

## The Adolescent Brain

## (or why your teen says "I don't know" to everything)

Adolescence is the phase of life between childhood and adulthood, spanning from around age 10 to 25. The adolescent brain is different to that of a child or an adult, physiologically (how it works) and structurally (how it's 'built').



During adolescence, the limbic regions of the brain (emotion, learning, memory, motivation) begin to be linked up with the prefrontal cortex (self-control, critical thinking, weighing the pros and cons of a particular course of action, long-term planning).



But the prefrontal cortex is not fully developed until about the mid-20s. Until then, don't be surprised when your young

person behaves impulsively without taking the risks and potential consequences of their actions into consideration.

The way their brains are gives adolescents a huge capacity for learning. There is no limit to the number of potential neural connections that could be formed.





When your young person experiences or does something new, a new neural pathway is formed.



When they repeat it (be it an activity, a behaviour or a thought process), that neural pathway is strengthened.



The neural pathways that are used the most are reinforced: they are coated with a fatty white matter called myelin.

Every brain is unique and shaped by its own learning – or what the young person chooses to spend time on. Whether it is studying, music practice, playing sport, gaming or watching Internet porn, it is the most used neural pathways that will become like motorways by the



time they reach adulthood. (The unused neurons and connections – experiences that are not repeated – are pruned.)

Their future adult self is being shaped through repeated behaviours now. Their future relationships will be significantly influenced by the relational templates that are being created in their adolescence.

It's important to be aware that the very things that make the adolescent brain good at learning from new experiences also make adolescents more vulnerable to addiction – whether it is to a substance (like cocaine) or a behaviour (like watching porn). The process of addiction causes major brain

**changes**, and these changes are much harder to recover from when they occur during the period of rapid brain development in adolescence.

For more on the elasticity of the adolescent brain and how digital activity can impact and shape your children's future, check out Dignify's podcast episode Brains Under Construction.



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