

Understanding Dysphagia

What to do when you suspect someone has a swallowing problem...



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Updated 2012

Dysphagia

Difficulty in swallowing, commonly associated with obstructive or motor disorders of the esophagus. Patients with obstructive disorders such as esophageal tumor or lower esophageal ring are unable to swallow solids, but can tolerate liquids. Persons with motor disorders, such as achalasia, are unable to swallow solids or liquids. Diagnosis of the underlying condition is made through barium studies, the observed clinical signs, and evaluation of the patient's symptoms.

Introduction

Most of us never consider the possibility of not being able to eat or drink safely. As a matter of fact, most people take swallowing for granted. Swallowing, however, is quite complicated. Normal swallowing of food and liquid requires great coordination of a large number of muscles in the mouth, throat, and esophagus (the tube that leads to the stomach). It involves many different systems working together quickly, effortlessly, and repeatedly. In fact, normal swallowing is a very fast process, taking less than two seconds to move from the mouth through the throat and into the esophagus. We swallow more than 1000 times in a day. Most of those 1000 swallows are involuntary, so we never really think about them.

When an individual has a problem swallowing, it is called *dysphagia*. Many adults with developmental disabilities have problems swallowing. In fact, choking and pneumonia (aspiration pneumonia—see definition on page 5) are among the leading causes of death in adults with developmental disabilities.

Some of the factors that make dysphagia a serious concern in this population are:

- Neurologic deficits
- GERD (**g**astro**e**sophageal **r**eflux **d**isease)
- Prolonged use of psychotropic and other medications
- Environment
- Previously learned behaviors
- Physical disabilities

This booklet has been designed by Debbie Lord, MA, CCC-SLP/L and Philadelphia Coordinated Health care to assist families, residential care providers, case managers, and advocates in indentifying people at risk for swallowing problems. This booklet also provides basic information to better understand dysphagia and may help people to make better decisions about treatment.

*** How We Swallow...**

Swallowing is a combination of purposeful movement and reflexes that normally take no more than several seconds to complete. (*Refer to the diagram for location of the body parts described below*). The process can be described in four stages.



STAGE ONE

Stage One is the *Oral Preparatory Stage*. The food enters the mouth, is chewed and is mixed with saliva. The combined efforts of the teeth, tongue, lips and cheeks along with the sensations of taste, temperature and texture prepare the food to be swallowed (for liquids it is necessary to maintain a seal with the lips and combine efforts of the tongue, palate, and cheeks to prepare the liquid for the swallow).

STAGE TWO

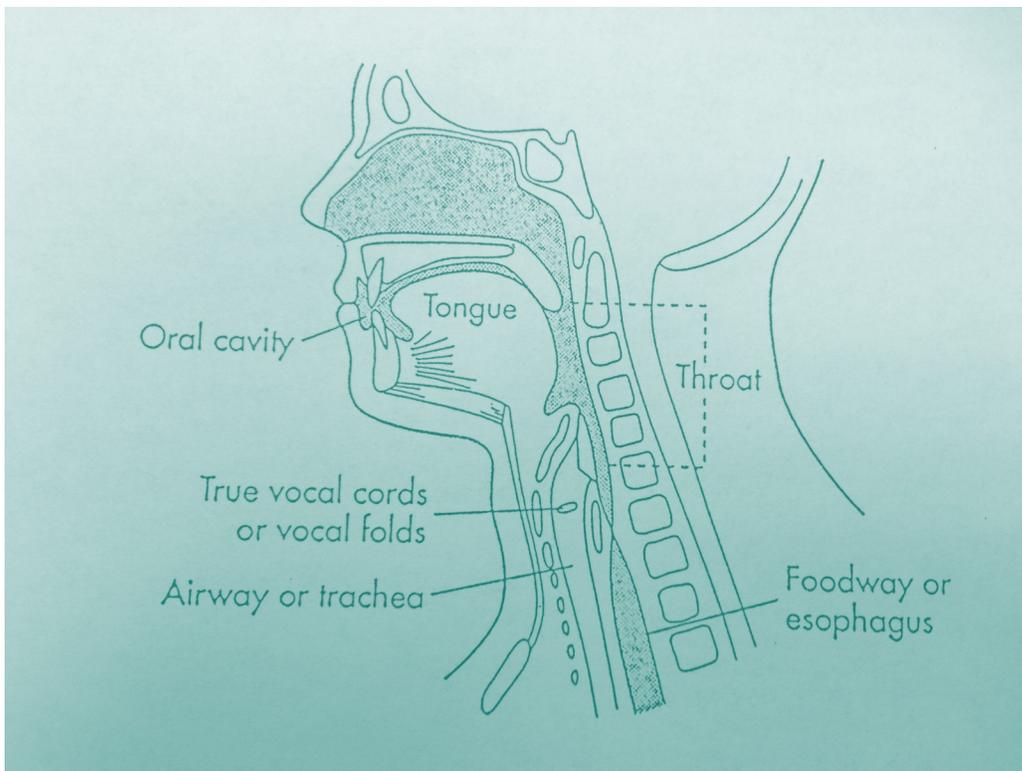
Stage Two is the *Oral Stage*. The food, having been chewed to the proper consistency, is moved backward toward the throat. The tongue movement is similar to a stripping action. The tongue squeezes the food against the roof of the mouth (palate). A middle groove is formed in the tongue and acts as a ramp or a chute for the food to pass through as it moves backward. At the point where the food enters the throat (pharynx) the swallow begins. For this stage, you need the ability to maintain a seal with the lips, good tongue movement and good cheek muscles.

