

## Choking Prevention Resource Guide

The following information is designed to provide direct care professionals and other team members with tools and techniques for supporting people with IDD to prevent choking incidents. This general information is not intended to replace any specific orders by a person's physician, another medical care professional or supports outlined in the person's service plan.

### **Common Terms**

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Dysphagia is the difficulty swallowing or difficulty moving food and liquid from the mouth to the stomach for proper nutrition and hydration.

Aspiration is the medical term for inhaling food or liquid into the lungs. Aspiration may occur without anyone knowing, if the amount of food or liquid is small (Silent Aspiration). The first sign of aspiration may be trouble breathing, or signs of pneumonia.

Coughing is the expelling of air from the lungs suddenly with a harsh noise. This is done many times to protect the lungs and rid the airways of food and liquid. It is a sign that something is not functioning properly while swallowing.

Choking is the inability to breathe because the trachea is blocked, constricted, or swollen shut.

NPO means nothing by mouth. No food, liquid, or medications.

A certified Speech-Language Pathologist is a swallowing specialist who can evaluate the Oral and Pharyngeal phases of swallow to determine safest swallow strategies.

Occupational Therapist treat injured, ill, or individuals with disabilities through the therapeutic use of everyday activities. They help these patients develop, recover, and improve the skills needed for daily living and working.

Active Supervision staff need to provide active supervision during all meals: looking at resident's face, engaging in conversation, reinforcing safe swallow strategies (small bites, small sips, slow rate) to reduce risk of aspiration, and choking.

Bolus is food, liquid, or other material placed in the mouth for ingestion.

International Dysphagia Diet Standardization Initiative (IDDSI) Common Terms

[https://www.iddsi.org/IDDSI/media/images/Complete\\_IDDSI\\_Framework\\_Final\\_31July2019.pdf](https://www.iddsi.org/IDDSI/media/images/Complete_IDDSI_Framework_Final_31July2019.pdf)

Other common terms:

- Whole Diet- Food is presented as commonly served.
- 1" Pieces Cut to Size- Food is served as prepared and cut by staff into 1-inch pieces.
- ½" Pieces Cut to Size- Food is served as prepared and cut by staff into ½ -inch pieces.
- ¼" Pieces Cut to Size- Food is served as prepared and cut by staff into ¼-inch pieces.

## Common Terms

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- Ground: Food must be prepared using a food processor or comparable equipment until moist, cohesive and no larger than a grain of rice, or relish like pieces, like pickle relish. Ground food must always be moist.
- Ground meat is moistened with a liquid either before or after being prepared in the food processor.
- Mechanical soft diets are prescribed for individuals who have difficulty chewing and swallowing food. It features soft chopped, blended or ground food. Mechanically changed food makes it easier to chew and swallow. Fruit and vegetables need to be cooked until soft then chopped or pureed in a blender or food processor. Meats should be cooked until soft then chopped or ground into smaller pieces. Serving meat with sauce or gravy makes it much easier for the individual to eat and swallow safely.
- Pureed: Food must be prepared using a food processor or comparable equipment. All foods are moistened and processed until smooth, achieving an applesauce-like or pudding consistency. A spoon should not stand up in the food, but the consistency should not be runny. Each food item is to be pureed separately, unless foods are prepared in a mixture such as a soup, stew, casserole, or salad.
- Thin liquids: Liquids/fluids/beverages are served without change.
- Thickened Liquids: are prescribed for specific individuals.
- Nectar Thick Liquids: This is slightly thickened.
- Honey Thick Liquids: This is thicker than nectar, closer to honey.
- Pudding Thick Liquids: This is the thickest. It does not pour, but drops from the

## Basic Safe Swallow Strategies for All People

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- Sit upright 90-degree angle during all intake (sitting upright in a chair at a table is typically 90 degrees)
- Take slow, teaspoon size bites
- Swallow all food prior to taking a new bite
- Drink more often to help flush the food out of the mouth and down the throat
- Do not encourage someone to eat if they are not alert to task

What does choking look like?

