

What's teen development all about?

Parents often blame the ups and downs of raising a teen on one or two things such as changes in hormones or the influence of peer pressure. The pre-teen and teen years are filled with many changes. Teens have many developmental tasks to accomplish, far more than those of infancy and early childhood. Normal teen development is made up of not only biological and physical changes, but also social, emotional, and intellectual changes. A teen is experiencing many changes in:

- Their friendships and relationships.
- How their brain functions.
- How they think.
- How they exist in the larger society.

Teens are also figuring out who they are or in other words, their identity. Part of this process is working to become more independent while still maintaining ties with parents and family. Accomplishment of these developmental tasks happens gradually, sometimes independently and sometimes together with another task, and in no set order. Each teen matures on his or her own timetable. Teens can be ahead of the typical age in one area of development and at the same time, behind the average age in another area. For example, consider the awkward 15 year old boy who has not gotten used to the extra inches he grew in a few months; this same 15 year old boy might possess wonderful social skills that allow him to easily make friends.

What parents can do:

- Expect change in your teen.
- Learn more about teen development and what's normal.
- Remember your teen is an individual, and everyone develops differently.



Although it can be helpful for parents to remember back to when they were a teen, that isn't enough. Parents need some basic knowledge of what to expect as their child grows into adolescence.

Biological and physical changes

Teens experience rapidly changing bodies that can as much as double in size while they also develop more adult like physical features. They are also becoming sexually mature, which includes physical changes as well as new feelings about their bodies, sexuality and intimate relationships.

Puberty occurs at widely varying ages. For girls, puberty can begin as early as 8 years of age but more commonly starts about age 10. Girls will continue to grow, although a little more slowly, until age 17 or 18. Girls may experience a growth spurt in height and overall body shape in the early teen years. They will begin to develop breast buds as early as 8 years of age, with full breast development anywhere from 12 to 18 years. Pubic hair growth as well as armpit and leg hair can begin at around age 9 or 10. Menarche, the beginning of menstrual periods, usually begins about two years following the first signs of puberty. That may be as early as age 10 and as late as age 15 with the average in the U.S. at about age 12.5.

Boys begin their growth spurt in height at age 10 or 11, peaking at around age 14, and finish growing

physically at about age 21. The genitals begin to enlarge as early as 9 years of age with adult size and shape achieved at about age 16 or 17. Boys' voices experience changes at about the same time.

Early and late maturation has different implications for girls and for boys. With girls already ahead of their male peers, girls who begin maturing early may be out of sync with both male and female peers. Physical maturation can occur before maturing mentally, socially, and emotionally. Girls' concerns might include: looking different than classmates, being treated differently because of an "older" appearance, being the object of attention from older boys, and lacking skills to cope with that attention. This can result in having to cope with situations beyond their emotional and cognitive abilities. Boys who mature early may be subject to similar concerns as girls. Their physical appearance may not match their maturity level in other areas resulting in them being in situations they aren't prepared for emotionally or cognitively.

For boys, concerns may be more about delayed development. Typically, boys are already behind physically as compared to their female classmates and if there is delayed development, the differences become more apparent. Teasing or bullying can occur resulting in low self-esteem or even depression.

Getting used to a rapidly changing body can result in teens being uncomfortable with who they are becoming and what they look like. They might also experience being physically awkward; when one part of the body hasn't caught up with the rest.

What parents can do:

- Begin talking about upcoming biological and physical changes at ages 8 or 9. Some children will become curious earlier and will have questions.
- Keep discussions about biological and physical age appropriate. Keep talking to teens and build on previous conversations.
- Take concerns seriously. Listen closely and don't discount teens' feelings of being different or "something is wrong with me."
- Avoid comments that will further embarrass teens (e.g., pointing out something about their physical appearance). Encourage other family members and adult friends to do the same.

- Don't mistake physical maturity for overall maturity – it can take time for emotional maturity to catch up to a teen's body.

Social and emotional changes

For teens' social and emotional growth, there are two major developmental tasks. The first is developing friendships which are closer and more supportive than those friendships in elementary school and the second is learning to understand and express more complex emotions. These two tasks are intertwined and interdependent.

As teens change and grow, they typically spend more time with peers and less time with parents and family. Teens may think peer activities should now take priority over family events.

Young teens (ages 11-13) will try to find a circle of friends where they fit and find peer acceptance. Typically friends at this age are the same gender. Because teens are maturing on different time-lines, young teens may seek out those who are at similar maturity levels. Parents might be surprised when a teen is no longer close to a longtime childhood friend.

As teens move into middle adolescence (ages 14-16), they become more tolerant of different interests and opinions and gradually worry less about approval from peers. They may also develop friendships with the opposite sex.

In later adolescence (age 17-early 20s), teens will tend to have a variety of friends. They may have a few closer friendships and will be getting into romantic relationships.

