

# Head and Spinal Injuries



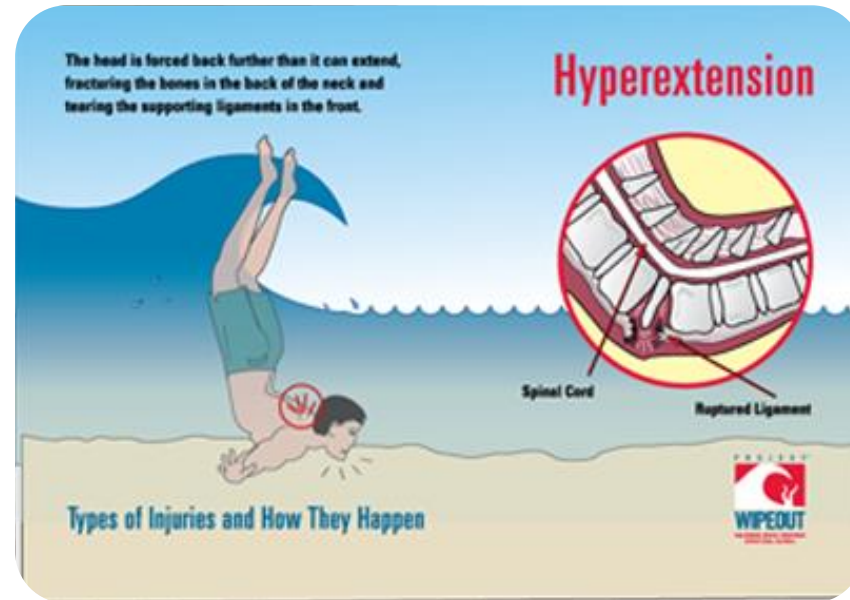
Dr.Samer Sara

- Any trauma to the head, neck or back may result in serious injuries.
- Even injuries without immediate obvious signs and symptoms may create a potentially life-threatening problem.

# Causes of Head and Spinal Injuries:

Any forceful blow to the head, neck or back.

- Motor vehicle crashes.
- Falls from height.
- Sports :
  - Diving emergencies.
  - Skiing emergencies.



# Prevention of Head and Spinal Injuries

## Guidelines of safety:

- Always wear **seatbelts** and shoulder restraints in vehicles.
- Use approved car **seats** for infants.
- Wear appropriate **helmets**, hard hats for bicycling, sports, and work activities.
- Avoid risky activities, when you are under the influence of **drugs, alcohol or medications**.
- Don't dive into **shallow water**.

# Assessing Head and Spinal Injuries

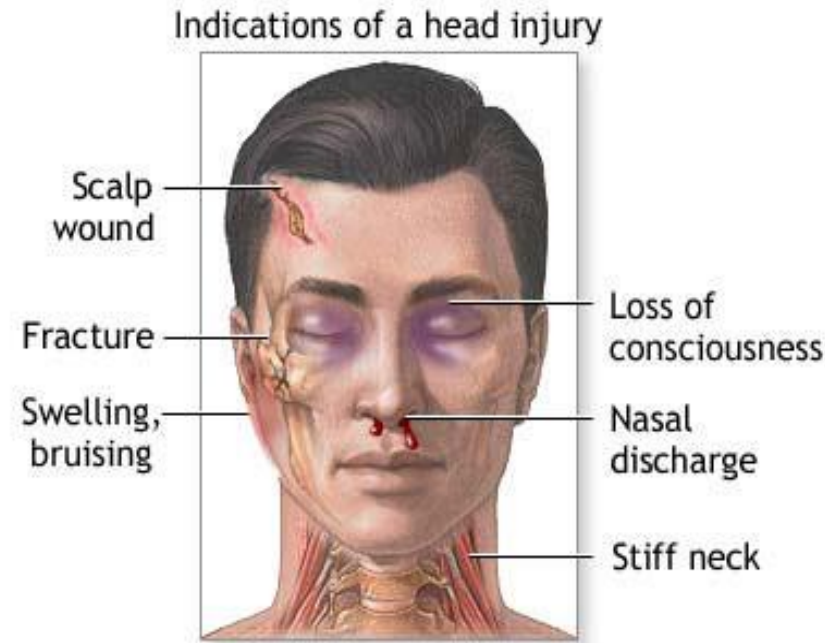
- A head trauma that fractures the skull may also put enough force on cervical vertebrae that a spinal injury occurs.



- The assessment of a victim with such injuries should look for both head and spinal injuries.


