LT: I can use a text in order compare the changes that take place during puberty for males and females. 4.4.1e

Time to Change

OK, so it's a funny word - but what is puberty, anyway?

Puberty (say: PYOO-ber-tee) is the name for the time when your body begins to develop and change as you move from kid to adult. We're talking about stuff like girls developing breasts and boys starting to look more like men. During puberty, your body will grow faster than at any other time in your life, except for when you were a baby.

It helps to know about the changes that puberty causes before they happen. That way, you know what to expect. It's also important to remember that everybody goes through these changes. No matter where you live, whether you're a boy or a girl, whether you like vanilla or double-fudge-chunk ice cream, you will experience them. No two people are exactly alike, but one thing everyone has in common is that we all go through puberty.

Usually, puberty starts between ages 8 and 13 in girls and ages 9 and 15 in boys. This wide range in ages may help explain why some of your friends still look like young kids whereas others look more like adults.

When your body is ready to begin puberty, your pituitary (say: pih-TOO-uh-ter-ee) gland (a pea-shaped gland located at the bottom of your brain) releases special <u>hormones</u>. Depending on whether you're a boy or a girl, these hormones go to work on different parts of the body.

Changes for Boys and Girls

For boys, the hormones travel through the blood and tell the testes (say: TES-teez), the two egg-shaped glands in the scrotum (the sac that hangs under the penis), to begin making testosterone (say: tess-TAHS-tuh-rone) and sperm. Testosterone is the hormone that causes most of the changes in a boy's body during puberty, and men need sperm to be able to reproduce (be the father of a baby).

In girls, these hormones target the two ovaries (say: OH-vuh-reez), which contain eggs that have been in the girl's body since she was born. The hormones cause the ovaries to start making another hormone, called estrogen. Together, these hormones prepare a girl's body to start her <u>periods</u> and be able to become pregnant someday.

Boys and girls both begin to grow hair under their arms and their pubic areas (on and around the genitals). It starts out looking light and thin. Then, as kids go through puberty, it becomes longer, thicker, heavier, curlier, and darker. Eventually, boys also start to grow hair on their faces.

It's Just a Growth Spurt

A spurt is a short burst of activity or something that happens in a hurry. And a growth spurt is just that: Your body is growing and it's happening really fast!

When you go through puberty, it might seem like your sleeves are always getting shorter and your pants are creeping up your legs. That's because you're having a growth spurt that lasts for about 2 to 3 years. When that

growth spurt is at its peak, some kids grow 4 or more inches (10 or more centimeters) in a year! At the end of your growth spurt, you'll have reached your adult height — or just about.

But your height isn't the only thing that changes during puberty.

With all this quick <u>growth</u>, it can seem like one part of your body — your feet, for instance — are growing faster than everything else. This can make you feel clumsy or awkward. This is normal, too! The rest of your body will eventually fill out and shape up, and you'll feel less klutzy.

Taking Shape

Your body also fills out and changes shape during puberty. A boy's shoulders will grow wider and his body will become more muscular. He may notice a bit of breast growth on his chest. Don't worry, this is normal — and it goes away for most boys by the end of puberty.

In addition, boys' voices crack and eventually become deeper, their penises grow longer and wider, and their testes get bigger. All of these changes mean that their bodies are developing as they should during puberty.

Girls' bodies usually become curvier. Their hips get wider and their <u>breasts</u> develop, starting with just a little swelling under the nipples. Sometimes one breast grows more quickly than the other, but most of the time they even out. Girls may start wearing bras around this time, especially if they are involved in sports or exercise classes. With all this growing and developing going on, some girls may be uncomfortable with how their bodies are changing, but it's unhealthy for girls to <u>diet</u> to try to stop any normal <u>weight</u> gain. If you have any questions about puberty or are worried about your weight, talk to your parent or doctor.

One question a girl will have is: When will I get my first period? This usually happens about 2 years after her breasts start to develop. The menstrual (say: MEN-strul) <u>period</u>, or monthly cycle, is when blood is released through the vagina. That may sound alarming, but it's normal and it signals that a girl is growing up and her body is preparing so that she can have a baby someday.

Here's what's going on: Each of a girl's two ovaries holds thousands of eggs. During the menstrual cycle, an egg is released from one of the ovaries and begins a trip down the fallopian (say: fuh-**lo**-pee-un) tube to the uterus, also called the womb. A girl has two fallopian tubes, one connecting each ovary to the uterus.

Before the egg even leaves the ovary, though, hormones stimulate the uterus to build up its inner lining with extra blood and tissue. If the egg gets to the uterus and is fertilized by a sperm cell, it may plant itself in that lining and grow into a baby. The extra blood and tissue nourishes and protects the baby as it develops.

