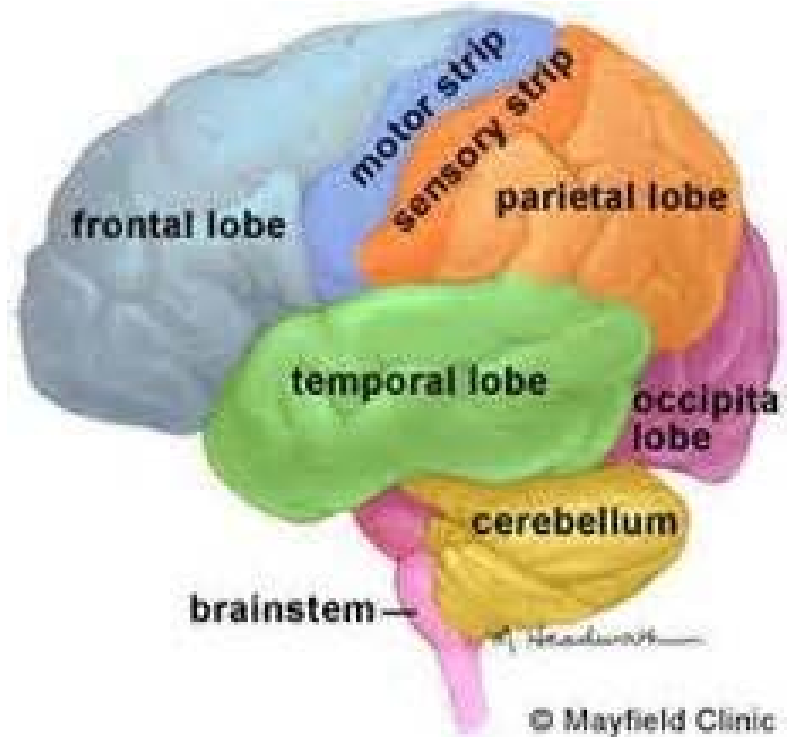


The Brain

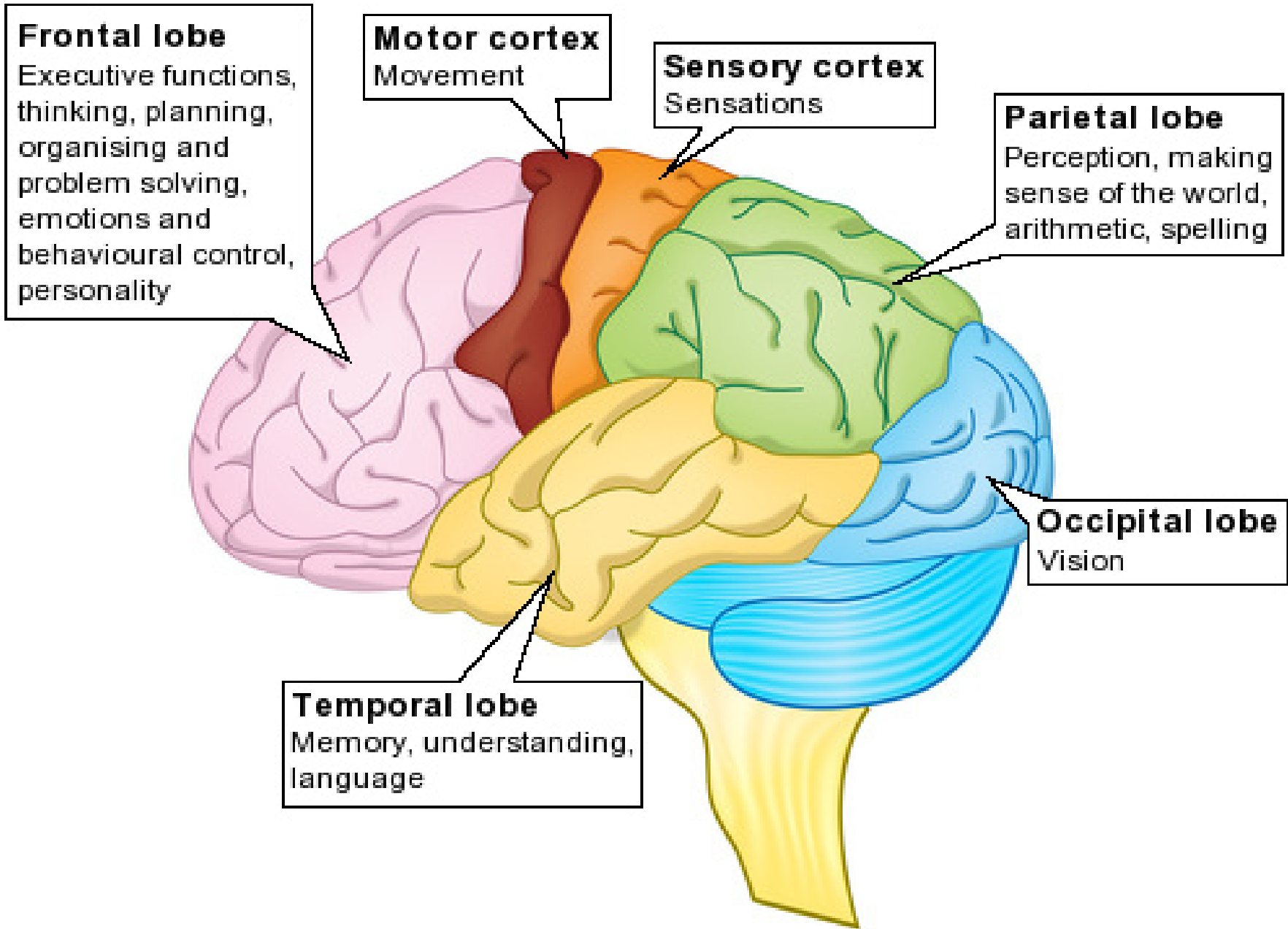


3 Major Parts of the Brain

- **Cerebrum**
 - 85% of brain's weight
 - 4 lobes with various functions
