It's happened to all of us—a knock on the noggin. Most times it's just a painful bump. But sometimes there's more to it than a simple "ouch." A severe blow can cause a concussion. Unconsciousness may or may not be noticed. Often a very brief period of unconsciousness may be taken for granted. In other words, it's over with so quickly that you tend to assume all is OK. But the brain has been shaken and could be damaged.

If any of the following symptoms appear, the victim should be given professional medical attention:

- Shallow breathing
- Loss of facial color
- Cold or possibly sweaty skin
- Rapid or weak pulse
- Nausea and/or vomiting
- Confusion, dizziness, or loss of memory
- Change in vision or speech
- Uneven pupil size
- Rise in body temperature
- Changes in personality such as fits of anger or depression

Some of what scientists know about memory comes specifically from studying the memory disturbances that follow head injuries. If the injury is severe enough to lead to concussion, the memory loss may involve events immediately before or after the injury. For example: a football player removed from the game after a brief loss of consciousness following a hard tackle may be able to tell his replacement the signals from the previous play. Twenty minutes later, he will have no memory of the 10 minutes prior to his injury.

It's an old wives tale that if a person, especially a child, gets a knock on the head they should stay awake to prevent a concussion. Sleep, or a lack of it, will not prevent a concussion. The purpose of waking a person who has received a head injury is to make sure he or she is arousable.

In older people, even a trivial knock on the head can cause bleeding under the skull. The accumulated blood, called a subdural hematoma, presses on the brain and that leads to headaches as well as behavioral changes. The diagnosis is confirmed by CAT scan or magnetic resonance imaging.

A nosebleed after any hit to the head may indicate a skull fracture. X-rays should be taken, no matter how trivial the blow seemed to be at the time.