



**Royal Berkshire**  
NHS Foundation Trust

# Cooling treatment for babies with perinatal asphyxia (lack of oxygen before birth)

Information for parents and  
carers

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We know that your baby has been very unwell. Your doctor will already have spoken to you about what has happened to your baby and discussed the treatment needed.

You have been given this leaflet because your baby has been born with perinatal asphyxia and is being given cooling treatment. This information aims to help you to understand more about what this means.

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### What is perinatal asphyxia?

Perinatal asphyxia is a lack of oxygen before birth. We do not always know what causes perinatal asphyxia but we do know that lack of oxygen to the baby's brain can lead to brain injury.

The extent of injury can be difficult to predict and may range from no long-term effects to severe long-term effects and disability. Some babies unfortunately do not survive the initial lack of oxygen.

Your doctors will have talked to you about the severity of your baby's condition. They may have categorised the perinatal asphyxia into one of three categories - 'mild, moderate, or severe'.

Following much research over recent years, it has been shown that cooling can limit the amount of brain injury following perinatal asphyxia. Neonatal Intensive care and cooling therapy (also called 'therapeutic hypothermia') is the current best treatment for perinatal asphyxia.

### What is cooling?

Cooling means that a baby is cooled from the normal body temperature of 37°C (98.6°F) down to a temperature of 33.5°C (92.3°F). The baby is kept cool for about three days (72 hours).

Cooling is started as early as possible after birth and after 72 hours of cooling the baby's temperature is slowly returned to normal.

## How might cooling help?

There have been several large studies that have looked at the effect of cooling after brain injury. These include studies in animals, studies in adults and studies in babies born with perinatal asphyxia. The recent reported studies of newborn babies with perinatal asphyxia have shown that cooling significantly reduces the risk of later disability to those babies born with moderate perinatal asphyxia.

## How will my baby be treated with cooling?

Your baby will receive standard intensive care and, in addition, your baby will be cooled. This means that your baby will be nursed in a special cooling wrap that cools the whole body to the desired temperature. The wrap is filled with fluid that can be cooled or warmed. You will still be able to touch your baby just as you would if they were not in a cooling wrap. Your baby's temperature will be measured closely to make sure that this stays at around 33.5°C (92.3°F). It is important to know exactly what your baby's temperature is during cooling and re-warming and we usually do this by measuring the temperature from a small probe placed in the baby's bottom (which measures rectal temperature).

## Who can offer cooling treatment?

Cooling is a specialist treatment which means it should be done at a regional neonatal intensive care unit (NICU). Cooling treatment has to be started promptly so will be commenced as soon as possible at the Royal Berkshire Hospital. We will arrange for your baby to be safely transported to a regional NICU (normally Oxford) to continue treatment. Your baby's doctors will talk to you further about transferring your baby and to which hospital they will be going.

## What are the possible side effects of cooling?

From studies that have been performed in animals or adults and from the existing studies of newborn babies, we know that cooling may lead to

problems with blood pressure control, abnormal heart rhythm, bleeding and clotting problems, and chemical and sugar imbalances in the blood. The doctors and nurses looking after your baby are aware of this and your baby will be closely monitored for signs of these unusual complications.

Your baby's doctors can decide to stop the cooling early if they consider this to be best for your baby.

## What happens now?

Thank you for reading this information leaflet. If you wish to discuss anything about the treatment your baby is receiving please speak to the doctor and nurse in the neonatal unit.

## Local contact details

The first point of contact is the consultant looking after your baby.

If you require further information then please contact:

Dr Balaji Surya, Consultant Paediatrician

Neonatal Intensive Care Unit, Royal Berkshire Hospital

0118 322 7430

## Contact details for regional Neonatal Intensive Care Unit

The Neonatal transport team will provide you with the contact details and further information about the Neonatal Intensive Care Unit that your baby is being transferred to.

For more sources of support:

Babies in Buscot Support: [www.bibs.org.uk](http://www.bibs.org.uk)

Bliss: [www.bliss.org.uk](http://www.bliss.org.uk)

For more information about the Trust, visit our website

[www.royalberkshire.nhs.uk](http://www.royalberkshire.nhs.uk)

Dr G Boden, February 2010

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