
Discharge Instructions:

Bronchopulmonary Dysplasia (BPD)

Bronchopulmonary dysplasia (BPD) is damage inside the lungs that causes persistent breathing problems. If your baby has BPD, they will be cared for in the neonatal intensive care unit (NICU). Severe cases of BPD can need a long stay in the hospital. Your baby may still need treatment after going home. This sheet can help you know what to expect when your baby is ready to leave the NICU.

What is BPD?

BPD sometimes occurs in babies who have needed ventilation for long periods. This ventilation is needed to save the baby's life. But in some cases, it can lead to long-term breathing problems. NICU staff take steps to prevent these problems. But sometimes they can't be prevented. BPD occurs when air sacs (alveoli) and the airways inside the lungs become scarred. Scar tissue doesn't function like normal lung tissue. So babies with BPD have trouble breathing. They tend to breathe hard and fast while at rest. They may also wheeze or become short of breath. This can get worse if the baby has a cold. Or if the baby is exposed to lung irritants such as smoke.

What kind of care will I need to provide at home?

Your health care provider will direct you how to care for your baby at home. Medical treatments may include:

- **Oxygen therapy.** This is usually given using nasal prongs. These are taped just inside the nostrils. Your baby's health care provider will prescribe a flow rate. This is the amount of oxygen per minute. The provider may tell you to increase the flow rate during feedings, when your baby is sleeping, or when your baby has a cold. Don't increase the flow rate unless your baby's provider tells you to do so.
- **Diuretics.** These medicines help the body flush out fluids. They can relieve pulmonary edema (fluid in the lungs).
- **Bronchodilators.** These medicines help open tight airways in the lungs.
- **Inhaled steroids.** These medicines help decrease chronic airway inflammation in the lungs.

What else should I know about my baby's condition?

- Your baby will most likely grow more slowly than other children.
- Your baby will be prone to serious respiratory infections (colds and flu). They will also be sensitive to lung irritants, such as cigarette smoke and air pollutants.
- Caring for babies with BPD can be stressful. So make sure that you meet your own needs. Try to share the demands of care among family members.

How can I reduce the risk of complications?

- Make your house and car no-smoking zones. Anybody in the household who smokes should quit. Visitors or household members who can't or won't quit should smoke only outside. They must also stay away from doors and windows.
- Protect your baby from dust, pollution, and other lung irritants as much as you can. Watch the Air Quality Index if you live in a city with air pollution problems. Keep your baby inside on poor air quality days.
- Make sure your baby and other children in the family are vaccinated on schedule. Ask your baby's provider what immunizations are needed and when they should be given. This may include a shot to help protect against respiratory syncytial virus (RSV), a common childhood infection.
- Consider a yearly flu shot for yourself and your baby's other caregivers. This may keep you from catching the flu and passing it on to your baby.
- Keep your baby away from large daycare centers and crowds. This reduces the risk of catching colds and other illnesses.
- Wash your hands often. Have any visitors wash their hands before touching your baby. Teach all family members correct handwashing methods. This includes when hands should be washed. Refer to the CDC website for information: <https://www.cdc.gov/handwashing/when-how-handwashing.html>.
- Try to protect your baby from loud noise, bright lights, and other causes of stress.
- Feed your baby as directed. Some babies may need extra protein or calories. You may be told to supplement breast milk or use special formula. Follow directions from your baby's provider.

Using oxygen at home

Oxygen is often held in compressed form in a cylinder, or as liquid oxygen in a tank. You may also have a smaller, portable container for trips outside the house. Follow any directions you're given on storing oxygen safely. Above all, that means no open flames near the container. Your home health care provider or medical equipment company can answer any questions you have about using or storing oxygen at home.

When to call 911 or your baby's doctor

Call 911 right away if:

- Your baby turns blue or becomes unconscious
- Your baby has trouble breathing. Signs may include the chest sinking in, using belly muscles to breathe, or nostrils flaring while your baby is struggling to breathe.

Contact your baby's health care provider right away if:

- You notice changes in your baby's breathing pattern.
- Your baby has signs of a respiratory infection, such as irritability, fever, stuffy nose, and cough.
- Your baby is not eating.

- Your baby is losing weight or not gaining weight.
- Your baby has a fever (see Fever and children, below).

Fever and children

Use a digital thermometer to check your child's temperature. Don't use a mercury thermometer. There are different kinds and uses of digital thermometers. They include:

- **Rectal.** For children younger than 3 years, a rectal temperature is the most accurate.
- **Forehead (temporal).** This works for children age 3 months and older. If a child under 3 months old has signs of illness, this can be used for a first pass. The health care provider may want to confirm with a rectal temperature.
- **Ear (tympanic).** Ear temperatures are accurate after 6 months of age, but not before.
- **Armpit (axillary).** This is the least reliable but may be used for a first pass to check a child of any age with signs of illness. The provider may want to confirm with a rectal temperature.
- **Mouth (oral).** Don't use a thermometer in your child's mouth until they are at least 4 years old.

Use a rectal thermometer with care. Follow the product maker's directions for correct use. Insert it gently. Label it and make sure it's not used in the mouth. It may pass on germs from the stool. If you don't feel okay using a rectal thermometer, ask the provider what type to use instead. When you talk with any health care provider about your child's fever, tell them which type you used.

Below is when to call the provider if your child has a fever. Your child's provider may give you different numbers. Follow their instructions.

When to call a health care provider about your child's fever

For a baby under 3 months old:

- First, ask your child's health care provider how you should take the temperature.
- Rectal or forehead: 100.4°F (38°C) or higher
- Armpit: 99°F (37.2°C) or higher
- A fever of _____ as advised by the provider

For a child age 3 months to 36 months (3 years):

- Rectal or forehead: 102°F (38.9°C) or higher
- Ear (only for use over age 6 months): 102°F (38.9°C) or higher
- A fever of _____ as advised by the provider