

Adolescent Growth and Development

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Adolescence is a time of many transitions for both teens and their families. To ensure that teens and adults navigate these transitions successfully, it is important for both to understand what is happening to the teen physically, cognitively, and socially; how these transitions affect teens; what adults can do; and what support resources are available. As you read the following information, keep in mind that while all teens develop, they don't all follow the same timeline.

I. Physical Development

What Is It?

During the teen years, adolescents experience changes in their physical development at a rate of speed unparalleled since infancy. Physical development includes:

- *Rapid gains in height and weight.* During a one-year growth spurt, boys and girls can gain an average of 4.1 inches and 3.5 inches in height respectively. (Steinberg, 2007) This spurt typically occurs two years earlier for girls than for boys. Weight gain results from increased muscle development in boys and body fat in girls.
- *Development of secondary sex characteristics.* During puberty, changing hormonal levels play a role in activating the development of secondary sex characteristics. These include (1) growth of pubic hair; (2) menarche (first period for girls) or penis growth (for boys); (3) voice changes (for boys); (4) growth of underarm hair; (5) facial hair growth (for boys); and (6) the increased production of oil, increased sweat gland activity, and the beginning of acne.

- *Continued brain development.* Recent research suggests that teens' brains are not completely developed until late in adolescence. Specifically, studies suggest that the connections between neurons affecting emotional, physical, and mental abilities are incomplete. (Strauch, 2003) This could explain why some teens seem to be inconsistent in controlling their emotions, impulses, and judgments.

How Do these Changes Affect Teens?

- *Teens frequently sleep longer.* Research suggests that teens actually need more sleep to allow their bodies to conduct the internal work required for such rapid growth. On average, teens need about nine and a half hours of sleep a night. (Strauch, 2003)
- *Teens may be more clumsy because of growth spurts.* If it seems to you like teens' bodies are all arms and legs then your perception is correct. During this phase of development, body parts don't all grow at the same rate. This can lead to clumsiness as the teen tries to cope with limbs that seem to have grown overnight. Teens can appear gangly and uncoordinated.
- *Teenage girls may become overly sensitive about their weight.* This concern arises because of the rapid weight gain associated with puberty. Sixty-two percent of adolescent girls report that they were trying to lose weight. (Centers for Disease Control, 2005) A small percentage of adolescent girls (1 percent to 3 percent) become so obsessed with their weight that they develop severe eating disorders such as anorexia nervosa or bulimia.

(Alonso, *et al.*, 2005) Anorexia nervosa refers to starvation; bulimia refers to binge eating and vomiting.

- *Teens may be concerned because they are not physically developing at the same rate as their peers.* Teens may be more developed than their peers (“early-maturers”) or less developed than their peers (“late-maturers”). Being out of developmental “step” with peers concerns adolescents because most just want to fit in. Early maturation affects boys and girls differently. Research suggests that early maturing boys tend to be more popular with peers and hold more leadership positions. Adults often assume that early maturing boys are cognitively mature as well. This assumption can lead to false expectations about a young person’s ability to take on increased responsibility. Because of their physical appearance, early maturing girls are more likely to experience pressure to become involved in dating relationships with older boys before they are emotionally ready. Early maturing girls tend to suffer more from depression, eating disorders, and anxiety. (Ge, *et al.*, 2001)
- *Teens may feel awkward about demonstrating affection to the opposite sex parent.* As they develop physically, teens are beginning to rethink their interactions with the opposite sex. An adolescent girl who used to hug and kiss her dad when he returned home from work may now shy away. A boy who used to kiss his mother good night may now wave to her on his way up the stairs.
- *Teens may ask more direct questions about sex.* At this stage, adolescents are trying to figure out their values around sex. Teens often equate intimacy and sex. Rather than exploring a deep emotional attachment first, teens tend to assume that if they engage in the physical act, the emotional attachment will follow. They may ask questions about how to abstain without becoming embarrassed or about how they will know when the time is right. They may also have specific questions about methods of birth control and protection from sexually transmitted diseases.

What Can You Do?

Knowledge about what changes and behaviors during adolescence are normal can go a long way in helping both teens and adults manage the transition successfully. There are also some specific things adults can do to be supportive:

- *Don’t criticize or compare the teens to others.* Teens are already acutely self-conscious about the way they look. They don’t need you to point it out to them.
- *Encourage teens to get enough sleep.* Realize they may need an extra boost in getting out of bed for school. Try to be understanding when teens want to sleep until noon on Saturday.
- *Encourage and model healthy eating habits.* Keep plenty of nutritious foods in the house. Remember that teens need to take in more calories to fuel their growth. Monitor eating habits accordingly.
- *Encourage and model physical activity.* Exercise will help teens burn excess energy, strengthen developing muscles, and sleep better at night. It may also help teens become more comfortable in their changing bodies.
- *Provide honest answers to teens about sex.* Teens are in search of knowledge on this subject. If adults do not provide accurate information, teens are forced to rely on their peers or other potentially inaccurate sources. Unfortunately, such erroneous information is often to blame when teens make poor decisions.
- *Be understanding of their need for physical space.* Do not take it personally if your teen is not as physically affectionate as he or she was in the past. Do not force your teen to hug or kiss relatives or family friends. Maintain communication, but respect teens’ need to withdraw.
- *Be patient with excessive grooming habits.* Teens often spend large amounts of time grooming themselves and obsessing over skin care products. Often, this behavior merely reflects teens’ attempts to maintain some sense of control over their rapidly changing bodies.

