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PERSONAL HEALTH; When Swallowing Food Becomes a Problem

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My stepmother, Sophie Brody, thought she had a tumor.

Whenever she ate solid food, it seemed to stick in her chest and not go down.

The symptom is called dysphagia, difficulty swallowing, and it is a surprisingly common problem, especially among people over 50. But what was the cause? Other symptoms -- including dry eyes, dry mouth and teeth that mysteriously rotted and broke -- were important clues leading to a diagnosis of Sjogren's syndrome, one of dozens of disorders that can make swallowing solids or liquids a problem.

Every three months, Sophie had to have her esophagus stretched so that food would pass through, and she had to drink water with every bite. Still, she ate almost nothing but purees, soups, ice cream and liquid nutrient supplements, in a losing battle to maintain her weight and health.

Her disorder made it hard to travel, eat out or entertain, limiting her social life and contributing to a chronic low-grade depression.

Dysphagia can have devastating effects on a person's quality of life. But depending on the cause, various therapies can in many cases ease or eliminate this distressing symptom and restore a person's ability to eat and enjoy normal foods.

The Stages of Swallowing

One person in 17 eventually develops dysphagia. The symptoms vary with the cause, but they can include chest pain upon swallowing and the ability to swallow only very small amounts of food, only liquids or only solids, or no food at all. Some people feel as if food is stuck in their throats or chests. Choking, coughing or regurgitating small amounts after swallowing are other symptoms.

The act of swallowing involves four separate stages, and many health problems can disrupt one or more of them. In Stage 1, food and drink are taken into the mouth and the food is chewed and mixed with saliva. In Stage 2, also voluntary, the tongue pushes the food to the back of the mouth and into the throat.

Stage 3 is involuntary: the soft palate rises to close off nasal passages, tissues in the throat close off the windpipe and the voice box, and the muscular sphincter at the upper end of the esophagus relaxes and opens to receive the food. Stage 4, also involuntary, involves rhythmic contractions of the esophageal muscles to push the food through, and relaxation of the lower sphincter to allow the food to pass into the stomach.

Dysphagia can result from any disorder that weakens or injures the nerves or muscles involved in swallowing. The causes include neuromuscular problems like strokes, multiple sclerosis, amyotrophic lateral sclerosis (Lou Gehrig's disease), myasthenia gravis, brain injury, Parkinson's disease, postpolio syndrome and Alzheimer's disease.

Chronic disorders like scleroderma (a thickening and hardening of lining tissue) and Sjogren's syndrome (an autoimmune attack on lubricating glands) can also cause the problem, as can weakening of esophageal muscles with age, disruption of coordinated muscular movements in the esophagus, the inability of the lower sphincter to relax (a problem called achalasia), benign or malignant tumors and a pouch in the lining of the throat or esophagus.

Medications taken for long periods can also sometimes disrupt swallowing. They include corticosteroids, anti-inflammatories (both over-the-counter drugs like ibuprofen and prescription drugs like Vioxx), potassium chloride and quinidine tablets, the antibiotics tetracycline and doxycycline, the bone-building drug alendronate (Fosamax) and drugs that interfere with mental processes. Even iron pills and vitamins can injure the esophagus if taken with too little water and too close to bedtime.

One of the most common but often unrecognized causes of dysphagia is chronic heartburn, also known as gastroesophageal reflux disease, or GERD. Untreated or ineffectively treated, it can cause chronic inflammation and narrowing of the lower esophagus and may result in esophageal cancer, which is often incurable.

Sometimes infections of the esophagus are the problem, particularly among those with weakened immune systems, like patients who have H.I.V. or who are taking drugs that suppress the immune system.

Occasionally, children are born with birth defects like cleft palate that disrupt swallowing. Even when the defect cannot be corrected, however, children can often be taught to swallow solid food without choking or inhaling it.

Diagnosis and Treatment

In addition to restricting one's social life and enjoyment of food, failure to diagnose and treat swallowing problems can have serious health consequences. People may be unable to consume enough nutritious food to maintain normal weight and health, and they risk developing aspiration pneumonia if food enters the windpipe instead of the esophagus.

Diagnosing and treating dysphagia is often a team effort involving gastroenterologists, otolaryngologists, radiologists, neurologists, and speech and language pathologists who specialize in dysphagia.

As with most medical problems, diagnosis begins with a thorough medical history, including a description and timing of symptoms and a list of both the over-the-counter and prescription drugs and nutrient supplements a person is taking.

Depending upon the suspected nature of the problem, the first test may be a barium X-ray of the upper digestive tract to check for lesions or tumors. This involves drinking a barium solution, eating food mixed with barium or swallowing a barium pill to coat the tissues with material that shows up on X-rays. Or the doctor may start with an endoscopic exam: a narrow, lighted tube is inserted through the mouth to explore the anatomy and lining of the esophagus. If necessary, a tissue biopsy can be taken through the endoscope.

Another useful test, video fluoroscopy, depicts what happens in the mouth and throat in the swallowing process and can be replayed in slow motion. A test called esophageal manometry can examine the muscular action of the esophagus, including sphincter function. In patients suspected of having reflux problems, the acid level of the esophagus may also be tested through a probe.

Proper treatment will depend on the cause of swallowing problems. If certain disorders have narrowed the esophagus or sphincter muscles, they can be stretched periodically by means of an endoscope with a balloon or other device attached. If a tumor or pouch is the problem, surgery is needed.

For pill-induced dysphagia, changing when and how drugs are taken, and perhaps switching medications, can often bring relief. Pills should always be taken with a full glass of water -- never attempt to swallow them dry -- preferably at least a half-hour before bedtime. Some medications are best taken with an antacid; ask your doctor or pharmacist.

If reflux disease is causing dysphagia, daily treatment with medication to counteract stomach acid is essential. It is often necessary to eliminate, or at least

greatly reduce, consumption of foods and drinks that can stimulate reflux, including alcoholic and caffeinated beverages, chocolate, spicy foods, deep-fried foods, certain seasonings like cinnamon and nutmeg, or anything else that causes heartburn. Refraining from eating for at least two hours before bedtime can help, as can sleeping with the head of the bed elevated.

Swallowing therapy may include lip and tongue exercises to strengthen weak muscles or improve their coordination, changing head positions when eating, increasing the thickness of liquids to prevent aspiration, electrically stimulating the muscles involved in swallowing, avoiding hot or cold foods or drinks, or switching to carbonated drinks. Such approaches can be highly effective, especially for children and the elderly.