

## Head Injury and Mild Traumatic Brain Injury (Concussion) in Young Children (0-5 years)

Informations for patients and their families



Your child has sustained a head injury. This event can be worrisome for your child and your family. This pamphlet is intended to inform you and help you better understand what is happening to your child.

### What is a head injury?

A head injury is usually caused by a blow to the head. The term "head injury" is used by medical teams when the child does not develop any symptoms related to the impact. Please refer to the advice given by the doctor or nurse, and be sure to consult the medical team again if necessary, as per the advice below. However, the child can return to his or her activities as soon as possible.

## What is a mild traumatic brain injury (concussion)?

A mild traumatic brain injury (mTBI), commonly known as a concussion, usually results from a blow to the head. The brain is shaken inside the skull. This causes a temporary disturbance in brain function during which the child may develop symptoms.

# What to expect in the days following a mTBI/ concussion?

Here is a list of common symptoms that can be observed in the days following a mTBI/concussion and examples of how they may manifest in a young child.

Physical	Cognitive/mental	Behavioral
<ul> <li>Headaches (ex: rubs or holds head, says they have a headache)</li> </ul>	<ul> <li>Seems "elsewhere" or in a daze</li> </ul>	<ul> <li>Is irritable or grumpy (ex : cries, has tantrums)</li> </ul>
<ul> <li>Nausea (ex: eats less than usual/has no appetite, says they feel nauseous or sick)</li> </ul>	<ul> <li>Concentration difficulties, distracted (ex : unable to stay concentrated on an activity)</li> </ul>	<ul> <li>Seeks comfort (ex : wants to be held)</li> </ul>

> Vomiting	<ul> <li>Thinks or moves more slowly</li> </ul>	<ul> <li>Nervousness, anxiety (ex : stays close to caregivers, is fearful)</li> </ul>
<ul> <li>Fatigue or a decrease in energy (ex : has less energy for activities)</li> </ul>		> Developmental regression (i.e., taking "a step back» in development)
<ul> <li>Disrupted sleep (ex : sleeps more or does not sleep as well)</li> </ul>		
<ul> <li>Sensitivity to sound or light (ex : does not want to go outside)</li> </ul>		

In most cases, the symptoms associated with a mTBI/concussion gradually decrease within 2 to 4 weeks of injury. However, in some cases, they may last longer.

## At home: Advice to relieve symptoms and promote recovery

#### Active rest and gradual return to activity

- A period of active rest lasting 1 to 2 days is recommended. This means organising the child's daily routine and environment so that they can rest, without necessarily "doing nothing". The different settings that young children spend time in, such as day-care centers, are full of sensory stimulation and are demanding. Whenever possible, consider keeping the child at home for 1 or 2 days following their mTBI/concussion.
- A gradual return to normal activities is recommended in terms of daily living, play, mental/educational and physical activities. This gradual strategy is designed to promote the child's recovery and well-being, reduce the risk of developing persistent symptoms, and avoid further head injuries during the recovery period.

For further guidance on accompanying a young child through each stage of recovery and supporting them effectively over the

coming days and weeks, consult the COCO recovery recommendations tool at: coco.umontreal.ca/en/ coco-tools/, or by scanning the following QR code:



### **Physical symptoms**

- Make sure the child drinks enough fluids (dehydration can contribute to headaches).
- If the child is breastfed, continue breastfeeding as usual or according to the child's needs.
- Make sure the child eats enough. However, if nausea is present, favor a light diet (ex: liquids, broths, Jello<sup>®</sup> as tolerated) for 24 hours or until nausea or vomiting subside.
- Follow the medical team's instructions to find out if medication can or should be given to your child if they show signs of headache.
- If sensitive to light, use sunglasses and/or a hat outside.

### Sleep

Prioritize sufficient sleep. Note that the child's sleep patterns and quantity may differ during the recovery period. It is recommended to let the child rest more if they show signs of fatigue. This may mean being more flexible about the child's usual sleep routines.

### **Behavior and emotions**

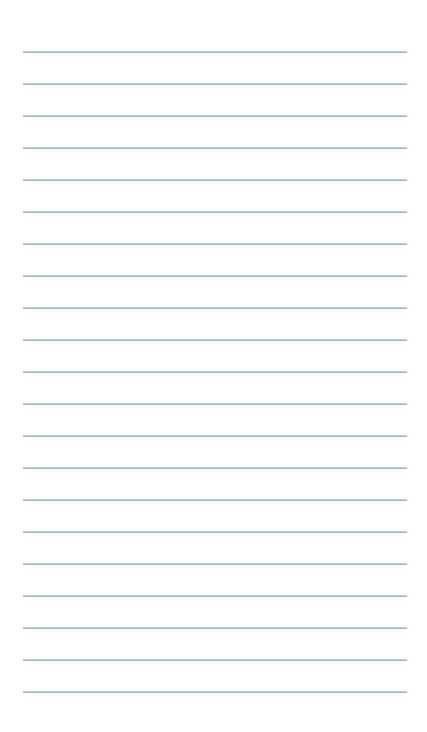
The child may be more "demanding" than usual (e.g. irritability, anxiety, increased need for reassurance, temporary regression in certain skills, such as potty training). It is advisable to be patient and tolerant towards the child during this more difficult period, and to adapt routines and requirements to the child's current state.

• As this can sometimes be a difficult time for parents, it is also important to take care of yourself, and to ask for support from friends and family or professionals if you feel the need.

# When should I see a healthcare professional again?

- Rapidly seek emergency medical attention if you notice one or more of the following warning signs:
  - > Loss of consciousness
  - Convulsions
  - Repeated vomiting
  - Confusion or deterioration of conscious state (ex: less reactive or very slow, drowsy, difficulty responding to standard questions or recognizing people or places)
  - > Unusual behavior (ex: very agitated, combative or irritable, excessive crying)
  - Difficulty moving around, balance difficulties, poor coordination or weakness in the arms or legs
  - > Severe or increasing headaches
  - > Vision problems
  - > Intense neck pain
- ▶ Follow-up with a health professional (family doctor, pediatrician, specialized nurse practitioner or mTBI team) if :
  - > Symptoms increase or do not improve significantly 2 weeks after the injury.
  - Symptoms still significantly interfer with the child's daily functioning 1 month after the injury.

### Notes



#### **CHU Sainte-Justine**

3175, chemin de la Côte-Sainte-Catherine Montréal (Québec) H3T 1C5 Téléphone : 514 345-4931

chusj.org

#### For more information, please visit our website:

https://www.chusj.org/fr/soins-services/T/Traumatologie/ Traumatisme-craniocerebral-leger-TCCL

#### Collaboration

Dre Cindy Beaudoin, D.Psy. pediatric neuropsychologist, researcher at CHU Sainte-Justine Azrieli Research Center. Dre Miriam Beauchamp, Ph.D. pediatric neuropsychologist, researcher at CHU Sainte-Justine Azrieli Research Center. Dr Hugo Paquin, M.D., pediatric emergency medicine physician, medical director concussion clinic. Marie-Gabrielle Delisle, R.N., trauma coordinator,

#### Validation

Comité des documents destinés à la clientèle

#### Impression

Imprimerie du CHU Sainte-Justine © CHU Sainte-Justine

F-884A GRM: 30010282 (February 2024)