall of the pharynx, above the *cricopharyngeus* muscle. This weakness may be caused by *gastroesophageal reflux disease* (GERD) or *neurological abnormalities* (problems in the nervous system).

What is the cricopharyngeus muscle?

The cricopharyngeus muscle is a circular muscle around the top of the esophagus. It is part of the *upper esophageal sphincter*, a valve between the pharynx and the esophagus. The valve is closed when we breathe, but opens when we swallow food.

A healthy cricopharyngeus muscle is contracted (active) most of the time. This keeps the valve closed. When we swallow, it relaxes. If the pharynx wall is weak and cannot handle pressure, a diverticulum can occur. This pouch is also called a *herniation of the mucosa*.



The cricopharyngeus muscle is part of the upper esophageal sphincter.

Zenker's diverticulum occurs most often in people from 60 to 90 years of age. Men are affected more often than women.

What are the symptoms of Zenker's diverticulum?

People with this condition have problems swallowing. Food gets stuck at the valve and does not go down the esophagus. Instead, it comes back into the mouth (is *regurgitated*). This can interrupt meals and cause bad breath.

If you have Zenker's diverticulum, you may:

- Feel like food is sticking, so that you have to swallow several times to get food to go down
- Feel like you are choking
- Cough when you try to swallow

What are the risks of having Zenker's diverticulum?

Other problems can occur if you have this condition. They include *aspiration* (when you inhale food, stomach acid, or saliva into your lungs) and *pneumonia* (lung infection).

If you have a fever, shortness or breath, coughing that produces phlegm, or are vomiting undigested food, please contact your doctor or nurse. You may need a chest X-ray to rule out pneumonia. If you have pneumonia, it will be treated with an antibiotic.

How is it diagnosed?

An *esophagogram* is done to diagnose Zenker's diverticulum. This test is also called a *barium swallow*.

Barium sulfate is a metallic substance that shows up on X-rays. When taking the test, you will drink a barium solution and X-rays will be taken. The diverticulum and retained food will show up on the X-rays.

How is it treated?

Treatment for Zenker's diverticulum may include:

- *Cricopharyngeal myotomy*: This procedure is done to remove small diverticula.
- *Diverticulopexy* with cricopharyngeal myotomy: This procedure is done to treat larger diverticula. It involves turning the pouch upside down and *suturing* (stitching) it to the esophageal wall.
- *Diverticulectomy* and cricopharyngeal myotomy: The procedure completely removes a large diverticula.

What can I do to ease symptoms?

Try these tips:

- Sleep with your head raised. Use extra pillows under your head, or sleep in a recliner.
- Avoid eating for 3 to 4 hours before going to bed.
- Learn deep-breathing and coughing techniques. Know the signs of pneumonia and call your provider if you have them.
- Drink lots of water.
- Eat soft moist foods to prevent solids from getting stuck in the diverticulum.

Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

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