- If person is coughing, they are not choking; however, they could be aspirating, which could also have a negative outcome.
- Aspiration is when food or drink falls below the level of the vocal cords. The next stop is the lungs if it cannot be coughed up.
- Aspiration pneumonia is caused by bacteria attaching to the food/drink that enters the lungs. Pneumonia can be deadly.
- Silent Aspiration occurs in people that have swallowing problems know as dysphasia. Aspiration is when food, liquids, or stomach contents are swallowed poorly and go into the lungs by mistake. Usually, normal healthy people will turn red and begin to cough as an attempt to get the food or liquid out of the lung. However, when people get weak, and swallowing worsen then aspiration can happen silently which means there will be no signs showing that this has occurred. In other words, you will not see any coughing or turning red. Aspiration is dangerous because the food, liquid, and stomach contents enter the lung which is very irritating and can develop into aspiration pneumonia. This is very hard to treat with multiple antibiotics. This is common in **the** individuals with developmental disabilities as Cerebral Palsy. Individuals that are at risk of aspiration

## **Basic Safe Swallow Strategies for All People continued**

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pneumonia should be monitored for increase coughing, SOB, lethargy, fever, lung congestion. In silent aspiration coughing may occur 15 to 30 minutes after meal is finished. Individuals cannot always express that they are not feeling well and have difficulty swallowing. It is up to staff to know the individuals that they support and recognize when they are acting abnormal and report to nursing or chain of commands.

### *Consult with a Specialist*

Sometimes the best thing we can do to address swallowing/choking concerns is make others aware. Get help right away. Write an incident report. Never be afraid to advocate.

- Consult with Nursing staff
- Physician
- Talk with a Speech Pathologist
- See if tests/assessment are warranted

## **Common Diagnostic Tools**

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A speech-language pathologist (SLP) who specializes in swallowing disorders can evaluate individuals who are experiencing problems eating and drinking. The SLP will:

- take a careful history of medical conditions and symptoms
- look at the strength and movement of the muscles involved in swallowing
- observe feeding to see posture, behavior, and oral movements during eating and drinking, and possibly perform special tests to evaluate swallowing, such as:
  - Modified barium swallow – individual eats or drinks food or liquid with barium in it, and then the swallowing process is viewed on an X-ray
  - Endoscopic assessment – a lighted scope is inserted through the nose, and then the swallow can be viewed on a screen
  - Videofluoroscopic Swallowing Study (VFSS)

You may have already had a swallowing test with a speech-language pathologist. During this test, you may have tried different foods and liquids. The SLP may have checked how well you can move the muscles of your mouth and how clearly you talk. This is called a “Bedside Clinical Swallow Eval”.

Sometimes the SLP needs even more information about how you swallow. You may need another swallowing test - this time in the radiology, or x-ray, department. You may hear different names for this test. What it is called depends on your SLP and the place where you have the test done.

Some names you might hear are:

- Videofluoroscopic swallowing study, or video fluoroscopy
- Modified barium swallow (study), or MBS(S)
- FEES (Fiber optic Endoscopic Evaluation of Swallowing)
- Esophagram
- Cookie swallow
- The American Speech-Language-Hearing Association (ASHA) uses the term video fluoroscopic swallowing study, or VFSS.

## **Common Diagnostic Tools continued**

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When you have a swallowing test in the SLP's office or in your hospital room, the SLP cannot see what is happening inside the person's mouth and throat. The VFSS lets the SLP see:

- If food is going into your airway instead of your stomach, called aspiration
- Which parts of your mouth and throat may not be working well?
- What kinds of food are safest for you to swallow?
- If certain positions or strategies help you swallow better
- Babies and young children can also have this test done. Your SLP can tell you more about what to expect for your child.

How is the VFSS done?

- This study is done in the radiology, or x-ray, department. You will meet the SLP there. There may also be a doctor there, called a radiologist. A radiology technician will be there to help you get ready and set up the equipment.
- You will sit or stand next to an x-ray machine. Your SLP will give you different foods and drinks mixed with barium. The barium makes the food and liquid show up on the x-ray. Barium is not harmful and will not stay in your body for too long. The x-ray machine is only turned on while you swallow so you do not get too much radiation.
- The SLP will ask you to do different things during the test. You may try soft foods and hard foods, and thin liquids and thick liquids. You may take small amounts and large amounts. You may be asked to move your head in different positions. You may also try things like swallowing hard. The test may be recorded so it can be watched again later.

What happens after the test?

