

Breathing with oxygen

To learn about your baby's need for oxygen, you may need to learn what these words mean:

Retraction	When breathing is hard to do, the baby's chest appears to be sucked inward. Retractions are the sunken areas just below and in between the ribs.
Grunting	Your baby may make a grunting or crying sound when breathing out. This means your baby has to breathe hard to keep their lungs open.
Oxygen	Oxygen is a gas that our bodies need. It is found in the air we breathe. Our lungs move oxygen from the air into our blood, so it can be used by our bodies. The air around us, called room air, has 21% oxygen. Your baby may need up to 100% oxygen.
Carbon dioxide	This gas is made by our bodies. Our lungs move carbon dioxide from the blood into the air in our lungs. Carbon dioxide leaves our bodies when we breathe out.
Blood gas test	Blood gases are blood tests that show how well oxygen and carbon dioxide are being exchanged or traded in the lungs. The results of these tests help the doctors and nurses decide how much oxygen your baby needs.
Oxygen saturation monitor	<p>A machine that shows how much oxygen is getting from the air in your baby's lungs into your baby's blood. The monitor works by shining a red light through your baby's skin.</p> <p>This monitor is connected to your baby by a cord going to your baby's feet or hands. This cord is held in place by a blue and white cotton "posey".</p>
Meconium	Your baby's first stool or bowel movement.

What is oxygen therapy?

Oxygen therapy is giving a baby extra oxygen. Oxygen therapy is needed when there is a problem causing not enough oxygen in the body.

The most common reasons that a baby has a lack of oxygen are:

- the baby is premature
- the baby's lungs are immature
- the baby's lungs are not formed properly
- the baby's lungs are collapsed
- the baby has an infection
- the birth was difficult
- fluid or meconium was breathed into the lungs before or at birth

How do I know that my baby needs more oxygen?

Some signs that your baby needs more oxygen are:

- grunting
- changes in skin colour, such as becoming dusky, dark or purple blue
- retractions
- rapid breathing
- apnea or long pauses in breathing

To decide if your baby needs oxygen therapy, doctors and nurses look for these signs and check the oxygen saturation monitor and blood gases.

How does my baby get more oxygen?

There is already 21% oxygen in the room air around your baby. Oxygen therapy can give your baby up to 100% oxygen.

Oxygen therapy can be given by one of these ways:

Through nasal prongs

Nasal prongs are tiny plastic tubes that are placed just inside your baby's nose. The prongs are taped in place on your baby's face. Oxygen gently flows through the tubes to your baby.

Through nasal CPAP

Nasal prongs that are large enough to fill both sides of your baby's nose are held in place with a special "moustache" and hat. Air and/or oxygen and a small amount of pressure flow through the tubing to your baby.

By a ventilator

The ventilator is a machine that helps your baby breathe. The ventilator gently blows air and/or oxygen into your baby's lungs. The ventilator may do all or some of your baby's breathing. More information is available in the teaching sheet "My baby needs help breathing with a ventilator".

How long will my baby need more oxygen?

Your baby will need extra oxygen until your baby has good colour, good oxygen saturation, and normal blood gas results. Every baby is different and some will need oxygen for a longer time.

Things that affect how long a baby will need oxygen are:

- how premature the baby is
- how much lung damage the baby has
- how long the baby was on the ventilator
- how much oxygen the baby has needed
- if your baby is born with a heart problem

Sometimes, after oxygen has been stopped, the baby needs to go back into oxygen therapy. This may mean the baby is sick and needs more oxygen to get better, or the baby was not ready to come out of oxygen yet.

The doctors and nurses will check your baby's breathing, oxygen saturation, colour, and blood gases to decide if your baby needs more oxygen.

Does oxygen harm my baby?

It is possible that high amounts of oxygen over a long time may cause some damage to your baby's lungs and eyes, especially if your baby is very premature.

Can I hold my baby during oxygen therapy?

If your baby is stable and is feeling well enough to be touched, you may be able to hold your baby. Talk with your baby's nurse to see how your baby is feeling.

If you have any questions about your baby's breathing or need for oxygen, please speak with a member of your care team.