



Brain Tumour Australia Information

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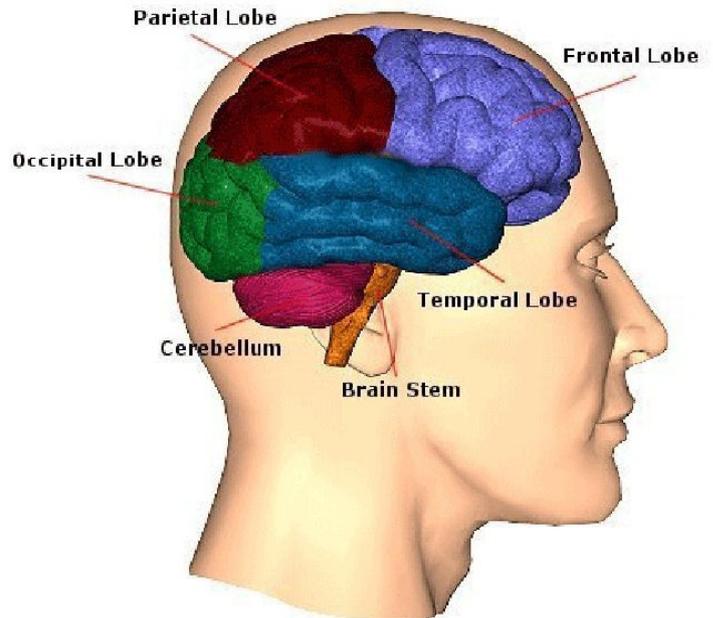
The Brain – Understanding

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Each lobe has a specialised function. The following information is a broad overview of these functions. Different parts of the brain have specialised functions, however the entire brain is working at any one time. To work with full efficiency, it is necessary for all sections to interact smoothly.

Specialised functions

1. **Frontal lobe (area of highest function)**
Intelligence; memory for habits & motor activities; ability to reason; decision making; initiating activity (ie. deciding what to do: planning how to do it; trialing the action; judgement & initiative; changing behaviour if mistakes occur; doing it correctly; mood & inhibition; also control of emotional responses and emotion (tears, laughter)
2. **Temporal lobes**
Hearing & speech; receiving messages through ears; recognising familiar learned speech and spoken language; appreciation of rhythm and intonation (changes in sound qualities); vision; memory and learning
 - A. **Left Temporal lobe** - Hearing, vision, understanding; memory for what is seen or heard; recognizing words; personality, behaviour, and sexual behaviour
 - B. **Right Temporal lobe** - Hearing, understanding, organising and concentrating on what is seen or heard; recognition of musical tones, and sounds, and non-speech information [eg. Drawing]. Long term memory, personality and behaviour, including sexual behaviour
3. **Parietal lobes**
Ability to reason; tell left from right; touch perception; receiving information about different parts of the body; awareness of where the body is in space; judgement of objects and things in the world; awareness of one's body shape and features; ability to read



4. **Occipital lobes**
Vision; receiving information through the eyes; recognising it as familiar or new and relating it to other visual information in the brain

The Lobes (Side View)

5. **Cerebellum**
Body Coordination; balance; voluntary muscle control; eye movement
6. **Limbic system**
Emotion - tears, laughter, memory and learning

Note: This system is not as circumscribed as the other lobes and links with many sections of the brain.

7. **Brain Stem**
This structure is responsible for basic vital life functions such as breathing, heartbeat, and blood pressure.