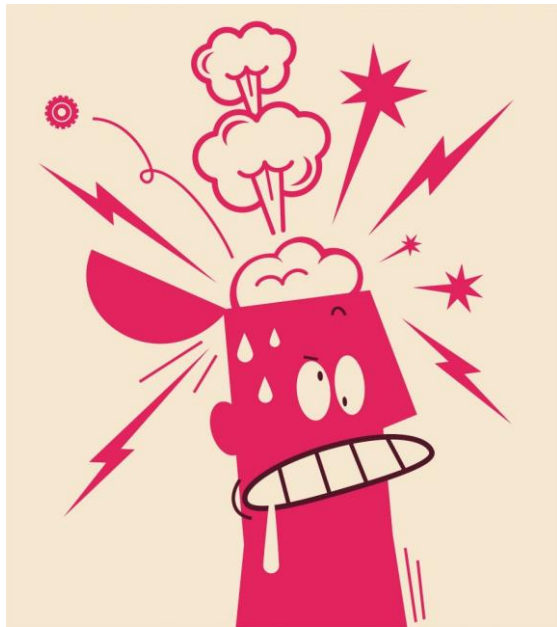


The teenage brain

FHSF AGM

Opening activity

- ▶ What emotions have you felt today?

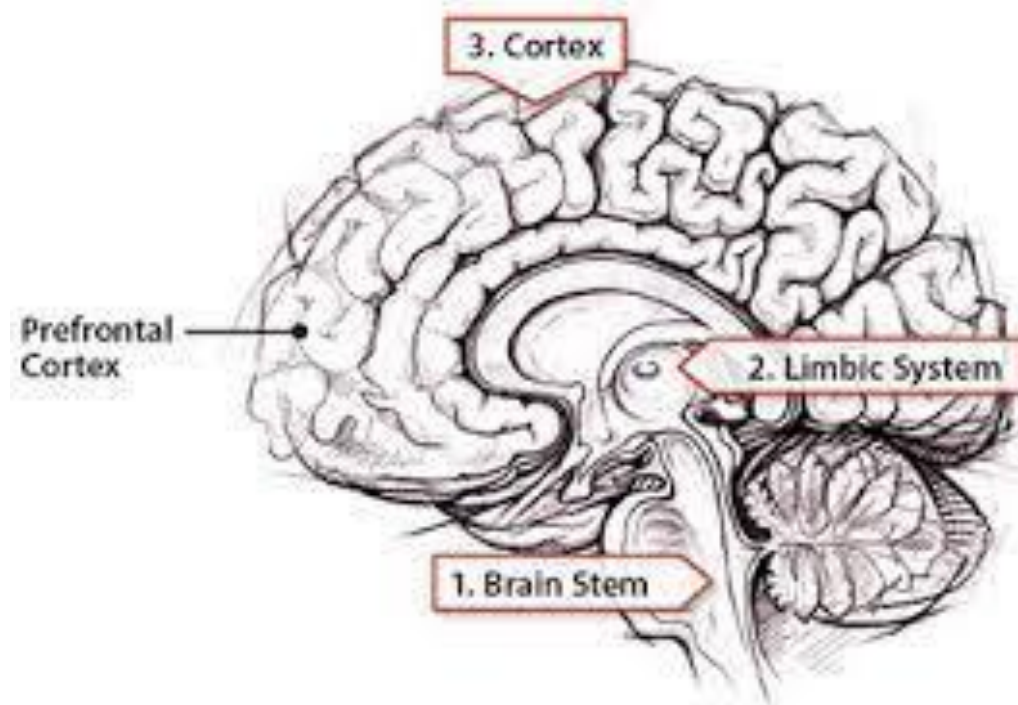


What to expect from this session

- ▶ The science of the teenage brain
- ▶ A look in to the mental health of the teenage brain
- ▶ Takeaway tips - Practical and emotional

The Brain Structure

The Thinking brain:
This develops well in to our 20s

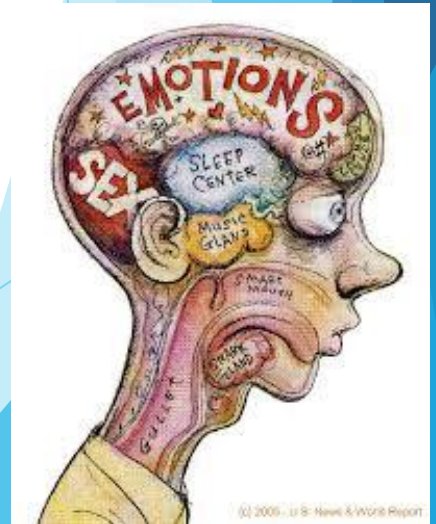


The emotional brain:
Goes through HUGE
changes and
restructure during
puberty. Key part is
the amygdala

First to form: All our
autonomous responses

Sprouting and Pruning

- ▶ During the teen years, the teenager's brain is being reshaped, and reconstructed. They are making enormous strides in thinking and socialisation
- ▶ This plasticity is a double edged sword - the morphing landscape makes them vulnerable to dangerous behaviours as well as mental health issues.
- ▶ It's a massive construction project. In such a situation, things rarely flow smoothly and surprise destinations thrive.
- ▶ Reconstruction continues until age 25.



