



BASIC INFORMATION

DESCRIPTION

Puberty is the time of hormone changes in both sexes. It begins nearly 2 years earlier in females than males. In females, it usually takes place anywhere between the ages of 8 to 14 and may last for 2 to 3 years. At puberty, the hypothalamus and the pituitary glands produce hormones that stimulate the ovaries to increase production of female sex hormones (estrogen hormones). This causes the reproductive organs to mature in both size and function, allowing reproduction to become possible. Adolescence is the period of transition from childhood to adulthood and is generally considered to last from the beginning of puberty to age 18 or 20.

CHARACTERISTICS

Physical changes include:

- Breast budding. It is usually the first sign (at around age 11). The breasts often grow at uneven rates, which is completely normal, and the difference usually disappears by the time full maturity is reached.
- Growth of pubic hair (in some females, this is the first sign of puberty).
- Growth of hair under the arms starts about 1 year after the pubic hair appears.
- A significant growth spurt and increase in weight. During adolescence, body weight may double due to increased fat, and height increases by 15 to 20%. Some girls attain their adult physique by age 13; others do not do so until age 18.
- Widening of the pelvis; fat deposits on the hips; enlargement of the uterus.
- Sweat glands develop (under the arm and in the groin).
- Menstruation occurs at an average age of 12 1/2 years. Girls who are overweight tend to start menstruating earlier than the average. Menstruation may be delayed in girls who are malnourished, involved in strenuous sports or other physical activities (e.g., dancing), or who have a chronic health disorder. The first few menstrual periods are usually sporadic, and continue to be irregular for the first 2 years.
- Other aspects of puberty include an increased appetite, changes in the sleep-wake cycle, and temperament fluctuations. Intense emotions and mood swings are typical (which are probably attributable to hormone changes).

EXPECTED OUTCOME

- The age at the time of puberty is variable and the onset can be especially troublesome in girls. There are physical, mental and emotional changes that make adolescence a particularly difficult time.
- Early puberty and development toward physical maturity is normally not a cause for concern. However, you should consult your doctor if your daughter shows signs of precocious puberty (before age 8).

POSSIBLE COMPLICATIONS

- Delayed puberty. The age varies, but may be first considered if a girl has no signs of sexual development by age 13. Usually no extensive medical workup to look for causes is recommended until after age 16 is reached.
- Severe acne.
- Eating disorders (anorexia nervosa or bulimia nervosa).
- Emotional disorders.



PROMOTING WELL-BEING

GENERAL MEASURES

- A parent should prepare a prepubescent child for the experience. If unsure about how to communicate, seek help from educational reference material on parenting, the family doctor, or other resources in the community.
- As a daughter goes through puberty and adolescence, parents should try to keep the lines of communication open and keep discussions nonjudgmental and honest. There is no easy answer to the adolescent's complex problems dealing with family, friends, society and the additional life stresses on teenagers.
- Tampons or sanitary pads are acceptable for use during menstrual periods. With good hygiene, there should be no problems with menstrual odor.
- A girl's first pelvic examination should be at age 16 to 18 (or earlier if the child is sexually active) to ensure normal reproductive anatomy and for Pap smear testing.
- Seek professional help if an adolescent girl appears to have an eating disorder (anorexia nervosa or bulimia nervosa).
- Additional information is available from the American Academy of Pediatrics, Department of Publications, P.O. Box 927, Elk Grove Village, IL 60007; website www.aap.org.

MEDICATION

If there is a problem with cramps during menstrual periods, a mild nonprescription pain medicine may be used.

OTHER

Adolescent girls should be encouraged to eat well, maintain a normal weight, and to develop a routine exercise program.



NOTIFY OUR OFFICE IF

- You have concerns about your daughter's physical or sexual development.
- Any unusual vaginal bleeding or discharge occurs, or there is excessive pain during menstruation.
- Your daughter develops any psychological or behavioral problems.