



Health and fitness are highly complex topics that take into account a wide range of components. Although there are many health habits and changes that feed into the concept of general health, the three largest categories involve exercise, sleep, and diet. Other environmental factors are also significant, including some socioeconomic factors, education level, health insurance coverage, access to medical and healthcare services, and presence of support networks within the community. Although health and fitness and issues of concern for *all* individuals, parents should pay special attention to the health and fitness goals of children with disabilities, as they may have additional needs that must be addressed in the context of HIE-related diagnoses.

Exercise and HIE

Health and fitness are important considerations in the life of all children, but there are often additional considerations that parents should take into account if their child has disabilities relating to hypoxic-ischemic encephalopathy (HIE). Children with HIE are more likely to have cerebral palsy, which can have downstream (secondary) effects on mobility, spasticity and other factors that can make fitness more difficult. In many cases, however, there are ways to adapt fitness regimens to a child's abilities to help them maintain strength, flexibility, balance, and/or range of motion. Exercise also helps to stave off aging-associated conditions such as cardiovascular deterioration and respiratory issues, diabetes, osteoporosis/arthritis, high blood pressure, obesity and heart disease.

Exercise regimens should be cleared and/or supervised by a physician, physical therapist or other medical professional, as these professionals can help provide suggestions regarding how to adapt exercises to a child's skill levels. This is very important, as the mobility impairments that can attend HIE can sometimes cause premature aging, osteoporosis and arthritis, as the body is subjected to additional stresses and strains. However, in many cases, these effects may be mitigated with proper medical supervision, exercise and fitness regimens. Generally, for adults, the recommendation is 30 minutes of activity a day at least five days a week; for children, the recommendation is an hour of activity every day, in order to improve cardiovascular health, increase strength, improve flexibility, maintain a healthy



weight and balance blood pressure and cholesterol.

Exercise regimens should take into account aerobic, anaerobic and muscle-strengthening exercises. To learn more about the kinds of exercises needed for health maintenance, please see this review article of [physical fitness in cerebral palsy](#) for more details. For individuals who are nonambulatory or inactive, range-of-motion exercises can still provide exercise, increasing the joint's ability to move without impairment. Other options for exercise regimens can be found on [physiopedia](#), the Encyclopedia of Physiotherapy.

Diet and HIE

A child's dietary needs can vary significantly, which means that making one-size-fits-all recommendations is rarely useful. Consultation with a nutritionist or similar health professional can provide parents with a guideline regarding the best way to provide their child with proper nutrition. To see more on dietary concerns, please see our page on [diet, nutrition and feeding](#). One of the key components of dietary balance is ensuring that children get the proper amount of nutrients, vitamins and minerals to ensure healthy development. Generally, a healthy diet will have lean proteins, fresh fruits and vegetables, whole grains, milk and limited quantities of lipids (fats), though relative quantities may vary depending on a child's unique situation. In certain cases, children may be placed on diets with specific guidelines regarding the relative quantities of different types of macronutrients, such as the [ketogenic diet](#) for intractable seizures/epilepsy.

Learn more about diet and cerebral palsy (commonly associated with HIE):

- [Kid's Health: Diet and Cerebral Palsy](#)
- [\[Research\] Diet in the Management of Cerebral Palsy](#)