II. Cognitive Development

What Is It?

Most adults recognize that teens have better thinking skills than youngeryouth. These advances in thinking can be divided into several areas:

- *Developing advanced reasoning skills.* Advanced reasoning skills include the ability to think about multiple options and possibilities. It includes a more logical thought process and the ability to think about things hypothetically. It involves asking and answering the question of “what if...?”
- *Developing abstract thinking skills.* Abstract thinking means thinking about things that cannot be seen, heard or touched. Examples include things like faith, trust, beliefs, and spirituality.
- *Developing the ability to think about thinking* is a process known as “meta-cognition.” Meta-cognition allows individuals to think about how they feel and what they are thinking. It involves being able to think about how one is perceived by others. It can also be used to develop strategies, also known as mnemonic devices, for improving learning. Remembering the notes on the lines of a music staff (e, g, b, d, and f) through the phrase “every good boy does fine” is an example of such a mnemonic device.

How Do these Changes Affect Teens?

- *Teens demonstrate a heightened level of self-consciousness.* Teens tend to believe that everyone is as concerned with their thoughts and behaviors as they are. This leads the teen to believe that they have an “imaginary audience” of people that are always watching them.
- *Teens tend to believe that no one else has ever experienced similar feelings and emotions.* They may become overly dramatic in describing things that are upsetting to them. They may say things like “You’ll never understand” or “My life is ruined!”
- *Teens tend to exhibit the “it can’t happen to me” syndrome also known as a “personal fable.”* This belief

causes teens to take unnecessary risk like drinking and driving (“I won’t crash this car”), having unprotected sex (“I can’t possibly get pregnant”), or smoking (“I can’t possibly get cancer.”).

- *Teens tend to become very cause-oriented.* Their activism is related to the ability to think about abstract concepts. After reading about cruelty to animals, a teen may become a vegetarian and a member of People for the Ethical Treatment of Animals (PETA.). Another teen may become active in Greenpeace or Save the Whales campaigns.
- *Teens tend to exhibit a “justice” orientation.* They are quick to point out inconsistencies between adults’ words and their actions. They have difficulty seeing shades of gray. They see little room for error.

What Can You Do?

- *Don’t take it personally when teens discount your experience.* Try to empathize with and listen to their concerns. Enlist the help of a slightly older sibling or friend to give good advice to the teen if needed.
- *Get teens involved in discussing their behavioral rules and consequences.* Teens should take a more active role in determining how they should behave. Their advanced reasoning skills make it easier for them to generate realistic consequences for their actions. Listen to their ideas!
- *Provide opportunities for teens to participate in controlled risky behavior.* Get teens involved in properly supervised extreme sports, parachuting, or rock climbing. Such activities will allow teens opportunities to play out their “it can’t happen to me” mentality in an environment that won’t be deadly if they fail.
- *Provide opportunities for teens to get involved in community service.* Teens want to become active in things that have deeper meaning. Suggest they volunteer at a homeless shelter, walk dogs for the animal shelter or take meals to the elderly. Talk with them about their experiences.

- *Talk to teens about their views and be open to discussing your own.* Find out what they think about news stories on television or in the paper; ask them about their political and spiritual beliefs. Teens are already thinking about these things so give them a nonthreatening forum for discussing them.
- *Try to build a genuine relationship with teens.* Let them know what you were like as a teen. Talk to them about your mistakes and vulnerabilities. Try to understand their feelings and express yours so you can be understood.

III. Psychosocial Development

What Is It?

There are five recognized psychosocial issues that teens deal with during their adolescent years. (Steinberg, 2007) These include:

- *Establishing an identity.* This has been called one of the most important tasks of adolescents. The question of “who am I?” is not one that teens think about at a conscious level. Instead, over the course of the adolescent years, teens begin to integrate the opinions of influential others (e.g. parents, other caring adults, friends, etc.) into their own likes and dislikes. The eventual outcome is people who have a clear sense of their values and beliefs, occupational goals, and relationship expectations. People with secure identities know where they fit (or where they don’t want to fit) in their world.
- *Establishing autonomy.* Some people assume that autonomy refers to becoming completely independent from others. They equate it with teen “rebellion.” Rather than severing relationships, however, establishing autonomy during the teen years really means becoming an independent and self-governing person *within* relationships. Autonomous teens have gained the ability to make and follow through with their own decisions, live by their own set of principles of right and wrong and have become less emotionally dependent on parents. Autonomy is a necessary achievement if the teen is to become self-sufficient in society.
- *Establishing intimacy.* Many people, including teens, equate intimacy with sex. In fact intimacy and sex are not the same. Intimacy is usually first learned within the context of same-sex friendships, then utilized in romantic relationships. Intimacy refers to close relationships in which people are open, honest, caring, and trusting. Friendships provide the first setting in which young people can practice their social skills with those who are their equals. It is with friends that teens learn how to begin, maintain, and terminate relationships; practice social skills; and to become intimate.
- *Becoming comfortable with one’s sexuality.* The teen years mark the first time that young people are both physically mature enough to reproduce and cognitively advanced enough to think about it. Given this, the teen years are the prime time for the development of sexuality. How teens are educated about and exposed to sexuality will largely determine whether or not they develop a healthy sexual identity. Just over one-third of most high school students report being sexually active; almost half (46 percent) report ever having had sex (Centers for Disease Control, 2005). Many experts agree that the mixed messages teens receive about sexuality contribute to problems such as teen pregnancy and sexually transmitted diseases.
- *Achievement.* Our society tends to foster and value attitudes of competition and success. Because of cognitive advances, the teen years are a time when young people can begin to see the relationship between their current abilities and plans and their future vocational aspirations. They need to figure out what their achievement preferences are – what they are currently good at and areas in which they are willing to strive for success.

