



New treatments for hypoxic-ischemic encephalopathy (HIE) are rare (with the exception of hypothermia therapy in the first six hours of life), but one proposed new therapy is called 'stem cell therapy.' In stem cell therapy, stem cells (cells that can divide into many different kinds of cells) are injected into injured tissues in the hopes of replacing damaged tissue and preserving existing tissues.

This type of treatment is still in clinical trials, and is therefore not widely available in the United States, but some individuals choose to go to unregulated clinics. Because stem cell therapy is still in clinical trials, parents should think twice before going down this untested path, as no formal guidelines about administration protocol, dosages, safety, or treatment timeline have yet been established. Clinical trials are important for ensuring that treatments are safe and effective - unregulated treatments bear significant risk.

Clinical trials are testing the efficacy of different types of stem cells (including induced pluripotent stem cells (iPSCs), mesenchymal stem cells (MSCs), and umbilical cord stem cells). Researchers have stated that [umbilical cord stem cells](#) and MSCs show great potential for treating neonatal brain injury, but more research is needed to definitively provide a conclusion regarding relative effectiveness.

It is important to note that there is thus far no cure for hypoxic-ischemic encephalopathy (HIE) and resulting motor, cognitive, and/or intellectual disorders. Stem cell therapy seeks to *limit* the damage caused by HIE and *reduce* the severity of disabilities caused by HIE, but it is *not* a cure.

Researchers predict that future treatments will aim to protect and repair brain cells impacted by hypoxia/ischemia before they are no longer functional; this means that it is very likely that new treatments will likely have to be applied within a short timeframe between the brain damage-causing injury and the beginning of permanent cell loss. Children undergoing this treatment will still need other kinds of therapy (such as [physical](#) and [occupational therapy](#)) to reap the full potential benefits of stem cell therapy.



To learn more about stem cell therapy trials for hypoxic-ischemic encephalopathy, please visit the [National Institute of Health's \(NIH\) Clinical Trial Recruitment Center](#).

## References

- Pimentel-Coelho, PM, et al. Cell Therapy for Neonatal Hypoxic-Ischemic Encephalopathy. *Stem Cells and Development*. March 2010, 19(3): 299-310. doi:[10.1089/scd.2009.0403](https://doi.org/10.1089/scd.2009.0403).
- Ma, J, et al. Treatment of hypoxic-ischemic encephalopathy in mouse by transplantation of embryonic stem cell-derived cells. *Neurochemistry International*, Volume 51, Issue 1, July 2007, Pages 57-65. <http://dx.doi.org/10.1016/j.neuint.2007.04.012>.
- Cotten, CM, et al. Feasibility of Autologous Cord Blood Cells for Infants with Hypoxic-Ischemic Encephalopathy. *The Journal of Pediatrics* Volume 164, Issue 5, May 2014, Pages 973-979.e1. <http://dx.doi.org/10.1016/j.jpeds.2013.11.036>.

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To learn more about stem cell therapy, please see the following links:

- [What kind of research is underway to treat cerebral palsy?](#)
- [Progress in Stem Cell Therapy for CP](#)
- [\[Research\] Stem Cell Therapy for Hypoxic-Ischemic Encephalopathy \(HIE\)](#)
- [\[Research\] Stem cell-based therapies for the newborn lung and brain: Possibilities and challenges](#)
- [\[Research\] Progress in Stem Cell Research for Neonatal Brain Injury](#)
- [\[Research\] Current Controversies in Newer Therapies to Treat Birth Asphyxia](#)
- [\[Research\] Stem cell-based therapies for the newborn lung and brain: Possibilities and challenges](#)
- [List of Current Human and Preclinical Stem Cell Research Trials](#)

Learn more about stem cell clinics currently offering services:



- [Science-Based Medicine](#): Stem Cell Clinics in the U.S.
- [Things to Know](#) About Current Stem Cell Treatments
- [Unregulated Stem-Cell Clinics](#) Proliferate Across United States

### About the HIE Help Center

The HIE Help Center is run by [Reiter & Walsh 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.