Bronchiolitis

Bronchiolitis (bron-key-oh-LIE-tiss) is an infection of the breathing (respiratory) system caused by a virus, usually RSV (respiratory syncytial virus). Other viruses that can cause it are the flu, the common cold, human metapneumovirus and adenovirus. These viruses are very contagious. A person catches the virus by touching or breathing in the mist, drainage (secretions), mucus or saliva from an infected person's nose or mouth.

Bronchiolitis happens in the small airways (bronchioles) that branch off from larger airways (bronchi) (Picture 1). The bronchioles swell, narrow and fill with mucus, making it hard to breathe.

Bronchiolitis is seen most often in children under age 2, in the fall and winter. A child can get it more than once each season.

Early signs

- runny nose and stuffiness
- fever
- mild cough
- irritability

Later signs

- fast and shallow breathing
- apnea or pauses in breathing for 15 to 20 seconds
- skin pulls in between ribs and neck when breathing (retractions)
- changes in skin color - pale skin, blue color to fingers, toenails, nose or lips
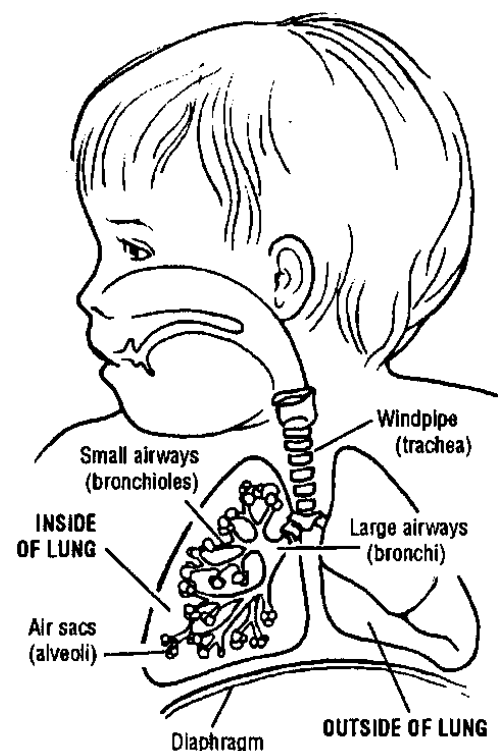
Picture 1 The respiratory system inside the body.

- head bobbing

- frequent coughing spells (lasts about 3 to 4 weeks)

- wheezing and tight breathing (gets worse for 2 to 3 days, then starts to get better. Wheezing lasts about for 7 days.)

- less interest in eating

- not as playful and gets tired easily

Diagnosis

Your child's health care provider will:

- take a health history, do an exam and listen to their chest

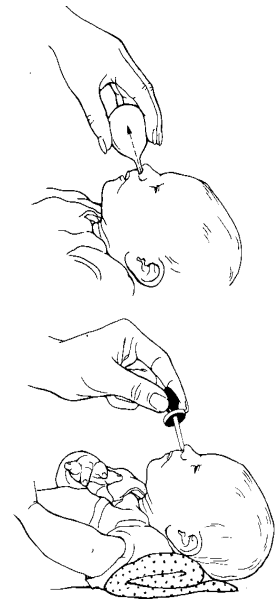- swab the inside of their nose to test for the virus if it will help

If your child is very sick, the health care provider may:

- check their blood oxygen level with a pulse oximeter. This a painless sensor that is put on the child's finger or toe.

- order blood tests and a chest X-ray

Picture 2 Saline nose drops and suctioning may help make your baby more comfortable.

Home treatment

Since a virus causes bronchiolitis, antibiotic medicines will not help. Here are some things you can do to make your baby more comfortable:

- For coughing and mucus build-up (congestion), use a cool mist vaporizer. The moist air may make breathing easier and reduce coughing. Do not put medicine in the vaporizer. Change its water every day and clean between uses.

- For a stuffy nose, use salt water (saline) nose drops and a bulb syringe (Picture 2). To get the mucus out, use a baby aspirator (suction device) like a bulb syringe (Picture 2) or a NoseFrida®.

- For fever give children:
    - over 2 months, acetaminophen (Children's or Infant's Tylenol®).
    - over 6 months, acetaminophen or ibuprofen (Children's or Infant's Motrin®, Advil®)
    - Do not give aspirin or products that contain aspirin to any child (Picture 3).

Picture 3 Do not give aspirin. Read the label of any medicine before giving to know the right dose for the age of your child.

- Do not give cold and cough medicines to a child under 4 years.
- Do not give honey to children younger than one year.

- Give lots of fluids – small amounts at a time and often. This also applies to formula or breastfeeding milk.
  - Do not give fruit juice or water to a child under 12 months. Do not give Pedialyte® without asking the health care provider first. Use breast milk or formula.
  - For children **older than 12 months**, give liquids like water, Pedialyte® or chicken broth. Limit fruit juice or liquids high in sugar.

- Check your child's temperature using a digital thermometer. Never use a mercury thermometer. Wash the thermometer thoroughly after each use.
  - Use only a rectal (in baby's bottom) thermometer in infants under 3 months of age.
  - For infants 4 months of age or older, take rectal, ear or armpit (axillary) temperatures.
  - When your child reaches 4 years of age, mouth (oral) temperatures are OK.

If your child is hospitalized

Your child may:

- be connected to a sensor to watch the heart rate. The oxygen level of the blood will continue to be checked.

- have an IV to give fluids and some nourishment. Often a child with bronchiolitis has a hard time eating and drinking.

- be treated with salt water drops to loosen the mucus

- need their nose suctioned with a bulb syringe or small tube connected to a suction machine to remove mucus.

- need oxygen. This is usually given using a nasal cannula (plastic tubing with small prongs in the nose) or a mask.

- need special treatment if they are younger than 3 months of age, have a severe infection or a history of heart or lung disease.

Prevention

To prevent spreading viruses to others:

- Wash your hands often, before touching your baby and handling food. Wash hands after sneezing, coughing, using the bathroom or changing diapers. Ask others to do the same.

- Sneeze or cough into a tissue or into your shirt sleeve, turned away from people.

- Do not share personal items like pacifiers, towels, toothbrushes, drinking glasses, cups, bottles, forks or spoons.

- Wash your baby's toys and clothes often.

- Keep people who have colds away from your baby. This includes brothers and sisters.

- Do not smoke around your baby or let others smoke around them.

- Keep your child home from school or childcare when they are sick.

When to call your health care provider

Call your child's health care provider if your child:

- gets worse or starts wheezing after going home from the hospital.

- after 2 days of being sick, is still not able to eat.

- has apnea, trouble breathing or is breathing very fast.

- looks pale or skin, fingers, toes or lips turn bluish

- has retractions when breathing (skin between the ribs and neck pulls in).

- cannot sleep

- has a high fever
    - 3 months or younger and has a temperature of 100.4°F (38°C) or higher
    - 3 months or older and has a temperature over 102°F (38.9°C) that lasts more than 2 days

- cannot be comforted when being held or fed.

If you have any questions, be sure to ask your health care provider.