

HEAD TRAUMA

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It's your day off from the kitchen. You decide to be the athlete you once were and go out and play La Crosse. You get hit in the head a couple of times with the ball, dive after it and feel your head hit your shoulder, hit the ground and yet you continue to play because you need to get some exercise in on your day off. Except you start feeling dizzy, have a headache and are maybe a little nauseous. What is this terrible feeling in your head?



Concussions are the most common type of traumatic brain injury. They occur most frequently during sports play or major accidents, but they can very easily occur during your workday in the kitchen. A hard blow to the head when you're reaching under a counter or table, turning and catching the edge of a cabinet door, or a fall on a slippery kitchen floor can lead to this type of injury. In this setting, the injury would be mild but can occur nonetheless. Since most concussions do not cause a loss of consciousness, some people have them and do not realize it. It is important to learn about it so that if you see the signs, you can help your coworker and get him or her appropriate help.

Concussions are usually caused by a blow to the head, but can also be caused by acceleration forces without direct impact or when the head and upper body experience violent shaking. The term concussion is derived from the Latin *concussus* (to strike together) or *concutere* (to shake violently). It is defined as a head injury with a temporary loss of brain function. Other terms used are mild brain injury, mild traumatic brain injury, mild head injury, and minor head trauma. The terms can be used interchangeably.

This traumatic brain injury alters the way your brain functions. It can affect your physical, cognitive and emotional state. Symptoms include: headache, reduced reaction time or confusion, feeling dizzy, tired or foggy, ringing in the ears, nausea or vomiting, slurred speech, and loss of consciousness or amnesia. Symptoms can be very subtle and might not be apparent immediately. Delayed symptoms can be hours or days after the traumatic event. These delayed symptoms include: difficulty concentrating, sensitivity to light or sounds, irritability or other personality changes, sleep disturbances, disorders of taste or smell, psychological problems and even depression.

Effects are usually temporary but can up to three weeks or more. There can be complications or the symptoms may persist if not treated appropriately. Most concussions are mild and people usually recover fully but because concussions injure your brain, there is damage to some extent.

A recent patient just had a concussion while playing La Crosse. At only 25 years of age, she has had multiple concussions during her career in sports activities. One week after the incident, she still cannot tolerate loud places or bright lights, feels confused and has difficulty reading and writing emails. She is out of work until cleared by

her physician. She feels nervous that the symptoms are taking longer to dissipate since she has had multiple concussions.

Treatment for concussions involves rest and monitoring. The brain needs time to heal. And with more than one concussion, it can take longer and longer to heal. Just like any other body part, injury leads to an inflammatory process where there can be pain, swelling and dysfunction. The most common symptoms are headache, amnesia and confusion. Physical and cognitive rest is important. This means avoiding any physical exertion activities as well as anything that involves mental concentration.

Headaches can be treated with acetaminophen (Tylenol). Avoid anti-inflammatory medications that have Ibuprofen (Advil, Motrin) as they may increase the risk of bleeding.

See your medical doctor within one or two days of injury, even if emergency care is not required. If the person is alert, moves normally and responds to you after head injury, the injury is probably mild and further testing is usually not necessary. If the person wants to nap in this case, it is ok to let them sleep (according to information from the Mayo Clinic). If

troublesome symptoms develop later, then seek emergency medical care.

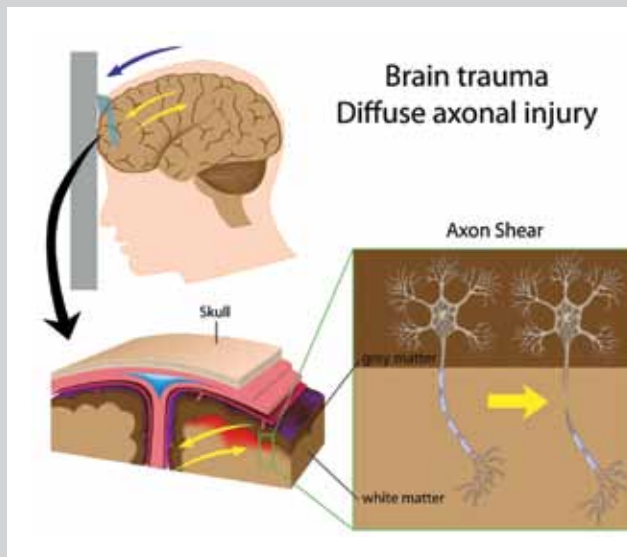
Your physician will assess you and recommend or conduct a neurological exam. If further diagnostic imaging is warranted, then a CT (computerized tomography) scan can be ordered. The scan takes multiple cross-sectional x-rays and combines all of the images to produce a detailed, two-dimensional image of your skull and brain. This brain imaging is the standard test to assess the brain immediately after injury.

It can also be necessary to be observed for a period of time. Your doctor might order you to be hospitalized overnight. If the doctor clears you to be observed at home, you will need someone to check on you every few hours for at least 24 hours. Sometimes you need to be awakened during your sleep to

return you to normal levels of consciousness.

Physical Therapy can help loosen up the neck and mid-back muscles as well as the joints using manual joint and soft tissue mobilizations. A stretching and stability program will offset compression in the spine. Ask your Physical Therapist for exercises that are appropriate during this healing phase and consult with your physician regularly as you progress through the healing process.

Head trauma is such a common event that we don't even think of it is 'trauma'. We don't even know that we've had it when symptoms are so mild and all you did was hit your head on something. We like to brush off things that are mild, but when you let multiple mild



traumatic events occur, it's the cumulative effect that ends up being deleterious to your health. Be aware of what is going on and remember that as small as it might seem, there could be damage on the inside. Stay alert and don't let your noggin get hurt.

Karena Wu is a New York State licensed physical therapist, a graduate of the program in Physical Therapy at Columbia University and owner of ActiveCare Physical Therapy, located in midtown Manhattan. She has advanced training in manual therapies, specifically in Maitland Joint Mobilization and Myofascial Release. Karena is certified as a Strength and Conditioning Specialist, Kinesio Taping Practitioner and Pilates Instructor.