



Choking Prevention Webinar

March 12, 2015
1-3 p.m.



Department of
Developmental Disabilities

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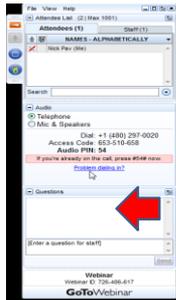
Attendee List - Displays all the participants in-session (if enabled by the organizer)

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Thank you for your participation!

Housekeeping

- **Proof of Continuing Professional Development (CPD) units will be emailed for those who actively participated in the webinar within 2 week of Webinar.**
- **Follow up by e-mail or phone to MUI Office at 614-995-3810.**

Thank you for your participation!

Special Thanks

- **Davida “Davy” Weaver, M.A., CCC-SLP**
Speech Language Pathologist, Expert Presenter

- **Anita DiBlasi, M.A., LSW, CCC-SLP** who provided content and direction for this series.

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Purpose

- **To share data about incidents of choking in our service system**

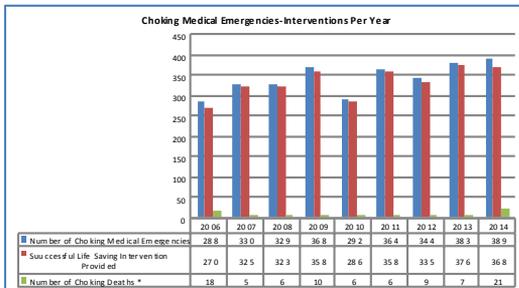
- **Celebrate the many times that fast actions have saved lives.**

- **To educate on the common risks for choking and how to prevent.**

- **To provide resources for training and supports to aid in your efforts in choking prevention.**

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Rates of Choking 2006-2014



*Deaths include instances where life-saving measures were attempted but not successful, no measures were attempted or person was found deceased.

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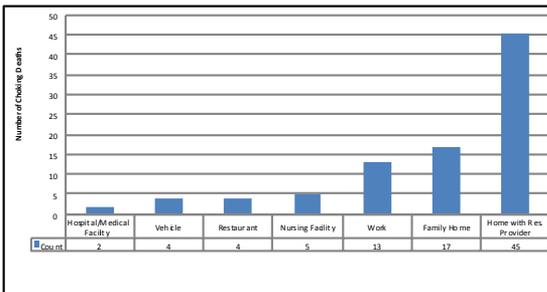
Real Life Heroes

On January 1, 2015, that training was put to use. Mercer Residential staff, Michelle Swander, was sitting at the table along with staff Amber Kempfer. Everyone was eating dinner and one particular individual was eating large bites of food. The staff encouraged the individual to slow down and not eat so fast. This is when Michelle noticed the individual was choking and not making any sounds. She rushed to him and performed the Heimlich Maneuver. It was very fortunate that the food was dislodged within seconds. The individual was able to respond and let the staff know he was okay. Protocol was followed and he was seen at the ER where they deemed him safe and he was able to return home with no further health issues.

This is just one of the many wonderful things Direct Support Staff do for the individuals we serve. To take the responsibility of another one's life on a daily basis is what I consider to be extraordinary. All of the hard work they provide by their support, on-going training, truly pays off.

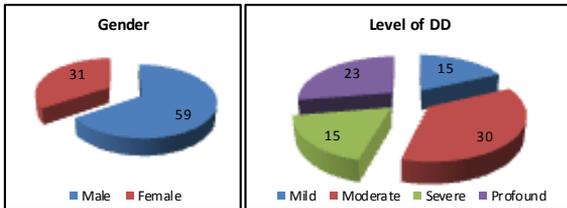
Submitted by Rebecca Kimmel, Area Coordinator of Mercer Residential Services Inc.

Locations of Choking Deaths 2006-2014



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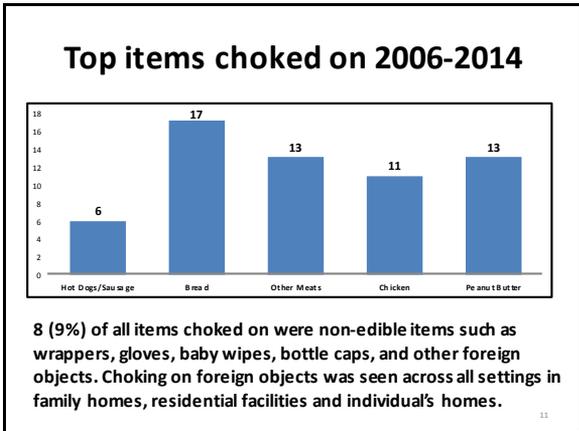
Demographic Information



The average age of the person that passed away was 49.71. The youngest person was 1 years old and the oldest 79 years of age.

