



THE MONTREAL GENERAL HOSPITAL

# Trauma

#### WHAT IS A TRAUMATIC BRAIN INJURY?

A traumatic brain injury (T.B.I.) is caused by a significant blow to the head which can lead to varying degrees of damage to the brain and its stem. The impact may result in the disruption or the dysfunction of brain cells (neurons).

A brain injury may be caused by:

- a sudden contact with an object (falling down the stairs);
- a sharp penetration of an object into the skull (bullet); or
- an abrupt impact (e.g., motor vehicle accident) causing the head to be violently projected in different directions.

## WHAT ARE THE AFTER EFFECTS OF A BRAIN INJURY?

A traumatic brain injury may affect the person's functioning at different levels.

- The victim's physical condition may be affected depending on the severity of the injury; e.g., fractures, lack of sensation or movement in parts of the body, etc.
- ► There may be a disruption of the level of consciousness. In mild injuries, the person may experience mild confusion and in more severe cases coma may result.
- The intellectual and cognitive functions may be disturbed for a short or long term; e.g., failing memory, learning problems, difficulty in concentrating and/or in communicating.
- There may be a change in the victim's emotional state; e.g., mood swings, irritability, difficulty in expressing emotions, etc.
- ► There may be behavioural problems and personality changes.
- ► The level of performance of daily living activities may be affected.

Although the above are general characteristics of a brain injury, each case is unique and presents with its own particular characteristics.

## WHAT IS THE PURPOSE OF THE TRAUMATIC BRAIN INJURY (T.B.I.) PROGRAM?

In June 1994, The Montreal General Hospital signed an agreement with la Société de l'Assurance Automobile du Québec to implement an early rehabilitation program for people suffering

from a traumatic brain injury following a motor
vehicle accident. This agreement allowed
The Montreal General Hospital to create
a program which offers services to
victims of a traumatic brain injury
regardless of the cause of injury
(motor vehicle accident, work
accident, fall, assault, sports

The Program's objectives are the following:

to ensure the patient's medical stability;

accident, etc.).

- ▶ to evaluate and monitor the patient's physical, cognitive and psycho-social status;
- to enhance early family involvement;
- to help the patient relearn basic functions.

In order to achieve the objectives of the Program, an interdisciplinary team was created. This team is specialized in the early rehabilitation of the traumatic brain injured patient. The Program includes the coordinator and specialized professionals from different disciplines: neurosurgery and other medical specialties, nursing, physiotherapy, occupational therapy, social service, psychology, speech and language pathology and clinical nutrition.

The aim of the interdisciplinary team is to:

- become involved as soon as possible after the victim is admitted to the hospital:
- > assess the impact of the injuries on the patient and the family; and,
- provide individualized early rehabilitation services.

This holistic approach, from the beginning to the end of the rehabilitation process, helps to maximize the patient's potential for recovery.

### WHAT FACTORS INFLUENCE THE PATIENT'S PROGNOSIS AND RECOVERY?

- ► The victim's age at the time of the trauma.
- ► The severity of the disruption of the level of consciousness and the duration of coma.
- The duration of post-traumatic amnesia, which is the time between the injury and recovery of continuous memory for day to day events.
- ► The severity of the brain injury and its location.
- ▶ The physical condition of the victim prior to the trauma.
- ► The intellectual and cognitive capacities of the victim prior to the trauma.
- ► The involvement of family members and friends.

#### WHAT ABOUT THE FAMILY?

The family of a traumatic brain injured victim goes through emotional upheaval in their daily lives. The Program emphasizes family involvement early on in the victim's rehabilitation process as the family plays an important role in the patient's recovery. The team's approach is to provide the family with information and support throughout the victim's stay at the hospital by offering:

- individual and group sessions;
- family conferences with the participation of all the team members;
- linkage with different T.B.I. programs and associations, S.A.A.Q., etc.

#### TO WHERE IS THE PATIENT DISCHARGED?

The Program maintains close links with other rehabilitation programs for traumatic brain injured victims, with community resources, as well as with other hospitals and long term facilities.

The interdisciplinary team evaluates the patient's condition and needs as a whole when planning discharge. The goal is to discharge or transfer the patient to an appropriate facility where he or she will get the best possible care.

The patient may be discharged or transferred:

- home with a follow-up by the Hospital;
- home with a link to community services such as the CLSC;
- to a rehabilitation center as an in patient or an out patient;
- to another hospital and/or convalescent center;
- to a long-term facility.

#### **UPON DISCHARGE...**

The Traumatic Brain Injury Program provides follow-up services to its T.B.I. patients and their families to ensure their well-being and the continuity of services offered according to the patient's needs.

For further information regarding the T.B.I. Program, please contact the Coordinator of the T.B.I. Program at The Montreal General Hospital:

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