# Signs and symptoms:

- Deformity in the head, neck, or back.
- Changing levels of responsiveness, drowsiness, confusion or dizziness.
- Unequal pupils.
- Headache.
- Clear fluid from the nose or ears.
- Stiff neck.
- Inability to move any part of the body.
- Numbness, lack of feeling in feet or hands.
- Loss of bowel or bladder control.



ADAM.



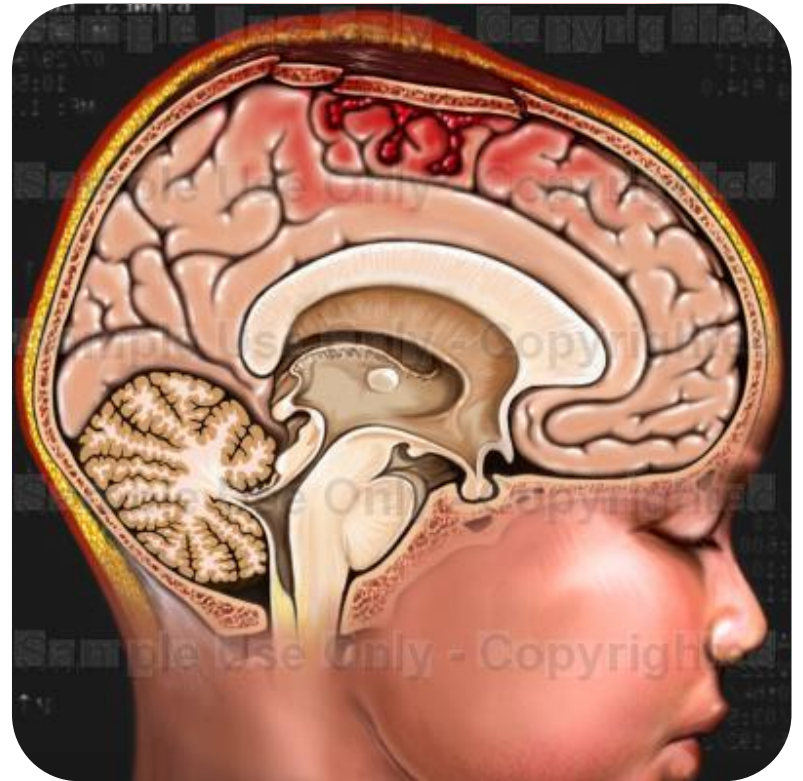
- During **initial assessment**, you may have to reposition the victim in order to:
  - open airway
  - check breathing
  - give CPR
- Victim may have spinal injury  **take great care when moving him.**
- **Maintain victim's head position** to prevent movement .
- If your examination reveals any problem suggesting head or spinal injury, **call and keep victim** still until EMS professionals arrive.





# Skull Fractures

- If the victim had a blow to the head, Consider the possibility of skull fracture or brain injury.
- When you find bleeding from the scalp, check carefully for a possible skull fracture before applying direct pressure to the wound.
- A skull fracture is a life threatening condition.



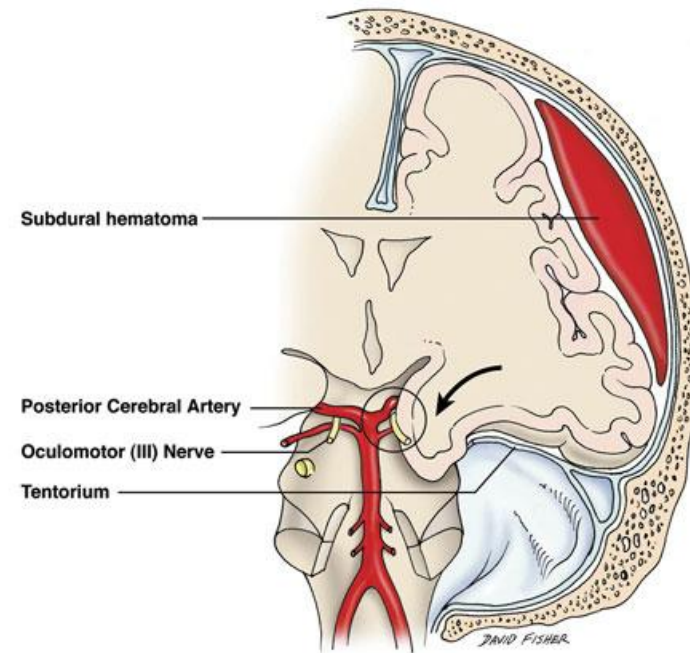
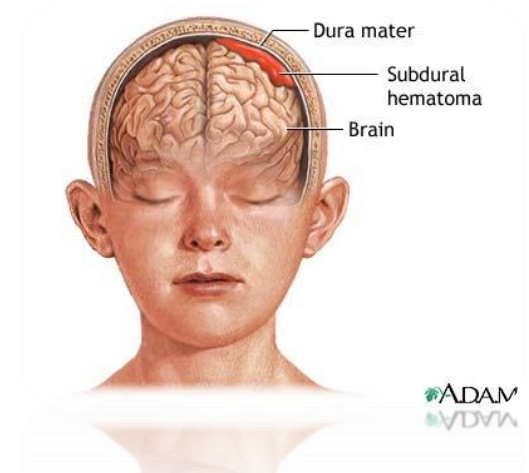
# **BRAIN INJURIES**