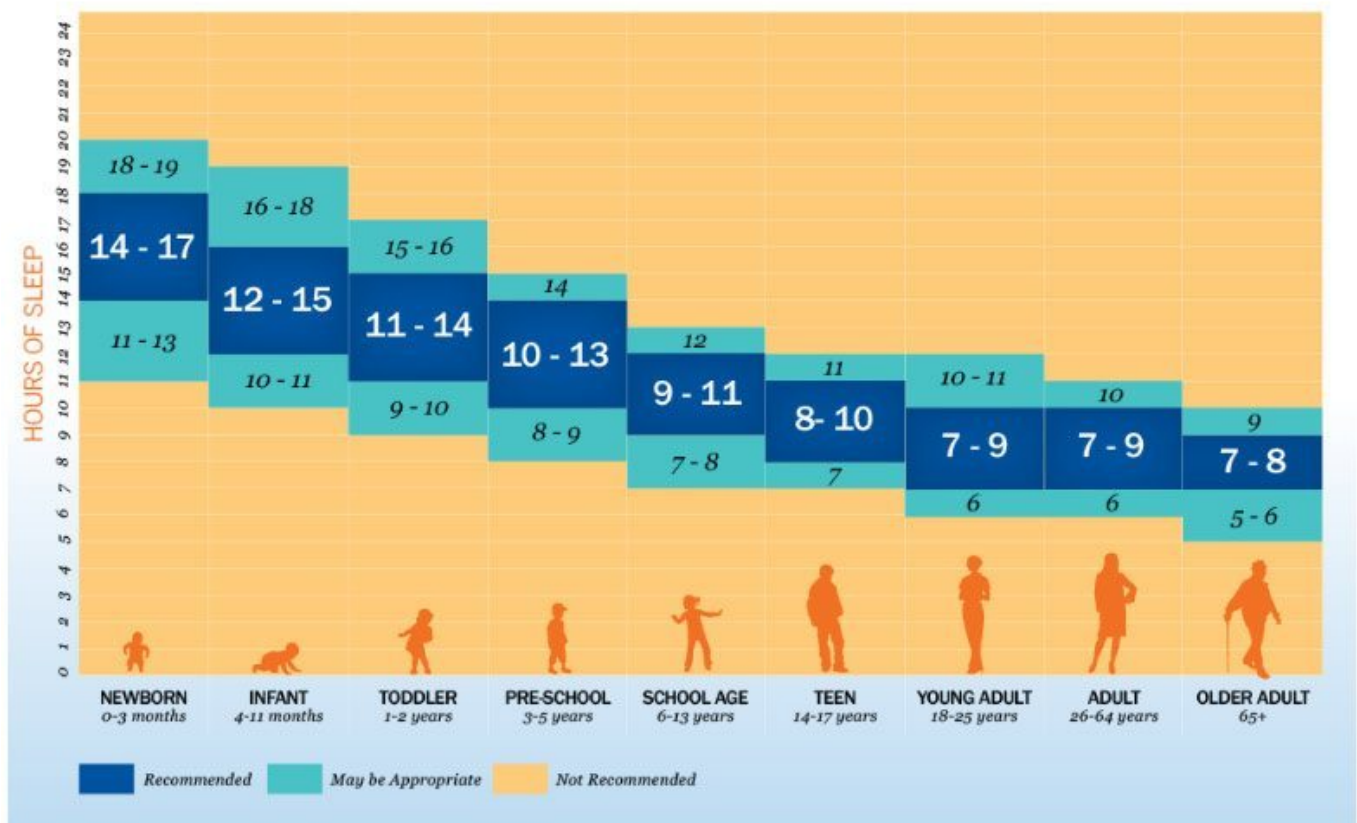
Sleep and HIE

The developing brain and body need sleep in order to ensure optimal cognitive function, mood, and other health-related considerations. Each developmental stage of life is

accompanied by different physiological needs for sleep. For example, young infants have very different sleep habits than teenagers, and teenagers have different sleep patterns than older adults over the age of 65. While an individual's sleep needs may vary, generally, the National Sleep Foundation [recommends](#) the following amounts of sleep, summarized in a single neat chart:

 NATIONAL SLEEP FOUNDATION

SLEEP DURATION RECOMMENDATIONS



SLEEPFOUNDATION.ORG | SLEEP.ORG

Hirshkowitz M, The National Sleep Foundation's sleep time duration recommendations: methodology and results summary, Sleep Health (2015), <http://dx.doi.org/10.1016/j.sleh.2014.12.010>



Source: Hirshkowitz M. The National Sleep Foundation's sleep time duration recommendations: methodology and results summary. Sleep Health (2015).

Although the chart summarizes key recommendations, sometimes sleep patterns may be disturbed in children with HIE, whether it is due to neurological issues, gastrointestinal distress, pain, or other considerations. Parents should consult with their child's pediatrician or primary care physician regarding any concerns they may have about how much, how long, or how well their child is sleeping. Physicians may recommend some interventions or changes in habits, environment, [mattress type](#), or other factors to help ensure the child is able to get sufficient restful sleep.

Do you need someone to talk to?

Your child was just diagnosed with HIE and your head is spinning with what may feel like a thousand different things. Questions, medical terms, care plans; it can be difficult to make sense of everything that has happened.

As you start to do your research on exactly what your child's diagnosis means, you may be bombarded with facts, information, and advice regarding HIE, and you may be lost as to where to turn next.

We want to hear your story. HIE Help Center is owned by ABC Law Centers (a birth injury law firm). The intake team at ABC Law Centers is here to listen to every detail of what you and your family may have gone through during labor and delivery. Although we are not doctors can cannot provide medical advice, our team can provide you with resources specifically tailored to your situation. Our team has reviewed and handled thousands of cases and is trained to recognize if there may have been medical malpractice that lead to your child's diagnosis, and we can advise if taking legal action may be beneficial to you and your family.



Call us at (888) 329-0122 to speak with a member of our intake team.