

Apnea and Bradycardia

What is apnea and bradycardia?

Apnea is when a baby stops breathing for more than 20 seconds. Apnea may cause a baby's skin colour to change from pink to blue, and cause the heart beat to slow down. A heart beat of less than 100 beats a minute is called bradycardia.

Sometimes a baby stops breathing for a short time, but his or her colour and heart beat does not change. This is called periodic breathing.

What can cause apnea and bradycardia?

Premature babies often have periods of apnea and bradycardia. This happens because the part of the brain that controls breathing is not fully developed.

Some other causes of apnea and bradycardia are:

- Breathing problems
- low blood sugar or low levels of calcium in the blood
- reflux (stomach contents back up into the baby's throat)
- infection
- being too cold or too hot
- being tired or overstimulated
- feeding problems
- 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 Nurseries, babies are closely watched for signs of apnea and bradycardia. Your baby also has a cardiac monitor to record his or her heart rate, breathing and oxygen saturation. The cardiac monitor will sound an alarm if there is a problem.

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

These false alarms happen when your baby moves a lot or a monitor wire (lead) becomes loose or falls off.

Every monitor in the Neonatal Nurseries is connected to a central network. When an alarm sounds, nurses can look at any screen in the area to see if your baby has apnea or bradycardia, or if it is false alarm.

How is apnea and bradycardia treated?

If your baby starts breathing again without any help, no treatment is needed. Gentle stimulation may be enough to 'remind' your baby to breathe again.

This may include:

- moving your baby
- rubbing your baby's arms and legs
- calling your baby's name
- tickling your baby's feet

Babies who have apnea and bradycardia several times may need a medication called caffeine that helps the breathing centres in the brain. Some babies need help breathing with CPAP or a machine called a ventilator. We will give you more information about these machines if your baby needs them.

Most premature babies outgrow apnea and bradycardia when they reach 36 to 37 weeks gestational age. Sometimes, a baby may have apnea and bradycardia for several weeks or months, and will need medication and monitoring at home. If your baby continues to have apnea and bradycardia, we will help you learn about medication and monitoring before you leave the hospital.

If you have any questions about your baby's breathing, please speak with a member of your healthcare team.