STAGE THREE

Stage Three is the *Pharyngeal Stage*. The swallow is initiated when the food enters the pharynx (at the faucial arches). The coordinated muscle movements in the throat (pharynx), including the rise and backward movement of the velum, prevent food from being regurgitated through the nose. Waves of tiny muscle contractions help the food move toward the esophagus. Elevation of the larynx, closure of the larynx by the epiglottis and closure of the vocal cords protect the air and a muscular valve relaxes to allow the food to enter the esophagus.

STAGE FOUR

Stage Four is the *Esophageal Stage*. Waves of tiny muscle contractions and gravity help move the food into the stomach.



Definition of Terms

ASPIRATION

A medical diagnosis of taking food, liquid, or any foreign substance into the lungs. This may lead to aspiration pneumonia

BOLUS

Chewed food that is gathered into a ball in the mouth

DYSPHAGIA

Difficulty moving food or liquid from the mouth to the stomach. Any problem with swallowing

EPIGLOTTIS

The leaf shaped flap that protects the airway during the swallow

ESOPHAGUS

The food tube located behind the trachea (airway)

LARYNX

The voice box (vocal cords)

PHARYNX

The throat

TRACHEA

The airway

VIDEOFLUOROSCOPIC SWALLOW STUDY

(Also known as a modified barium swallow) A radiographic procedure (similar to an x-ray) used to examine both structure and function during the swallow; it allows the speech pathologist and medical personnel to see potential treatment strategies and their effectiveness

Types of Swallowing Problems

There are many different types of swallowing problems. Below are just a few of the many that may exist alone or in combination with each other. It's important to remember that there are many different factors that can impact on swallowing. People often have more than one problem. It is also important to note that each person and problem is *different* and requires individualized treatment.

- Difficulty closing lips
- Difficulty moving/controlling tongue
- Weak face muscles
- Reduced or absent sensation in mouth
- Reduced or absent swallow trigger
- Difficulty coordinating various muscles involved in swallowing

Causes of Swallowing Problems

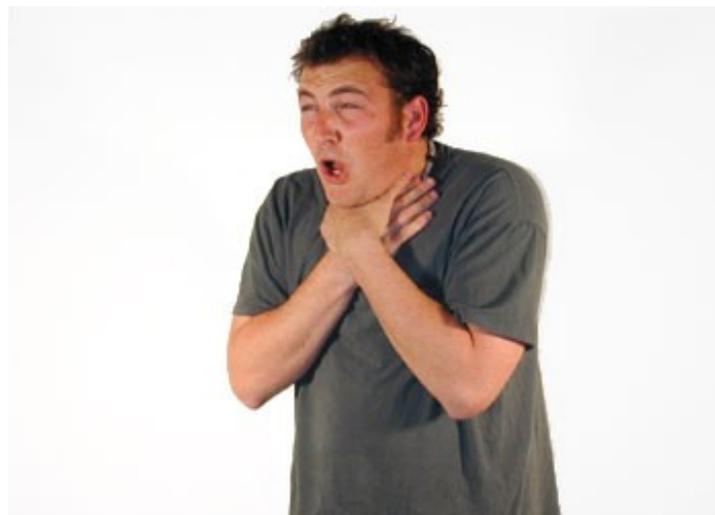
Swallowing problems arise as a result of many different medical conditions. Most result in either damaged sensation, weakened or uncoordinated muscles involved in swallowing. The following are some things that may cause swallowing problems:

- Damage to nervous system
- Diseases affecting muscle strength or coordination
- Progressive neurologic disease
- Tumors of the head and neck
- Medication side effects
- Medication interactions
- Head and neck cancer
- Physical positioning problems
- Structural abnormalities
- Physical abnormalities
- Physical environment
- Diet or diet changes
- Behavior

Most Common Signs of a Swallowing Problem

Some people display no outward signs of a swallowing problem. However, most people give some indication that they are having problems swallowing. The following list provides a framework for indentifying people at risk for or having a swallowing/feeding problem. Observation of any one or combination of these symptoms/behaviors may indicate the need for a swallowing evaluation and appropriate medical referrals.

