

# Human Brain Diagram



This human brain diagram provides a detailed look at parts of the brain that are responsible for essential human functions, our behavior, and why we respond the way we do to certain situations.

## Birds-eye view of the human brain

### Cerebrum

Initiates movement, regulates temperature, speech, judgment, learning, thinking, and reasoning, problem-solving, vision, hearing, touch, and smell



### Cerebellum

Responsible for coordinating movement, posture, balance, and equilibrium

### Brainstem

Connects the spinal cord and the cerebrum

The brainstem is composed of the:

- Midbrain: Controls hearing, movement, and coordination
- Pons: Responsible for vision, chewing, blinking, tears, hearing, balance, and facial expression
- Medulla: Responsible for survival, controlling heart rhythm, breathing, oxygen and carbon dioxide levels, and blood flow

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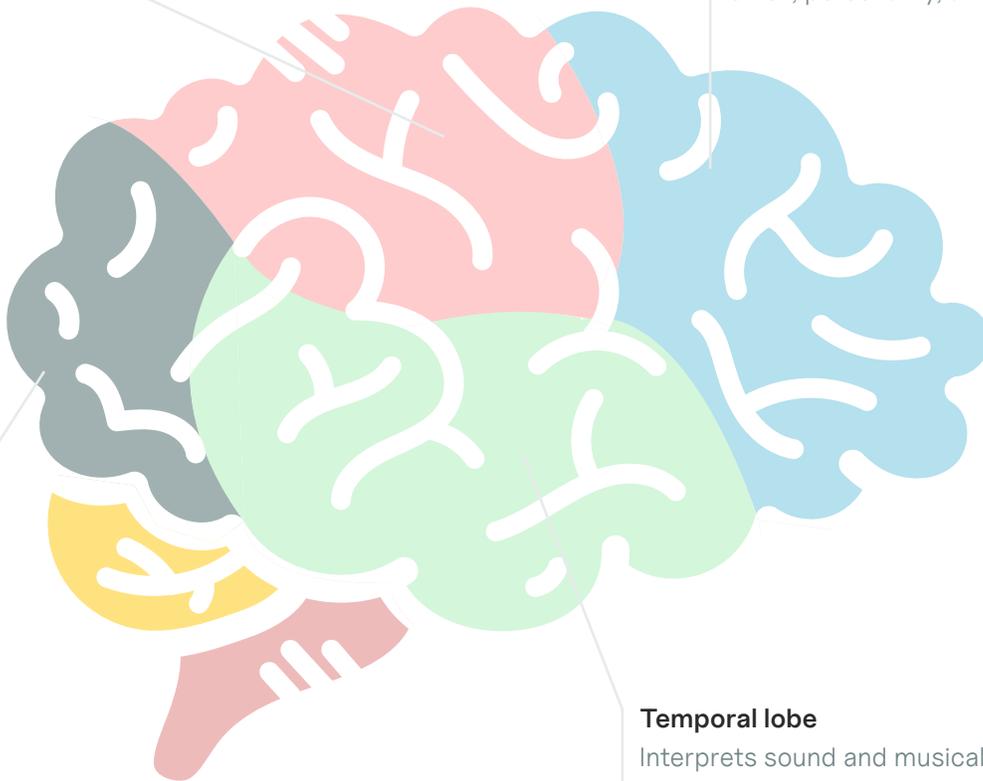
## Lobes of the brain

### Parietal lobe

Interprets sensory information, like temperature, pressure, touch, and pain, and helps with spatial awareness and understanding language

### Frontal lobe

Located at the front of the head, this lobe is responsible for decision making (also called executive function), language expression, smell, personality, and movement



### Occipital lobe

Responsible for visual processing

### Temporal lobe

Interprets sound and musical rhythm, controls speech, recognizes objects, controls short-term memory, and has a degree of smell recognition

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## Deeper structures in the brain

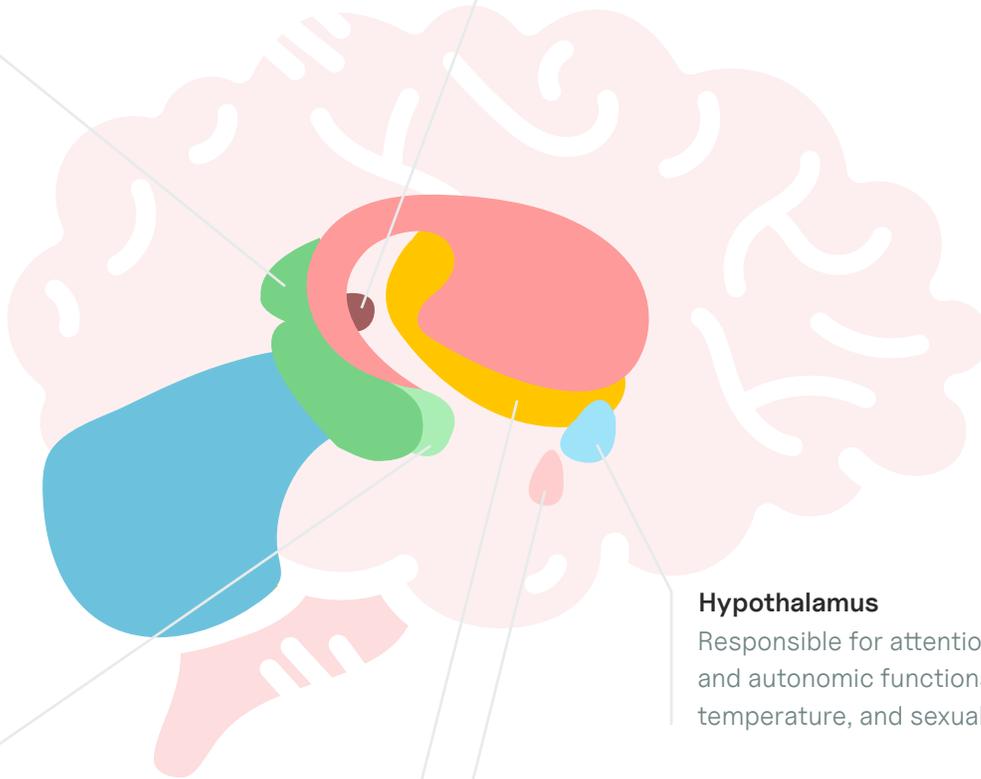
The deeper parts of the brain contain areas responsible for many essential bodily functions.

### Hippocampus

Associated with memory, perception of space, and learning

### Pineal gland

Responds to light and dark and releases melatonin, which supports the body's sleep and wake cycle



### Amygdala

The amygdala processes emotions, fear, meaning, and learning, and is responsible for the body's fight-or-flight-response

### Hypothalamus

Responsible for attention, perception, timing, and autonomic functions (thirst, hunger, body temperature, and sexual activity)

### Pituitary gland

Regulates hormones and receives chemical information from the hypothalamus

### Thalamus

Relays sensory and motor information to other parts of the brain