

Session 6.2

Puberty, Anatomy, and Reproduction

Session Overview:

1. Review Session 6.1.
2. Pass out blank question cards only to those students that need them.
3. Divide the class by gender and take them to separate rooms.
4. Discuss the definition of puberty.
5. Discuss the emotional and physical changes that occur during puberty.
6. Discuss anatomy and physiology of human reproduction.
7. Distribute the My Changing Body handout.
8. Collect completed Parent Connection Form from Session 6.1: Decision-Making/Friendships.
9. Collect completed question cards.
10. Distribute the Parent Connection Form Session 6.2: Puberty.

Learning Objectives:

- Participants will identify reproductive organs of both genders.
- Participants will gain understanding of the physical and emotional changes that occur during puberty.
- Participants will master the vocabulary terms and definitions.
- Participants will be encouraged to respect themselves and others.

Materials Needed:

- Computer, projector, and speakers (2 sets)
- Jar of Now and Later Candy
- Giant pad of paper, markers, and tape
- KidsHealth Male Reproductive System PowerPoint (6.2.4)
- KidsHealth Female Reproductive System PowerPoint (6.2.4)
- Optional Puberty Videos:
 - [Puberty Video](#)
 - [4 Signs You are Going Through Puberty](#)
- Handouts:
 - My Changing Body (Handout 6.2.4)
 - Parent Connection Form Session 6.2: Puberty
- Question cards
- Question bag

Classroom Planning:

- Review the curriculum content for this session, specifically the reproduction videos.
- Make copies of handouts.
- Make sure the classroom teacher is aware that participants will need to be split by gender for part of this session and will require a separate room to accommodate the boy and girl breakout groups.

The Standards:

- See Appendix E for a list of state and national standards met in this session.



Educator states:

Yesterday we started off class by going over the **Group Rights and Responsibilities**. This is a list of rules that each of us can abide by to make this a safe and comfortable environment to have discussions and share our thoughts and opinions.

We also introduced our Healthy Futures saying that goes along with this Now and Later candy. Does anyone remember what it is?

[The choices you make NOW will affect you LATER!]

We then talked about how important it is to choose good friends so they can influence us in a positive way. We did our Build A Friend activity where we named some **qualities to look for in a good friend**. Can someone please tell me one of the qualities we discussed?

[Ask for several qualities from different students.

Respectful • Helpful • Fun • Trustworthy • Kind • Honest
Loyal • Responsible • Good listener • Good role model]

We had you each accomplish a “**mission**,” right? You had several scenarios where you had to put into practice how to be a good friend, and you came up with some great responses to some tough situations.

Next we talked about the **3 steps to healthy decision-making**.

Who can name me the first step? [STOP]

The second? [THINK]

What is it that you have to think about in the second step?

[The reasons to do something and the reasons not to do something.]

The last? [DECIDE]

To put these steps into action we did a **Decision-Making Scale Activity**. From this, we decided to make a healthy choice to avoid risky behavior.

But whose choice is it to put what we’re learning into practice?

[Your choice]

That’s right, and we know that,

The choices you make...**NOW** will affect you...**LATER**!

[Let students know that if they need a question card or an extra one to please go see an educator.]

Notes:

Notes:**Educator highlight:**

Separate the boys and girls into separate rooms for the ice breaker and the anatomy and physiology of reproduction talk.

Educator states:

Now that we have separated, let's start by repeating some words after me.

- Washing machine
- Apple
- Telephone
- Vagina
- Testicle
- Penis
- Ovaries

If you find these words funny, you can get your laughs and giggles out now.

[Pause for laughter.]

So, the next time you hear these words, they shouldn't be as funny because now you've heard them, right? I want you all to really pay attention to the topic we will be talking about because it's important to each one of us.



Notes:**Educator states:**

Today we will be talking about puberty. What is puberty?

[Educator writes the word and the following definition on the board.]

Puberty is the process of changing from a child to an adult.

Now I want you to repeat after me the definition written on the board.

[Students repeat the definition.]

So another way of saying this is, puberty is the process of you growing from a boy into a man or girl into a woman. Puberty is all about hormones. Hormones are chemicals that have different jobs throughout your body. Hormones cause all the physical and emotional changes you will experience during puberty.

Now the age range for the beginning of puberty is usually from about 10 to 18 years old in boys and from 9 to 17 years old in girls. It is important to remember that everyone is **unique**. Puberty does not start at the same time in the same way for everyone.

Educator highlight:

For the boys group go to section **Puberty, Anatomy, and Reproduction Talk (Boys)** on page 6.

