



Fact Sheet

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The Patient Education Website of the American Society for Reproductive Medicine

Normal and abnormal puberty in girls

What is puberty?

Puberty refers to the specific physical changes that happen as a child develops into an adult. Though they happen in different areas of the body, these changes are all related to each other.

Some of these changes include: bone growth; getting taller; making hormones in the adrenal glands and ovaries; growing pubic hair, underarm hair, and breasts; and the start of regular, monthly menstrual bleeding. Ultimately puberty causes the girl to become fertile and release eggs regularly.

During puberty, the brain starts to send increasing signals to the ovaries and adrenal glands. In response, the ovaries make the hormones estrogen and progesterone. Adrenal glands make small amounts of the “male” hormones (androgens) that are made in females. These cause the breasts to grow, cause pubic and underarm hair to grow, and start the menstrual periods.

How can puberty be measured?

In the most general sense, puberty can be measured in 3 ways:

1. Timing – age it started
2. Sequence – stage of puberty
3. Tempo – how fast or slow changes occur

What is normal timing of puberty?

In general, the first signs of normal puberty in girls can start as early as age 7. African-American girls may have normal puberty signs as early as age 6. Puberty before that age is considered early and should be checked by a health-care provider.

Several factors can change when puberty will begin. Body weight can affect the timing of puberty. Girls with increased body weight may show signs of early puberty. Girls who are underweight may have puberty later.

Girls who do not have any signs of breast changes by age 13-14 or girls who have breast changes but no menstrual periods by age 15 may need to see a health-care provider.

What is the normal sequence of puberty in girls?

The order of changes in puberty is different from person to person. Generally, the first major signs of puberty are getting taller and the beginning of breast

changes. Rapid changes in a girl’s height happen later. Pubic hair often appears next, followed by the beginning of menstrual periods, full breast maturity, and the release of eggs from the ovary every month (ovulation). Sometimes, pubic hair can come before breast development

How fast should puberty occur?

Puberty usually takes several years from beginning to end. If these changes happen over several months instead of several years, this may be a sign of abnormal puberty and should be checked by a health-care provider. If a girl does not have menstrual periods within 5 years of beginning puberty, this may be a sign of delay.

Are there psychological changes that occur during puberty?

For most girls, puberty causes some stress. Girls may have changes in self-esteem, independence, and sexuality. Some girls may feel depressed or nervous during this time. With earlier puberty, girls’ bodies may develop faster than their emotions, intellect, or sexuality. For many girls, puberty is accompanied by more interest in relationships and dating.

What are the causes of early or late puberty?

There are many different causes. In many girls, no specific cause is found. Early or late puberty may run in families. Other causes may be due to genetics, hormones, anatomy, body weight, or exposure to medicines.

How can a diagnosis of early or delayed puberty be made?

This diagnosis is generally made by a reproductive or pediatric endocrinologist after a careful history and physical examination, often with additional blood tests or x-rays. An x-ray can check a girl’s bone age, which should be about the same as her actual age.

What is the treatment for abnormal puberty?

Treatment for abnormal puberty depends on the cause, which may or may not be serious. Each girl with abnormal puberty will have her own treatment plan.

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