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Other Choking Hazards

Items that when combined can form a bolus that may block the trachea:

- Waffles and syrup
- Bread and honey
- Peanut butter, (especially with soft white bread or by the spoonful)

Round , slippery and firm foods

- Whole grapes, whole cherry tomatoes, cherries and whole olives
- Hard candies, round candies, suckers
- Chunks of cheese
- Nuts

Hard to chew items

- Tough Meats
- Raw Vegetables (broccoli, brussel sprouts and carrots)
- Popcom and chips

This does not mean people cannot eat and enjoy these items, however, extra care and preparation may be needed. Examples: Grapes may need cut in half or hot dogs cut length-wise.

Important Prevention Piece



You are an essential piece in choking prevention! Always make sure that people are served the proper diet texture, receiving supervision and take precaution with foods/items that are common choking hazards.

When documenting a choking incident, describe the incident, including the item choked on in detail.

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Important terms to know

- **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.

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Important terms to know

- **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.

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Common Terms

- 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.

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Common Terms

- Active Supervision- staff need to provide active supervision during all meals: looking at residents face, engaging in conversation, reinforcing safe swallow strategies (small bites, small sips, slow rate) to reduce risk of aspiration and choking.
- Bolus- food, liquid, or other material placed in the mouth for ingestion.

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Common Terms-Diet Textures

- The 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.

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Common Terms-Diet Textures

- **Puree**- All foods are moistened and processed until smooth (no lumps) to an applesauce or pudding like consistency.
- **Ground**- Food is put through a food processor until moist, cohesive and no larger than a grain of rice. Ground food must always be moist.

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Common Terms

- **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.

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Common Term- Liquid Consistencies

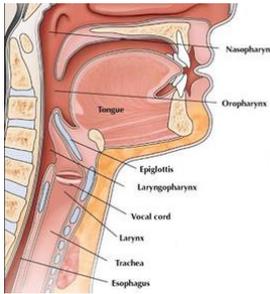
- **Regular liquids** are thin with the consistency of water. People who have difficulty swallowing thin liquids often must drink thickened liquids. Drinking thickened liquids can help prevent choking and stop fluid from entering the lungs.

The 3 common consistencies of thickened liquids are nectar-thick, honey-thick, and pudding-thick.

- **Nectar-thick liquids** are easily pourable and are comparable to apricot nectar or thicker cream soups.
- **Honey-thick liquids** are slightly thicker, are less pourable, and drizzle from a cup or bowl.
- **Pudding-thick liquids** hold their own shape. They are not pourable and are usually eaten with a spoon.

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The Basics of Swallowing



Three Stages of Swallowing:

1. Oral
2. Pharyngeal
3. Esophageal

Choking can occur due to impairment in ANY of the 3 stages.

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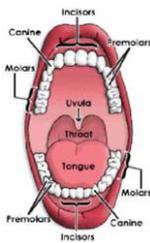
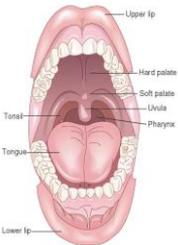
Oral Phase-Swallowing

Oral phase includes:

Teeth -Any missing? Loose? Dentures? Have the ability to chew?

Tongue: Do you have good coordination to control the food? Are the tongue muscles working?

Jaw: Can the jaw move adequately? Does the jaw have good range of motion?



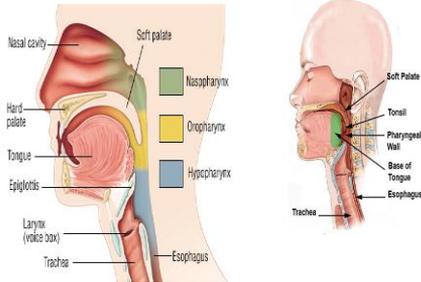
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Oral Phase-Swallowing

- The ability to “eat” is natural and instinctual; however, any deficit effecting muscle strength, coordination, good respiratory support, and cognition (the ability to process information and adapt to changes/problem solve), can all determine how “safe” one can manage food and drink.
- Anyone with weakness or areas of concern in the above areas should require extra time and attention during any intake of food and drink.