## Signs & symptoms of Brain injuries:

- Headache.
- Nausea and vomiting.
- Unresponsiveness, confusion, altered mental status.
- Convulsions.
- Numbness, loss of sensation.
- Paralysis of body areas, weakness.
- Unequal pupils.

- Signs and symptoms may appear within the next 48 hours.
- seek medical attention immediately if any of the following late signs:

- Nausea and vomiting.
- Severe or persistent headache.
- Seizure.
- Changing levels of responsiveness.



# Concussion

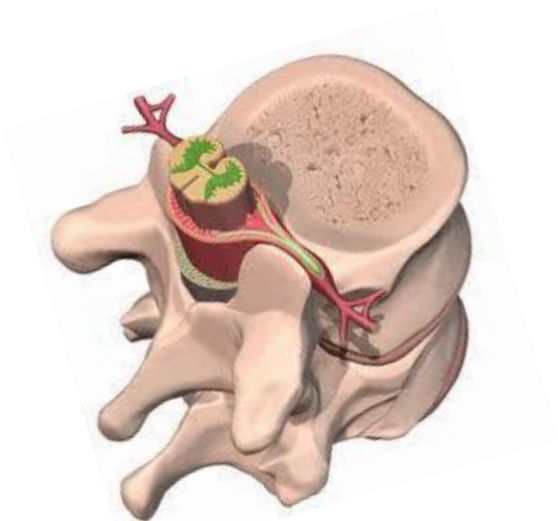
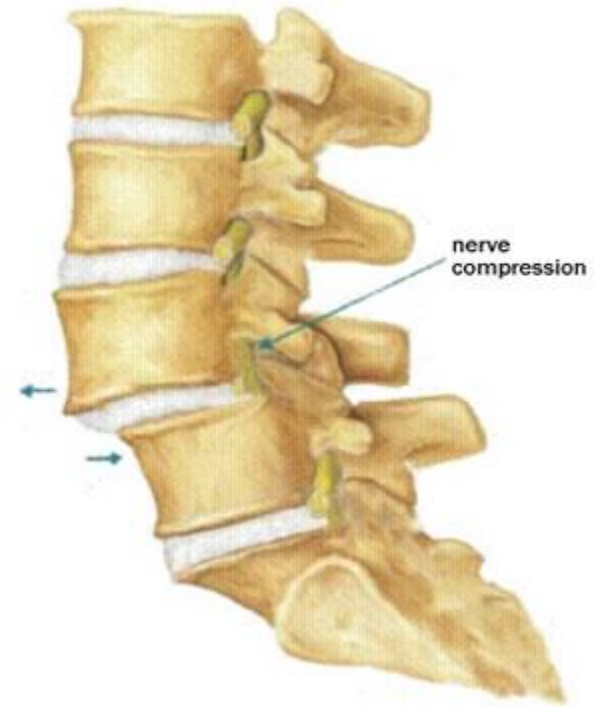
Temporary impairment of brain function, usually not permanent damage.

