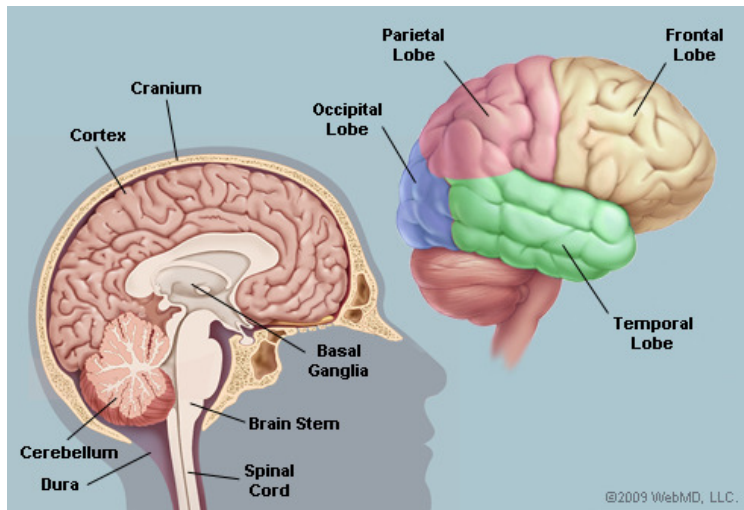


Brain Facts



The brain is one of the largest and most complex organs in the human body. It is made up of more than 100 billion nerves that communicate in trillions of connections called synapses.

The brain is made up of many specialized areas that work together:

- The cortex is the outermost layer of brain cells. Thinking and voluntary movements begin in the cortex.
- The brain stem is between the spinal cord and the rest of the brain. Basic functions like breathing and sleep are controlled here.
- The basal ganglia are a cluster of structures in the center of the brain. The basal ganglia coordinate messages between multiple other brain areas.
- The cerebellum is at the base and the back of the brain. The cerebellum is responsible for coordination and balance.

The brain is also divided into several lobes:

- The frontal lobes are responsible for problem solving and judgment and motor function.
- The parietal lobes manage sensation, handwriting, and body position.
- The temporal lobes are involved with memory and hearing.
- The occipital lobes contain the brain's visual processing system.

The brain is surrounded by a layer of tissue called the meninges. The skull (cranium) helps protect the brain from injury.

3.8 M sport head trauma

1 of 6 ER visits – head

7.2 M high school athletes

>50% HS athletes will report concussion

94% HS football players don't play at a higher level

Earlier the sports played the more exposure, increase % injury

If it is genetic – it will occur in earlier years

82% less likely if helmet is fitted properly and regularly checked

Need to reintroduce the helmet check list

Sickle cell, heart condition, kidney contusion, liver contusion, etc. are injuries,, why is brain not an injury

41% HS athletes returned to soon to play Nessler 2009 study

Women have higher risk & longer recovery periods

People with ADD / ADHD probably increases their risk

MRI / CT scan are not definitive tests

Hammer to wire force vs brain impact force example

Lovell 2009 study – 7 days if < 15 min of symptoms

Recovery 80% within 21 days

Need VPI helmet study results

SCAT2 app for phone

HB 2038 – The Law

Pop warner has new contact practice rules

NCAA / AFCA helmet contact/spearing/facemask rules (educate officials & have them call it)

Get definition from the law

School district approves COT committee, committee approves the RTP protocol

If suspected must see health care professional (AT) if AT believes must see doctor