

A Parents' Guide to Understanding:

Apnoea and Bradycardia of Prematurity and Treatment with Caffeine

What is an apnoea?

Apnoea is a pause in breathing that:

- Lasts longer than 15 - 20 seconds
- Can cause baby's colour to change to pale or bluish and make the oxygen levels in the blood fall
- Can make baby's heart rate slow down, known as bradycardia

What is a bradycardia?

Bradycardia is a slowing of the heart rate; it often follows an apnoea or periods of shallow breathing

What is a desaturation?

A desaturation is a decrease in the oxygen levels in the blood.

Why do premature babies have apnoea?

Premature babies have immature breathing centres in their brain, which means that they sometimes 'forget' to breathe. They may also pause or have a few very shallow breaths followed by a deep breath. This is the most common reason for a baby to have apnoea.

Apnoea and bradycardias can also sometimes be caused by infection, heart problems, a high or low temperature, certain medications, being stressed or having a low blood sugar

How do I know my baby is having an apnoea?

Your baby's breathing is always monitored while there is a risk of apnoea. An alarm will sound if baby is not taking breaths and if there is any sign of desaturation or bradycardia.

What happens when the monitor sounds?

A nurse or doctor will watch your baby's breathing, heart rate and skin colour, if necessary, they will gently stimulate baby to remind them to breathe. If baby's colour changes, oxygen may be given. If baby doesn't respond to stimulation, some breaths can be given with a mask or ventilator.

How is apnoea of prematurity treated?

Several treatments can be used:

- Monitoring and gentle stimulation when an apnoea happens
- Continuous Positive Airway Pressure (CPAP) – this is air and oxygen given through small tubes into baby's nose. This makes breathing easier
- Ventilation – if apnoea is more serious, breaths can be given by a ventilator which will take over your baby's breathing for them
- Medicines that stimulate breathing, most often caffeine

What is Caffeine?

Caffeine is a medicine that stimulates the breathing centre in the brain and helps to prevent apnoea.

Caffeine is usually given once or twice a day, either intravenously into a drip, or by the feeding tube that is used to give milk to your baby.

Are there any side effects I may notice when my baby is on caffeine?

Sometimes there may be an increase in baby's heart and breathing rate. In babies prone to reflux, caffeine may very occasionally increase their symptoms. Please speak to the nurse or doctor looking after your baby if you have any concerns about this.

When will caffeine be stopped?

- When your baby has had 5 days without CPAP or ventilator support
- When baby has been free of apnoea's for 5 days
- At least 5 days before discharge home

Once apnoea goes away, will it come back again?

Apnoea of prematurity is caused simply by being born too early. Once baby grows and gets older, the apnoea goes away and does not come back.

Who to contact if you have any more questions

Please feel free to discuss this with the nurse caring for your baby or the consultant on duty, who will answer any queries you might have.

