

# Pre-frontal cortex

## Prefrontal cortex

[Brodmann areas](#) of lateral surface. Per BrainInfo, parts of #8, #9, #10, #11, #44, #45, #46, and #47 are all in the prefrontal region.

### Details

#### Identifiers

<b>Latin</b>	<i>Cortex praefrontalis</i>
<b>MeSH</b>	<a href="#">D017397</a>
<b>NeuroNames</b>	<a href="#">2429</a>
<b>NeuroLex ID</b>	<a href="#">nlx_anat_090801</a> , <a href="#">ilx_0109209</a>
<b>FMA</b>	<a href="#">224850</a>

#### *Anatomical terms of neuroanatomy*

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The **prefrontal cortex** (PFC) is the front part of the [frontal lobes](#) of the [brain](#). It lies in front of the [motor](#) and [premotor](#) areas.

This brain region helps plan complex cognitive behaviours, [personality](#) expression, and decision making. It helps correct social behaviour.<sup>[1]</sup> The basic activity of this brain region is to bring together thoughts and actions to help achieve internal [goals](#).<sup>[2]</sup>

The most typical [psychological](#) term for functions carried out by the prefrontal cortex area is **executive function**. This is the ability to work out conflicting thoughts. It determines good and bad, better and best, same and different, [consequences](#) of current activities, working toward a goal, prediction of [outcomes](#), and expectation of results. Critical is 'social control': the ability to suppress [urges](#) which, if not suppressed, could lead to socially unacceptable outcomes.

Many authors have indicated an integral link between a person's personality and the functions of the prefrontal cortex.<sup>[3]</sup>

## References

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- <sup>↑</sup> Yang Y, Raine A (November 2009). "[Prefrontal structural and functional brain imaging findings in antisocial, violent, and psychopathic individuals: a meta-analysis](#)". *Psychiatry Research*. **174** (2): 81–8. doi:10.1016/j.psychres.2009.03.012. PMC 2784035 . PMID 19833485.
- <sup>↑</sup> Miller EK, Freedman DJ, Wallis JD (August 2002). "[The prefrontal cortex: categories, concepts and cognition](#)". *Philosophical Transactions*

- of the Royal Society B*. **357** (1424): 1123–36. doi:[10.1098/rstb.2002.1099](https://doi.org/10.1098/rstb.2002.1099). PMC [1693009](https://pubmed.ncbi.nlm.nih.gov/1693009/) . PMID [12217179](https://pubmed.ncbi.nlm.nih.gov/12217179/).
3. <sup>1</sup> DeYoung C.G.; et al. (2010). "[Testing predictions from personality neuroscience](#)". *Psychological Science*. **21** (6): 820–828. doi:[10.1177/0956797610370159](https://doi.org/10.1177/0956797610370159). PMC [3049165](https://pubmed.ncbi.nlm.nih.gov/3049165/) . PMID [20435951](https://pubmed.ncbi.nlm.nih.gov/20435951/).

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