

Aspiration in Babies and Children



What is aspiration in babies and children?

Aspiration is when something enters the airway or lungs by accident. It may be food, liquid, or some other material. This can cause serious health problems, such as pneumonia. Aspiration can happen when a person has trouble swallowing normally. This is known as dysphagia. It can also happen if a child has gastroesophageal reflux disease (GERD). This is when the contents of the stomach come back up into the throat.

When your child swallows food, it passes from the mouth down into the throat. This is called the pharynx. From there, the food moves down through a long tube (esophagus) and into the stomach. This journey is made possible by a series of actions from the muscles in these areas. If your child has dysphagia, the muscles don't work normally. They cause problems with the swallowing process.

The pharynx is also part of the system that brings air into the lungs. When a person breathes, air enters the mouth and moves into the pharynx. The air then goes down into the main airway (trachea) and into the lungs. A flap of tissue called the epiglottis sits over the top of the trachea. This flap blocks food and drink from going down into the trachea when your child swallows. But in some cases, food or drink can enter the trachea. It may go down as your child swallows. Or it may come back up from the stomach. A child with dysphagia is much more likely to aspirate. A child with a developmental or health problem is more likely to have dysphagia.

Aspiration can happen during a feeding or meal. And it can happen after a feeding or meal. This is common in babies and children with certain health conditions. Aspiration can also happen at any time when your child swallows saliva.

If your child aspirates a small amount of material, it may not cause much harm. This can happen in children who don't have a health problem. It can happen when eating, sleeping, or talking. But aspiration that happens often or in a large amount can be serious.

What causes aspiration in babies and children?

Aspiration is often caused by dysphagia. This is when the muscles don't work normally in the throat and leads to swallowing problems. Different medical conditions can lead to this, such as:

- Abnormal anatomy, such as a cleft palate or a problem in the esophagus
- Delayed growth, from premature birth or a condition such as Down syndrome
- Brain damage or other problems, such as from cerebral palsy or infection
- Problems with the cranial nerves that control the muscles of swallowing
- Neuromuscular disease, such as spinal muscular atrophy
- Medical procedures, such as a nasogastric tube or a tracheostomy

Gastroesophageal reflux disease (GERD) can also cause aspiration. This is when the contents of the stomach come back up into the throat.

What are the symptoms of aspiration in babies and children?

Aspiration can cause signs and symptoms in a baby such as:

- Weak sucking
- Choking or coughing while feeding
- Other signs of feeding trouble, like a red face, watery eyes, or facial grimaces

- Stopping breathing while feeding
- Faster breathing while feeding
- Voice or breathing that sounds wet after feeding
- Slight fever after feedings
- Wheezing and other breathing problems
- Repeated lung or airway infections

And aspiration can cause signs and symptoms in an older child such as:

- Choking or coughing while eating
- Voice that sounds wet after eating
- Slight fever after meals
- Complaints of food feeling stuck or coming back up
- Wheezing and other breathing problems
- Repeated lung or airway infections

Signs and symptoms can happen right after eating. Or they may happen over time. Your child may not have all of these signs and symptoms. The signs and symptoms may depend on the age of your child, and how often and how much your child aspirates.

Some children who aspirate do not have any signs or symptoms. This is called silent aspiration.

How is aspiration in babies and children diagnosed?

Your child will need to be checked for aspiration if they have:

- Any signs or symptoms of aspiration
- Health problem that can cause trouble swallowing
- GERD

The healthcare provider will ask about your child's medical history and symptoms. This may be done by a speech-language pathologist (SLP). The SLP may ask about what foods or drinks cause problems and when your child's symptoms happen. They may want to watch your child during a feeding.

Your child may also need tests. These can check for problems and show if food and fluid are going into your child's lungs. The tests may include:

- Chest X-ray or CT scan
- Modified barium swallow test (MBS)
- Fiberoptic endoscopic evaluation of swallowing (FEES)

How is aspiration in babies and children treated?

Treatment for aspiration may vary depending on the cause and severity. Treatments for your child may include:

- Making changes in position and posture during meals
- Changing the thickness of liquids

- Changing the types of foods in your child's diet
- Doing exercises to help with swallowing (for an older child)
- Medicines for GERD
- Medicines or Botox injection for children who make excess saliva
- Surgery to reduce reflux
- Surgery to correct a problem such as a cleft palate

If your child still has a high risk of aspiration despite these methods, they may need a special tube to help with eating for a while. The feeding tube will help your child get good nutrition until their risk of aspiration improves. Your child will not eat or drink normally until the tube is removed. A thin tube may be put through the nose down into the stomach. This is called a nasogastric tube. This may be used for a short time while other treatment is considered. Or a tube may be put directly into your child's stomach during a surgery. This is called a gastrostomy tube.

In some children, aspiration lessens over time. In other cases, a child may need more treatment to address the cause. Your child's healthcare providers will carefully watch your child so that they can return to normal eating as soon as possible.

Talk with your child's healthcare provider if your child has a tracheostomy tube. You may need to suction food or liquid from the tube.

What are possible complications of aspiration in babies and children?

A major complication of aspiration is harm to the lungs. When food, drink, or stomach contents make their way into your child's lungs, it can damage the tissues there. The damage can sometimes be severe. Aspiration also increases the risk of pneumonia. This is an infection of the lungs that causes fluid to build up in the lungs. Pneumonia needs to be treated with antibiotics. In some cases, it may cause death.

Other possible complications from aspiration include:

- Dehydration
- Malnutrition
- Weight loss
- Increased risk of other illness

When should I call my child's healthcare provider?

Let your child's healthcare provider know right away if your child has any signs or symptoms of aspiration. It needs to be treated as soon as possible.

Key points about aspiration in babies and children

Aspiration is when something enters the airway or lungs by accident. It may be food, liquid, or some other material. This can cause serious health problems, such as pneumonia. Aspiration can happen when a child has trouble swallowing normally. This is known as dysphagia.

- Your child might have aspiration caused by problems with growth, development, or certain health conditions.
- Your child may have signs such as breathing problems and a wet-sounding voice after meals.
- Some children with aspiration don't have any signs or symptoms. This is known as silent aspiration.
- If your child has any symptoms of aspiration, they need to be checked and treated right away.

- Aspiration may be treated by addressing the cause of dysphagia. It can also be managed with methods to help your child feed better.

Next steps

Tips to help you get the most from a visit to your child's healthcare provider:

- Know the reason for the visit and what you want to happen.
- Before your visit, write down questions you want answered.
- At the visit, write down the name of a new diagnosis and any new medicines, treatments, or tests. Also write down any new instructions your provider gives you for your child.
- Know why a new medicine or treatment is prescribed and how it will help your child. Also know what the side effects are.
- Ask if your child's condition can be treated in other ways.
- Know why a test or procedure is recommended and what the results could mean.
- Know what to expect if your child does not take the medicine or have the test or procedure.
- If your child has a follow-up appointment, write down the date, time, and purpose for that visit.
- Know how you can contact your child's provider after office hours. This is important if your child becomes ill and you have questions or need advice.

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