- **Cerebellum**
 - Controls voluntary movement
- **Brain Stem**
 - Controls involuntary actions

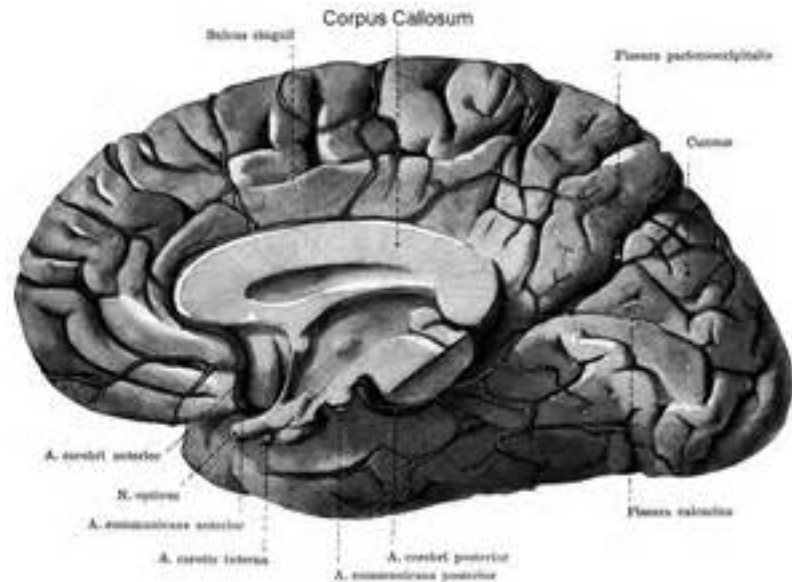
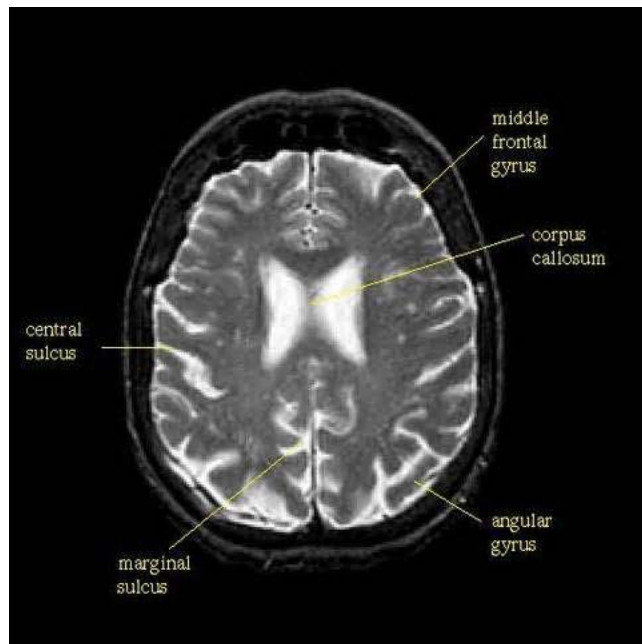


