CONDITION

Achalasia

Learn how achalasia affects swallowing, how doctors diagnose it, and how procedures can improve food passage while managing reflux and other risks.

WHAT IT IS
Long-term esophageal swallowing disorder

BODY SYSTEM
Digestive

MAIN SYMPTOMS
Difficulty swallowing, regurgitation, chest discomfort, weight loss

WHAT CAUSES IT
Unknown, involving esophageal nerve damage

HOW IT IS DIAGNOSED
High-resolution esophageal manometry

MAIN TREATMENT
Procedures to open the lower esophageal sphincter

CAN IT BE CURED?
No, damaged nerves cannot be restored

IS IT AN EMERGENCY?
Sometimes, inability to swallow saliva

LONG-TERM OUTLOOK
Symptoms often improve but may return

Overview

Achalasia is a long-term disorder of the esophagus, the muscular tube that carries food and liquids from the mouth to the stomach. In achalasia, the muscles of the esophagus do not move food downward normally. The lower esophageal sphincter, a ring of muscle where the esophagus meets the stomach, also does not relax enough during swallowing.

As a result, food and liquid can collect in the esophagus instead of entering the stomach. This can cause difficulty swallowing, regurgitation, chest discomfort, and weight loss. Symptoms often develop gradually and may initially be mistaken for acid reflux or another digestive condition.

Achalasia is not caused by an ordinary blockage. It results from damage to nerves that coordinate movement and relaxation in the esophagus. Treatment cannot restore these

nerves, but it can reduce resistance at the lower esophageal sphincter. This often makes swallowing easier and lowers the risk of food remaining in the esophagus.

Symptoms vary, and other conditions can look similar. Testing is important before treatment because narrowing from inflammation, scarring, or a tumor must be ruled out.

Symptoms

Difficulty swallowing, called dysphagia, is the main symptom. Unlike some physical blockages, achalasia commonly affects both solid food and liquids. A person may feel that food sticks in the chest or moves down slowly. Drinking extra water, changing position, or eating slowly may seem to help.

Other symptoms can include:

Regurgitation in achalasia is different from vomiting. The food often comes back without nausea or forceful abdominal contractions. Nighttime regurgitation may increase the risk of aspiration, which means food or liquid enters the lungs.

Symptoms often progress over months or years. A sudden change, rapid weight loss, or symptoms beginning later in life may lead a doctor to look especially carefully for another cause.

Seek emergency care for severe or new chest pain, particularly with shortness of breath, sweating, faintness, or pain spreading to the arm, back, neck, or jaw. These symptoms can have causes unrelated to achalasia, including heart problems.

Urgent medical assessment is also appropriate for an inability to swallow saliva, a suspected food impaction, vomiting blood, black stools, significant breathing difficulty, or signs of dehydration.

- Regurgitation of undigested food or saliva, especially when lying down
- Chest pressure, pain, or discomfort after eating
- Coughing or choking during meals or at night
- Heartburn-like burning, even though the cause may not be acid reflux
- Unintentional weight loss
- Slow eating or avoiding certain foods
- Bad breath caused by food remaining in the esophagus
- Repeated chest infections if material enters the airways

Causes and risk factors

The exact cause of most achalasia is unknown. The condition involves loss of nerve cells in the esophageal wall. These nerves normally tell the lower esophageal sphincter to relax and help coordinate the muscle contractions that push food toward the stomach.

Researchers have considered whether an abnormal immune response, possibly following an infection in a genetically susceptible person, contributes to this nerve damage. However, no single infection, gene, food, or behavior has been shown to cause typical achalasia.

There are no well-established lifestyle risk factors. Achalasia is not known to result from eating too quickly, stress, obesity, or ordinary acid reflux. It can occur at different ages.

Rarely, another disease creates an achalasia-like pattern. This is sometimes called secondary achalasia or pseudoachalasia. Possible causes include a tumor near the junction of the esophagus and stomach. Chagas disease, an infection caused by the parasite Trypanosoma cruzi , can also damage digestive nerves. It is mainly associated with parts of Latin America.

Because symptoms alone cannot reliably separate achalasia from these other conditions, an evaluation generally includes an examination of the esophagus and stomach.

Diagnosis

A clinician will ask when swallowing problems began, whether they involve solids, liquids, or both, and whether there has been regurgitation, chest pain, or weight loss. The evaluation may also consider prior surgery, medication use, travel or residence history, and other medical conditions.

Several tests may be used.

Upper endoscopy uses a thin, flexible camera passed through the mouth while the patient receives sedation or anesthesia. It allows the doctor to inspect the esophagus, lower esophageal sphincter, and stomach. Endoscopy can identify retained food, inflammation, narrowing, or another obstruction. Tissue samples may be taken if an area looks abnormal. Endoscopy is important for ruling out cancer and other structural causes, but it does not always confirm achalasia by itself.

High-resolution esophageal manometry measures pressure and muscle activity during swallowing. A narrow catheter is passed through the nose into the esophagus. The patient then takes small swallows of liquid. Manometry is the main test used to confirm achalasia and classify its pattern.

