

Information for parents about HIE and
Therapeutic Hypothermia
(Total Body Cooling)

HIE

Hypoxic (lack of oxygen)
Ischemic (lack of blood)
Encephalopathy (damage to the brain)

What to expect in the Neonatal Intensive Care Unit



Centre universitaire
de santé McGill



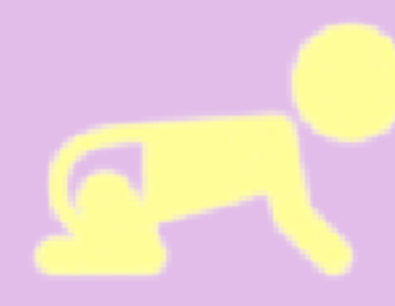
McGill University
Health Centre

Neonatal Intensive Care Unit (NICU)
(514) 412-4400
ext: 22389

What is HIE?

HIE is one of the most serious and life-threatening causes of brain damage in children. Your baby may not have had enough oxygen and/or blood around the time of birth. The lack of oxygen and/or blood can cause damage to your child's brain

Potential consequences of HIE



Cerebral Palsy &
developmental
delays



Epilepsy &
other seizure
disorders



Hearing issues



Vision issues



ADHD & learning
disabilities



Autism & other
behavioural
difficulties

How is HIE diagnosed?

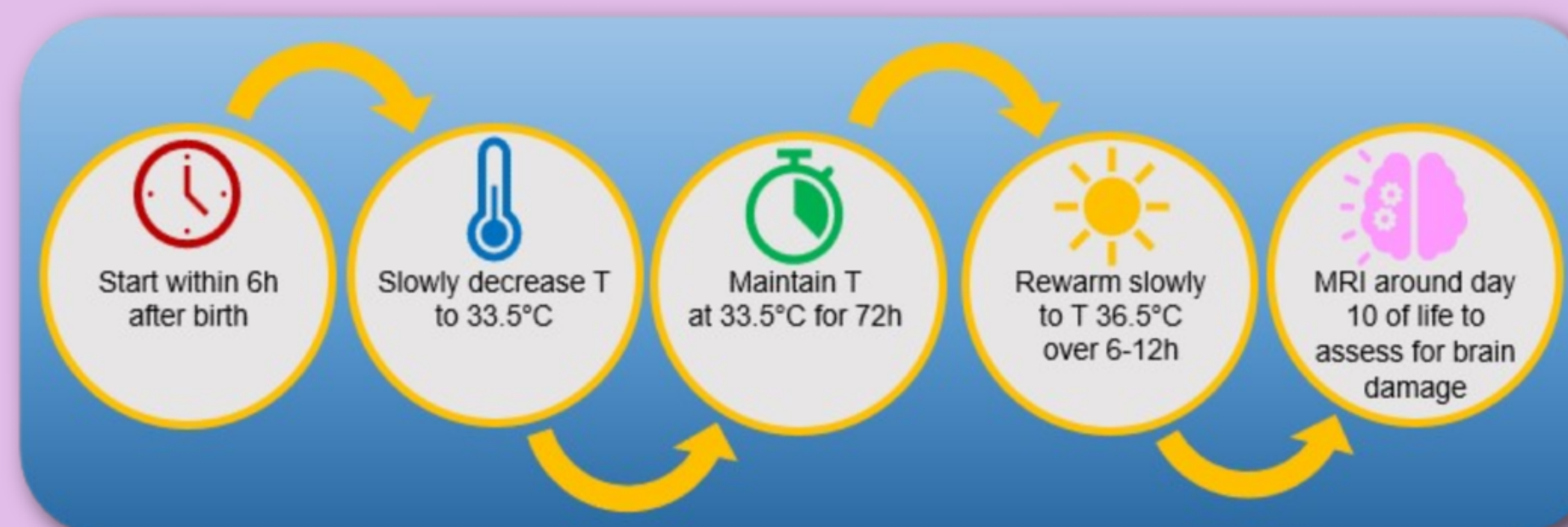
Your baby's APGAR scores, history, clinical exam and lab values are evaluated to determine if your baby has HIE and if he/she qualifies for therapeutic hypothermia.

How do we treat HIE?

Therapeutic hypothermia (total body cooling) is the only proven treatment to reduce the risk of brain damage after HIE. The baby's body temperature is reduced to slow down metabolism, which gives the brain a chance to recover.

