



**Brainwave**<sup>TM</sup>  
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# Explaining social and emotional changes during adolescence

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There are big changes going on in adolescents' lives. Not only physical changes, but also important changes in social and emotional development, as they move from being a child to becoming an adult. Although we sometimes expect them to think and behave like an adult, their brain is very different to an adult's brain and won't be fully developed until they're in their twenties.

Adolescence is often talked about as a time of challenges. We seem to view it as a time of difficult and sometimes impulsive behaviour. Most adults who spend time with an adolescent know that this isn't mostly who they are. While there are likely to be some bumps along the way and some of these may be big bumps, adolescents can be amazing. Among many other qualities, they can be funny, creative, curious and adventurous. Most adolescents move through these years in healthy, positive ways without experiencing serious problems. It's a time to cherish, not a time to be afraid of.

## Brain Changes

All of us have heard talk of adolescents and their 'raging hormones'. However, the latest research tells us that, while hormone levels do increase from early puberty, they play little part in the stronger emotions that adolescents may sometimes experience.<sup>1</sup> Instead, many of the changes during adolescence are linked with the development of the brain.

Circuits in the adolescent brain are re-organising and maturing, particularly the circuits involved in social relationships, in processing emotions and in both taking risks and experiencing rewards.<sup>2</sup> Different areas develop and mature at different times.

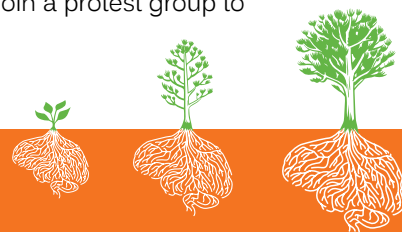
There are changes in the areas in the brain that process emotions, known as the limbic system. This can make adolescents seem more emotional and reactive.



For example, they may have more 'ups and downs.' The prefrontal cortex, which is involved in reasoning, rational thinking, decision-making and controlling emotions and impulses, is still maturing into the twenties.<sup>3</sup> As the circuits between the prefrontal cortex and limbic system become more effective, adolescents are more able to control strong emotions and impulses and their ability to think rationally and make good decisions is fine-tuned.<sup>4</sup> They become better at using these systems in controlled and reliable ways.<sup>5</sup>

## Forming an Identity

Adolescents are forming a sense of who they are, who they want to be, what they need to do to get there and how they fit in the world. Changes in the brain mean they can increasingly think in more abstract ways.<sup>6</sup> They can weigh up choices about future jobs and careers. They can explore their beliefs and morals; they may decide not to eat meat or may join a protest group to save the environment.





Some adolescents 'try on' different personalities.<sup>7</sup> They experiment with how they look and how they behave, particularly in romantic situations where they may want to impress! While this behaviour may seem false to adults, it can be a normal part of adolescent development. By about 18 years, most young people have a strong sense of who they are.<sup>8</sup>

Parents can support adolescents to form an identity by providing them with a sense of belonging and stability, a secure base from which they can explore their options and develop their values and beliefs.

### Adolescent Emotions

From puberty, adolescents may experience their feelings more strongly and may be more emotionally sensitive.<sup>9</sup> Their highs may seem higher and their lows, lower. The way they react one day may be quite different to another day. They are still learning how to handle intense feelings and express themselves in mature ways. As the brain regions that control emotions mature, and they gain practice at managing 'big feelings', adolescents become more likely to step back and think before they respond to situations.<sup>10</sup>

Adolescents can be very self-conscious and highly sensitive to other people's emotions and opinions.<sup>11</sup> It becomes very important to them to feel they belong and to feel accepted by their peers.<sup>12</sup> They may sometimes think that their behaviour is the focus of everyone's attention.<sup>13</sup> They may be beside themselves with happiness or feel absolutely miserable as close friendships or romantic relationships come and go.<sup>14</sup> This intensity of emotion usually lessens around mid-adolescence.

While stronger emotions are to be expected at times during adolescence, if a young person's reactions seem extreme, persist for a long time, or if whānau are concerned, it is important to ask for help. Your doctor is a good place to start. The earlier the better as for some adolescents, their strong emotional reactions may be an early sign of mental health concerns.