How Do These Changes Affect Teens?

- *Teens begin to spend more time with their friends than their families.* It is within friendship groups that teens can develop and practice social skills. Teens are quick to point out to each other which behaviors are acceptable and which are not. It is important to remember that even though

teens are spending increased amounts of time with their friends, they still tend to conform to parental ideals when it comes to decisions about values, education, and long-term plans.

- *Teens may have more questions about sexuality.* They may ask about adults' values and beliefs. They may ask how you knew it was time to have sex or why you waited.
- *Teens may begin to keep a journal.* Part of achieving identity is thinking about one's thoughts and feelings. Teens often begin journaling as a way of working through how they feel.
- *When they are in their rooms, teens may begin to lock their bedroom doors.* Locking doors is a way to establish privacy. As long as teens continue to interact with the family, locked doors are usually nothing to worry about.
- *Teens may become involved in multiple hobbies or clubs.* In an attempt to find out what they are good at, teens may try many activities. Teens' interests also change quickly. Today they are into yoga, and tomorrow they are into soccer.
- *Teens may become elusive about where they are going or with whom.* When asked what they'll be doing for the evening, teens typically reply with "nothing" or "hanging out." When asked whom they'll be with, teens reply "just some friends."
- *Teens may become more argumentative.* Teens may question adults' values and judgments. When teens don't get their way, they may say "you just don't understand."
- *Teens may not want to be seen with parents in public.* They may make parents drop them off a block from their friends' houses or from school.
- *Teens may begin to interact with parents as people.* Even though they may not want to be seen with parents in public, teens may begin to view parents more as people. They may ask more questions about how a parent was when he or she was a teen. They may attempt to interact with adults more as equals.

What Can You Do?

- *Encourage involvement in multiple groups or activities both within school and after school.* Realize that teens are trying to gain a sense of achievement — a sense of being uniquely good at something. Don't get frustrated if they frequently change their minds. At the same time, encourage them to stick with a project or activity long enough to establish some skills.
- *Praise teens for their efforts as well as their abilities.* This will help teens to stick with activities instead of giving up if they are not immediately successful.
- *Help teens explore career goals and options.* Take teens to work so they can see what adults do. Set up opportunities for them to "job shadow" others. Ask them questions about their future career goals. Remember that figuring out what they don't want to do is just as important as figuring out what they like!
- *Give teens an opportunity to establish their behavioral guidelines and consequences.* Allow teens to have input into curfew and other family rules. Their advanced cognitive skills coupled with their need for autonomy makes this a perfect time for them to provide suggestions and to demonstrate responsibility for their own behavior.
- *Establish rituals to mark significant passages.* Few rituals in our modern society mark the passage of teens to adulthood. Have a mother-daughter luncheon when the daughter gets her first period. Have a father-son outing when the son begins to shave. Have a family celebration when the teen moves from junior high to high school. Celebrate the teen's first driver's license and his or her ability to vote.
- *Be aware of who your teens' friends are and what they are doing.* Such parental monitoring should not end when youth enter their teen years. Despite teens' objections, make sure you know who their friends are and where they are going. Meet the parents of teens' friends. Provide fun things to do at home to encourage teens to "hang out" at your house so you'll know where they are and what they are doing.

- *Continue to provide a structured environment.* Teens should be allowed to have more independence, but not enough to place them in jeopardy. Despite their complaints, teens rely on adults to provide them with the sense of safety and structure they need to deal effectively with all the psychosocial tasks of adolescents.

References

Alonso, A., Rodriguez, M., Alonso, J., Carretero, G., and Martin, M. 2005. Eating Disorders: Prevalence and risk profile among secondary students. *Social Psychiatry Psychiatric Epidemiology*, 40, 980-987.

Centers for Disease Control. 2005. Youth Risk Behavior Survey.

Ge, X., Conger, R., and Elder, G. 2001. Pubertal transition, stressful life events, and the emergence of gender differences in adolescent depressive symptoms. *Developmental Psychology*, 37(3), 404-417.

Steinberg, L. 2007. *Adolescence* (8th Edition). New York: McGraw-Hill.

Strauch, B. 2003. *The Primal Teen*. New York: Doubleday.

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