

• temporal lobe

The **cerebrum or cortex** (the extensive outer layer of gray matter of the cerebral hemispheres) is the largest part of the human brain, associated with higher brain function such as thought and action. The cerebral cortex is divided into four sections, called **“lobes”**: the frontal lobe, parietal lobe, occipital lobe, and temporal lobe.

Note: (1) The limbic system, often referred to as the **“emotional brain,”** is found buried within the cerebrum. (2) **Basal nuclei** are gray matter structures deep within each cerebral hemisphere that help to control skeletal muscle activity.

2. Motor area

- Controls thin muscles of the body (fingers, mouth, feet, eye...
- Coordinates movements
- Controls speech (articulation of words)

3. Somesthetic area

- Receives sensations, temperature and pain sensations from the body

Frontal lobe (1,2)

1. Prefrontal area

- Elaborates the thinking process
- Planning of complex movements



Parietal lobe (3)

Occipital lobe (4)

4. Visual area

- Detects visual signals

Temporal lobe (5,6,7)

5. Auditory area

- Detects auditory signals

6. Wernicke's area

- Interprets the significance of sentences as they are heard and written

7. Short-term memory area

- Stores short-term memory (that lasts for a few seconds)