

## Recovering from a Mild Traumatic Brain Injury (MTBI)

### **What happened?**

You have a **Mild Traumatic Brain Injury (MTBI)**, which is a very common injury. Some common ways people acquire this type of injury are during car accidents, falls, and sports injuries. Many times this type of injury is a result of a strike to the head, but an MTBI may also be acquired from a forceful movement like whiplash.

**Concussions** are a type of MTBI. When any of the above injuries occur, the brain moves around inside the skull, bumping against the walls of the skull and twisting around. This movement can “bruise” the brain, stretch and/or tear brain cells, upset the brain’s chemical balance. Symptoms of a concussion are expected to resolve in 2 to 3 weeks. When symptoms persist beyond this time frame, the injury is classified as **Post-Concussion Syndrome**. Education and therapeutic intervention can be highly effective in treating the symptoms and impairments associated with Post-Concussion Syndrome.

### **What can I expect?**

MTBI is different for each person, but some typical symptoms after an MTBI can include:

- Headache
- Changes in vision
- Changes in balance
- Dizziness
- Difficulty concentrating
- Difficulty remembering things
- Increased irritability
- Easily over stimulated by noise or movement
- Fatigue

The above symptoms are often temporary and get better with time. Length and severity of symptoms may vary depending on severity of the injury. Symptoms may be more severe and last for a longer time if multiple head injuries happen within a short period of time. Typically, symptoms associated with MTBI resolve within a year of the injury with therapy, but some people experience long lasting (months to years) effects of the injury. If you find that your symptoms are not getting better after a few weeks, call your doctor and request a prescription for rehabilitative therapy.

### General tips for recovering from an MTBI

- Rest
- If you do something – anything at all – and your symptoms or fatigue increase, take note of what triggered the increase and avoid doing that task or action, or decrease the time you’re doing it
- Avoid drinking alcohol or using recreational drugs during your recovery.
- Avoid driving if you find that you are easily distracted and feel mentally “foggy”
- If you take time off of work or school, go back bit by bit when you do return; avoid going from time off to full time right away – it is important to gradually return to full activity
- Seek help when you need help; it is common to experience depression and/or anxiety after an MTBI

## Who are the different specialists I should see for help with recovery?

Survivors of MTBI can benefit from treatment from different types of therapists. Your team will work together to collaborate on the best treatments for your specific needs. Below is a summary of each specialist's area of expertise. You may not require services from *all* of the specialists listed below, but it's good to know where to find help should you need it.

### Physiatrist (Rehabilitation doctor)

- Coordinates the rehabilitation process among various specialists
- May prescribe medication throughout the rehabilitation process
- May recommend additional medical tests (i.e., scans, x-rays, etc.)

### Neuropsychologist

- Evaluates behavior and cognitive status
- Can provide family and patient counseling as needed

### Physical therapist (PT)

- Evaluates physical movements, including strength and coordination
- Some PT's specialize in helping people with balance and dizziness (They are called vestibular PT's)

### Occupational therapist (OT)

- Evaluates and treats sensory functioning, including integrating visual and other sensory information
- Some departments may offer driving evaluations to determine whether or not you are ready to take the driving exam at the DMV

### Speech-language pathologist

- Works with the patient to improve cognitive-communication skills, such as working memory, thought organization, attention, and comprehension
- Helps the patient and family identify and practice compensatory strategies that will improve cognitive functioning at home, at work, and in the community

### Social Worker

- A primary contact person between the patient, the family, and the team of specialists
- Provides support and counseling for the patient and the family
- Provides referrals for financial, vocational, or housing services if needed

**My Rehabilitation Specialists**

**Physiatrist/Concussion MD**

Name: \_\_\_\_\_

Phone: \_\_\_\_\_

Address: \_\_\_\_\_

**Speech-Language Pathologist (SLP)**

Name: \_\_\_\_\_

Phone: \_\_\_\_\_

Address: \_\_\_\_\_

**Physical Therapist (PT)**

Name: \_\_\_\_\_

Phone: \_\_\_\_\_

Address: \_\_\_\_\_

**Occupational Therapist (OT)**

Name: \_\_\_\_\_

Phone: \_\_\_\_\_

Address: \_\_\_\_\_

**Other Specialist: \_\_\_\_\_**

Name: \_\_\_\_\_

Phone: \_\_\_\_\_

Address: \_\_\_\_\_

## Symptoms related to your brain injury

The following section is a guide to understanding your symptoms, and some tips and tricks to manage them while your brain is recovering. Some simple strategies can help reduce the effects of all of your symptoms. As you read through this section, take notes on symptoms have affected you, and specific strategies that will work for your life. One important strategy that will help reduce all of your symptoms and help you manage your recovery is...

# Rest!

Scheduling frequent breaks throughout your day will set you up for a successful recovery.

## Fatigue

Energy is important for brain functioning. Your brain cells only make up 2% of your body's mass, but require 20% of its energy. This means that if the brain is injured, recovery is going to require a lot of extra energy. Fatigue will cause your other symptoms to increase, so it is important to watch out for some warning signs of fatigue. Some example warning signals are:

- Increased irritability
- Heavy eyes
- “Zoning out”
- Headaches
- Slowed thinking

Take a minute now to write down your own warning signs that fatigue is setting in.

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## Strategies to manage fatigue

- Take frequent breaks away from distractions.
- Complete important or difficult tasks when you know that you will have time to rest before and after.
- Try light regular exercise – but stop if symptoms increase.
- Write down some specific ways that you can manage fatigue in your life.

