

Apnea and Bradycardia

What is apnea?

Apnea is when a baby stops breathing for more than 15 seconds. Apnea may cause a baby's skin colour to change from pink to blue and the baby's heart beat to slow down.

What is bradycardia?

Bradycardia is a heartbeat that is less than normal or less than 100 beats a minute. Sometimes, a baby stops breathing for a short time, but the baby's colour does not change. This is called periodic breathing.

What causes apnea and bradycardia?

Premature babies often have periods of apnea and bradycardia. This happens because the centres in the brain that control breathing are immature and poorly coordinated.

Some other causes of apnea and bradycardia are:

- breathing problems
- low blood sugar
- low levels of calcium in the blood
- infection
- being too cold or hot
- being tired
- activity or problems during feeding
- infection or bleeding in the baby's brain

Most apnea and bradycardia are caused by prematurity, not disease.

How do you know when my baby has apnea and bradycardia?

In the Neonatal Unit, babies are closely watched for signs of apnea and bradycardia. A cardiac monitor helps the nurses watch your baby. The cardiac monitor records your baby's heart rate, breathing and oxygen saturation. The monitor has alarms that ring if there is a problem with your baby's heart rate, breathing or oxygen saturation. The nurses will check your baby when an alarm rings.

There are many times when the alarm rings, but your baby is OK.

These false alarms happen when the baby moves or one of the monitor wires called leads falls off or becomes loose.

How is apnea and bradycardia treated?

Sometimes no treatment is needed as the baby starts breathing again without any help. Usually gentle stimulation is enough to remind the baby to breathe again.

Stimulation may include:

- moving the baby
- rubbing the baby's arms and legs
- calling the baby's name
- lightly pinching the baby's toes

If a baby has apnea and bradycardia several times, the baby may need medication that helps the breathing centre in the brain.

If a baby has apnea and bradycardia many times, the baby may need help breathing from a machine called a ventilator or by CPAP. Please ask for the information sheet about these two machines

Most premature babies stop having apnea and bradycardia when they reach 36 to 37 weeks gestational age. Occasionally, a baby continues to have apnea and bradycardia for several weeks or months longer and will need medication and monitoring at home. If your baby needs medication or monitoring at home, you will learn how to do this before you leave the hospital.

If you have any questions about your baby's breathing, please talk with your baby's health care providers.