



No two cases of neonatal [hypoxic-ischemic encephalopathy \(HIE\)](#) are exactly alike. The brain damage stemming from HIE can lead to a variety of different health conditions and disabilities; the ways it affects an individual child depend on what parts of the brain were injured and the extent of the damage. Children with severe HIE may develop motor disorders (such as cerebral palsy), intellectual disabilities, speech-language problems, or hearing and vision impairments (1). Many have a combination of these issues, as well as other serious health concerns. Others with more mild HIE experience no (or only very minor) lasting effects.

Doctors may be able to provide a general prognosis, but it can be difficult to know exactly what long-term disabilities a child will develop. Although the brain injury itself does not worsen, it may have secondary effects that evolve as the child grows and matures. Additionally, certain issues may not become apparent until the child starts to show signs of [developmental delays](#) such as not walking, talking, or learning to read around the same time as their peers (2).

The following conditions and injuries may occur as a result of birth asphyxia and hypoxic-ischemic encephalopathy. Please click through to learn more about these possible long-term outcomes:

- [Cerebral palsy](#)
- [I/DD \(intellectual/developmental disabilities\)](#)
- [Learning disabilities](#)
- [Fetal stroke](#)
- [Intracranial hemorrhages \(brain bleeds\)](#)
- [Epilepsy, seizures, and seizure disorders](#)
- [Speech delays and language disorders](#)
- [Behavioral and emotional disorders](#)
- [Hearing and vision limitations](#)
- [Nutritional concerns](#)
- [Oral health](#) problems



- [Neurologic and mental health concerns](#)
- [Skin health concerns](#)
- [Orthopedic conditions](#)
- [Pain](#)
- [Respiratory conditions](#)
- [Sensory processing issues](#)

Some effects of these conditions can be mitigated with optimal treatment, therapy, supportive equipment, and assistive devices. To learn more about existing and potential treatments for HIE, please click [here](#).

The importance of therapeutic hypothermia

If neonatal HIE is recognized very shortly after the [birth injury](#) (oxygen deprivation) occurs, the permanent effects may be minimized with a cutting-edge treatment known as [therapeutic hypothermia](#).

Hypothermia treatment should ideally be given within six hours of birth/the complication that caused oxygen deprivation. Under certain circumstances it can be administered up to 12 hours after, and new research suggests there may be benefit up to 24 hours after birth, but in general it should be done as soon as possible (3).

Therapeutic hypothermia gives damaged cells time to recover from asphyxia, which lessens the spread of permanent brain injury. Doctors may use a cooling cap for “selective brain cooling” or cool the baby’s entire body (3). Failure to perform therapeutic hypothermia and other important treatments in the immediate aftermath of an hypoxic-ischemic injury is [medical malpractice](#).

This underscores the importance of [recognizing HIE](#) as soon as possible. Medical professionals should evaluate babies for HIE if they experienced delivery complications which put them at high-risk of brain damage, if they showed signs of fetal distress (such as an



abnormal heart rate) during birth, or if they are showing [early signs and symptoms of HIE](#). (These include abnormal muscle tone, neonatal seizures, and low [Apgar score](#), among others.) Once HIE is suspected, doctors should perform [diagnostic tests and evaluations](#), including neuroimaging methods such as magnetic resonance imaging (MRI) and computed tomography (CT); umbilical cord blood gas tests; and electroencephalogram (EEG) (4).

Other important early treatments

It is also very important that young children with HIE have access to [Early Intervention](#) programs and high-quality health care (including physical, occupational, and speech therapy). Having good treatment options can help to maximize future abilities and minimize negative long-term outcomes.

Preliminary research finds that [stem cell therapy](#) can help some children with HIE, though research is still in the early stages, and treatment may be difficult to obtain. Some parents choose to have their children undergo stem cell therapy outside the borders of the United States, but this requires careful [evaluation](#), and such unregulated practices may have risks.

About the HIE Help Center and ABC Law Centers

The HIE Help Center is run by [ABC Law Centers](#), a medical malpractice firm exclusively handling cases involving HIE and other birth injuries. Our lawyers have over 100 years of combined experience with this type of law, and have been advocating for children with HIE and related disabilities since the firm's inception in 1997.

We are passionate about helping families obtain the compensation necessary to cover their extensive medical bills, loss of wages (if one or both parents have to miss work in order to care for their child), assistive technology, and other necessities.

If you suspect your child's HIE may have been caused by medical negligence, please [contact us](#) today to learn more about pursuing a case. We provide free legal consultations, during



which we will inform you of your [legal options](#) and answer any questions you have. Moreover, you would pay nothing throughout the entire legal process unless we obtain a favorable settlement.

You are also welcome to reach out to us with inquiries that are not related to malpractice. We cannot provide individualized medical advice, but we're happy to track down informational resources for you.

Sources

Hypoxic-Ischemic Encephalopathy (HIE). (n.d.). Retrieved from <https://www.abclawcenters.com/practice-areas/prenatal-birth-injuries/fetus-or-newborn-medical-problems/hypoxic-ischemic-encephalopathy/>

Hypoxic-Ischemic Encephalopathy (HIE). (n.d.). Retrieved from <https://hiehelpcenter.org/what-is-hypoxic-ischemic-encephalopathy/>

Hypothermia Therapy (n.d.). Retrieved from <https://hiehelpcenter.org/treatment/hypothermia-therapy/>

Identifying HIE (n.d.). Retrieved from <https://hiehelpcenter.org/medical/identifying-hie/>