Parents and other adults can provide support by helping adolescents find healthy ways to manage stress, and to process thoughts and feelings that may overwhelm them. For example, they may encourage them to exercise, to meditate, or to play music. The way in which adults respond makes a difference. While an adult may feel like shouting at an angry or overwhelmed adolescent, this is unlikely to help settle a situation or resolve conflict. A calm response may be far more effective.

### Capacity to See Others' Perspectives

Adolescents become better at understanding the thoughts, feelings and beliefs of other people, and the fact that these may be different from their own.<sup>15</sup> Being able to 'put themselves in someone else's shoes' helps them as they begin to have more complex relationships. It is healthy for them to develop more tolerance towards other people who have opinions and interests that are different from their own.<sup>16</sup>

### Reading Others' Emotions and Social Cues

From soon after birth, babies can read expressions of emotion on others' faces. They get better at it as they grow. Adolescents learn to read and process more complex emotions and to pick up on subtle non-verbal cues.<sup>17</sup> As they become less emotionally dependent on parents, they tend to spend more time with their peers. It helps to know what others think of them, and whether their peers are signalling approval and acceptance. If they sense they're not 'fitting in', they may change their behaviour and responses in order to gain peer approval.<sup>18</sup>

Many adolescents begin to be romantically interested in others. Their increasing ability to read facial expressions of emotion and social cues may help them pick up on romantic interest directed towards them, such as a flirtatious look or may help them gauge a potential partner's 'suitability'.<sup>19</sup>

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<sup>1</sup> National Scientific Council on the Developing Child, 2010

<sup>2</sup> National Scientific Council on the Developing Child, 2010

<sup>3</sup> National Scientific Council on the Developing Child, 2010

<sup>4</sup> Dahl & Suleiman, 2017

<sup>5</sup> National Scientific Council on the Developing Child, 2010

<sup>6</sup> Shonkoff, 2012

<sup>7</sup> Steinberg, 2016

<sup>8</sup> Cote, 2009, cited by Steinberg, 2016

<sup>9</sup> Kuther, 2017

<sup>10</sup> Steinberg, 2016

<sup>11</sup> Guyer et al., 2008

<sup>12</sup> Dahl & Suleiman, 2017

<sup>13</sup> Choudhury et al., 2006

<sup>14</sup> Steinberg, 2016

<sup>15</sup> Steinberg, 2016

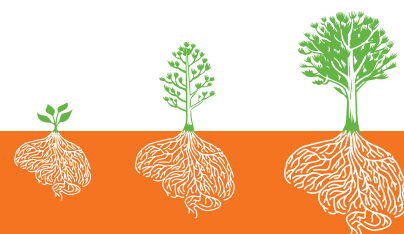
<sup>16</sup> Steinberg, 2016

<sup>17</sup> Kragel et al., 2015

<sup>18</sup> Steinberg, 2016

<sup>19</sup> Motta-Mena & Scherf, 2016

<sup>20</sup> Steinberg, 2016



Parents' role as 'advisors' and 'limit-setters' isn't over; it's just changing.



### The Bigger Picture

What has already happened in a child's life plays a big part in the way they navigate their adolescent years. Their childhood relationships and experiences have shaped either a strong or weak foundation for the adolescent brain to build on.

Development is happening whenever and wherever adolescents spend their time; with family, friends and teachers; at home, at school and all the other places they go. There are many opportunities to promote healthy social and emotional outcomes for all adolescents.

### The Role of Adults

Parents' role as 'advisors' and 'limit-setters' isn't over; it's just changing. Adolescents still need advice and guidance from parents and other adults, as well as space to practise the new skills they're developing.

Understanding the changes that are typical of adolescent development is an important step towards adults providing positive relationships and contexts that support healthy social and emotional development. Adolescents need adults in their lives who are genuinely interested in them, spend time with them, and treat them in respectful ways.<sup>20</sup>

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<https://brainwave.org.nz/article/an-insight-into-adolescence/>

#### Teenagers: it's not just their hormones – it's their brain!

<https://brainwave.org.nz/article/teenagers-its-not-just-their-hormones-its-their-brain/>

This article is based on material written by Brainwave Trust for the Parenting Resource, which was developed by the Ministry of Social Development, Family Services Team.  
<http://www.parentingresource.nz/>

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