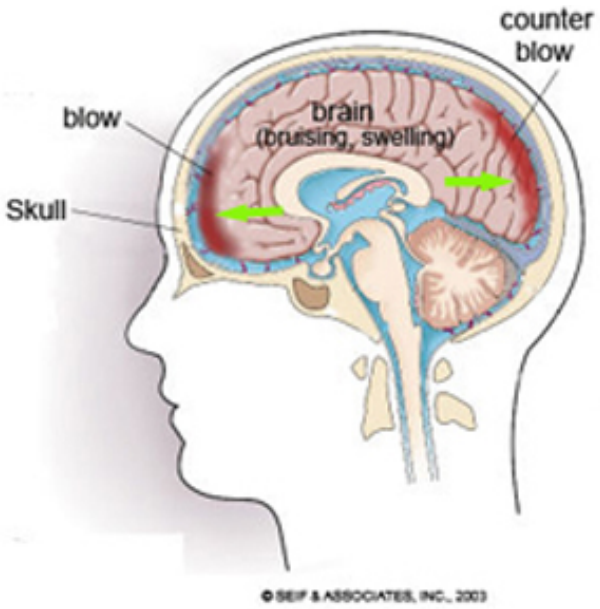
Concussion and Brain Injury

A blow or jolt to the head can disrupt the normal function of the brain. Doctors often call this type of brain injury a “concussion” or a “closed head injury.” Concussions are usually not life threatening. Even so, the effects of a concussion can be serious.



CAUSES

A concussion is caused by a blunt blow to the head. The blow might be direct or indirect as described below.

- Direct blow (running into another player during a soccer game, being hit in a fight, or hitting your head on a hard surface).
- Indirect blow (when your head moves rapidly and violently back and forth like in a car crash).

SYMPTOMS

The brain is very complex. Every head injury is different. Some symptoms may appear right away. Other symptoms may not show up for days or weeks after the concussion. The signs of concussion can be hard to notice. Early on, problems may be missed by patients, family members and caregivers. You may look fine even though you are acting or feeling differently.

These symptoms are usually temporary, but may last for days, weeks, or even longer. Symptoms include:

- Mild headaches that will not go away.
- Having more trouble than usual with:
  - Remembering things.
  - Paying attention or concentrating.
  - Organizing daily tasks.
  - Making decisions and solving problems.
  - Slowness in thinking, acting, speaking or reading.
- Getting lost or easily confused.
- Neck pain.
- Feeling tired all the time, lack of energy.
- Change in sleeping pattern. (Sleeping for much longer periods of time than before. Trouble sleeping or insomnia.)
- Loss of balance, feeling light-headed or dizzy.

Increased sensitivity to:

- Sounds.
- Lights.
- Distractions.

Other symptoms might include:

- Blurred vision or eyes that tire easily.
- Diminished sense of taste or smell.
- Ringing in the ears.
- Mood changes: Feeling sad, anxious or listless.
- Becoming easily irritated or angry for little or no reason.
- Lack of motivation.

DIAGNOSIS

Your caregiver can diagnose a concussion or mild brain injury based on your description of your injury and your symptoms. An exam is also important to check your brain and nervous system.

Your evaluation might include:

- A brain scan to look for signs of injury to the brain. Even if the test shows no injury, you may still have a concussion.

- Blood tests to be sure other problems are not present.
- Depending on your circumstances, your caregivers might evaluate you for other injuries.

TREATMENT

- People with a concussion need to be seen by a doctor. Most people with concussions are treated in an emergency department or a doctor's office. Some people must stay in the hospital overnight for further treatment.
- Your caregiver will send you home with important instructions to follow. Be sure to carefully follow them.
- Tell your caregiver if you are already taking any medicines (prescription, over-the-counter or natural remedies), or if you are drinking alcohol or taking illegal drugs. Also, talk with your caregiver if you are taking blood thinners (*anticoagulant drugs*) or aspirin. These drugs may increase your chances of complications. **All of this is important information that may affect treatment.**
- Only take over-the-counter or prescription medicines for pain, discomfort or fever as directed by your caregiver.