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Pharyngeal Phase-Swallowing



There are actually 3 phases of the Pharyngeal Phase! We will not get into all these today.

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Pharyngeal Phase-Swallowing

- This phase is *complex* including proper respiratory coordination (breathing ceases), proper functioning of the vocal cords, proper mechanics of larynx and supporting structures, adequate tongue base muscle strength to push the food back, and additional work of other throat mechanics to safely protect the airway (trachea) and direct the food/drink into the food tube (esophagus)

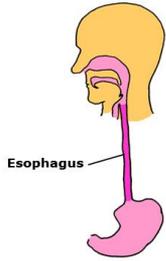
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Pharyngeal Phase-Swallowing

- As you can see, there is ALOT that can go wrong during this phase alone!
- Depending on the disease or weakness of the individual with whom you work or care for, there ARE strategies to use as preventative measures.
- A certified Speech-Language Pathologist can evaluate the Oral and Pharyngeal phases of swallow to determine safest swallow strategies.

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Esophageal Phase-Swallowing

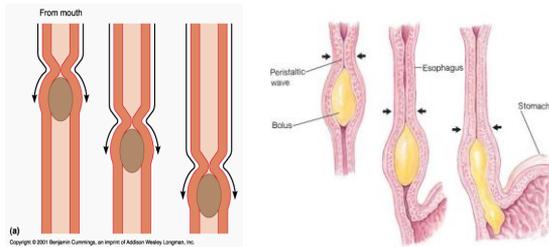


The Esophagus (food tube), carries the food (bolus) directly to the stomach.

The Esophagus functions with the motion of waves of contractions to push it down. Other muscles are of course required, along with proper body positioning, gravity, and adequate negative pressure. If someone has to perform multiple swallows to clear the Pharyngeal phase, the Esophageal phase is disrupted.

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Esophageal Phase-Swallowing



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Causes of Choking

As you can see, there is A LOT involved in order to have a safe swallow! So what specifically causes choking?

Neurological Diagnoses:

- Stroke, Traumatic Brain Injury, Dementia, Motor Neuron Disease, Cerebral Palsy, Poliomyelitis, Infectious disorders, and others.
- Progressive Diseases: Parkinsonism, Huntington's Disease, Progressive Supranuclear Palsy, Wilson's disease, Age-related changes

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Causes of Choking

- **Connective Tissue/Rheumatoid Disorders**
Polydermatomyositis, Progressive systemic sclerosis, Sjogren's disease, Scleroderma, Overlap syndromes
- **Structural Diagnoses**
Any tumor involving the alimentary tract

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Causes of Choking

- **Iatrogenic Diagnoses**
Radiation therapy
Chemotherapy
Intubation or tracheostomy
Postsurgical cervical spine fusion
Postsurgical coronary artery bypass grafting
Medication related
- **Other or Related Diagnoses**
Severe respiratory compromise
Psychogenic conditions

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Medical Conditions

Additionally, some medical conditions can increase an individual's risk of choking. They include:

- Cerebral Palsy
- Down Syndrome
- Dysphagia
- Asthma
- Lung disease
- Emphysema
- Sleep apnea
- Allergic reactions that cause throat swelling
- Dental issues (including dentures)
- PICA (swallowing inedible objects)

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Other Contributing Factors

- Poor positioning
- Eating or drinking too fast
- Not chewing food well before swallowing
- Distracted by other persons or activities
- Inattention to eating
- Swallowing oral medication(s) when individual is NPO due to history of choking; I.e. individual is fed by g-tube

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Other Contributing Factors

- Laughing or talking while eating
- Walking, playing, or running with eating utensil or other objects in mouth
- Eating one food that contains two or more diet textures, especially anything with a thin liquid and a solid component such as cereal and milk.
- Incorrect diet texture – liquids or food items not prepared in accordance with prescribed diet. Diet information must be communicated well across all environments (work, home, school, day services, etc.)

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Contributing Factors

- Placing too much food in one's mouth
- Pace/food portions
- Teeth-related factors – including having no teeth; having only a few teeth; or having a toothache which may cause improper chewing. Dentures also can make it difficult to sense whether food is fully chewed before swallowing. If dentures fit poorly or hurt, a person may not bother to chew their food, or may not wear them, and be unable to chew their food.
- Not using prescribed adaptive dining or drinking equipment

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Contributing Factors

- Inadequate supervision during meals. Mealtimes in schools, workshops, and day services must be monitored closely as risk factors increase given the number of people eating, multiple diet textures, and opportunities to take others' food.
- Inadequate staff training: Not familiar with prescribed diet; not able to prepare prescribed diet; poorly assisted eating/positioning techniques.
- Food stealing
- Eating in vehicles is a risk factor based on the ability to monitor during meals and also can lead to a delay in care.