But most of the time the egg is only passing through. When the egg doesn't get fertilized, or if the fertilized egg doesn't become planted in the lining, the uterus no longer needs the extra blood and tissue, so the blood leaves the body through the vagina. This blood is known as a girl's period. A period usually lasts from 2 to 7 days. About 2 weeks after the last period, a new egg is released as the cycle repeats itself.

Face Up to Changes

Another thing that may come with puberty is <u>acne</u> (say: AK-nee) — or pimples — caused by all those hormones at work in the body.

Skin gets oilier and pimples sometimes start showing up when puberty begins, and you may get them throughout the teenage years. You might see pimples on your face, your upper back, or your upper chest.

To help control pimples, wash your face twice a day with warm water and a mild soap or cleanser. Don't squeeze, pick, or pop your pimples. Your doctor can also offer suggestions for clearing up acne. The good news is that acne usually gets a lot better as you get older.

Putting the P.U. in Puberty

P.U.! A lot of kids notice that they have a new smell under their arms and in other places when they hit puberty — and it's not a pretty one. That smell is body odor (you may have heard people call it B.O.) and everyone gets it.

As you enter puberty, the puberty hormones stimulate the glands in your skin, including the sweat glands under your arms. When sweat and bacteria on your skin get together, it can smell pretty bad.

So what can you do to feel less stinky? Well, keeping clean can stop you from smelling. You might want to take a shower every day, either in the morning before school or at night before bed. Wearing clean clothes and showering after you've been playing sports or exercising is also a good idea.

Another way to cut down on body odor is to use deodorant. If you use a deodorant with antiperspirant, it will cut down on sweat as well.

There's More?

Boys and girls will also notice other body changes as they enter puberty. Girls sometimes might see and feel white or clear stuff coming from the vagina. This doesn't mean anything is wrong — it's called <u>vaginal discharge</u> and is just another sign hormones are changing your body.

Boys will begin to get erections (this is when the penis fills with blood and becomes hard). Sometimes erections happen when boys think about sexual things or they can happen for no reason at all. Boys also may experience something called nocturnal emissions (or wet dreams). This is when the penis becomes erect when a boy is sleeping and he ejaculates. When a boy ejaculates, semen — the fluid that contains sperm — comes out of the penis. That's why they're called wet dreams — they happen when you're sleeping and your underwear or the bed might be a little wet when you wake up. Wet dreams occur less often as boys move through puberty and they eventually stop.

Change Can Feel Kind of Strange

Just as those hormones change the way your body looks on the outside, they also create changes on the inside. During puberty, you might feel confused or have strong emotions that you've never had before. You might feel overly sensitive or become upset easily.

Some kids lose their <u>tempers</u> more often and get angry with their friends or families. You also may feel anxious about how your changing body looks.

Sometimes it can be hard to deal with all these new emotions. It's important to know that while your body is adjusting to the new hormones, so is your mind. Try to remember that people usually aren't trying to hurt your feelings or upset you on purpose. It might not be your family or friends — it might be your new "puberty brain" trying to adjust.

You might also have sexual feelings that you've never felt before. And you will probably have lots of questions about these new, confusing feelings about sex.

It's easy to feel embarrassed or nervous when talking about sex. It's important to get your questions answered, but you need to be sure you have all the right information. Some kids can talk to their parents about sex and get all their questions answered.

But if you feel funny talking to your parents about sex, there are many other people you can talk to, like your doctor, a school nurse, a teacher, a school counselor, or some other adult you feel comfortable talking with.

Developing Differently

People are all a little different from each other, so it makes sense that they don't all develop in the same way. During puberty, everyone changes at his or her own pace. Maybe some of your friends are getting their period, and you haven't developed breasts yet. Maybe your best friend's voice has changed, and you think you still sound like a kid. Or maybe you're sick of being the <u>tallest</u> girl in your class or the only boy who has to shave.

In a few cases, kids who are developing very early or who are very late in starting have a problem that may need to be checked or treated. If you are concerned about that possibility, talk with your parents and schedule a visit with your doctor. Your doctor knows all about puberty and can help determine if you are developing normally.

But just about everyone catches up eventually, and most differences between you and your friends will even out. Until then, hang in there. Puberty can be quite a wild ride!

Reviewed by: <u>Steven Dowshen, MD</u> Date reviewed: October 2015

Describe the changes that take place during puberty for boys and girls (in a T Chart).

***Mark notes that describe the endocrine system.