

For more information:

References:

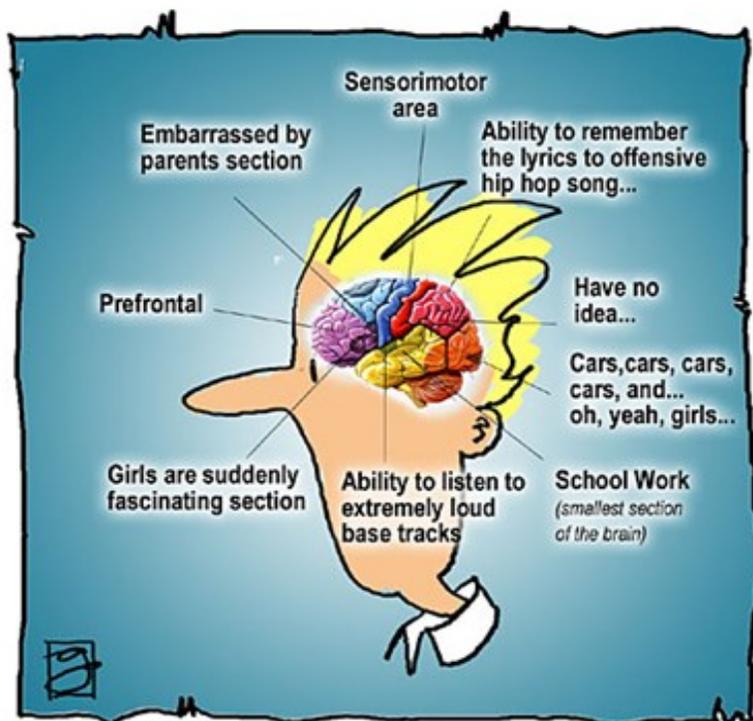
- (a) Sarah-Jayne Blakemore: The mysterious workings of the adolescent brain. Available from <https://www.youtube.com/watch?v=6zVS8HIPUng>
- (b) Insight into the teenage brain: Adriana Galvan at TedX Youth @ Caltech. Available from <https://www.youtube.com/watch?v=LWUKW4s3XxY>
- (c) Adolescent Sleep: Summary AYPH Research Update No10 July 1012
- (d) Lancet Editorial (2012) Putting adolescents at the centre of health and development. *The Lancet*, 379, pp1561.
- (e) Mindful (2013) *Mindful Report* Available from http://www.mindful.org/static/mf/pdfs/alone_with_my_thoughts.pdf?245411050713
- (f) Lewis, L. (2015) *The Teen Brain and Alcohol*. Bristol: UWE.
- (g) Sirona Care and Health (2013). *Top sleep tips (ages 13-16) for parents*. Bath: Sirona.



Understanding the Teenage Brain: Information for Parents

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“An adolescent who is healthy is the best foundation for a healthy adult life, which will in turn influence future generations' health” (d)



Anatomy of a Teenager's Brain

Recent trends in adolescent health:

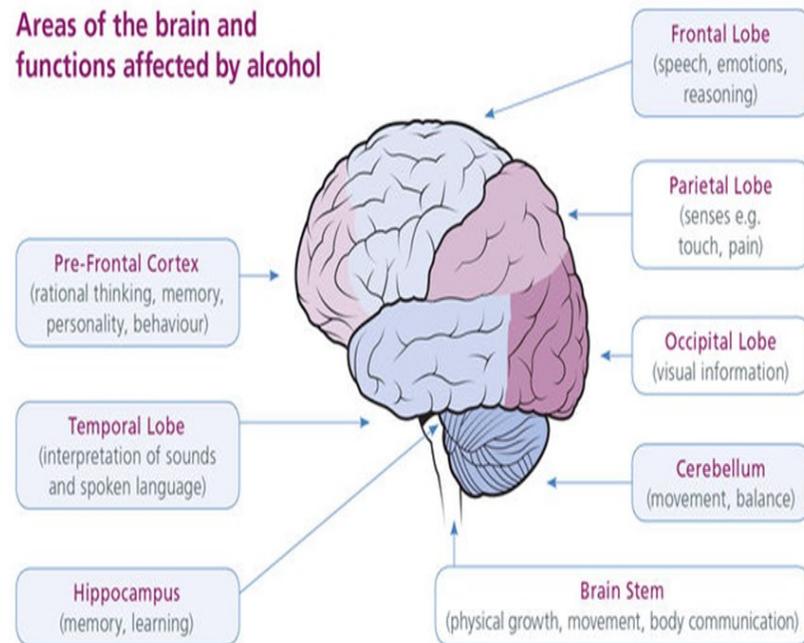
- A decrease in teenage pregnancies, cigarette smoking and cannabis use.
- An increase in the number of sexually transmitted infections.
- Those teenagers drinking alcohol are consuming large quantities.
- Obesity among teenagers has increased.
- 1 in 5 children have symptoms of depression. (e)

