What is Aspiration and Aspiration Pneumonia?

Aspiration occurs when food or fluids that should go into the stomach goes into the lungs instead. Any material can be aspirated on the way to the stomach. Material can also be aspirated as stomach contents are reflexed back into the throat. When foreign material goes into the lungs it can cause aspiration pneumonia. This form of pneumonia starts due to the irritation from aspirated food or fluid, but can progress to an infection if the aspirated material gets stuck in the bronchial tubes or the air sacs of the lungs. This occurs more frequently in individuals who have trouble controlling their swallowing. Usually the person will cough in order to clear the food or fluid out of the lungs. However, sometimes the person does not cough. This is known as a “silent aspiration.” Frequent aspiration is dangerous and leads to aspiration pneumonia if it is not treated or corrected.

There are several ways to tell if someone has aspiration problems. The individual’s doctor can order tests. Common signs of aspiration include:

- Coughing before or after swallowing.
- Excessive drooling, especially during meals.
- Leakage of food or saliva from mouth or tracheostomy.
- Pocketing food inside the cheek.
- Choking on certain foods, for example, white bread.
- Nose running or sneezing during dining.
- Trouble chewing.
- Trouble swallowing certain types of fluids and foods.
- Taking a very long time to finish a meal.
- Refusing to eat certain foods or finish a meal.
- A complaint of feeling like something is caught in the throat.
- A wet gurgly voice during or after eating or drinking.
- Frequent throat clearing after a meal.
- Repeated episodes of choking, frequent colds, pneumonia, chest congestion or “allergies.”
- Unexplained weight loss.
- Unexplained fevers and/or sweats.
- Chills.
• Coughing when lying flat or sitting up quickly from a reclined position.

The following information will help identify risk factors and interventions for aspiration for the individuals you support.

**Risk Factors for Aspiration**

**Who is at risk for aspiration?**

Individuals who:

• Have trouble swallowing or coughing.
• Have health problems that affect the muscles or nerves, such as:
  o Cerebral Palsy.
  o Stroke.
  o Head Injury.
  o Seizures.
  o Muscular Dystrophy.
  o Multiple Sclerosis.
  o Parkinson Disease.
• Have had problems with their esophagus, or “Food Pipe.”
• Are less alert due to use of medication or use of alcohol.

**What other factors place individuals at risk for aspiration?**

• Being fed by others.
• Inexperienced caregivers assisting with eating food or drinking fluids.
• Weak or absent coughing or gagging reflexes, commonly seen in persons who have cerebral palsy or muscular dystrophy.
• Poor chewing or swallowing skills.
• Gastroesophageal reflux disease (GERD, GER), which can cause aspiration of stomach contents.
• Food stuffing. This includes eating or drinking rapidly and holding food in the mouth.
• Taking medication with side effects that cause drowsiness.
• Taking medication that cause:
  o the muscles to relax.
  o delayed swallowing.
  o the suppression of gag and cough reflexes.
• Impaired mobility that may prevent an individual from sitting upright while eating.
• Epileptic seizures that may occur while eating.
• Failure to position a person on their side during and after a seizure. This can allow oral secretions to enter the airway.
What health risks should you look for in the individuals you support?

- A diagnosis of risk for aspiration or past episodes of aspiration.
- A diagnosis such as cerebral palsy, muscular dystrophy, epilepsy, GERD, dysphagia or hiatal hernia.
- A history of aspiration pneumonia.
- Needing to be fed by others.
- A history of choking, coughing, or gagging when eating.
- Needing modified food texture and fluid consistency.
- Previous evaluations of eating and swallowing skills.
- Laboratory tests (barium swallow, pH study, etc.) that indicate dysphagia.
- A history of unexplained weight loss or chronic dehydration.
- Taking medications that may decrease voluntary muscle coordination or cause drowsiness.
- A history of unsafe eating and drinking practices, such as eating or drinking rapidly and food stuffing.
- A history of chronic chest congestion, frequent pneumonia, moist respirations, chronic runny nose, or persistent cough.
- Chronic use of cough/asthma medications.

Are there any mealtime behaviors that may indicate risk for aspiration?

- Eating slowly.
- Fear or reluctance to eat.
- Refusing to eat except with a “favorite support person.”
- Frequent coughing or choking while eating.
- Refusing certain foods and/or fluids.
- Food and fluid falling out of the mouth.
- Swallowing large amounts of food rapidly.
- Eating in odd or unusual positions, such as:
  - Throwing head back when swallowing.

Reducing Risk for Aspiration

Following some basic guidelines can reduce an individual’s risk for aspiration. Below are some strategies, but remember that in these cases there should be a formal plan for feeding that is followed consistently by staff who understand the plan and how to implement it.

- Check with the individual’s doctor first for any advice or restrictions.
Supporter Article
Preventing Aspiration and Aspiration Pneumonia

- All mealtime plans should always be discussed by the individual and their interdisciplinary team.

**If you know that the individual is at risk for aspiration:**

- Assist the individual to consult with his or her physician.
- Advocate for an evaluation with a swallowing specialist if symptoms occur.
- Discuss possible changes in the individual’s diet. This includes changes in consistency, texture, or temperature of food and drinks.
- Suggest a consultation with a dietician or nutritionist.
- Ask the individual’s physician about medications that:
  - promote stomach emptying.
  - reduce reflux and acidity.

**How can you safely assist someone at mealtime to prevent aspiration?**

**Preparing for the meal:**

- Provide a 30 minute rest period prior to feeding time.
- Involve the individual in planning the meal – make mealtime a pleasant, social time.
- Follow the prescribed diet consistency. Include the individual in choosing foods that he or she prefers.
- Eliminate distractions.
- Allow enough time for meals.
- Make sure the individual’s dentures or partials are firmly in place.
- Provide small meals every few hours instead of three larger meals each day.
- Avoid food or fluids for 2-3 hours before bedtime.

**During the meal:**

- Sit at eye level with the individual. Do not stand above the individual, this causes the individual to tilt their head backward.
- Position the individual as upright in the chair as possible. If the individual is in bed, elevate bed rest to a 90 degree angle.
- Ask the individual to slightly flex or tilt their head to achieve a “chin down” position. The chin should tilt slightly forward at about 45 degrees.
- Slow down the pace of eating. Decrease the size of each bite.
- If you are feeding an individual do so slowly. Sit within the individual’s range of view.
- Alternate between solid foods and liquids, moist sauces, or gravies.
- Let the individual catch a breath and rest between bites and sips. The rest should be at least 10 seconds.
- Let the individual remain upright for at least 45 minutes following the meal.
• Provide the individual with assistance to rinse and clean their mouth after the meal.

When assisting someone using a feeding tube:

• Administer tube feedings in an upright sitting position.
• If the individual must be fed in bed, keep the head of the bed at a 45 degree angle while feeding.
• Don’t overfill the stomach.
• Provide formula at room temperature.
• Feed slowly.
• If ordered by physician, provide individual with small portions of food to be taken orally.
• Have individual remain upright for at least 45 minutes after feeding.

If the individual you support aspirates:

• Stop the feeding and/or eating immediately.
• Keep the individual in an upright position and encourage coughing.
• You may restart the meal if the individual is breathing normally or their health care professional gives permission.
• If the situation becomes a choking emergency, perform the abdominal thrust (Heimlich) maneuver.
• Call 911 if the person stops breathing. Start CPR.

Resources

• Aspiration among People with Developmental Disabilities
• Aspiration among Consumers with Developmental Disabilities
• Aspiration Checklist