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Special Considerations for Individuals w/DD



Special Considerations

- Problems with SWALLOWING (Dysphagia) and ASPIRATION are common issues for persons with developmental disabilities, especially those persons with Cerebral Palsy (which can affect the muscles involved in swallowing, as well as the muscles in the arms, legs, and neck).
- The risk of difficulty with swallowing and aspiration increases with age in all persons, so the risk for those with developmental disabilities increases with age as well.

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Special Considerations

- Swallowing risks are the highest in older persons with Cerebral Palsy.
- PICA can increase the risk of choking.
- Importance of positioning during and up to 30 minutes after eating.
- Eating in vehicles is a risk factor based on the ability to monitor during meals and also can lead to a delay in care.

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Characteristics of choking

What does choking look like?

- No sound other than possible wheeze/unable to breathe
- Coughing
- Wheezing
- Face turning red
- Lips turning blue
- Food spills out of the mouth
- Does not chew well
- Abdominal Thrusts are required to clear airway
- Death is imminent if airway is not cleared

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Characteristics of choking

- Inability to talk
- Wide-eyed panicked look on face
- Difficulty breathing or noisy breathing
- Inability to cough forcefully
- Skin, lips, or nails turning dusky
- Loss of consciousness
- Pocket Food under tongue, in cheeks and in roof of mouth
- Person may quickly get up and leave area which may indicate that they are experiencing a swallowing issue

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Characteristics of choking

- 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 can't be coughed up.
- Aspiration pneumonia is caused by bacteria attaching to the food/drink that enters the lungs. Pneumonia can be deadly.

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Prevention

Now that you learned the basics of how we swallow, factors that may contribute to problems with the swallowing function, and the difference between choking and aspirating, how do we prevent it from happening?

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Prevention

- Education! Learn about the diagnosis effecting the person whom you are providing care, as this will offer GREAT insight into what problems *may* occur.
- If it is *medically necessary*, have his/her doctor order a Speech Therapy Evaluation to determine an swallowing deficits and how to effectively treat, as not all swallow strategies work for all people.

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Prevention

- **Be an advocate!** If the person you care for has a feeding tube, and the doctor prescribes medication to be taken by mouth, don't be afraid to speak up! If they have a feeding tube, chances are great the medications by mouth will be problematic!

The people you are serving are depending on you!

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Prevention

Basic safe swallow strategies for ALL people to follow

- Sit upright 90 degree angle during all intake (sitting upright in a chair at a table is typically 90 degrees) and up to 30 minutes after
- Take slow, teaspoon size bites
- Swallow all food prior to new a new bite
- Drink more often to help flush the food out of the mouth and down the throat
- Don't encourage someone to eat if they are not alert to task of eating
- Add extra moisture to dry meat

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Prevention

- Document mealtime concerns in a communication log.
- An assessment of eating/swallowing skills is needed. Typically this is completed by an Occupational Therapist or Speech Language Pathologist trained in swallowing issues.
- Specific mealtime monitoring strategies are needed
- A prescribed diet needs to be modified
- Adaptive feeding equipment is needed
- Follow prescribed diets and ensure that quality training is provided on individuals' assessed needs.
- Promptly communicate diet changes to all settings.
- Use adaptive equipment and aides as indicated.
- Ensure that equipment is in good condition prior to using.

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Prevention

- Be cautious of leaving food items on display particularly if individuals have been known to take food items.
- Include "mealtime concerns" as a topic at all staff meetings.
- Provide administrative oversight during mealtimes.
- Assure that diet textures are followed for activities away from home and plan in advance (restaurants, fairs, shopping, picnics.)
- Make sure when you sit down to assist someone, you have all needed equipment, food, and other items.
- Ensure that known swallowing risks are addressed in the service plan.

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Prevention

- If frequent coughing occurs during intake or after, seek medical advice as this could be a sign of a swallowing problem
- Do NOT thicken liquids without a Speech-Language Pathologist to determine if this is safe. Thickening liquids is NOT the end-all answer, and often times it can be more detrimental
- If person has no teeth, offer softer foods, less breading, cut or grind up meat

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Steps to Take

It is important to remember the steps to take when someone chokes.