## Signs and symptoms:

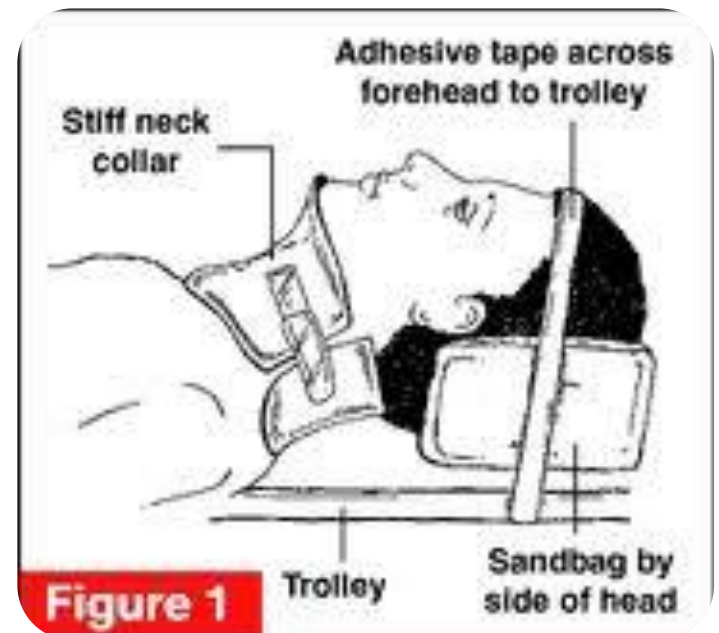
- ❖ Brief loss of responsiveness.
- ❖ Memory loss about the traumatic event.
- ❖ Temporary confusion.
- ❖ Mildly or moderately altered mental status.
- ❖ Headache.

# **SPINAL INJURIES**

- A fracture of the neck or back is always serious because of a possible damage to the spinal cord.
- Even a small displacement or fracture of these bones can damage the soft tissue of the spinal cord or nerves.
- The spinal cord cannot grow back to heal injury, although medical care can improve the condition of a victim with partially damaged nerves.



- Its critical to prevent **head and neck movement** in all victims suspected to have spinal injury.
- Unless you have to move the victim, support his head in the position you find.





## Position the Victim:

- If the victim is lying on his back and vomits, you must roll him onto his side to let the mouth drain and allow breathing.
- The help of two or three others is necessary to keep the back and neck aligned during movement.



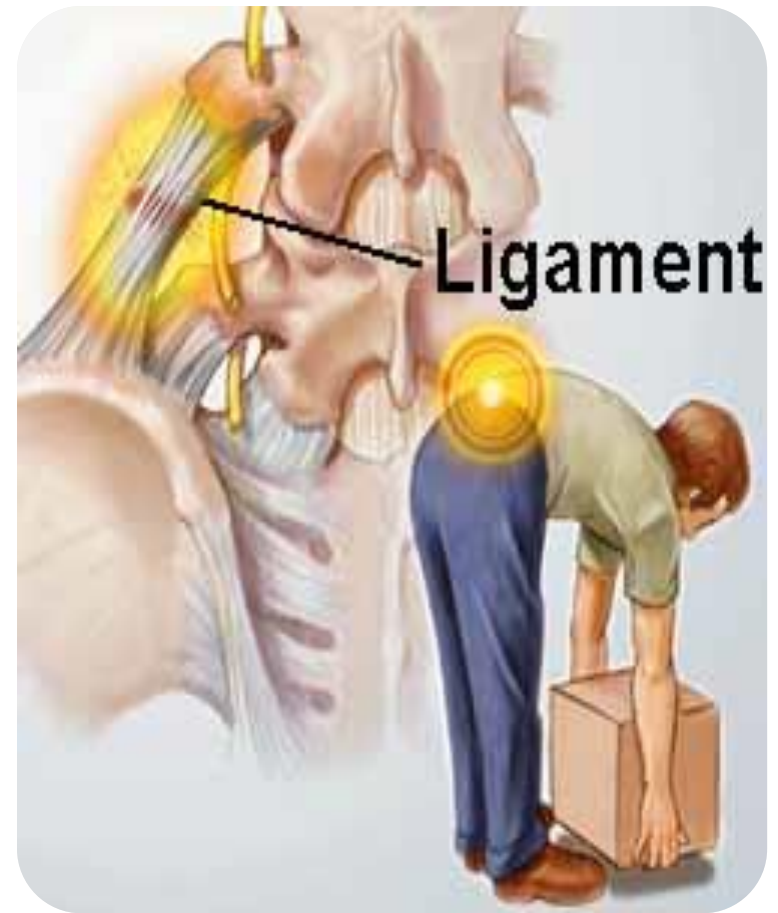
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## Lower Back Injuries :

- Generally occur as a result of **stressful activity** rather than traumatic injury.
- For example **lifting or moving a heavy object**.
- **Signs and symptoms** may include sharp pain in the lower back, stiffness and reduced back movement.



Thank you