- Frequent episodes of gagging, coughing or choking
- Coughing or choking during or after eating/drinking
- Difficulty managing saliva (drooling)
- “Gurgley” voice (wet voice) during or after eating/drinking
- Watery eyes during or after eating/drinking
- Frequent upper respiratory infection and/or pneumonia
- Swallowing food whole
- Frequent vomiting
- Regurgitation, hours after meals, particularly while reclining
- Eating rapidly
- Eats/drinks large amounts at a time
- Extra effort or difficulty chewing or swallowing
- Stores food/drink in mouth
- Loss of food/drink during or after the meal



Checklist for Identifying Swallowing Problems

Below you will find a helpful checklist which may be used if you suspect an individual may have a swallowing problem:



- More than one episode of gagging, coughing, or choking
- Gagging, coughing, or choking during or after drinking
- Difficulty managing saliva (drooling)
- “Gurgley” voice (wet voice) during or after eating/drinking
- Watery eyes during or after eating/drinking
- Frequent upper respiratory infections and/or pneumonia
- Swallows food whole
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Dangers of a Swallowing Problem

If a swallowing problem goes untreated, a person may:

- ◆ Become dehydrated
- ◆ Lose weight or become malnourished
- ◆ Develop aspiration pneumonia
- ◆ Have increased secretions
- ◆ Become less alert
- ◆ Be inappropriately medicated
- ◆ Choke

To prevent any of the above from occurring, people with suspected swallowing problems should receive careful evaluation followed by appropriate treatment.

Common Environmental/Diet Dangers

- ◆ Fresh vegetables (raw)
- ◆ Hard snack foods (M&M's, chips, nuts)
- ◆ Hot dogs
- ◆ Peanut butter
- ◆ Chunks of cheese
- ◆ Over-stimulating environment
- ◆ Use of tablespoons
- ◆ Chairs without arms and low back chairs
- ◆ Abnormal positioning of head and neck

What To Do if You Suspect Someone Has a Swallowing Problem

- ◆ Use the list of common signs and symptoms
- ◆ Talk with or see the persons' primary care physician and discuss your suspicions; ask for a prescription for a tableside swallowing evaluation
- ◆ Find a speech pathologist or an occupational therapist who performs dysphagia evaluations
- ◆ Obtain a tableside swallowing evaluation to determine if there is a swallowing problem and if further evaluation is necessary

What is a Tableside Swallowing Evaluation?

The Tableside Swallowing Evaluation usually consists of the following:

- Review of medical history, behavioral history and medications
- Observation of the person eating and drinking as they normally would
- Presentation of various food consistencies
- Trial intervention strategies including response to cues and self-correction procedures

What Information Should the Tableside Evaluation Provide?

- If further evaluation is needed (videofluoroscopic swallow study, endoscopy, manometry, etc.)
- If other consults are needed (gastrointestinal, ENT, nutrition, physical therapy, occupational therapy, etc.)
- Other courses of treatment that should be attempted to possibly reduce symptoms
- What diet/nutrition and environmental factors need to be addressed or modified
- General techniques or strategies to be attempted
- Staff ratio needed during snack/meal times
- Any health considerations or precautions



Important Considerations for Follow-up

Once an evaluation is complete and it is determined that a plan of support for dysphagia is needed, it must be developed with lifestyle considerations in mind. It is important to integrate the desired clinical, medical, and functional outcomes with the individual's personal outcomes and desires.

It is important to consider the following:

- How important is drinking to the individual?
- Does the individual have hobbies or things that they really enjoy besides eating?
- Does the person eat independently?
- Does the person want to remain independent or as independent as possible?
- What is the most important thing to the individual having to do with mealtime?
- Is the person very social during mealtime?
- Are the person's likes and hopes being taken seriously?
- Can the person be switched to a less restrictive diet?
- Remember that everyone deserves the best possible treatment and supports!

Some Final Thoughts...

We hope that this booklet provides valuable information to you in understanding and supporting individuals with dysphagia. As with all health related information, the definitive source for clinical evaluation, current practices, and treatment of dysphagia is the individual's primary care physician. If you suspect a person may have dysphagia, contacting the individual's physician is **the most important step** in developing effective treatment plans and supports for the individual.



PCHC Mission Statement

Philadelphia Coordinated Health Care's mission is to enhance access to community physical and mental health care through education, public health outreach, advocacy and empowerment as well as to improve health care outcomes for individuals with intellectual and developmental disabilities.

Guiding Principle

It is more important than ever, in the current health care environment, that we focus on integrated health care so that people with I/DD achieve wellness.



A Core Program of



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Funding provided by Philadelphia Department of Behavioral Health/Intellectual disAbility Services, the Bucks, Chester, Delaware and Montgomery County Offices of Intellectual/Developmental Disabilities and the Office of Developmental Programs, Pennsylvania Department of Public Welfare