## Decreased Concentration

Your brain is using more energy than usual to compensate for the injury. This means that your brain has less energy to devote to other functions such as concentration. You may have noticed that you feel more distracted or “scattered” since your injury.

### Strategies to compensate for decreased concentration:

- Watch out for fatigue. Use strategies listed on the previous page to ensure that your brain has as much energy as possible throughout the day.
- Reduce distractions as much as possible. Turn off the TV or radio if you are engaged in another task. Reducing visual and auditory stimuli will let your brain focus on your task at hand.
- Don’t multitask if you don’t have to. Let your brain focus on one thing at a time.
- Take frequent breaks **before** you notice yourself losing concentration.

Write down some ways that you can use these strategies in your own life, at home and in the community.

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## Decreased Memory

Memory is a complex function of the brain. In order to remember information, your brain must:

- Process information received from the environment
- Store that information
- Retrieve that information from where it has been stored

Throughout your recovery from your injury, you will notice that you are not able to recall information as easily as before the injury. There are many ways to compensate for decreased memory. Setting up these strategies in your life will keep you organized, and allow your brain to focus more energy on healing.

### **Strategies to compensate for decreased memory**

- Write it down. Keep a notepad by the phone, keep “to do” lists, keep a daily journal, etc.
- Create a routine at home or at work, and do things in the same order every day
- Keep things in a specific place (i.e., keys, shoes, dog leash, etc.)
- Carry a planner. Instead of keeping lists and notes in different places, write everything down in one place

Jot down some memory strategies that will keep your life running smoothly.

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### **Difficulty with communication**

You may find that you have to concentrate harder to understand people. You might also find that you lose your train of thought, making it difficult to always speak in complete sentences. You might also find yourself having a hard time getting out just the right word. The language centers of your brain are a complex network, which must work together for effective communication. A brain injury can cause a breakdown anywhere in the language process. Below are some strategies that will make communication easier and more effective.

### **Strategies to compensate for difficulty with communication**

- Ask the speaker to repeat themselves
- Rephrase what you heard to ensure you got the message
- If you are talking on the phone, take notes to keep track of the conversation
- Whenever possible, speak to people one on one, in a quiet environment

Write down a couple ways that you can use these strategies at home or at work.

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## Irritability

Your brain is working harder than it used to have to work to complete everyday tasks. Many people with MTBIs report that they are more irritable or short tempered than usual. Your family and friends should know that this is one of the symptoms of MTBI. A doctor who understands MTBI may be able to prescribe medications that help with irritability. Below are some strategies to reduce and prevent irritability.

### Strategies to prevent or reduce irritability

- Rest
- Don't push through symptoms (Pushing through the symptom without resting will just increase your symptoms)
- Pace yourself
- Take breaks away from distractions
- Avoid going to places that have excessive noise or movement (i.e., concerts, shopping malls, loud restaurants, etc.)

Write down some ways that you can prevent or reduce irritability in your own life.

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## Anxiety

Talk to someone you trust. You have experienced a lot of changes that may be greatly affecting your life, and the lives of those you love. MTBI can cause increased anxiety, and there are people who can help. Contact a mental health professional who is familiar with MTBI. Ask your primary care physician (PCP) or another specialist on your rehab team for a local referral. A doctor who specialized in brain injury may also be able to prescribe medication to help with anxiety.



## Headaches

Headaches may accompany all of your symptoms. Evaluation of your neck and vision will help determine if physical therapy or occupational therapy may help to treat your headache. The best strategy is to prevent headaches from happening in the first place by using strategies to manage symptoms such as fatigue, decreased concentration, and difficulty with communication. When you do get a headache:

- Rest
- Go somewhere quiet and dark to relax
- Take medications prescribed by a doctor

## Dizziness

Dizziness is a common symptom people experience with MTBI. It may be constant, or intermittent. Some physical therapists specialize in treating dizziness, but here are some strategies you can try immediately.

- Walk in well-lit areas
- Move your head first, then your body
- Remove throw rugs from inside your house
- Increased dizziness is a sign that you are pushing yourself, so rest and re-group

## Definitions

**Cognition** – a term used for mental processes, including attention, remembering, producing and understanding language, solving problems, and making decisions

**Concussion** – a neurological injury caused by a force, resulting in a temporary alteration of mental status, which may or may not involve loss of consciousness. All symptoms usually resolve between 1 and 3 weeks after the injury. If the symptoms do not clear, rehabilitation therapy may be appropriate to address the underlying causes of the symptoms

**Doctor's order** – this is the same thing as a prescription. An order can be for medication, tests, or services

**Glasgow Coma Scale (GCS)** – a severity rating assigned to a survivor of a brain injury within 30-60 minutes after the injury and at 24 hours after the injury

**Mild Traumatic Brain Injury (MTBI)** – An injury involving a blunt force trauma to the head or a forceful movement of the body resulting in the brain moving around inside the skull (as in whiplash). If survivors of MTBI receive a GCS rating at a hospital, the score will be between 13 and 15. Diagnostic imaging (brain scans, x-rays) are typically negative

**Post Concussion Syndrome** – when 3 or more concussion symptoms persist beyond 3 months after the injury

**Traumatic Brain Injury (TBI)** – an acquired injury caused by an external physical force resulting in total or partial physical or cognitive impairment