

Patient information: Normal sexual development (puberty) (The Basics)

Written by the doctors and editors at UpToDate

What is sexual development?

Sexual development is a term for the changes the body goes through during the pre-teen and teen years. Another word for sexual development is “puberty.” The biggest changes during puberty are that boys’ and girls’ bodies:

- Grow taller – Children usually grow a lot in a short amount of time. This is called a “growth spurt.”
- Become more like adults’ bodies – As a child’s body changes to an adult’s body, it becomes possible for a girl to get pregnant and for a boy to get a girl pregnant.

What causes puberty?

Puberty is caused by hormones in the body. These hormones come from the brain as well as organs called the ovaries (in girls) and the testicles (in boys.) The ovaries make a hormone called “estrogen.” The testicles make a hormone called “testosterone.” Estrogen and testosterone cause many of the changes in the body.

When does puberty usually start?

Puberty starts at different times in different children. Girls usually start puberty between ages 9 and 12. Boys usually start puberty between ages 10 and 13. But it can be normal for children to start puberty before or after these ages. The exact time a child starts puberty depends on different factors, including his or her genes, nutrition, and weight. It’s helpful to talk to your child before puberty starts. Let him or her know what body changes to expect and that these changes are normal.

What changes happen in boys?

The changes that happen during puberty in boys are:

- The testicles get bigger. This is usually the first change that happens.
- The penis gets longer and wider.
- Hair grows in the genital area (pubic hair), on the face, and under the arms.
- The voice changes.
- Boys can ejaculate a small amount of sperm at night while they sleep. This is sometimes called a “wet dream.”
- The breasts can get slightly bigger. This usually goes away over time.

What other changes can happen during puberty?

Other changes that can happen are listed below.

These things are all normal, but some can be bothersome or embarrassing to your child. They include:

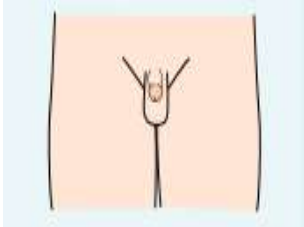
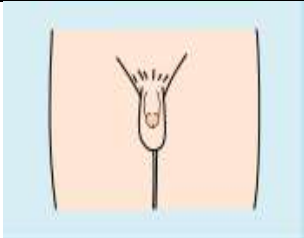
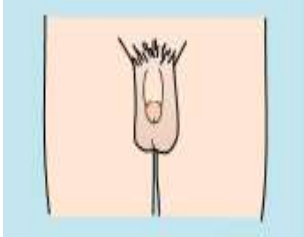
- Pimples (acne) – To help prevent pimples, your child can wash his or her face twice a day with a gentle non-soap facial skin cleanser. You can also ask your child's doctor or nurse for advice on how to treat pimples.
- Sweating under the armpits and body odor – Puberty is the time that most children start using an antiperspirant or deodorant.
- Eyesight changes – Children who wear glasses usually start needing them during puberty.
- Mood changes or mood swings

During puberty, many teens start having sexual feelings and might start having sex. But even though their bodies look grown up, their thoughts and feelings are not always grown up. Because of this, many teens don't use protection. This can lead to pregnancy or getting an infection from sex. Talk to your teen about how to avoid pregnancy or infections from sex. The only sure way to prevent these things is not to have sex. If teens do have sex, they can lower their chance of an unplanned pregnancy by using birth control. But some types of birth control do not protect against infections from sex. To lower the chance of getting an infection, teens should use a condom every time they have sex.

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Puberty typically lasts 3-4 years in boys. Underarm hair, the first ejaculation and growth spurt occur around phase 3, age ranges from 12-16.

Here's an overview of what you can expect:

Stage of puberty	Average age it starts	Age range it can start	How long it lasts	What your body will look like
Tanner 1	Pre-puberty	Pre-puberty	--	
Tanner 2	11.5	9-14	1 year	
Tanner 3	12.5	12-16	8 months	
Tanner 4	13	12.5-17	10-12 months	
Tanner 5	14	13-17.5	1 year	