Doctors commonly describe three manometry subtypes:

The subtype can help guide the choice of treatment, especially when spasm extends above the lower sphincter.

A barium esophagram is an X-ray study performed while the patient swallows a contrast liquid. It can show delayed emptying, widening of the esophagus, or smooth tapering near the stomach. A timed barium esophagram takes images at set intervals to measure how much contrast remains.

Functional lumen imaging probe testing , often called FLIP, measures how well the lower esophageal sphincter opens. It is performed during sedated endoscopy and may help when other test results are uncertain or cannot be completed.

- Type I: The esophagus produces little or no effective pressure after swallowing.
- Type II: Swallowing causes pressure throughout much of the esophagus.
- Type III: Premature or spastic contractions occur in part of the esophagus.

Treatment and management

Treatment aims to improve the passage of food by weakening, stretching, or cutting the tight lower esophageal sphincter. It does not restore normal nerve function, and symptoms can return over time. The best approach depends on the manometry subtype, anatomy, prior treatment, overall health, local expertise, and patient preferences.

Pneumatic dilation is an endoscopic procedure in which a doctor positions and inflates a balloon across the lower esophageal sphincter. The balloon stretches and disrupts some of the muscle fibers. More than one treatment may be needed. A small risk of tearing the esophagus means the procedure should be performed where this complication can be recognized and treated promptly.

Laparoscopic Heller myotomy is a minimally invasive operation that cuts muscle fibers at the lower end of the esophagus. It is usually combined with a partial fundoplication, in which part of the stomach is wrapped around the lower esophagus. The wrap is intended to reduce acid reflux after the sphincter muscle is cut.

Peroral endoscopic myotomy , or POEM, is performed through an endoscope passed into the mouth. The doctor creates a tunnel within the esophageal wall and cuts selected muscle fibers. Because the muscle cut can extend farther up the esophagus, POEM can be especially useful for type III achalasia. Acid reflux is more common after POEM than after a Heller myotomy combined with fundoplication, so follow-up may include reflux assessment and treatment.

Pneumatic dilation, Heller myotomy, and POEM are established options for many patients.

Their benefits and tradeoffs differ, and experience at the treating center matters.

Botulinum toxin injection temporarily relaxes the lower sphincter. Its effect usually fades, so it is most often considered when a person is not a good candidate for more durable procedures. Repeated injections may make later treatment more complicated in some cases.

Medicines that relax the lower sphincter may provide brief symptom relief, but they are generally less effective than procedural treatment and can cause side effects. A clinician may consider them when other options are not appropriate.

Practical eating changes may reduce discomfort but do not treat the underlying disorder. Helpful measures can include eating slowly, chewing thoroughly, taking small bites, and staying upright after meals. A dietitian can help if maintaining weight or adequate nutrition is difficult. Food restriction should not become so extensive that it causes malnutrition.

Complications

Food that remains in the esophagus can lead to progressive stretching and twisting of the organ. In advanced disease, the esophagus may become greatly enlarged and may empty poorly even after the lower sphincter is treated.

Possible complications include:

People with achalasia have an increased risk of esophageal cancer compared with the general population, particularly squamous cell cancer. The absolute risk for an individual remains low. Current evidence has not established that routine endoscopic cancer screening improves outcomes for every person with achalasia. A specialist may individualize surveillance based on disease duration, symptoms, and other risk factors.

After a procedure, seek urgent medical advice for fever, worsening chest or abdominal pain, persistent vomiting, new shortness of breath, or an inability to swallow. Severe pain, breathing difficulty, fainting, vomiting blood, or signs of major bleeding require emergency care.

- Unintentional weight loss, dehydration, or malnutrition
- Aspiration of food or saliva into the lungs
- Recurrent cough, airway irritation, or aspiration pneumonia
- Inflammation of the esophageal lining from retained food
- Acid reflux after treatment
- Return or persistence of swallowing symptoms
- Procedure-related bleeding, infection, or perforation

Follow up

Achalasia requires long-term follow-up because treatment controls the obstruction but does not cure the underlying nerve disorder. Routine visits may review swallowing, regurgitation, chest discomfort, weight, nutrition, and possible reflux.

Symptoms alone do not always show how well the esophagus is emptying. If swallowing problems continue or return, a clinician may recommend a timed barium esophagram, endoscopy, manometry, or FLIP. Testing can help distinguish recurrent sphincter tightness from reflux-related inflammation, scarring, spasm, or advanced enlargement of the esophagus.

After POEM, Heller myotomy, or dilation, reflux may occur even without obvious heartburn. Depending on the procedure and symptoms, follow-up may include endoscopy or acid testing. Reflux treatment can include lifestyle measures or acid-suppressing medication under clinical guidance.

Contact the treating team routinely if symptoms gradually return, meals are taking longer, nighttime regurgitation develops, or weight is falling. Earlier assessment may allow additional treatment before nutrition or lung health is affected.

Sources

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