

Concussions: How a Neuropsychologist Helps

When you or someone you love gets hit on the head, you may think it's no big deal. It can be — at least temporarily. People with concussions shouldn't always just shake it off and return to the playing field, school or work. By understanding concussions, you can prevent further damage and potentially devastating consequences.

What is a concussion?

Whether it happens on the playing field, on the highway or in battle, a concussion is a mild form of traumatic brain injury.

When the head receives a blow or violent shaking, the brain sloshes back and forth like Jell-O, often hitting the front and back of the skull. That movement can damage the brain's connective tissues and disrupt normal cognitive function.

What are the symptoms?

Many people believe you have to lose consciousness to have a concussion. That's not true. The majority of concussions occur without loss of consciousness, and in fact, you may not even realize you have a concussion if you have a mild case. Some symptoms may not be apparent immediately and arise over the course of hours or a couple of days.

Common physical symptoms include headache, nausea, dizziness, fatigue and sensitivity to noise and light. More serious concussions may be accompanied by vomiting.

People with concussions may also have cognitive difficulties. They may experience confusion, trouble concentrating, slowed thinking and short term memory problems. Psychological symptoms can include irritability and mood changes such as depression.

When should I seek help?

If symptoms are severe or involve loss of consciousness or vomiting, you may need to seek emergency care. Development or worsening of symptoms after the injury may suggest a need for further evaluation. Even in less serious cases, it's important to see a physician to rule out serious problems or complications.

In most cases, there's no treatment beyond physical and mental rest. As with any other injury, after a concussion, the brain needs time to heal.

For most people, that process is short-lived. Within a week to 10 days, most are back to normal. For some, recovery may take just a day or two, while others may take longer.

How can a neuropsychologist help?

If problems linger, a neuropsychologist can help. A clinical neuropsychologist is a licensed psychologist with expertise in how behavior and skills are related to brain structures and systems.

Neuropsychologists have two main roles when it comes to concussions:

Assessment. The first step in determining why symptoms aren't going away is to review your background. You may have had previous concussions, for example. Or you may have depression, anxiety, medication use, sleep disturbance or other factors that can slow recovery or masquerade as concussion symptoms.

The neuropsychologist will then conduct a neuropsychological evaluation to assess memory, attention, reasoning and other cognitive skills. Personality and mood tests can help the neuropsychologist understand if psychological factors are at work. Results of this evaluation will help identify ongoing cognitive impairments and specify what abilities have been most affected. Repeat testing can be useful to document improvement over time.

Treatment. A neuropsychologist will provide psychoeducation, teaching patients about common concussion symptoms and normal recovery patterns. Even a single session can stop patients from wrongly attributing normal memory slips or other everyday problems to their concussions, one research review suggests. For cases in which patients develop an abnormal focus on their symptoms or other problems, cognitive behavioral therapy can help.

In more serious cases, neuropsychologists may suggest a rehabilitation program. In this kind of treatment, patients practice memory, reasoning and other cognitive skills to retrain the brain, just like they might undergo rehab for a sprained ankle. The treatment may consist of computerized training at the neuropsychologist's office and focused practice at home. A patient might use a workbook with exercises designed to practice attention and memory skills, for example. If mood symptoms persist, referral for medication and/or short-term therapy may be indicated.

The most common treatment for concussion, however, is rest. A neuropsychologist can help patients determine when it's safe to return to their normal routines.

When can I go back to work, school or sports?

Because concussion is an invisible injury, someone can look fine but still have problems.

The more you overexert yourself physically or mentally after a concussion, the more likely you are to worsen your symptoms and delay your recovery.

You should also avoid situations that could lead to a new concussion before the old one heals. Because of the risk of potentially fatal brain swelling with a new concussion, many states now have laws that require student athletes with suspected concussions to be removed from play and get clearance from a neuropsychologist or other expert before returning to play.

Research suggests that it's important not to overexert yourself cognitively either. In one study, for example, researchers found that going back to school too soon after a concussion can worsen kids' headaches, wear them out and make them more irritable.

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