- Your SLP and doctor will talk about what they saw during the study. You and your family will be told the results. The SLP may show you the video of the test so you can see what happens yourself. Your SLP will use the test results to decide what treatment will help your swallowing. You and the SLP will discuss what foods and liquids are safest, and how to eat them. You may start swallowing therapy soon after the study.

Want to watch a test? <https://www.youtube.com/watch?v=hf2kRD85zvc>

What treatments are available for people with swallowing disorders?

- Treatment depends on the cause, symptoms, and type of swallowing problem.
- A speech-language pathologist may recommend:
  - specific swallowing treatment (e.g., exercises to improve muscle movement)
  - positions or strategies to help the individual swallow more effectively
  - specific food and liquid textures that are easier and safer to swallow

After the evaluation, family members or caregivers can help by:

- Asking questions to understand the problem and the recommended treatment

- Assisting in following the treatment plan: Help with exercises, Prepare the recommended textures of food and liquid, making sure that recommendations for eating safely are followed and Keep track of how much food or liquid is consumed.

### **Considerations when people are eating away from home (work, restaurants, parks and parties)**

Eating out is nice but it takes planning to make sure people with specialized diets have what they need to eat safely. You may want to consider having a bag packed and ready to go when the opportunity arises so you can provide the needed support to that person. Here are some things to consider:

- Knife with cover
- Manual chopper
- Small cutting board
- Small food processor
- Broth, creamer, or other condiments
- Individual's adapted eating equipment
- Thickener
- Small spatula
- Clothing Protector

### **Commonly Choked on Items**

- Items of two different textures when combined can form a bolus that may block the trachea. For example: peanut butter and soft bread, hot dog and bun, waffles and syrup and bread and honey
- Peanut Butter
- Hot dogs and sausage
- Bread, rolls, or pizza crust
- Tough meat like steak, ham, pot roast or chicken
- Round, slippery and firm foods like whole grapes and cherry tomatoes
- Crackers, pretzels or other dry items
- Hard candies, round candies, suckers
- Nuts
- Raw vegetables

### **Choking Related Data**

- According to 2020 MUI statistics, you are 67% more likely to perform a lifesaving choking intervention with a person you support than you are to do CPR for a cardiac event.
- 4-6 minutes is the amount of time that someone has before the lack of oxygen caused from choking can result in brain damage or death. Unless immediate action is taken to open a completely obstructed airway, the chances for survival and complete recovery decrease rapidly. Irreversible brain death occurs in as little as 10 minutes.
- In 2017, choking was the 4th leading cause of unintentional injury death in the US. Of the 5,051 people who died from choking in 2015, 2,848 were older than 74. Living alone and having dentures or difficulty swallowing can increase risk.
- A review of choking related death MUIs from 2015-2020 was completed. The results are below:
  - In 96% of all choking incidents, choking relief was provided.

## **Choking Related Data continued**

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- The average age of person who passed during this time was 56 years old.
- The ages of those who died ranged from 5-81 years.
- Of those who died of choking from 2015-2020, 67% were males and 33% were females.
- The most prevalent ID level was moderate followed by profound, none, mild and severe.
- The majority of people who passed away had at least one previous choking incident, many had more than one which resulted in a medical emergency or unanticipated hospitalization MUI.
- The most common living arrangements of people who died from choking was community living followed by ICFs, Family Homes, Nursing Facilities and Day programs.
- Individuals choked on peanut butter, more than any other item. In most cases, peanut butter was paired with bread, forming a bolus in the person's throat which could not be dislodged.
- The second most choked upon item were hotdogs and/or sausages.
- Approximately 20% of choking deaths did not occur during mealtimes.
- In 2 deaths, the person choked on a non-food item.
- About 20% of those who passed had a history of food stealing.
- 35 % of all those who passed away were diagnosed with dysphagia.