Emotional brain

- ▶ One part of the teen brain that is undeveloped lies in that logical brain.
- ▶ This is called the pre-frontal cortex (PFC). This part of the brain, when fully developed, is in a constant dialogue with the emotional brain (the limbic brain).
- ▶ In the adult, the PFC and the limbic brain are in balance.
- ▶ For the teen, however, the PFC is undeveloped, and the emotional brain (including the amygdala mentioned before) rules the moment, until the PFC is developed in the mid-twenties.



PFC loans

- ▶ One highly effective way for parents and teachers to help teens develop the PFC is to make them deal with the consequences of their actions.
- ▶ This takes some thinking ahead (a PFC function) on the part of the adults, about the new freedoms and responsibilities that their teen will have.
- ▶ Letting the teen know the consequences in advance, is in a sense, loaning the teen our frontal lobe functions.



Emotions!

- ▶ The amygdala, along with hormones, give rise to newly intense experiences of rage, fear, aggression (including directed at oneself), excitement and sexual attraction.
- ▶ Unfortunately teens are not as good at reading emotions.



Which is it?

Teenagers misunderstand

- ▶ The person in the picture is showing one emotion, and only one. And that is fear.
- ▶ Most teenagers will say 'anger', 'shock', 'disgust' or 'pain'.
- ▶ In an experiment, researchers asked a group of adults and adolescents the same question. All adults got it right and most teenagers got it wrong.
- ▶ In brain scans it was found that teenagers were using different parts of the brain!
- ▶ Adults were using the PFC, teenagers were using the amygdala.
- ▶ Teenagers can easily misread our signals.



Nutrition

- ▶ One of the most overlooked and problematic issues for teens is nutrition.
- ▶ The amygdala and other areas of the brain require healthy fats. That means fish oils.
- ▶ High levels of these omega 3 fatty acids are associated with less depression and suicide, and many other health benefits too numerous to mention here.



Zinc

- ▶ Getting enough zinc is a challenge for teens because their growing bones take much of the body supply of zinc, leaving the brain in short supply.
- ▶ This shows up as irritability and moodiness, as well as zinc spots (white spots) on the nails. Giving the teenager a zinc supplement (enough till the nails clear) can make a very significant difference in moodiness, as well as help clear up their skin.
- ▶ Add some fish oil capsules and you have some good support for the teen brain.



Zzzzzzzzz

- ▶ Teens need 9 to 10 hours of sleep a night.
- ▶ Research in 2015 found that they have substantially less sleep now compared with 2 decades ago.
- ▶ ‘Screen’ time is cutting into teen sleep hours and putting them at greater risk of anxiety and depression.



Mental health issues

- ▶ Approximately one in five teens (aged 12 to 18) suffer from at least one mental health disorder.
- ▶ Mental health issues may be:
 - ▶ □ Short-term, issue-based, eg exam anxiety, or based around a specific, temporary circumstance;
 - ▶ □ Long-term, issue-based, eg bereavement, the effects of physical health problems or disability or bullying;
 - ▶ □ Long-term, deep-rooted, eg complex psychological disorders that need professional intervention.

Symptoms to look out for

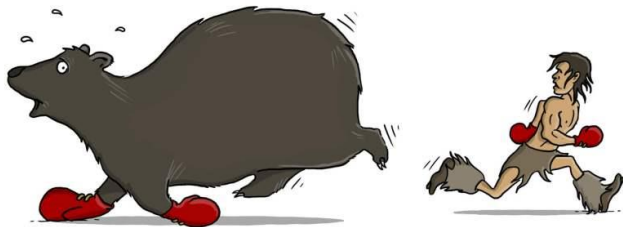
► How might these issues manifest in teenagers?

- Anger and a 'quick fuse'
- Apathy
- Changes in eating patterns
- Crying
- Extreme obsession with appearance
- Frustration
- Isolation
- Lack of interest in appearance
- Long sleeves on hot days
- Losing or gaining weight
- Panic attacks
- Perfectionism
- Reckless behaviour
- Repetitive and ritualised behaviour
- Rituals around food
- Scars or marks on the arms, legs or other parts of the body
- Sleep problems
- Shaking
- Spending lots of time in bed
- Withdrawal

The brain also helps us understand anxiety...



