
Understanding Apnea of Prematurity

Babies who are born too early (premature) often have health problems, such as apnea. Apnea is when a baby stops breathing for a bit of time (more than 15 seconds). The baby may also have a slowed heart rate and a drop in oxygen in the blood.

Causes of apnea in premature babies

An immature nervous system is the main cause of apnea. A premature baby's brain and reflexes aren't fully developed. So the baby may not have the reflex to breathe when the blood oxygen level is too low. Premature babies' airways are also more likely to be blocked when their head and neck are bent or when they are in an upright position, like in a car seat.

Many things can also make apnea worse, such as fatigue. Breathing is hard work, and preemies' muscles are not yet fully developed. The baby may also find feeding to be tiring. Or the baby may have feeding immaturity. This is when the baby stops breathing because they haven't yet learned to coordinate suckling, swallowing, and breathing. Other problems, such as infection or illness, may also make apnea worse.

How is apnea treated?

A baby with apnea may need one or more of these treatments:

- Mild stimulation. Rubbing the baby's back or feet or patting the skin stimulates the baby's nervous system. This can restart breathing.
- Medicines. Caffeine may be given in the hospital to help restart breathing.
- CPAP (continuous positive airway pressure) or nasal cannulas (prongs in the nose). These methods send a gentle, continuous stream of air into the baby's airways. They help ease breathing. They can also be used to give the baby extra oxygen if needed.
- Ventilator. This machine helps with breathing. It gives the baby breaths of air, oxygen, or a mixture through a tube that goes right into the windpipe.

Treating other problems, such as an infection, can also help.

What happens if my baby stops breathing?

While in the NICU (neonatal intensive care unit), your baby is closely watched. If the baby doesn't breathe for a certain number of seconds, an alarm goes off. NICU staff will then check the baby. If the baby is not breathing, the staff will take steps, such as oxygen, to restart breathing. This is done very quickly to help prevent any harm to your baby.

What are the long-term effects?

Apnea of prematurity goes away as a baby grows. Once it goes away, there are no long-term effects. Most infants are over apnea by the time they're ready to leave the NICU. A few babies may leave the NICU with a home monitor or caffeine medicine. Babies who have had apnea are not more prone to SIDS (sudden infant death syndrome) later on.