



Your Child's Health

Hypothermia Treatment for Hypoxic Ischemic Encephalopathy

Information for Parents

Terminology

Hypoxic = not enough oxygen

Ischemic = not enough blood flow

Encephalopathy = brain injury

Hypothermia = cooling

Introduction

Your baby might have Hypoxic Ischemic Encephalopathy (HIE). This means the baby is sick because the brain may not have gotten enough oxygen or blood flow for a period of time. There could be many reasons why this has happened. Your baby's doctor will talk with you about what those reasons might be.

A lack of oxygen before and during birth can injure cells in a newborn baby's brain. How long the brain was without oxygen can impact how serious the problems will be. The damage caused by the lack of oxygen can continue for some time after birth.

What can be done to treat HIE?

One way to reduce this damage is to cool the baby for hours to days. For babies with HIE, research has shown that if the brain is cooled just a few degrees below normal body temperature soon after birth, there may be less brain damage. Your baby will be placed on a cooling blanket (hypothermia blanket) for up to three days. After this time, your baby will be slowly re-warmed to normal body temperature.

How will my baby be monitored during the cooling treatment?

While caring for your baby, we will monitor your baby's heart rate, breathing patterns and temperature. We will also be checking your baby's brain activity with a cerebral function monitor (CFM). Three tiny probes are placed just under the skin of your baby's scalp. These probes are connected to the CFM and will help show us if there are any changes in brain activity. Another way we will look at brain activity is with an electroencephalogram (EEG) and a video camera. Blood tests will also be sent to evaluate other aspects of your baby's health such as infections or metabolic problems.

Does the cooling blanket affect any other parts of the body besides the brain?

It is normal for your baby to have a slower heart rate and breathing rate during the cooling treatment. It is also normal for your baby to be quiet and sleepy.

How will my baby be kept comfortable while on the cooling blanket?

We will be giving medicines to help your baby rest comfortably and will be monitoring your baby closely for any signs of discomfort.

What can I do to help my baby during the treatment?

You are welcome to visit your baby anytime in the Intensive Care Nursery (ICN) according to the ICN guidelines. For the first few days, it is important that your baby rests. Your baby's nurse can show you ways to participate in your baby's care.

How will my baby receive nutrition during the cooling treatment?

Your baby will be getting nutrition through intravenous (IV) therapy. After cooling, and when your baby is ready to eat, breast milk or formula will be given. For breastfeeding mothers, please pump and store your milk. We will provide accommodations for you to do this and assist you with using the breast pump.

We realize this is a difficult time for you and your family. The stress of having a baby in the ICN, along with seeing unfamiliar machines and procedures, might be frightening. We encourage you, as the parents, to please ask questions about your baby's care or concerns you have. For additional information on your baby's care please ask your baby's nurse or doctor.