

Complicated Mild Traumatic Brain Injury

What is a complicated mild traumatic brain injury?

Mild traumatic brain injury (mTBI) happens when a sudden jolt or blow to the head changes the way your brain works. A **complicated** mTBI may include a small amount of bleeding in the brain that can be seen on a CT scan, which is considered a low-risk brain bleed.

When you have bleeding in your brain, your doctor will use a tool called the **Brain Injury Guidelines (BIG)**. The BIG measures how severe your injury is by giving it a grade from 1 (mild) to 3 (severe). Research shows that if the amount of bleeding in the brain is small and there are no concerning findings on your physical exam, you **do not** need another CT scan, **do not** need to see a neurosurgeon, and **may not** need to be admitted to the hospital. This saves you time and money, and unnecessary exposure to radiation.

When should I get emergency care?

Get emergency care if you or the person you are caring for has:

- Repeated vomiting
- Worsening, severe headache
- Seizures
- Excessive drowsiness or loss of consciousness
- Confusion or strange behavior
- Slurred speech
- Double vision
- Weakness, numbness, or tingling in arms or legs
- Behavior that is increasingly agitated or combative
- Bleeding or draining fluid from the nose or ears



What symptoms can I expect?

It is common to have symptoms after an mTBI. These symptoms may last a few days to a few weeks. Sometimes they get worse before they get better. Every mTBI is different, but most people start feeling better within a few weeks. If your symptoms do not get better, you should see your regular doctor, or an mTBI or concussion specialist, to see if you need more help. Treatment and symptom management for an mTBI with a brain bleed are the same as for concussion.

Physical signs and symptoms include:

- Headache, fatigue (extreme tiredness)
- Dizziness
- Mild-to-moderate nausea or vomiting
- Vision changes, sensitivity to noise and light
- Changes in sleep patterns, including
 - Drowsiness
 - Increased sleepiness
 - Difficulty falling or staying asleep

Mental and emotional signs and symptoms include:

- Feeling mentally foggy
- Shorter attention span, memory problems
- Slowed thinking, difficulty reading
- Increased irritability or sadness
- Feeling emotionally sensitive or anxious

How do I manage my symptoms?

As you start to feel better, you can slowly add some light exercise for short periods of time, like 10 to 15 minutes. If your symptoms don't get worse, you can gradually do more.

If you have pain in your neck or shoulders, talk to your doctor about physical therapy or try some gentle stretches and massage.

You might feel dizzy for a while after an mTBI, but it should get better over time. If you feel really dizzy, tell your doctor. They might be able to help you feel better with medical or physical therapy treatments.

It takes time for your thinking and emotions to get better, too. If you are not feeling better or have concerns, talk to your doctor. They can help you find treatments that might help.

Eat well.

A well-balanced, healthy diet is helpful during recovery from a brain injury. Be sure to:

- Drink plenty of water
- Avoid alcohol
- Avoid caffeine in the evening as it may affect your sleep

If you have any questions about health supplements, please talk to your doctor.

Take the right medicine.

- If your mTBI causes a headache, you can take medicine like acetaminophen (Tylenol, others) or ibuprofen (Advil, Motrin, others) if these medicines are safe for you. Call your healthcare provider if you are not sure.
- Do not take medicine for every headache you have, just the more severe ones. Taking medicine too often can make your headaches worse.
- If possible, do not take opioid pain medicines because they can make your mTBI worse and slow your recovery. Ask your healthcare provider if you have any questions or concerns.

What can I do to speed up recovery?

To speed your recovery:

- Do some light physical activity if it does not worsen your symptoms.
- Limit activities such as school, work, and screen time to a level that does not worsen symptoms. (See “When can I return to school or work”)
- Get good sleep. It is common to feel tired and have low energy levels after an mTBI. Getting the appropriate amount of sleep is critical to helping your brain recover.
 - Aim for 8 hours of sleep nightly.
 - Take short naps during the day if you feel tired. Limit naps to less than 1 hour so they don't interfere with night-time sleep, which is the best sleep for your brain.

What follow-up do I need?

You do not need any follow-up if you are getting better after the first week. However, you should see your regular doctor if your symptoms are **not** getting better after the first week and are still interfering with daily activities.

- Therapy is available if your symptoms do not continue to improve.
- You may also ask for a referral to a concussion clinic since mTBI is managed in the same way. Ask your care team for a copy of the Concussion Clinical Resources to find a location nearest you.



What should I avoid?

To help you brain heal, it is important to avoid activities that could hurt your head again.

- Do not do anything that could make your symptoms worse. If you are not sure if it is safe to drive, talk to your doctor first.
- Avoid playing sports or doing other risky activities (like skiing) until your doctor says it is okay. If you hurt your head before you fully recover, your second injury could be more serious and take longer to heal.

When can I return to school or work?

When you are ready to go back to school or work, take it slow. At first, it might make your symptoms worse, but they should get better with time. Take breaks throughout the day to rest.

- Start by doing small amounts of reading, texting, or screen time — 5 to 15 minutes at a time.
- Gradually do more homework or work activities in a quiet room for short periods.
- When you are ready, go back to school or work part-time.
 - At school, only go to certain classes, take fewer tests, and do less homework than usual.
 - At work, do fewer tasks and take on fewer responsibilities.

When your symptoms are under control and you don't need any special help, you can go back to school or work full time.

Strategies to boost natural brain recovery

Sleep well



- Get most of your sleep at night
- After the first few days, limit naps to the middle of your day.
- Do not recline or lay down for long periods during the day.

Exercise



Exercise can help restore blood flow to the brain and reduce symptoms.

- Start slow with low impact aerobic exercises that don't trigger symptoms.
- Slowly increase duration and intensity.

Eat well



- Get most of your calories from vegetables, fruits, beans, nuts, legumes, and whole grains
- Avoid highly-processed foods
- Drink lots of water

Relax and have fun



- Practice slow breathing for 20 minutes each day to help your body relax and activate healing processes.
- Do some fun activities to reassure your body that it is safe to focus on healing.

Pace yourself



- Include a mix of easy and moderately challenging activities in your day.
- Stop and take a break from activities that make your symptoms worse (slight increases may be okay).

Treat your whole person



- Work with your doctor to manage other medical conditions during your recovery.
- Focus on treating neck injuries, pain, insomnia, anxiety, and depression as it plays a crucial role in concussion recovery.

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