

Changes During Adolescence

During our lives, we go through two dramatic growth spurts. The first spurt occurs during the first year of life. The second spurt occurs near the beginning of **adolescence**, *the stage between childhood and adulthood*. Growth is rapid and uneven at this time—a sign of puberty and its changes.

hot link

developmental stages For more information on psychologist Erik Erikson's developmental stages of life, see Chapter 20, page 468.

hormones For more on the chemical substances called hormones and their role in growth, see Chapter 16, page 377.

HEALTH TERMS

adolescence

puberty

sex characteristics

gametes

cognition

personal identity

HEALTH CONCEPTS

- Adolescence is a time of physical, mental, emotional, and social changes.
- Mastering the developmental tasks of adolescence is an important step toward achieving maturity.



Puberty

Between the ages of 9 and 13, children go through puberty—the fifth of Erikson's **developmental stages**. **Puberty**, which marks the beginning of adolescence, is *the period of time when males and females become physically able to reproduce*. Puberty occurs as a result of the release of **hormones**. The male hormone, testosterone, and the female hormones, estrogen and progesterone, are responsible for the physical, emotional, and social changes that occur.

Physical Changes

Perhaps the most important of the physical changes that take place during puberty is the development of **sex characteristics**, *those traits related to one's gender*. There are two kinds of sex characteristics:

- **Primary sex characteristics** are directly related to the production of **gametes**, *reproductive cells produced by the gonads*. In males, the gamete takes the form of sperm, and in females the ovum. As noted in Chapter 19, all of a female's ova are present at birth but do not mature until puberty, which is also when ovulation begins. For males, puberty marks the time when the testes begin to produce sperm.
- **Secondary sex characteristics** include body hair and the development of breasts in the female and muscle development in the male. These cover a wide range of characteristics, from broadening of the chest and deepening of the voice in males to an increase in breast size for females.

Concerns Over Physical Changes

As individuals reach puberty, and for the next four to five years that follow, there is great variation in the size and shape of people approximately the same age. This variation can be a source of concern among individual teens, who tend to compare themselves with others. Girls who are much taller than classmates, for example, may feel self-conscious about their height. An increase in the size of the larynx in males may cause the voice to “crack”—or switch abruptly from a low to high pitch—which can be a source of embarrassment. In members of either gender, the feet and hands grow and may appear large and awkward in proportion to the rest of the body.

It is important for teens to remember that changes such as these are normal. Most of these experiences are temporary and resolve themselves as time passes.

Mental Changes

During adolescence, the brain reaches its adult size and weight. **Cognition**—*the act or process of knowing, including both awareness and judgment*—and memory both increase. At this age, males and females are able to predict the outcomes of many situations. Whereas during



Acting on Acne

Acne, a condition usually accompanied by unsightly pimples or blemishes, is a common problem among adolescents. Acne is caused by androgens, male hormones that are present in both males and females. If you have acne, consider these tips:

- Avoid oil-based makeup and greasy lotions.
- Keep your face and hair clean.
- Change washcloths and towels often.
- Don't squeeze or scratch pimples.

In cases of severe acne, you may need to consult your family health care professional or a dermatologist, a doctor who specializes in problems of the skin.

childhood they saw only one solution to a problem, during adolescence they begin to look at different ways of solving problems and making decisions. Adolescents' ability to think logically, or reason things out, increases. They start becoming able to solve more complicated problems.

As they begin to mature, many adolescents discover that they are able to look beyond themselves to understand someone else's point of view. Many teens will develop new interests and hobbies. Career goals begin to come into focus.

Emotional Changes

Along with spurts of physical and mental change come spurts of energy and strong emotional feelings. Many teens feel that puberty is like being on a roller coaster, with emotions and feelings that go up and down quickly. It is common for teens to feel on top of the world one day and down in the dumps the next. Friendships and the love and support of family are important, yet adolescents may feel unable to let others know what they are feeling and thinking. This difficulty in communicating is a normal part of development.

Social Changes

Social change is another important aspect of the development that occurs during puberty and the rest of adolescence. For instance, friendships and peer acceptance become very important. Peers may occasionally challenge what you stand for, what you believe, and what you think is right or wrong. Good friends, however, will not challenge you to do something that goes against what you believe. A growing ability to feel more deeply and to consider others' needs is also part of social development.

Developmental Tasks

Adolescence has been studied by psychologists and sociologists for more than 50 years. They have identified certain developmental tasks that can be considered basic to adolescence. Robert Havighurst, a well-known sociologist in the field, suggests these tasks are:

- forming more mature relationships with people your age and of both genders
- achieving a masculine or feminine social role
- accepting one's physique
- achieving emotional independence from parents and other adults
- preparing for marriage and family life and career
- acquiring a set of personal standards as a guide to behavior
- developing social intelligence, which includes becoming aware of human needs and becoming motivated to help others attain their goals

- being able to cope with success and failure
- developing conceptual and problem-solving skills

Each of these tasks is important and must be achieved before reaching maturity. As you can see, there is quite a lot involved in growing up.

Personal Identity

Some researchers group a number of the developmental tasks into a general task of achieving a personal identity. A **personal identity** consists of *the factors you believe make you unique, or unlike anyone else*. Establishing your own personal identity has a great impact on all the other developmental tasks and is centered on your self-concept. Here are some questions you can ask yourself as you work toward forming your own personal identity:

- Am I carrying out my responsibilities on my own, such as getting schoolwork done on time, without needing someone to remind me of them?
- Can I make independent decisions and accept the consequences of my actions?
- Am I thinking about what I want to do after high school?
- Have I examined my beliefs about what types of behavior are appropriate for young adult males and females?
- Does my behavior reflect a personal set of values and standards by which I live?
- Do I expect to work for what I want, rather than just having things done for me or given to me?

▼ **Volunteering to clean up your environment is one way to demonstrate social responsibility.**

ACTIVITY Name other developmental tasks that assist adolescents in forming a personal identity.

