

## THE TEENAGE BRAIN

First fact. The teenage brain is different from a child's brain and it is different from an adult brain. It is a brain that is changing a lot from a child's brain to an adult one.

At around age 10/11 years the brain produces an extra 20 billion or so brain cells. Then, at around 13/14 years, another 20 billion brain cells are pruned away. All this makes life confusing for a teenager. They may, when the pruning is going on, suddenly find they can't do things they could before, so teenagers can feel confused. Remember, at puberty all the hormones are rushing around the body as well and the body is doing a lot of growing, so the body has to get re-wired. Also the gaps between the brain cells (the synapses) somehow get slower, so the teenager can't take things in like before—they are a bit slow! This is a bit like trying to get your computer to do too many things at once—the computer goes slow on us! For teenagers also, there is a lot going on in their brains.

The bit of our brain that stops us doing things silly or dangerous also gets a bit slow, so teenagers have a good "accelerator"—the impulse to do something, even if dangerous is much stronger than the "brake". Teenagers are not good at thinking about consequences of their behaviour. This makes them want to experiment with things like drugs and alcohol, and take risks.

All these changes are our way of preparing for being an adult. The front part of our brain is still growing—getting connected up. This is the part of our brain that is imaginative, creative, solves problems, and it is the part that is empathic—where we can see things from the other person's point of view. So teenagers, who have not yet got this part of their brain connected up properly, can seem to be rather selfish at times. Actually this is really about the brain still developing—they are not yet ready to see things from the other person's point of view.

The other aspect of how teenagers grow is about getting ready to leave home. They become very interested in friends and boyfriends/girlfriends. This can make parents feel redundant, as though they do not now matter to a teenager. Actually, if we can keep communication channels open, teenagers use us parents as a safe haven from which to explore their new world of friends and experiences. They may not tell us but they are grateful that someone cares! This is also because emotions become stronger and more significant. So they can swing from being elated about something to completely down in the dumps—something is either wonderful or a disaster! This can be confusing for us adults, so we need to hang in there for the teenager.

One other thing. There is a bit of our brains that is like a timer—telling us to go to sleep. This bit of the brain does not work well for teenagers. The chemicals that trigger sleep are slow to get going, so the teenager's "clock" goes wrong. So they often stay up late, and find it hard to get up in the morning.

A lot of this about how the brain develops only became available to us about 15 years ago, and even then most of the knowledge was kept in scientific circles. So some of this can be a surprise to us parents. The brain is still growing up to around 23 years—so there is a long way to go for a teenager!

All this does not mean we need to be softer on teenagers--absolutely not. Teenagers like to know where they stand. They may want to rebel, but if we can stick to (reasonable) limits, teenagers will be grateful. Part of this rebellion is simply to test out the world, and where better to do this than in a safe place—home—and who better to test things out on—the safest people in the world—parents! They are using us as a sounding board—something they need to do somehow, so if it is with us, it will be better for the teenager—better than out in the street, where things could go badly wrong.

But this understanding of what is going on in a teenager's brain can help us be calmer when dealing with our teenagers. Seeing as the brain does such a lot of growing from around ages 10 to 23, be prepared for the long haul! The good bit is that although they do not show it, teenagers value what us parents say, and want to be able to talk about things that worry them provided they do not feel foolish when they try this. They are trying to make sense of life, and that can be difficult even for us adults. Teenagers often lack confidence, or it can be brittle—so it easily gets smashed, if teenagers feel put down or disrespected.

(Ideas derived from -----"Blame My Brain" by Nicola Morgan, a very readable book that describes the world from a teenager's point of view as they grow up)