

Bronchiolitis

Bronchiolitis is a viral infection of the lower breathing passages. It is a very common illness in infants and young children less than 2 years of age. It occurs most often between November and April. Infection causes inflammation, which leads to partial or complete blockage of air passages.

What causes bronchiolitis?

Many types of viruses that cause colds and flu-like illness can cause bronchiolitis.

Respiratory syncytial virus (RSV) is the most frequent cause of bronchiolitis. Young children catch these viruses from close contact with others who are sick. The virus is spread when a sick person coughs or sneezes near another person's face. The virus can also be spread by hands that touch surfaces or objects with the virus on them and then touch the eyes or nose. The illness begins about 3-7 days after exposure.

How is bronchiolitis diagnosed?

Bronchiolitis is often diagnosed based on a child's symptoms and after a health exam. Symptoms are classic in how they start and progress. X-rays and labs may be ordered, but often are not needed.

What are the symptoms of bronchiolitis?

Bronchiolitis often begins as a cold. The first cold symptoms may include:

- Fever
- Runny nose or nasal congestion
- Mild cough
- Loss of or reduced appetite
- Mild breathing problems
- As the virus spreads to the small airways of the lungs (1-3 days later), you may hear a whistling sound called wheezing when your child breathes out

Children with bronchiolitis may also have:

- Rapid breathing (60-80 times per minutes)
- Mild to severe breathing problems
- Constant coughing
- Problems eating
- Apnea, when breathing stops for short periods of time (in babies who were born early or who are less than 2 months old)

Should I be concerned if my child has bronchiolitis?

In healthy infants and children, bronchiolitis is often mild and will go away on its own. Children often get better after 3-4 days. Sometimes, though, the infection is more serious and children need to be hospitalized.

Your Bronchiolitis Hospital Stay

How will my child be cared for in the hospital?

Because the virus that causes bronchiolitis can be spread to others, your child will be put into an **isolation room**. A sign will be posted on the door with instructions people need to follow to prevent the spread of infection.

Hand washing: Everyone going in and out of your child's room must wash their hands. Staff must wash their hands before and after touching your child or any object in the room. Hand washing is the best way to prevent the spread of infection.

Gowns, gloves, and masks: These items are required for all people who go into your child's room. Items should be left in the room when no longer needed.

Treatment: In most cases, treatment involves treating the symptoms related to the infection. We also make sure your child receives enough oxygen and fluids.

Feeding: Your child will be given plenty of fluids. Most babies are offered formula or breast milk. If your child is having trouble eating due to breathing problems, feedings may be decreased or stopped for a short time. If this happens, fluids may be given thru a tube in the nose (nasogastric or NG tube) or through a small tube that is put into a vein (an IV).

Suctioning the nose: When babies have bronchiolitis, their noses often get plugged. This can make it hard to breathe while eating. The nose should be suctioned before feeding, breathing treatments, naps or bedtime and any other time the child is having more trouble breathing. You will need to learn how to use a bulb syringe to suction the nose before you go home.

If the mucus is very thick, use a few saline drops into the nose before suctioning. You can buy saline nose drops in most drug stores. If you choose, you can make the drops at home by adding ¼ teaspoon salt to 8 ounces (1 cup) of warm (not hot) water. Stir to dissolve the salt. Make fresh saline drops daily.

To use a bulb syringe:

1. Place your infant on their back.
2. Use a clean eye dropper or clean cotton ball to place 2-4 drops of saline solution in each nostril.
3. Let the drops stay in the nose for one minute.
4. Squeeze and hold the bulb syringe to remove the air.
5. Gently insert the tip of the bulb syringe into one nostril.

6. Release the bulb. Suction will draw mucus out of the nostril into the bulb.
7. Squeeze the mucus out of the bulb into a tissue.
8. Repeat the suction process several times in each nostril until most of the mucus is removed.
9. Wash the dropper and bulb syringe in warm, soapy water. Rinse well and squeeze to remove any water.
10. The bulb syringe can be used 2-3 times per day as needed to remove mucus. This is best done before feedings. The saline and suction process can cause vomiting after feedings.

Oxygen: Your child's doctor, nurse, and Respiratory therapist (RT) will check your child's breathing. This will help to decide if your child needs oxygen, or if oxygen being used can be decreased or stopped. Your nurse and RT will teach you how to look for signs of breathing problems.

A machine called a **pulse oximeter** may be used to help the breathing checks. Your child does not need to be connected to this machine all of the time. We can watch your child to see how hard they are breathing.

Labs and other tests: Bronchiolitis most often does not require tests. There may still be times when a blood test or chest x-ray is ordered. If these tests are needed, their purpose will be explained to you.

Medicines: Bronchiolitis often goes away by itself. It is not always helpful to give medicines. If medicines are used, they may include:

- **Albuterol** to help make breathing easier.
- An **antibiotic** if your child has an infection.

- **Tylenol® or ibuprofen** if your child is uncomfortable or has a fever.

When can my child go home?

The normal hospital stay is 3-5 days. Your child may go home when:

- Your child is getting better
- Your child's breathing has improved
- Oxygen levels are greater than or equal to 94% on room air while awake
- Your child is eating well enough to avoid dehydration
- Medicines your child needs can be given at home
- Your provider feels your child is doing well
- You can properly care for your child such as using the bulb syringe, recognizing breathing problems and making sure your child is getting enough fluids

What should I expect after we go home?

It is normal for your child to have symptoms for up to a month. Wheezing should get better within a week or so. The stuffy nose and cough may last for another 1-2 weeks. Sleeping and eating routines may not return for up to a week.

Tips

- No smoking inside your home. Smoke can be very harmful for babies, especially when they have bronchiolitis.
- Wash your hands often, mainly before and after handling your child.
- Do not give **decongestant nose drops, antihistamines, or cold medicines** to your child unless told to do so by your doctor.

- **Never give aspirin** unless told to do so by your doctor.
- Avoid contact with people who have infection. You don't want to re-infect your child.
- The **flu vaccine** is recommended for children over 6 months of age and all household contacts.
- Keep your child home from school or daycare until they are better.

When to Call

Call your child's provider if:

- Your child is very sleepy, weak or looks very ill
- Your child has a fever greater than 100.4° F or 38° C
- Your child is having problems feeding
- Your child is having fewer wet diapers than normal, the lips and mouth are dry, there are no tears with crying, the eyes appear sunken and dark, or the soft spot on top of your infant's head is sunken
- You have any questions or concerns

Call 911 or go to the nearest emergency room if your child has signs of worsening bronchiolitis. These symptoms include:

- Breathing that is not improving
- Pale or blue-tinged skin
- Severe coughing episodes
- Severe sucking in of the skin around the ribs or base of the throat (retractions)
- If your child stops breathing

Parents should **not** try to drive their child to the hospital if the child is severely agitated, blue, struggling to breathe, stops breathing, or is extremely drowsy (lethargic).