## **Other Resource Materials**

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DODD Choking Health and Welfare Alerts:

<https://dodd.ohio.gov/wps/portal/gov/dodd/health-and-welfare/health-and-welfare-alerts/health-alert-choking>

For current Health and Welfare Alerts

<https://dodd.ohio.gov/wps/portal/gov/dodd/health-and-welfare/health-and-welfare-alerts>

Previously Issued Alerts:

<https://dodd.ohio.gov/wps/portal/gov/dodd/health-and-welfare/all-health-and-welfare-resources/previous-health-and-welfare-alerts>

To subscribe to Health and Welfare Alerts and other DODD publications:

<https://dodd.ohio.gov/wps/portal/gov/dodd/your-family/all-family-resources/subscribe>

Summit DD Eat Safe Training & Resources

Includes cookbooks

<https://www.summitdd.org/eatsafe/>

International Dysphagia Diet Standardization Initiative (IDDSI) Website: A global initiative to improve the lives of over 590 million people worldwide living with Dysphagia. IDDSI has a wide selection of resources including this handy IDDSI framework and definitions of dietary/liquid levels for quick reference.

<https://www.iddsi.org/>

## Use Pictures to Communicate the Proper Diet Texture and Supports needed



Pureed food



Ground diet



¼ inch food



½ inch food



1 inch food



Whole food

Courtesy of New York State of Opportunity Office for People with Developmental Disabilities

### Training

The Ohio Department of Developmental Disabilities YouTube Video Library contains a series of short video clips on how to prepare foods for people with modified diets. The presenter is Davida Weaver, speech language pathologist.

Preventing Choking Overview (Length: 48 seconds).

[https://www.youtube.com/watch?v=O31ZH0qHO9U&list=PLZ1qXvA8kYSkN8\\_JWQjJrP5DIhJuACd0t&index=1](https://www.youtube.com/watch?v=O31ZH0qHO9U&list=PLZ1qXvA8kYSkN8_JWQjJrP5DIhJuACd0t&index=1)

Choking Prevention/Modified Diets - Packing Your Bag (Length: 8 minutes 46 seconds).

<https://youtu.be/RejFJfi4pOY>

Choking Prevention/Modified Diets - Chopped food (Length: 7 minutes 40 seconds).

<https://youtu.be/aHN2pYtrzuA>

Choking Prevention/Modified Diets - Ground food (Length: 7 minutes 24 seconds).

<https://youtu.be/SrsZiXvB7gU>

Choking Prevention/Modified Diets - Pureed food (Length: 5 minutes 31 seconds).

<https://youtu.be/V4pJqTZcPYo>

Choking Prevention/Modified Diets - Hydration/Thickened liquids (Length: 9 minutes 10 seconds).

<https://youtu.be/xrMMSgFwA2k>



Hazards of Choking (Length: 8 minutes 43 seconds)

[https://www.youtube.com/watch?v=Ff25x0wJY98&list=PLZ1qXvA8kYSkN8\\_JWQjJrP5DIhJuACd0t&index=2](https://www.youtube.com/watch?v=Ff25x0wJY98&list=PLZ1qXvA8kYSkN8_JWQjJrP5DIhJuACd0t&index=2)

Tina Brown, a direct service provider from Preble County, describes how she successfully intervened when someone she serves was choking.

[https://www.youtube.com/watch?v=Z\\_fpoWwWBU8](https://www.youtube.com/watch?v=Z_fpoWwWBU8)

DODD Webinar Catalog-for Choking Prevention Taped Training

[https://dodd.ohio.gov/wps/portal/gov/dodd/training/all-training-resources/webinar\\_catalog](https://dodd.ohio.gov/wps/portal/gov/dodd/training/all-training-resources/webinar_catalog)

New York State Office of People with Developmental Disabilities -Training videos on preparing different food and liquid consistencies

[https://opwdd.ny.gov/opwdd\\_careers\\_training/training\\_opportunities/chocking\\_prevention/video\\_gallery/opwdd-food-and-liquid-consistency-demonstration](https://opwdd.ny.gov/opwdd_careers_training/training_opportunities/chocking_prevention/video_gallery/opwdd-food-and-liquid-consistency-demonstration)

[https://opwdd.ny.gov/opwdd\\_careers\\_training/training\\_opportunities/choking\\_prevention\\_training\\_resources](https://opwdd.ny.gov/opwdd_careers_training/training_opportunities/choking_prevention_training_resources).

## References

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- Jones, Harrison; Rosenbek, John. Dysphagia in Rare Conditions, Clinical Dysphagia Series. Plural Publishing, Inc. 2010
- Department of Developmental services State of California Health and human services agency
- New York State Office of People with Developmental Disabilities <http://www.opwdd.ny.gov/index.php>
- <http://www.dds.ca.gov/Publications/docs/DDSDietManual.pdf>