What is apnea of prematurity?

With apnea [ap-knee-uh], breathing stops temporarily and then returns to normal. Apnea of prematurity refers to short periods of time when a premature baby stops breathing.

What causes apnea of prematurity?

There are two main causes of apnea of prematurity:

- Brain development may not be complete
- The muscles needed for breathing may be weak

Other problems can contribute to apnea, including:

- Low red blood cell count (anemia)
- Feeding problems
  - Reflux (stomach contents back up into throat)
  - Lack of coordination (baby has trouble breathing while eating)
- Heart or lung problems
- Infection
- Baby is not getting enough oxygen while breathing
- Overstimulation
- Problems keeping body temperature constant

How will I know if my baby has apnea of prematurity?

Most premature babies have apnea. While in the NICU, the baby is hooked up to monitors that measure breathing and heart rate. The health care team will tell you if your baby has periods of apnea.

It is important to manage apnea while it is happening. Otherwise, the baby may not get enough oxygen. The baby's heart rate also may slow down (bradycardia) during apnea.
Treating Apnea of Prematurity

What treatment will my baby receive?
Treatment depends on how often the baby stops breathing and for how long.

- In general, healthy babies with a few periods of apnea per day often do not need treatment.
  - Gently touching the baby during periods of apnea can help get breathing back to normal.
  - Changing the baby’s position or feeding the baby more slowly also may help.

- Babies who have more frequent apnea may need treatment to help them breathe.
  - Medicines like caffeine may be used.
  - Extra oxygen or air may be delivered using a small tube in the nose.
  - In a few cases, the health care team may help the baby’s breathing by using a mask and a bag or a breathing machine. This machine might be a CPAP or a ventilator.

What will happen next?
Many babies respond well to treatment for apnea of prematurity; however, each baby is different. Talk to your baby’s health care team. They can answer any questions you have about your baby.

Glossary

Alveoli – tiny sacs in the lungs that move oxygen from the air into the blood

Anemia – low red blood cell count

Apnea – breathing stops for a short period of time

Bradycardia – decreased heart rate

CPAP (continuous positive airway pressure) – a treatment that uses mild pressurized air to keep the lungs open

Reflux – stomach contents back up into throat

Saturation – the amount of oxygen in the blood. This is expressed as a percentage of the total amount of oxygen that the blood can hold

Trachea – windpipe

Ventilator – a machine that helps the baby breathe by moving air in and out of the lungs

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