Cerebrum



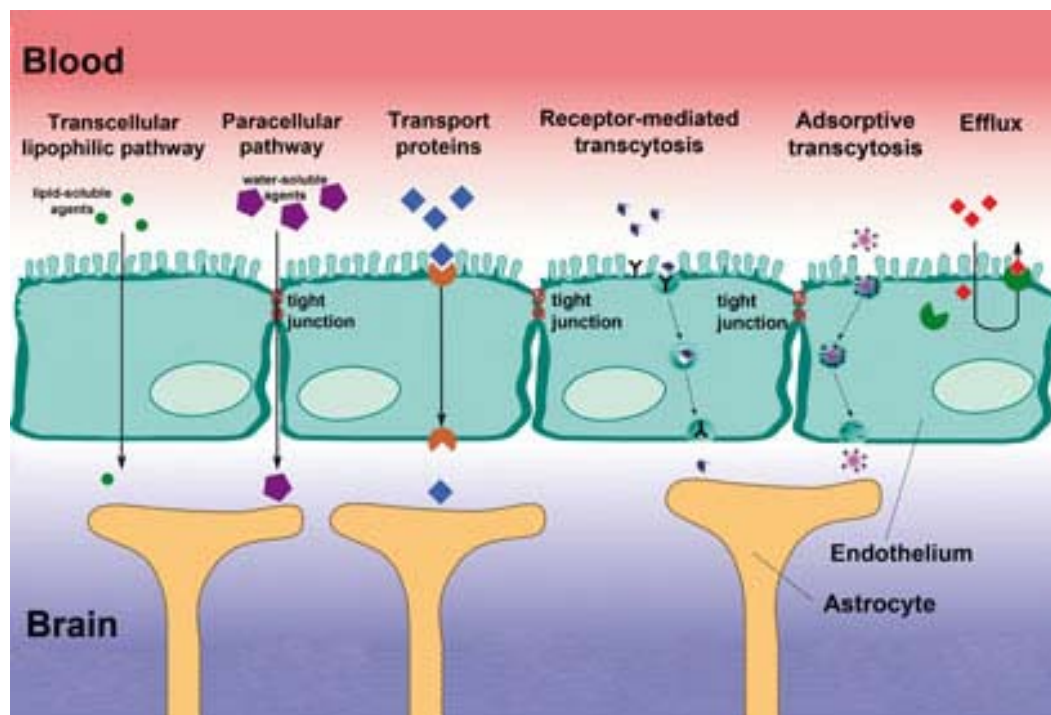
Corpus Callosum

- Joins right & left hemispheres of brain
- Wide, flat bundle of nerve fibers
 - *200–250 million projections*



Blood-Brain Barrier

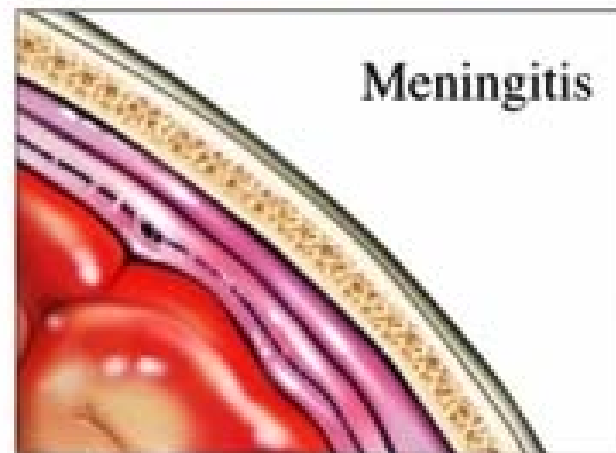
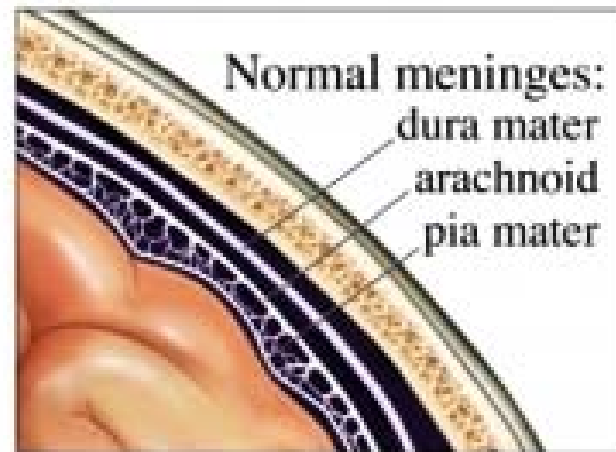
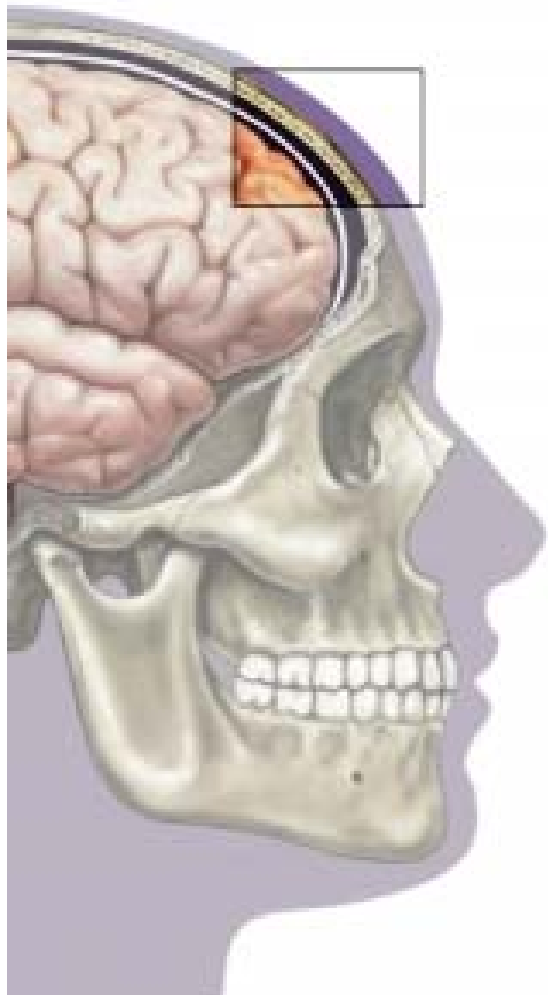
- Wall of high density cells that restrict passage of substances from the bloodstream into the brain.
 - Limits diffusion of “foreign substances” (bacteria) & large substances (hormones, drugs...)