Always follow your First Aid training.

If the individual's airway is blocked, call 911 immediately and perform the Abdominal Thrust (formerly known as Heimlich Maneuver). This has been extremely successful in dislodging food in the airway. Persons interested in training should contact their local American Red Cross or local health care agencies.

Even if the Abdominal Thrust is successful, immediately notify a health care professional. It is advisable to have the individual physically checked by a health care professional following an episode such as this.

If the person is in a wheelchair or has physical characteristics making it difficult to do Abdominal Thrusts it is possible that the person may pass out. **The person should be moved to a flat, hard surface to assure greatest success.** Be ready to initiate quick chest compressions to help unblock the airway.

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Reporting of Swallowing Concerns

1. Notice **Red Flag Identifier** of choking
2. Reports should be made to supervisor, SSA and physician
3. Completes Documentation/Monitoring Tool
4. Appointment with Doctor/Speech Pathologist
5. Swallowing Evaluations
6. Communicate any diet changes to all providers
7. Training

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Critical Conversations with Physicians



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Critical Conversations

- Report choking incidents (provide written data if possible including frequency, duration, items/liquids which are difficult to swallow)
- What do you do if a person is on a g-tube and the physician orders oral medications? **If the person you care for has a feeding tube, and the doctor prescribes medication to be taken by mouth, don't be afraid to speak up! If they have a feeding tube, chances are great the medications by mouth will be problematic!**

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Movie Time



These films and other resources are courtesy of New York State of Opportunity Office for People with Developmental Disabilities.

<https://www.youtube.com/playlist?list=PL607B004452564375>

<https://www.youtube.com/watch?v=umAB7zD-4Ek>

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Resources

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Well-Informed Newsletter



Let's Reduce Choking Incidents

The Ohio Department of Developmental Disabilities (ODDD) and our partners in the field of disability services are committed to reducing the number of choking incidents in Ohio. We believe that through increased awareness, best practices, communication, and diligence we can minimize choking risks and save lives.

Individuals with developmental disabilities are at high risk for dysphagia (difficulty swallowing) which can lead to choking and aspiration. Choking is a major cause of death of emergency Myo (personal incident) (MI) and unfortunately, some deaths of Ohioans with DD, but it often can be prevented.

In this article we provide specific information on what, together, we can identify risk factors, signs of choking, foods commonly connected to choking incidents, and actions to be taken during an emergency.

When you breathe air through your nose or mouth, it goes down a tube – the trachea – sometimes called the wind pipe, and then into your lungs. Choking is when food or something else gets into your wind pipe and gets stuck, and the air you need cannot get to your lungs.

Aspiration is when you inhale food into your lungs. People with developmental disabilities share a number of common characteristics:



Four steps to reduce Choking Hazards:

- Decreased or absent protective airway reflexes as occurs with cerebral palsy and some other developmental disabilities.
- Poor or underdeveloped oral motor skills that do not permit adequate chewing or swallowing.
- Gastroesophageal reflux disease (GERD), which may cause aspiration of refluxed stomach contents.
- Epileptic seizures.
- Physical characteristics or wheelchair use which can make proper table positioning difficult.

<http://dodd.ohio.gov/healthandsafety/pages/Well-Informed-Newsletter.aspx>

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Whole Food



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

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1" Food



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

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1/2" Food



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

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¼ " Food



Courtesy of New York State of Opportunity Office for People with Developmental Disabilities. 64

Ground Diet



Courtesy of New York State of Opportunity Office for People with Developmental Disabilities. 65

Pureed Food



Courtesy of New York State of Opportunity Office for People with Developmental Disabilities. 66

References

- Groher, Michael; Crary, Michael. *Dysphagia, Clinical Management in Adults and Children*, Mosby, Elsevier, 2010
- Jones, Harrison; Rosenbek, John. *Dysphagia in Rare Conditions, Clinical Dysphagia Series*. Plural Publishing, Inc. 2010
- New York State Office of People with Developmental Disabilities
<http://www.opwdd.ny.gov/index.php>

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Please join us next time



Anita DiBlasi,
M.A., LSW, CCC/SLP
Anita will cover assessments and different treatments. Please send any questions/challenges to Connie McLaughlin and we will have Anita discuss during the next webinar.

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THANK YOU!

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