Second, self awareness around emotions occurs as teens begin to identify and name their own emotions. Teens start to become more socially aware, recognizing emotions and feelings in those around them; this is the start of developing empathy for others. For instance, in a teen's group of friends, he/she might begin to notice how each person reacts a little differently to the same situation. They also begin to manage those emotions; in psychological terms this is known as emotional regulation. For example, a teen might take a step back and think about how angry he/she was about what a friend did. Instead of immediately showing that anger to the friend, the teen would consider possible reasons for the friend's

actions, why that happened, and finally possible ways he/she might react to keep the friendship intact. This process is an important step in learning to interact and get along with peers as well as making and keeping friends.

What parents can do:

- Talk about what it means to be a good friend. Point out examples in movies, books, or in other media.
- Model healthy ways to interact with others including being loyal, honest as well as tactful, and considerate of others' feelings.
- Get to know your teen's friends. You might offer to provide rides. Make your home a welcoming place.

Teen brain development

Much more has been learned in recent years about teen brain development. Huge strides in the use of technology including fMRIs (functional magnetic resonance imaging) and other scanning tools have allowed researchers to study an individual's brain from childhood through adulthood. It was once thought that the teen brain was fully mature but lacking in experience. We now know that the brain is not fully mature until sometime in the mid twenties; a little earlier for girls and a little later for boys.

The brain develops from back to front. Brain development occurs from the brain stem at the back of the neck beginning in infancy to the pre-frontal cortex in the front of the brain into the early to mid twenties. Not only is brain development occurring at the same time as other physical, emotional, and cognitive or mental changes but it is also contributing to those changes as they occur. A big part of what occurs in the brain is the billions of connections between brain cells that are being formed. Experiences, activities, and patterns of behavior are altering the brain as it matures; those that are repeated, whether positive or negative, will build connections in the brain. For those experiences occurring infrequently, pruning (eliminating) of the connections will occur. In other words, teens' experiences alter the process: they "use it or lose it." It is helpful for parents to keep in mind that the teen brain is developing and maturing over time. The part that develops last, the pre-frontal cortex, has many functions, all of which contribute to how teens make plans, strategize about choices, and make judgments. These functions include:

- Controlling impulses
- Inhibiting inappropriate behavior
- Stopping an activity upon completion
- Shifting or adjusting behavior when situations change
- Providing a temporary mental workspace for working memory
- Organizing skills
- Forming strategies and planning behavior
- Setting priorities among tasks and goals
- Making decisions
- Developing empathy
- Sensitivity to feedback especially regarding reward and punishment
- Providing insight

Knowing that one's teen isn't fully skilled in all of these functions can help parents realize why a teen might choose to behave in a certain way. For example, a parent may give a teen a list of chores to do thinking that the teen will figure out which ones to do first. The parent may be surprised when the teen doesn't start on what the parent considers to be the most urgent. Starting on the list of chores may require skills in organizing, prioritizing, and making decisions. The parent might do better by listing the chores in the order to be done and then giving it to the teen.

Research simulating making choices with and without friends around has been conducted in a laboratory setting. This research has involved brain scans to find out what's actually happening within the brain when teens are making choices. One study had teens operate a video driving game alone and then with friends. Adults also went through the same simulation, alone and with friends. For teens, having friends present more than doubled the number of risks taken as compared to adults.

What parents can do:

- Support their teen by providing guidance, giving reminders and suggestions.
- Avoid labeling decisions or choices as "stupid." Try to use situations where poor judgment was shown as a time to teach what would have been a better choice.
- Talk with teens about potential situations. Have them practice how they will deal with those. Identify alternatives for the future.

Changes in thinking

Teens are undergoing changes in thinking or cognitive processes. Cognition should not be confused with brain functions. Cognition can be viewed as the thought processes occurring within the structure of the brain.

By the age of 15 or 16, teens have the same thinking abilities as adults. There are three basic areas where teens' thinking has grown during childhood; reasoning skills, abstract thinking, and the ability to "think about thinking." Reasoning skills include an improved ability to think about options, to challenge long held ideas, and to consider possibilities. Abstract thinking skills include the ability to think about things all the way from emotions and what they mean to academic concepts such as mathematical equations. Lastly, to "think about thinking" means the ability to step outside oneself and consider one's thoughts and what others might be thinking.

Teens may use these advanced thinking skills to challenge parents in order to test out and explore new ideas – and teens need help learning to express their ideas and challenge others in appropriate ways. Their expression of new ideas is part of normal development and shouldn't be viewed as defiant behavior. The exception might be if the challenges are frequent, disrespectful, and accompanied by acting out or problem behaviors.

Even though a teen might be better able to think about a situation and develop logical options, because overall brain functions are still not mature, teens may still have trouble thinking through problems and carrying out appropriate decisions in daily life.

