

NURSE'S CORNER

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The Lasting Impact and Trauma of Head Injuries

Head injuries are statistically the most underreported or misdiagnosed of trauma in the medical world. Even professional athletes who have the best of medical technology and personnel at their disposal often overlook or minimize the long-term effects that head trauma induces. Why is head trauma underplayed to this degree? Though in fairness, the present-day medical information system has increased the awareness and criticality of head injuries in the sports arena. However, the common folks still haven't come around to that necessary level of vigilance and understanding as they deem it to be simply too complicated and ambiguous in a nutshell.

A head injury broadly speaking varies from mild bumps or bruises to a traumatic brain injury in the vicinity of the brain, skull, or scalp. Common diagnosis categories include concussions, skull fractures, and scalp wounds. The consequences and treatments vary greatly, depending on the cause and severity of the trauma. Head trauma related injuries and treatment have seen a rapid increase as over 1.7 million people on average are diagnosed for TBI (Traumatic brain injury) each year. The lasting effects borne from those head injuries have become acute and expensive with approximate costs of \$56 billion per year for individuals to live with those complications for the rest of their lives.

What medical science says and offers? The long-standing difficulty has been to assess how serious a head injury is just by looking like even minor head injuries lead to a lot of bleeding, while some major injuries don't bleed at all. The general classification is based on what causes them either due to blows to the head or head injuries due to shaking resulting in head trauma.

Leading causes include: (1) motor vehicle-related injuries, (2) falls, and (3) assaults. Based on the mechanism of head trauma the categories are: (1) blunt (the most common mechanism), (2) penetrating (most fatal injuries), (3) blast. Most severe TBIs are the result of motor vehicle collisions and falls

- Incidentally head trauma is more common in children, adults up to 24 years, and those older than 75 years.
- Surprisingly, TBI is 3 times more common in males than in females, although only 10% of TBI occurs in the elderly population, it still accounts for up to 50% of TBI-related deaths.

Types of head injuries: TBIs can cause "mass lesions," due to localized injury forms such as hematomas and contusions that increase pressure within the brain. Apart from these the most recognizable or prevalent ones are:

- Concussions
- Skull fractures
- Hemorrhage
- Edema
- Diffuse anoxal injury

Symptoms: It's important to be aware of the symptoms or EWS (Early warning signs) as a serious brain injury won't show right away, hence one should always continue to monitor the symptoms for several days after an injury to the head. Minor and major symptoms are as follows:

- Headache
- Lightheadedness
- A spinning sensation
- Mild confusion
- Nausea
- Temporary ringing in the ears
- Loss of consciousness
- Seizures
- Vomiting
- Balance or coordination problems
- Intense disorientation
- An inability to focus the eyes
- Abnormal eye movements
- A loss of muscle control
- A persistent or worsening headache
- Memory loss
- Changes in mood
- Leaking of clear fluid from the ear or the nose

Treatment: The full extent of the impact or severity won't be completely understood immediately after the injury but will become clear through comprehensive medical evaluation and diagnostic testing. The diagnosis of a head injury is made with a physical examination and diagnostic tests followed by the treatment.

With minor head injuries, there are often no symptoms other than pain at the site of the injury. In these cases, acetaminophen (Tylenol) will be prescribed for the pain, but it is important to avoid nonsteroidal anti-inflammatory drugs (NSAIDs), such as ibuprofen (Advil) or aspirin (Bayer) which can worsen the bleeding.

For a serious head injury, it will be immediate hospitalization wherein, the treatment depends on the diagnosis starting with anti-seizure medication and diuretics, monitoring for intracranial pressure, and determining the need for surgery.

People who've had serious head injuries may face permanent changes in their personality, physical abilities, and ability to think, therefore it is incumbent on the healthcare team to ensure as full of a recovery as possible.