For the girls group go to section **Puberty, Anatomy, and Reproduction Talk (Girls)** on page 17.



Notes:**Educator states:**

Let's make a list of all the changes we all go through during puberty. What changes have you noticed or heard about?

[Allow time for answers and briefly explain changes. Only list the changes that happen to both and specific changes for the gender in your classroom.]

[Both Boys and Girls Changes:

- Grow / Get taller - also *hands, arms, legs, feet are getting bigger, you even gain weight.*
- Clumsiness - *this will go away as you get older, as you get used to your growth*
- Body Odor - produce more sweat, mixes with germs to cause body odor
- Oily Skin/Pimples - *your skin will get oily all over your body, oil and germs can clog pores to produce pimples*
- Aching muscles - *growth causes soreness because the muscle is stretching & bones are growing.*
- Emotional Changes - *gets moody, and less in control of emotions*
- Hair Growth - *under arms, on arms, legs, face, chest and private area (girls don't grow hair on their chest and only grow a little bit on the arms, legs and face, while boys grow more facial hair)*
- Reproduce - *your body will get itself ready to be capable of having a baby. During puberty for males your reproductive system will start to produce sperm, producing millions of sperm each day. Males role in reproduction is providing the sperm cell and the females role is providing the egg cell *(we will talk more about that in a moment)*
- Breast Growth - *breast tissue will become very tender and sore with some swelling, the tenderness will eventually go away. Girls breast will continue to develop*
- Voice Changes - *boys voice will get deeper, as for girls it is not as deep*

Boys: (Only share this with the boys)

- Muscles develop - *boys will gain bigger muscles naturally*
- Fat decrease - *12-13% of total body fat*
- Shoulders broaden - *shoulders will get wider*
- Penis and testicles grow larger - *One testicle usually hangs lower than the other. It's normal]*



Notes:

Now some of these changes happen in both boys and girls. We are going to go over our list again. Each change that just happens to boys only we will mark it with a B, if the change happens to both, then we will mark it B/G.

[At this time briefly explain changes that happen to both: voice, breast growth, emotional, and reproduction. Pass out My Changing Body (Handout 6.2.4).]

I think you will see that there are some changes that both boys and girls experience during puberty. During this time, boys and girls do have some changes that are unique to their gender, but overall you're going through a similar process.

[Circle those changes unique ONLY to the specific gender in your classroom. Do not mention the unique changes for the opposite gender not in your classroom.]

One very important part of puberty is that the reproductive system will begin to mature. The body becomes capable of reproduction (making babies).

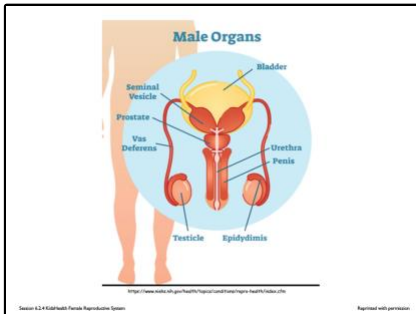
Remember as we said before, males and females have different roles to play in reproduction. The male's role is to provide the sperm and the female's role is to provide the egg. Now we are going to talk about the human reproduction systems and how males and females are different. I'm going to take you through the male anatomy first and then share about the female anatomy.

[Present the KidsHealth Male Reproductive System PowerPoint (6.2.4).]

PPT Slides: KidsHealth Male Reproductive System PowerPointA placeholder box for a PowerPoint slide titled "Illustrations of the Male Reproductive System". The box contains the title text and small copyright notices at the bottom: "© 2013 KidsHealth Female Reproductive System" and "Reprinted with permission".

Illustrations of the
Male Reproductive System

[Slide 1]



[Slide 2]

[Point to each organ as you read its definition and purpose.]

Educator states:

The **scrotum** (sometimes called the scrotal sac) contains the testicles and epididymis and hangs under the penis.

Next to each testicle the **epididymis** is a lightly coiled tube where the sperm are stored. From here, sperm are transported to the vas deferens.

Vas Deferens: Also called the ductus deferens, this thin muscular tube transports sperm from the epididymis to the urethra.

Seminal Vesicles: Located at the base of the bladder, the two seminal vesicles secrete a thick fluid that nourishes the sperm.

The bladder is the muscular sac that stores the urine until it is released through the urethra.

Prostate Gland: This walnut-sized gland surrounds a portion of the urethra and produces some of the fluids in semen.

Penis is made of two parts: the shaft (the main part) and the glans (the tip sometimes called the head). The penis delivers sperm through the urethra into the female reproductive tract.

Urethra: The urethra is the tube that carries semen and urine out of the penis.

