

UNDERSTANDING Bronchopulmonary Dysplasia

BPD



What is bronchopulmonary dysplasia (BPD)?

Bronchopulmonary [brong-ko-pul-mo-nar-e] dysplasia [dis-pla-ze-ah], or BPD, is a chronic lung problem that affects infants. It occurs when normal lung development is interrupted.

How are the lungs different with BPD?

The lungs move oxygen from the air into the blood through tiny sacs called alveoli. Babies with BPD have fewer, larger alveoli with thicker walls. As a result, the baby must work harder to get enough oxygen.

What causes BPD?

BPD can be due to prematurity or caused by other factors, including long-term **mechanical ventilation**, high levels of extra oxygen, inflammation, or infection.

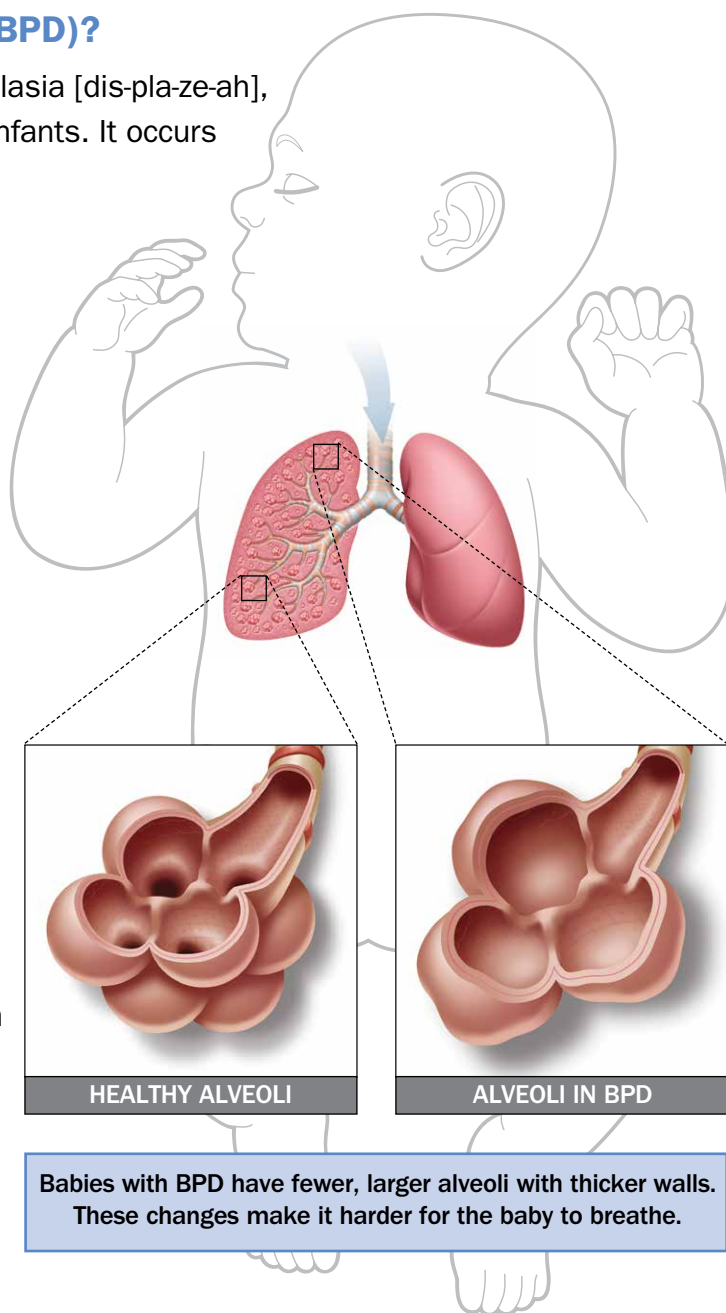
Who is at risk for BPD?

Most babies who develop BPD are born before 30 to 32 weeks' gestation and weigh less than 2 pounds (about 1000 g) at birth. They often have other breathing problems (such as **respiratory distress syndrome**) or a severe infection.

How is BPD diagnosed?

Doctors suspect BPD when the baby has trouble weaning from mechanical ventilation or requires extra oxygen at or after 36 weeks' **gestational age**.

Babies with BPD may have physical symptoms, such as **cyanosis** (bluish skin colour), cough, or shortness of breath. BPD also causes changes that can be seen on a chest x-ray.



Understanding Bronchopulmonary Dysplasia (continued)

What treatment will my baby receive?

BPD is treated by making it easier for your baby to breathe.

Treatment may include:

- Extra oxygen (sometimes needed for weeks to months)
- Medicines to help keep the lungs open (**bronchodilators**, inhaled **steroids**, and/or **surfactant**)
- Lowered fluid intake and/or medicines (**diuretics**) to help keep fluid out of the lungs
- Extra calories, because babies with BPD use so much energy to breathe

How will I know how my baby is doing?

Your health care team will keep you up-to-date on your baby. They have several ways to measure breathing and lung health, including:

- Vital signs, such as heart rate, breathing rate, blood pressure, and **oxygen saturation**
- How much help the baby needs to breathe
- Growth

What will happen next?

Most babies respond to treatment for BPD over time due to normal lung growth. However, they may continue to have lung problems and are at a higher risk for severe respiratory infections. Some babies with BPD may have poor growth and delayed development because of decreased lung function. Talk to the health care team. They can answer any questions you have about your baby.

Glossary

Bronchodilators – medicines that open the airways and make it easier to breathe

Cyanosis – bluish colour of the skin

Diuretics – medicines that remove extra water from the body

Gestational age – measures how far along the pregnancy is from the first day of the women's last menstrual cycle to the current date

Mechanical ventilation – use of a machine to help the baby breathe by moving air in and out of the lungs

Oxygen saturation – relative amount of oxygen in the blood

Respiratory Distress Syndrome (RDS) – a condition in which the lungs do not make enough surfactant. This problem makes it harder to breathe

Steroids – medicines to reduce inflammation. Steroids can spread throughout the body

Surfactant – a liquid that keeps the alveoli (tiny sacs in the lungs) from collapsing while breathing out

Ask the health care team when you have questions — they are there to help.

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