



Department of  
Developmental Disabilities

Office of MUI/Registry Unit

John R. Kasich, Governor  
John L. Martin, Director

**Health & Safety Alert 18-03-11**

**CHOKING**

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Choking is a blockage of the upper airway by food or an object that prevents someone from breathing. It is a medical emergency that requires fast action to clear the airway and protect the person from further harm.

Choking is a major cause of medical emergency MUIs in Ohio for individuals with developmental disabilities, but it can be prevented. The purpose of this Alert is to provide information on risk factors, signs of choking, foods commonly connected to choking incidents, actions to be taken during an emergency and preventative measures.

**This Alert contains critically important information for caregivers of individuals with developmental disabilities. People with developmental disabilities are at high risk for choking.**

Division of Legal & Oversight (800) 617-6733 (Phone)  
1800 Sullivant Avenue (614) 995-3822 (Fax)  
Columbus, Ohio 43223-1239 (866) 313-6733 (Hotline)

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### **Why are individuals with developmental disabilities at risk of choking?**

Individuals with developmental disabilities share a number of common characteristics that may place them at high risk for choking/aspirating, to include:

- Decreased or absent protective airway reflexes as occurs in cerebral palsy and some other developmental disabilities.
- Poor or underdeveloped oral motor skills that do not permit adequate chewing or swallowing.
- Gastroesophageal reflux disorder (GERD), which may cause aspiration of refluxed stomach contents.
- Epileptic seizures.
- Physical characteristics or wheelchair use which makes proper and safe positioning difficult, which can increase the risk for aspiration.
- Medication side effects that lower muscle tone, causing delayed swallowing or suppression of the protective gag and cough reflexes. This is especially true of some seizure medications, muscle relaxants, and some medications used for behavioral interventions.

### **Risks factors:**

Some medical conditions that increase an individual's risk of choking are:

- Cerebral Palsy
- Downs Syndrome
- Dysphagia
- Asthma
- Lung disease
- Emphysema
- Sleep apnea
- Allergic reactions that cause swelling of the throat
- Dental Issues (Dentures)

### **Signs 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 blue or dusky
- Loss of consciousness

**A 2010 case review of Ohio medical emergency Major Unusual Incidents (MUI's) was conducted by the MUI Registry Unit. The results of this review have been included in the following information:**

**Foods commonly choked on:**

- Sandwiches – Leading cause of choking incidents for individuals with developmental disabilities
  - Peanut butter and jelly, roast beef, and ham sandwiches were involved in the majority of these incidents.
- Meats
  - Steak, hamburger, hotdogs, ham, roast beef, and chicken
- Vegetables (Primarily Undercooked Vegetables)
  - Broccoli
  - Cauliflower
- Fruit
  - Particularly fruits with their skin on
  - Apples
  - Peaches
  - Pears
- Snack foods
  - Popcorn, nuts, hard candy, chewing gum, and raisins

**Special Risks Regarding Diet Textures**

Research conducted by the Ohio State University Division of Occupational Therapy identified 12 different diet textures currently being prescribed in Ohio's 88 counties. This can lead to confusion if home, school, and work settings use different definitions of diet textures. It is important to ensure that there is good communication between all environments to ensure that an individual's food is prepared consistently across all settings. This is especially true when there is a change in diet textures or thickness of liquids. It is critical that staff training on these specific diet textures be conducted thoroughly to assure that diets are understood and implemented effectively. Training should include visual demonstrations of actual food preparation. This type of training allows caregivers a greater understanding of **how to specifically prepare the food** and helps assure appropriate texture preparation. Preparing a diet texture that doesn't meet the appropriate requirements can be dangerous. A training video on basic diet texture preparation is available at: <http://www.youtube.com/watch?v=IvlAKZenBos>

**Common Causes and Contributing Factors Identified:**

- Eating or drinking too fast
- Not chewing food well enough prior to swallowing

- Inattention to eating
  - Laughing or talking while eating
  - Walking, playing, or running with eating utensil or objects in mouth
  - Distracted by other persons or activities
- Placing too much food in one's mouth
- Food stealing
- Swallowing inedible objects (PICA)
- Incorrect diet texture – liquids or food items not prepared in accordance with prescribed diet. Please make sure that diet information is communicated well across all environments. (work, home, school, day services, and family /friends etc.)
- Not using prescribed adaptive dining or drinking equipment
- 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
- Teeth-related factors
  - Edentulous (having no teeth)
  - Having only a few teeth or a toothache which may cause someone to not chew his or her food properly
  - Dentures
    - Can make it difficult to sense whether food is fully chewed before it is swallowed
    - If dentures fit poorly or hurt, individuals:
      - Might not bother to chew their food
      - May not wear them and be unable to chew their food
- 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 opportunity to take other's food)
- Inadequate staff training
  - Not familiar with prescribed diet
  - Not able to prepare prescribed diet
  - Poorly assisted eating techniques
  - Allowing poor positioning
  - Pace/Food portions

**What to do if 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 the 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 (formerly known as the Heimlich maneuver) is successful, immediately notify a health care professional. It is advisable to have

the individual physically checked by a health care professional following use of these procedures.

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

**\*\*Special Note: Choking episodes have occurred with individuals while in motor vehicles. It is very difficult to supervise and intervene in a vehicle should a choking episode occur. Eating in vehicles should not occur for individuals with known swallowing problems, a tendency to eat rapidly, or a history of choking.**

### **Prevention Planning: How to Prevent Choking Episodes**

- Educate caregivers on the importance of mealtime safety
- Provide quality first aid training
- Make supervising all individuals at mealtime a high priority
- Improve accountability by assigning point people for mealtime monitoring
- Be especially watchful at mealtime for individuals with concerns related to eating style (e.g., eating too fast or overstuffing food)
- Document mealtime concerns in a communication log
  - Concerns should be reviewed by appropriate personnel to determine if:
    - An assessment of eating/swallowing skills is needed. Typically this is completed by an Occupational Therapist or Speech Language Pathologist who has training in swallowing issues
    - Specific mealtime monitoring strategies are needed
    - A prescribed diet needs to be modified
    - Adaptive feeding equipment is needed
- Follow prescribed diets / Quality Training
  - Promptly communicate diet changes to all settings
- Use adaptive equipment and aides as indicated
  - Ensure that equipment is in good condition prior to using
- 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 (e.g.: Fairs, Shopping, Picnics, etc...)

Serious outcomes can result from choking episodes. Planning well in advance is necessary for successful outcomes.

If you have questions or would like more information regarding this Health and Safety Alert please contact the MUI Registry Unit at (614) 995-3810

**ISSUED 3/2011**