PROGNOSIS

How fast people recover from brain injury varies from person to person. Although most people have a good recovery, how quickly they improve depends on many factors. These factors include how severe their concussion was, what part of the brain was injured, their age and how healthy they were before the concussion.

Because all head injuries are different, so is recovery. Most people with mild injuries recover fully. Recovery can take time. In general, recovery is slower in older persons. Also, persons who have had a concussion in the past or have other medical problems may find that it takes longer to recover from their current injury. Anxiety and depression may also make it harder to adjust to the symptoms of brain injury.

HOME CARE INSTRUCTIONS

- Get plenty of sleep at night, and rest during the day. Rest helps the brain to heal.
- Return to your normal activities slowly, not all at once. You may need to change your work or school activities.
- Avoid activities that could lead to a second brain injury, such as contact or recreational sports, until your caregiver says it is okay. On rare occasions, receiving another concussion before a brain injury has healed can be fatal. Even after your brain injury has healed, you should protect yourself from having another concussion.
- Ask your caregiver when you can drive a car, ride a bike or operate heavy equipment. Your ability to react may be slower after a brain injury.
- Talk with your caregiver about when you can return to work or school. Ask your caregiver about ways to help your employer or teacher understand what has happened to you.
- Take only those drugs that your caregiver has approved.
- **Do not** drink alcohol until your caregiver says you are well enough to do so. Alcohol and certain other drugs may slow your recovery and can put you at risk of further injury.
- If it is harder than usual to remember things, write them down.
- If you are easily distracted, try to do one thing at a time. For example, do not try to watch TV while fixing dinner.
- Talk with family members or close friends when making important decisions.

Avoid injuries by using:

- Seatbelts when riding in a car
- Alcohol only in moderation.
- A helmet when biking, skiing, skateboarding, roller skating, or doing similar activities.

SEEK MEDICAL CARE IF:

A head injury can cause lingering symptoms. You should seek medical care if you have any of the following symptoms for more than 3 weeks after your injury or are planning to return to sports:

- Chronic headaches.
- Dizziness or balance problems.
- Nausea.
- Vision problems.
- Increased sensitivity to noise or light.
- Depression or mood swings.
- Anxiety or irritability.
- Memory problems.
- Difficulty concentrating or paying attention.
- Sleep problems.
- Feeling tired all the time.

SEEK IMMEDIATE MEDICAL CARE IF:

You have had a blow or jolt to the head and you (or your family or friends) notice:

- Headaches that get worse.
- Weakness (even if only in one hand or one leg or one part of the face), numbness or decreased coordination.
- Repeated vomiting.
- Increased sleepiness or passing out.
- One pupil (the black part in the middle of the eye) is larger than the other.
- Convulsions or seizures.
- Slurred speech.
- Confused, restless, or agitated behavior.

Older adults with a brain injury may have a higher risk of serious complications such as a blood clot on the brain. Headaches that get worse or an increase in confusion are signs of this complication. If these signs occur, see a caregiver right away.

FOR MORE INFORMATION

Several groups help people with brain injury and their families. They provide information and put people in touch with local resources. These include support groups, rehabilitation services, and a variety of health care professionals. Among these groups, the Brain Injury Association (BIA, www.biausa.org) has a national office that gathers scientific and educational information and works on a national level to help people with brain injury.

MAKE SURE YOU:

- Understand these instructions.
- Will watch your condition.
- Will get help right away if you are not doing well or get worse.

Information courtesy of the BIA, CDC & NIH.
BIA National Help Line: 1-800-444-6443
BIA Web site: www.biausa.org
CDC Web site: www.cdc.gov/ncipc/tbi

Document Released: 03/09/2005 Document Re-Released: 03/14/2011
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