

# Hypoxic Ischemic Brain Injury

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## Fact Sheet

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## The Role of Physical Therapy

The role of the physical therapist for an individual with HI-BI is supplementary to medical management, and can be categorized into 2 domains: (1) negating consequences of immobility, and (2) maximizing mobility & interaction with the environment. Due to the presence of altered levels of consciousness and severe cognitive deficits combined with the presence of movement disorders, the efforts of the physical therapist should include maintaining range of motion, optimizing posture including use of seating systems, and maintaining integrity of body systems including cardio-pulmonary, integumentary, and musculo-skeletal. Concurrently, the physical therapist should maximize safe & functional mobility, often using a combination of restorative and compensatory interventions. Unfortunately, there is a paucity of literature related to specific PT interventions for this population. Thus, clinicians may find it useful to access and integrate literature from other populations with similar features, such as using literature about cerebellar disorders to address ataxia or literature about Parkinson's disease to address bradykinesia (recognize that it may not be fully transferable to the HI-BI population). Typically, the physical therapist will be part of an inter-disciplinary team that may include occupational therapists, speech therapists, and neurologists. Communication between team members regarding the influence of medications or other medical management to treat movement disorders and successful compensatory strategies is integral in promoting improved function for the client.

## Research Updates

In recent years, there has been more investigation into medical treatment interventions for persons with severe movement disorders, including deep brain stimulators and intrathecal medication pumps. Currently, only single case reports exist regarding these interventions.<sup>5,6</sup> Future research regarding medical and therapeutic interventions would assist providers to maximize outcomes for this rapidly growing cohort of patients. Regardless of medical and surgical advances, Physical Therapy will remain an important adjunctive role in the treatment of movement disorders.

## References

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