Added Protection

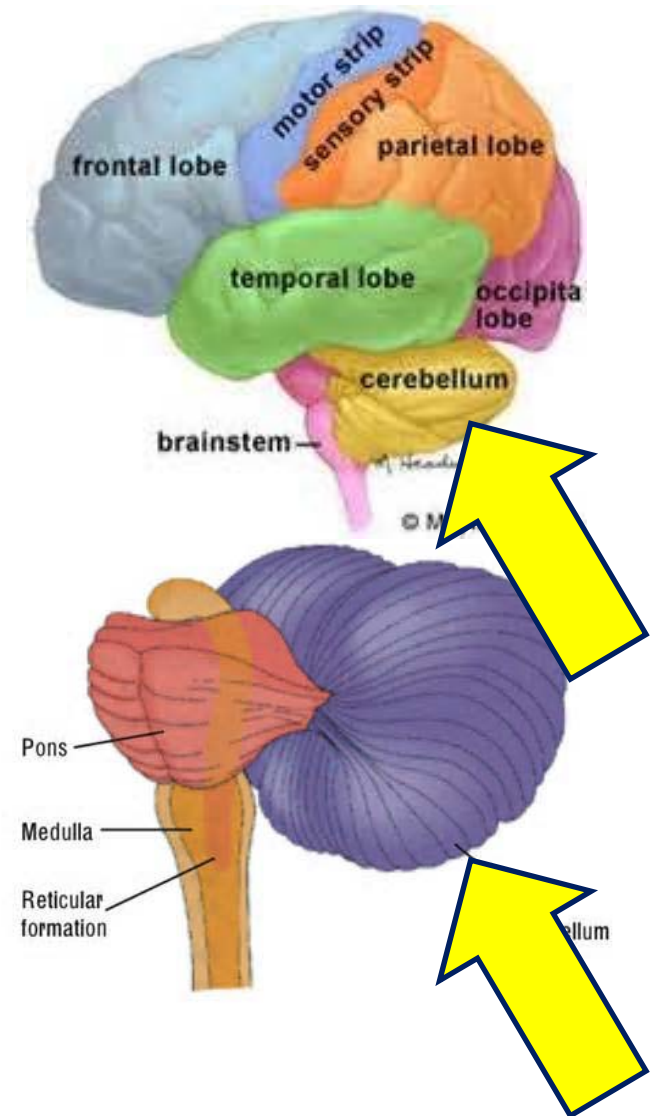
Meninges: protective layers around the brain

Meningitis: infection in the meninges



Cerebellum

- Involved with motor control
- Aids in coordination, precision & accurate timing
- *May be involved with attention and language, as well as fear & pleasure responses*



Brain Stem

- **Pons**

- Helps transfer messages
- Relay info between cerebrum & cerebellum

- **Medulla**

- Controls autonomic functions
- Coordination

- **Reticular Formation**

- Filters incoming information
- Controls sleep-wake cycle

