



Adolescent brain development

What is Adolescence?

- Adolescence should be seen as a **BIOLOGICAL** stage of a person's life.
- It doesn't just stop if a young person moves out of the family home at 18 or if they get a full-time job straight out of school.
- Adolescence is a specific period of Brain Development.
- By the age of six, a child's brain is about 95% of its adult size
- This does **NOT** mean the brain is fully developed by this stage
- The brain is like plastic – it can be modelled, remodelled and developed through experience.
- Most of this happens between puberty and 25 years old.
- This means that a young person is dealing with both physical changes and changes in their brain during their teenage and early adult years.
- It also means that biologically, adolescence is not just the teenage years but continues into a person's early 20s!

Why did you do that?

Teenagers are not just less experienced adults – their brains are structurally different, and the brain's functions are still under construction.

When we ask young people to behave in certain ways, we are sometimes asking them to do something their brain is not yet capable of understanding

The Brain

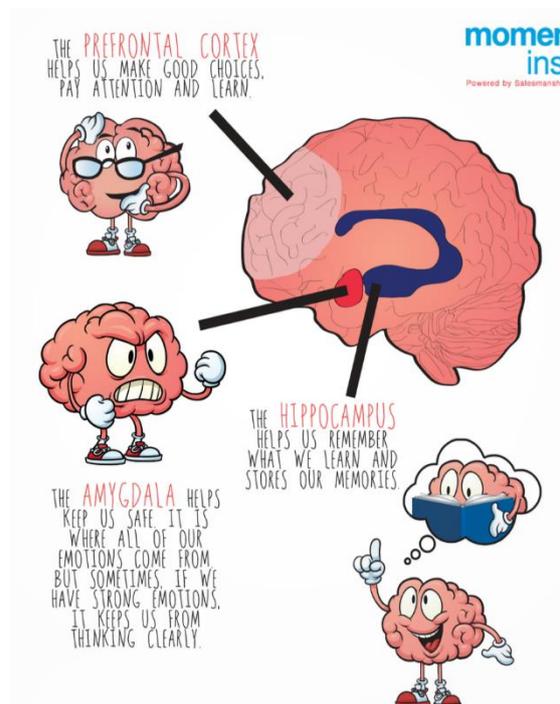
The adolescent brain starts its development from the back.

This means the Prefrontal Cortex is the last part of the brain to reach maturity.

This part of the brain is responsible for logical thinking – decision making, problem-solving, analysing and interpreting experiences.

The Amygdala forms part of the limbic system. The Amygdala is associated with emotions, impulses, aggression and instinctive behaviour.

Whilst the prefrontal cortex is still developing; the Amygdala can take the lead when making decisions about behaviour.



Why is behaviour impacted?

- Adolescent brains develop from back to front. This means more primitive areas of the brain develop before higher thinking and rationalising areas of the brain.
- Communication in adolescents' brains is slower and also works back to front.
- Problem-solving and decision-making are skewed as they focus and rely heavily on the emotional brain, not the logical brain like adults.
- This has big implications on adolescents' behaviour as more primitive areas of the brain are often controlling behaviour and behavioural responses.
- Teenagers are more likely to misinterpret facial expressions of emotion.
- They may see anger when there isn't anger which processes in the Amygdala and make them may react quickly.
- So what does this mean in terms of behaviour?
- They can be impulsive, have mood changes, not able to control their emotions and seek out risks.

Emotional behaviour - Adolescents are still learning how to process, control and express their emotions. This can lead to heightened emotions and moods that seem unpredictable and impact their behaviour.

- Behaviour may seem dramatic or over the top.
- Increase in conflict or aggressive behaviour.
- Difficulty reflecting on emotional fuelled behaviour – explaining why they reacted/acted this way.
- Behavioural responses may not seem appropriate or in line with social expectations.

Risk-taking behaviour - Risk-taking behaviour often increases during adolescence. It is widely agreed upon that this increase in risk-taking is a normal part of development. It enables adolescents to test the waters and grow as independent individuals, away from the control of adults.

TAKE AWAY POINTS ...

1. They often don't understand the cues from facial expressions
2. The actual structure of their brain can prevent them from behaving in ways adults would see as logical (they really can't help it!)
3. Why do they keep making the same mistakes? - their brain isn't capable yet of learning from EVERY mistake - it's a gradual process.
4. 'They get in trouble at school but not as much at home'...impulsivity is increased in social situations.



References

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Book – this is where I got most of it from!

Inventing Ourselves: The Secret Life of the Teenage Brain

Book by Sarah-Jayne Blakemore