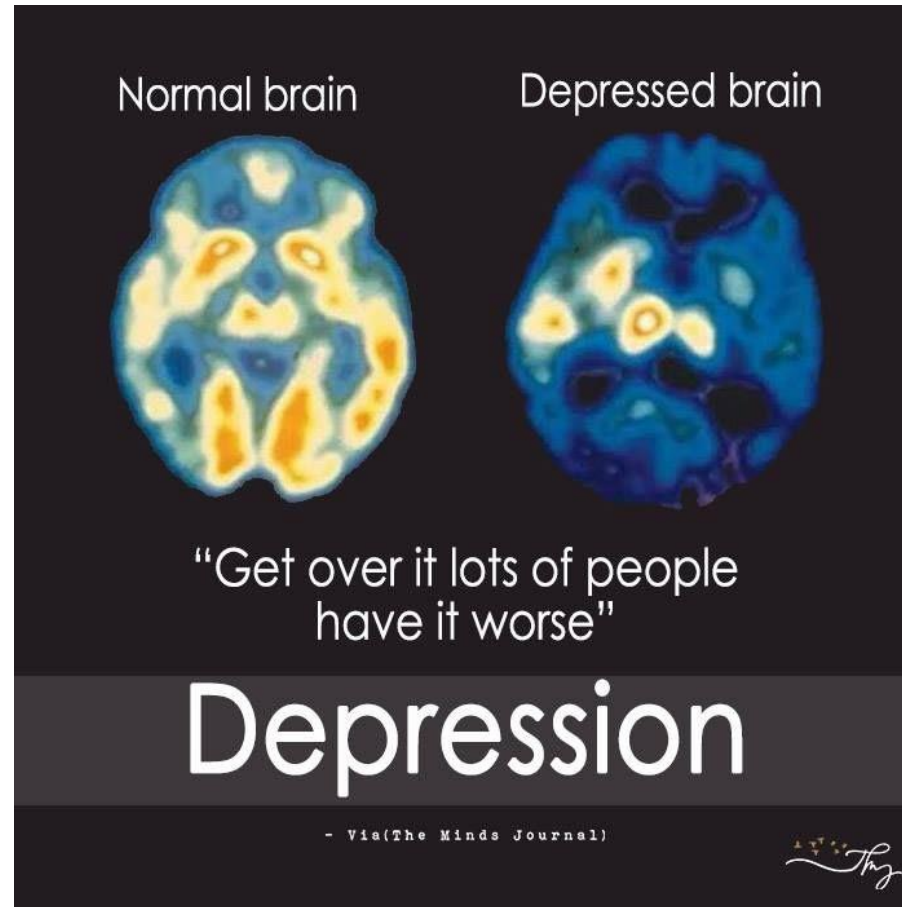
FIGHT...
OR FLIGHT?



Nearly one in three adolescents and teenagers meet criteria for an anxiety disorder by the age of 18.

...and depression

More than 11% of adolescents and teens report experiencing at least one major depressive episode in the last year



Protective Factors

- ▶ Protective factors are things we can change, choices we make, which make us more able to deal with the emotional distress that hits all of us from time to time. They include:
 - Eating well (plus supplements...)
 - Exercising
 - Connecting with people
 - Being kind
 - Being mindful
 - Getting good sleep
 - Being proactive
 - Sharing a meal with the family
 - Joining or going to a club
 - Creating a revision routine



TALK & LISTEN,
BE THERE,
FEEL CONNECTED



DO WHAT YOU CAN,
ENJOY WHAT YOU DO,
MOVE YOUR HOOD



REMEMBER
THE SIMPLE
THINGS THAT
GIVE YOU JOY



EMBRACE NEW
EXPERIENCES,
SEE OPPORTUNITIES,
SURPRISE YOURSELF



Your time,
your words,
your presence

How to support - CARES model

- ▶ □ C Calm listening, non-judgemental.
- ▶ □ A Ask open questions and assess
- ▶ □ R Reassure and give information.
- ▶ □ E Encourage self-help
- ▶ □ S Seek support

But most importantly:

Be emotionally available

Cut them some slack...

Further support and questions

- ▶ How to be mindful - and help your child to be
 - ▶ What was the highlight of your day today?
 - ▶ Teach me something that you learnt today.
 - ▶ What are you grateful for right now?
 - ▶ Headspace app

In times of panic...

- ▶ Take 5
- ▶ Finger tracing

Visit the Farlingaye website under FHSF for a full parents guide to well being



My takeaways for you

- ▶ Model the responses you want to see
- ▶ Get Omega 3 and Zinc supplements
- ▶ Be their helping hand
- ▶ Encourage conversations about well being



<http://www.bbc.co.uk/news/health-36887224>

<https://www.nimh.nih.gov/health/publications/the-teen-brain-still-under-construction/index.shtml>

<http://www.cam.ac.uk/research/news/changes-in-brain-structure-during-teenage-years-provide-clues-to-onset-of-mental-health-problems>

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<http://www.livescience.com/13850-10-facts-parent-teen-brain.html>

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