What parents can do:

- Engage teens in conversation and exploration of ideas and information.
- If need be, set basic rules for conversation; discussions need to be done in a respectful manner by both teens and parents.
- Don't put down or criticize ideas teens come up with as crazy or impossible. Instead, ask how they came to their conclusion, and encourage them to think through alternatives.

Identity...figuring out who you are

The development of identity or one's sense of self occurs throughout a lifetime. However, for teens, for the first time in their life, they begin to wonder about who they are and the reasons for that. Identity also involves thinking about how a teen perceives him/herself, and thinking about how others perceive them as well.

Teens will see themselves acting differently according to whom they are with and what the situation is. That can lead to confusion because it adds to their questions of who they really are. For example, a teen might ask:

- Am I really quiet or outgoing?
- Reserved or outgoing?
- Friendly or aloof?
- Responsible or carefree?

Teens work out who they are by trying on new identities through experimentation with different appearances or new interests. Fluctuations in choices can startle parents but is normal behavior. This is one way teens "try on" different identities to see what works for them. It could be why "dress up" or theme days for school events are so popular. It gives teens a chance to try something different or unusual in an approved, safe setting.

What parents can do:

- Don't get too alarmed over changes in appearance. Unusual hair colors will grow out and clothing fads change; pick your battles and keep these issues in perspective.
- Encourage teens in pursuing interests in activities such as sports, music, or hobbies.

Becoming independent

Becoming autonomous is a broader term which refers to teens becoming independent of their parents (and others) emotionally, in decision making, and in developing their own principles and beliefs. We could sum up autonomy by saying the teen feels, acts, and thinks independently.

However, parents often take this to mean that their teen must "separate" from them and give in to peer influence. A more realistic, healthy, and developmentally appropriate way to view autonomy

is to see it as the parent and the teen figuring out together a new relationship which is based on the teen becoming more mature. It means that teens still stay connected to their parents (but in different ways) and allowing parents and teens to learn to relate to each other in new ways.

It is true that peers have more influence on some issues than parents as described in the section on social and emotional changes. But, parents still have influence. Laurence Steinberg, an expert in adolescent psychology, describes it this way, "It is detachment from parents, rather than attachment to peers, that is potentially harmful."

What parents can do:

- Discuss issues and ideas with your teen. Encourage their thinking but don't criticize ideas you may question. Just say, "Tell me more about how you came to that conclusion."
- Model respect in your discussions with teens. Modeling goes a long way in encouraging respectful conversations and behaviors.
- Help teens seek out individual strengths and talents.
- Ask teens to take on added responsibilities in the home based on their strengths and talents. For example, the teen who is good at writing can put together a note for grandparents or extended family.
- Consider relaxing the rules as your teen shows they are increasingly responsible. An example might be a later curfew on weekends.

Where you can go for more information:

BrainConnection.com – Posit Science

www.brainconnection.com

Center for Adolescent Health – Johns Hopkins Bloomberg School of Public Health

www.jhsph.edu/adolescenthealth/ (Click on "The Teen Years Explained")

Inside the Teenage Brain – Public Broadcasting System

www.pbs.org/wgbh/pages/frontline/shows/teenbrain/interviews/todd.html

Minnesota Parents Know – Minnesota Department of Education

<http://parentsknow.state.mn.us/>

ParentFurther: A Search Institute Resource for Parents

www.parentfurther.com/ (Click on "Ages and Stages")

Parenting.org – Boys Town

www.parenting.org/

Parenting 24-7 – University of Illinois Extension

<http://parenting247.org/>

A Parents' Guide to the Teen Brain – Partnership for a Drug-free America

<http://teenbrain.drugfree.org/>

The Secret Life of the Brain – Public Broadcasting System

www.pbs.org/wnet/brain/

Teen Development – Medline Plus

www.nlm.nih.gov/medlineplus/teendevelopment.html

You may also want to look at:

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Steinberg, L. (2004). *The 10 basic principles of good parenting*. New York: Simon & Schuster.

Steinberg, L. (2011). *You and your adolescent: The essential guide for ages 10-25*. New York: Simon & Schuster.

Strauch, B. (2003). *The primal teen: What the new discoveries about the teenage brain tell us about our kids*. New York: Random House.

Walsh, D. (2004). *Why do they act that way? A survival guide to the adolescent brain for you and your teen*. New York: Free Press.

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McNeely, C., & Blanchard, J. (2010). *The teen years explained: A guide to healthy adolescent development*. Center for Adolescent Health at [Johns Hopkins Bloomberg School of Public Health](http://www.jhsph.edu/adolescenthealth/).

Steinberg, L. (2008). *Adolescence*. New York: McGraw-Hill.

Simpson, A. R. (2001). *Raising teens: A synthesis of research and a foundation for action*. Boston: Center for Health Communication, Harvard School of Public Health.