

Orthopedic health revolves around the function of the musculoskeletal system, including the bones, joints, tendons, ligaments, muscles and supportive tissues. Orthopedic health concerns for children with hypoxic-ischemic encephalopathy (HIE) generally revolve around cerebral palsy, as HIE can cause cerebral palsy. This disability can necessitate intensive [physical therapy](#), [orthotics](#), [early intervention](#), and other preventative and health maintenance services in order to maintain range of motion, walking ability, and physical capabilities.

While [more than 40%](#) of individuals with cerebral palsy have some form of cognitive disability, orthopedics focuses on an individual's *physical* ability to move, walk, and carry out the tasks of daily living on their own. Orthopedic impairments can reduce a person's independence, prompting an emphasis on early intervention to reduce complications such as contractures, pain, foot drop and tissue shortening.

Orthopedic Health Concerns Related to HIE

The orthopedic concerns of HIE overlap with the orthopedic health concerns of [cerebral palsy \(CP\)](#). Both CP and HIE can impact a child's:





- Balance
- Fine and gross motor skills
- Muscle tone
- Coordination and muscle control
- Oral-motor function
- Posture
- Reflexes

This type of brain injury can cause nerves to erroneously fire signals to the muscles, causing them to tighten. In severe cases, repeated muscle tightening can result in:

- Bone and joint deformities
- Contractures
- Severe pain
- Hip dislocations
- Spinal curvatures

There are numerous types of cerebral palsy, which can manifest as too much muscle tone, not enough muscle tone, uncontrolled motions, writhing or tremors.

Medical negligence can cause HIE. Do you have a case?

Call us today for a free legal consultation.

Treating Orthopedic Health Concerns

Physical and occupational therapy are designed to help children gain or improve physical functions. Certain medications (such as baclofen or Botox) are available to help control muscle spasticity. Assistive devices can help children walk and complete the Activities of



Daily Living (ADLs), and [orthotic devices](#) can help keep the joints in alignment, support the trunk, feet, knees and joints, and help prevent maladaptive habits such as [toe-walking](#).

Children can be taken to their primary care physician or pediatrician for evaluation from a young age. Early diagnosis helps to maximize the benefits of therapy, formalized Early Intervention (EI) programs, and Zero Through Three Programs. In some cases, primary care providers will provide referrals to orthopedic surgeons who specialize in helping children with musculoskeletal conditions.

Learn More About Orthopedic Health and HIE

- [Orthopedic Concerns in Cerebral Palsy](#)
- [Common Orthopedic Concerns in CP](#)