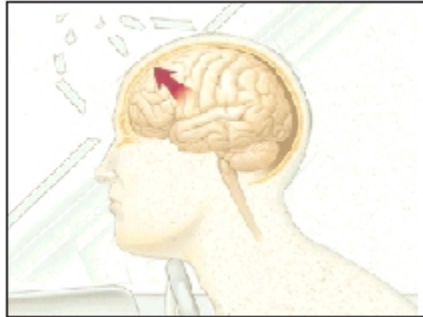


Understanding Traumatic Brain Injury

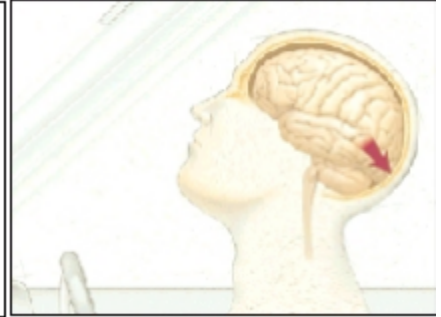
Breathing, blood flow, and movement are all controlled by the brain. The brain also allows you to think, handle emotions, and make judgments. After an injury, certain parts of the brain (or the links between these parts) may stop working. Some mental or physical skills may be lost. The loss may be short- or long-term. The full effects of a brain injury may not appear for months or even years.

How Injury Happens

The skull does not have to be harmed for the brain to be injured. Injury can occur when the brain strikes the skull. In many cases, the brain rebounds from the first impact and hits the opposite side of the skull. Sometimes the brain twists on the brain stem.



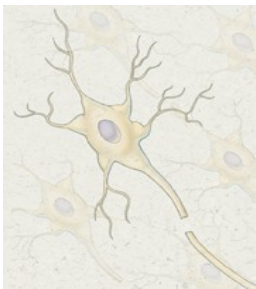
The brain strikes the skull. This may happen if the head hits a hard surface or if a person is severely shaken or jerked.



The brain rebounds from the impact. As a result, the brain may hit the opposite side of the skull or twist on the brain stem.

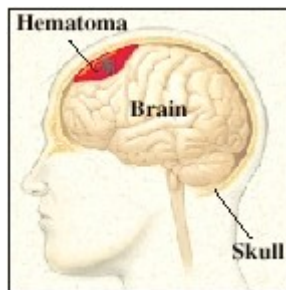
Types of Damage

When the brain strikes the skull or twists on the brain stem, brain tissue tears. This injury may then cause a second type of damage, such as bleeding or swelling in the brain. Health care providers try to control the second type of damage to help limit long-term problems.



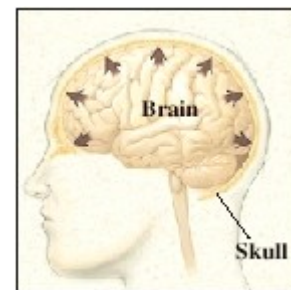
Tearing

If nerve fibers in the brain tissue tear, signals can't pass between the brain and body. Lost signals mean lost skills or body functions.



Bleeding

A torn blood vessel may leak into nearby tissue. This kills brain cells and can lead to a buildup of blood (**hematoma**). If this blood presses on the brain, it can cut off blood to other cells. These cells also die



Swelling

The brain has almost no room to expand inside the skull. If the brain swells, it may press against the skull. As the pressure increases, the brain begins to stop working.

Anatomy of the Brain

The brain controls the body. You can move and feel because of the brain. And it is the brain that makes you able to think, to show emotions, and to make judgments. The brain is protected by the skull, tissue, and fluid.

Functions of the Brain

The brain's right side controls the left side of the body. And the left side of the brain controls the body's right side. Each section of the brain has specific roles. Some skills and traits occur in more than one section. The main parts of the brain and some of their functions are listed below.

Protecting the Brain

Beneath its outer covering of tissue (called the dura), the brain is cushioned and supported by a special fluid. This cerebrospinal fluid fills the space between the dura and brain. Arteries and veins carry blood to and from the brain. Without a fresh supply of blood, brain tissue quickly dies.

