

FACT SHEET



Physical Changes After Brain Injury Motor Skills

QUICK FACTS

- Motor skills may be impaired and make everyday tasks difficult
- Motor skill conditions following brain injury may include:
 - **Hemiparesis** – weakening of one side of the body
 - **Hemiplegia** – paralysis of one side of the body

WHAT MIGHT IT LOOK LIKE?

Gross motor difficulties:

- Clumsiness when walking, running, riding a bike, playing sports, etc.
- Difficulty maintaining balance, falling, or abnormal walking
- Arms and/or legs may be stiff or tight (called spasticity)
- Erratic pace, or slow movements
- Limited range of motion

Fine motor difficulties:

- Messy writing, untied shoelaces
- Difficulty using utensils or picking up small objects
- Difficulty with self-care tasks such as brushing teeth and combing hair

WHAT ARE THE POSSIBLE CAUSES AND COMPLICATIONS?

Possible causes:

- Damage to the following areas can result in motor impairments
 - Primary motor cortex - controls the movements of muscles
 - Basal ganglia - which controls position and voluntary movement
 - Cerebellum - monitors the muscles during movement and is important for balance and coordination

Possible complications:

- Muscle weakness may affect the ability to control the bowel and bladder
- Spasticity (muscles continuously contracting) may cause pain and discomfort
- Difficulty taking part in social, recreational, and leisure activities
- Depression, anger, and frustration
- Participation difficulties may make it difficult to make and keep personal and professional relationships

Disclaimer: This information is not meant to replace advice from a medical doctor. Consult a health care provider regarding specific medical concerns or treatment.

FACT SHEET CONTINUED.



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WHAT CAN WE DO?

- Ask how you can assist and be aware of abilities
- Stay in close proximity while transferring from a wheelchair, getting out of a car, or walking
- Provide additional time for tasks, encourage as much independence as possible
- Encourage the completion of rehabilitation exercises and activities as recommended by health care professional (i.e. physiotherapist, occupational therapist)

Gross motor difficulties:

- Create a safe environment by keeping pathways clear
- Carefully plan the length of walks and allow for breaks

Fine motor difficulties:

- Support independent dressing by using Velcro on shoes, elastic waistband, etc.
- Use of modified equipment such as larger handle toothbrush, weighted utensils, and pencil grips
- Take breaks often
- Ensure family members and friends are aware of rehabilitation program and related precautions for safety

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