

Adolescence: Physical Growth and Development

Overview

The onset of puberty brings many physical changes in adolescents. Hormonal changes stimulate the growth in size and shape, the development of secondary sex characteristics, and the feelings of mature sexuality. The timing of these changes varies among individuals. Early or late maturation has both negative and positive impacts on the self concept.

There is increasing openness of discussion and acceptance of sexual activity by both sexes. A variety of current problems are brought about by this increased sexual activity: sexually transmitted diseases, including the HIV virus, and early pregnancies. The use of drugs, alcohol and cigarettes continues to be high. Health and nutrition add to the problems of this tumultuous period.

Questions To Consider

1. What is meant by the term puberty?
2. What changes signal the onset of puberty?
3. In what ways do boys and girls change physically during adolescence?
4. What are the differences in growth rate and timing between adolescent girls and boys?
5. How do adolescents feel about themselves as they go through the changes occurring during puberty?
6. Why do some teenagers become sexually active and why do some abstain?
7. What are the hazards to adolescent growth and development?

Vocabulary

Read these terms with their definitions before viewing the program.

Adolescence The period that begins with puberty and ends with the achievements of identity formation.

Anabolic Steroids Synthetic male hormones which build muscles and increase aggressiveness.

Anorexia Nervosa An eating disorder in which the individual, usually female, restricts eating sometimes to the point of starvation.

Body Image The individual's mental conception and attitudes towards her or his physical appearance.

Bulimia An eating disorder in which the individual, usually female, gorges with food and then purges with laxatives or induces vomiting.

Hormone A biochemical secretion of the endocrine gland that is carried by body fluids to an organ or tissue and acts as a stimulant.

Hypothalamus A gland located in the brain which triggers hormone production in the pituitary gland.

Menarche The first menstrual period.

Pituitary Gland A gland located at the base of the skull which triggers increased hormone production in the sex glands and adrenal glands.

Primary sex characteristics Organs which are directly involved in reproduction.

Puberty The period of rapid physical and sexual changes during which the individual achieves adult size and shape and is capable of sexual reproduction.

Pubic The area near the genitals.

Secondary sex characteristics Those characteristics while not directly related to reproduction are clearly signs of sexual development.

Instructional Objectives

When you have successfully completed this module, you will be able to:

1. Define the terms: puberty, adolescence.
2. Describe the hormonal changes which trigger the onset of puberty.
3. Recognize five physical changes in boys and girls which occur during puberty.
4. Identify three primary and three secondary sex characteristics of boys and girls which appear during sexual maturation.
5. Name five factors which influence when puberty occurs.
6. Discuss the influence of early and late maturation on the self concept.
7. Identify the issues associated with physical growth during adolescence.
8. Identify the factors which influence the adolescent's decision about sexual activity.

Self-Test

After studying the objectives and watching the video, take the self-test to check your progress.

1. Write the definitions of the following terms:

a. adolescence _____

b. puberty _____

2. Complete the following sentences using the terms listed below:

estrogen	ovaries	sex characteristics
growth hormone	pituitary	testes
hypothalamus	progesterone	testosterone

Puberty begins when the _____ secretes hormones which signal the _____ to send hormones to the _____ and the _____. The _____ increase production of _____. The _____ increase production of _____ and _____. The _____ triggers a growth spurt and the emergence of the _____.

3. List 5 physical changes that occur in boys and girls during puberty.

- a.
- b.
- c.
- d.
- e.

4. Three primary sex characteristics of females are:

- a.
- b.
- c.

5. Three primary sex characteristics of males are:

- a.
- b.
- c.

-
6. Three secondary sex characteristics of females are:
- a.
 - b.
 - c.
7. Three secondary sex characteristics of males are:
- a.
 - b.
 - c.
8. List five factors which influence the timing of puberty.
- a.
 - b.
 - c.
 - d.
 - e.
9. Choose the phrase which best completes the statement:
Young people are more accepting of the physical changes in puberty when they:
- a. have less information about the changes.
 - b. mature later than peers.
 - c. value academic achievement more than physical maturity.
 - d. mature earlier than peers.
10. Early maturing boys feel positive about themselves if they:
- a. come from a society where physical strength is devalued.
 - b. do better in sports.
 - c. smoke, drink, and get into trouble with the law.
 - d. are less popular with girls.
11. Early maturing girls may feel negative about themselves if they:
- a. are teased by male classmates.
 - b. come from families which value traditional roles for females.
 - c. are not pressured to engage in sexual intercourse.
 - d. date older boys.

12. Next to each statement place a T if true, or an F if false.

- a. ___ The majority of adolescent girls tend to exercise regularly.
- b. ___ Exercise enhances self-esteem and confidence.
- c. ___ During the growth spurt adolescents need fewer calories, vitamins, and minerals.
- d. ___ Nutrition during adolescence has limited influence on body size.
- e. ___ Drug use interferes with getting adequate nutrition.
- f. ___ Adolescents are preoccupied with their appearance and body image.
- g. ___ Teenage girls may diet excessively to achieve their body ideal.
- h. ___ Teenage boys may safely take anabolic steroids to build muscles.
- i. ___ Sexually active adolescents most likely use contraceptives.
- j. ___ In the U.S. girls under 15 years are less likely to become pregnant than same age girls in other developed countries.
- k. ___ Most teens who become mothers tend to give up their babies for adoption.
- l. ___ Babies of teen mothers are at higher risk for physical and developmental problems.
- m. ___ Teenagers are at great risk for sexually transmitted diseases because of lower use of condoms.
- n. ___ For the majority of adolescents alcohol and drug use is largely experimental.
- o. ___ Alcohol related accidents are the leading cause of death among teenagers.

13. Name four factors which influence the adolescents' decision about sexual activity

- a.
- b.
- c.
- d.