If you would like any further support or advice, please contact your School Nurse or GP.

The effects of alcohol:

- Alcohol is like a computer virus in an adolescent brain.
- Alcohol slows or shuts down brain activity.
- Alcohol decreases the ability to learn.
- Alcohol disrupts brain wiring that a teenager needs to become a responsible adult.
- Alcohol is a depressant and has a significant impact on mental health (f).

Areas of the brain and functions affected by alcohol

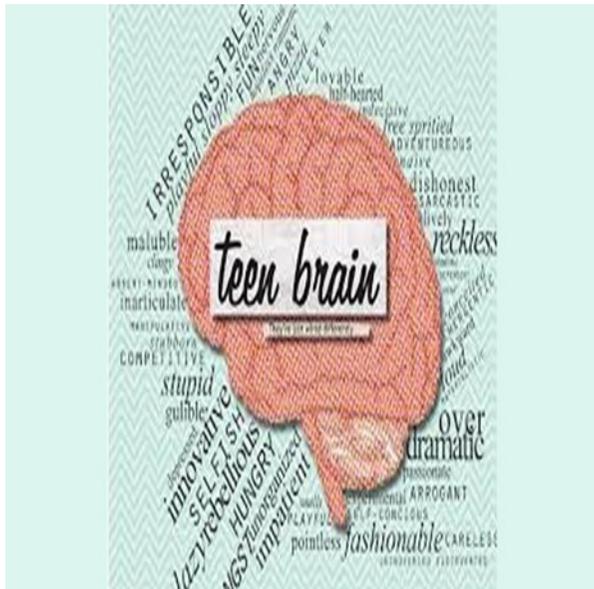


The facts :

- The human brain continues to develop until the mid- twenties.
- Adolescence starts when the body changes during puberty. On average, boys start puberty later than girls (a).
- The front part of the brain is called the Pre-Frontal Cortex and is the last part of the brain to fully develop. This part deals with decision making, planning, good judgement, impulse control, and social interaction & self- awareness. There are dramatic changes during adolescence (a).

Risk Taking:

Teenagers love risk taking. This behaviour is controlled by the Limbic Region of the brain, which is found in the Pre Frontal Cortex. Teenagers want to become independent from their parents and they are always keen to impress their friends. In a teenager's brain, there is a hypersensitivity to rewards ie "feel good factor" which is linked to the chemical release of dopamine. As the front part of the brain (responsible for regulating risk taking) is still under development, impulsive behaviour is common during teenage years (b).



Sleep:

- Teenagers need as much sleep as a younger child (between 8- 9 hours).
- Changes in their biological clocks cause a delay in the onset of sleep (on average 2 hours) and change their sleep patterns (eg they are sleepier in the mornings!) (c).
- The difficulty for teenagers is that they have to start school/college early and yet they have the real pressure of the 24 hour accessibility of their electronic devices (keeping up with friends/playing games etc) (c)
- The lack of sleep can affect school performance eg attention, memory and decision making. Moodiness and irritability may occur more frequently (g).