Therapeutic hypothermia should be initiated within 6 hours after birth for maximum benefits. Our specialized transport team can start cooling at referring centers and on route if needed, as they are equipped with a portable cooling machine

Therapeutic hypothermia process



What happens during treatment?

- *Your baby will be placed on a special cooling mattress and be hooked up to monitors. Small wires will be attached to his/her head to follow brain activity
- *Routine blood work will be done
- *Your baby will be fed through an intravenous and kept as comfortable as possible, (turned and massaged regularly). If your baby appears uncomfortable, medication will be given
- *Your baby needs you. Talk to the team about ways you can bond with your baby during this time
- *The team knows how important it is for you to hold for your baby, and will evaluate his/her readiness every day. Many babies are not stable enough to be held during hypothermia; talk to the team about alternative ways to care of your baby during hypothermia.

What can be expected in the next few days?

Scan this code with your phone to see a short animated movie explaining what to expect over the coming days

Scan this code to access a website for parents, like you, whose baby has HIE and is being treated with hypothermia. It includes useful links and tips while your baby is in the NICU, but also for after the NICU.



Research is crucial for HIE prevention and treatment!

If your baby is cooled, you may be approached to participate in a research study, please consider having your baby participate to the research to improve the care of our babies

What happens after hypothermia?

Duration of stay in the NICU depends on how long it takes for your baby to recover and to learn how to feed and/or breathe by himself/herself. Babies with HIE often need help with feeding and may require supplemental oxygen

Want more information?



NeoBrainParents
<https://www.neobrainparents.org/>



Hope for HIE
<https://www.hopeforhie.org/>

@HopeforHIE

Information for parents discharged home with a baby who had HIE and was treated with hypothermia

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What to expect when going home?



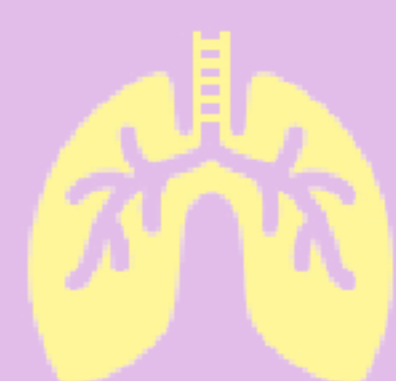
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When can my baby go home?



When he/she needs is breathing by him/herself or with support that can be safely given at home



When he/she is eating by him/herself or with a feeding tube that you feel comfortable managing at home



When he/she can maintain a normal body temperature outside of an isolette

What follow-up is needed after the NICU?

1. Pediatrician or family doctor

Like any other child, your baby should be followed by a pediatrician or family doctor that you can contact for all your general questions.

2. Neonatal follow-up clinic

Your baby should receive an appointment in the outpatient neonatal follow-up clinic around 4 months of age (or earlier if your baby needs a feeding tube)

*If you have not received your appointment by the time your baby is 3 months of age, or if you have any questions, please contact the neonatal follow-up clinic at **(514) 412-4302** (mention that your baby was treated with hypothermia)

3. Occupational therapy

Your baby should receive an appointment with Occupational therapy 6-8 weeks after leaving the hospital. Follow-up occupational therapy appointments will be booked afterwards based on your baby's needs

* If you have not received an appointment before leaving the hospital, please contact the occupational therapy department at **(514) 412-4407** (mention that your baby was treated with hypothermia)

What is subcutaneous fat necrosis (SCFN)?

It is important to monitor your baby's skin closely for the next 3 months after leaving the hospital, because your baby can develop "subcutaneous fat necrosis (SCFN)". This is a skin complication that may cause high calcium in your child's blood, which in turn can lead to your baby being very sick and have long-term kidney issues. Fortunately, high level of calcium can be treated, when detected early. SCFN typically disappears spontaneously after a few months

What does SCFN look like?



SCFN looks like pink or red patches or hard lumps on the back, shoulders, upper arms or legs, or buttocks that can become hard to the touch, bumpy, and purple-red. These lumps may be painful

What else should I look for?

If your baby does not gain weight, is more sleepy, feeds less, or regurgitates more than usual, then he/she may have high calcium in his/her blood

What should I do if I think my baby has SCFN?

If your baby develops a skin rash that looks like SCFN or if you think that he/she is sick because of high calcium in his/her blood, you should:

- *Stop giving the daily vitamin D supplement
- *Immediately contact your pediatrician or family doctor. If not available, contact the neonatal follow-up clinic at **(514) 412-4302** and ask to speak to the nurse (mention that your baby was treated with hypothermia)

Want more information?



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