Notes:

Notes:**Educator states:**

Do you guys know what an erection is? You might have heard it called different things like “boner”. But we want you to know that the scientific term is erection. An erection is when the guy’s penis stiffens and hardens from blood rushing to the penis. You might think that this only happens when guys are sexually aroused but during puberty this can happen at any time. It doesn’t just have to be associated with sexual things. You could be somewhere and get an erection out of nowhere. For example, you might be sitting in class and all of a sudden, you get an erection. This is normal and will happen to many of you guys!

Educator highlight:

The penis is made up of spongy tissue, smooth muscles, and blood vessels. When aroused, blood flows into these tissues and causes the penis to become erect.

Have you boys ever heard of wet dreams? The scientific term for this is **nocturnal emissions**.

Nocturnal emission is when you ejaculate during sleep. You guys remember what ejaculation is?

[Releasing of semen out of the penis.]

Sometimes when you wake up you might notice white fluid in your underwear or pajamas - this is semen. Nocturnal emissions happen when your body starts to make more testosterone (remember, we talked about that hormone earlier). It’s your body preparing for reproduction.

Although you might feel embarrassed or even guilty about having wet dreams, it’s not something that you can control. Almost all boys normally experience them at some time during puberty and even as adults. This is a normal part of growing up and becoming a man.



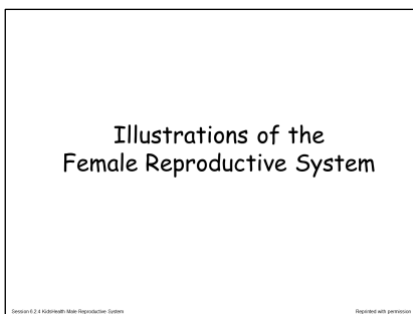
Notes:

[Transition to the female reproduction system.]

Educator states:

Now let's look at the female reproduction system and what happens when a sperm meets the female egg.

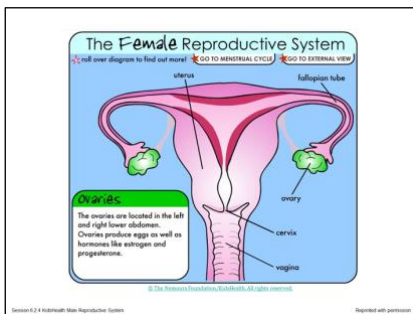
[Present the KidsHealth illustrations slides of the Female Reproductive System PowerPoint.]



[Slide 1]

Looking at the reproductive system, you can see that there are many parts. There are **two ovaries**. The ovaries are located in the left and right lower abdomen. Their function is to release eggs as well as hormones like estrogen and progesterone. These chemicals give women their female characteristics (such as breasts, wider hips, menstrual periods, etc.).

[Show illustration of the ovaries.]



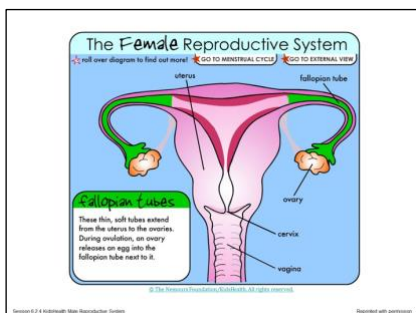
[Slide 2]

Notes:

Educator states:

There are also two **fallopian tubes**. There is one tube associated with each ovary. These thin, soft tubes extend from the uterus and end close to the ovaries. Because there is no connection between the fallopian tubes and the ovaries, at time of ovulation the fingerlike structures at the end of the fallopian tubes create a current to help move the egg from the ovary to the fallopian tube. Once inside the fallopian tube, millions of tiny, hair-like cilia move the egg through the fallopian tube and into the uterus. If a female engages in vaginal sex with a male around the time of ovulation, this is where the male's sperm will meet with the egg in a process called fertilization.

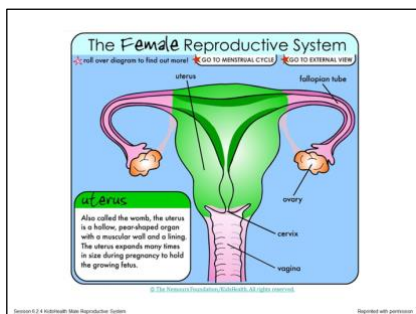
[Show illustration of the fallopian tubes.]



[Slide 3]

The next part is the **uterus**. It's a stretchy muscle where a baby might grow one day. It is also called the "womb". The uterus is a hollow, pear-shaped organ with a muscular wall and a lining. The uterus expands many times in size during pregnancy to hold the growing fetus (meaning it becomes larger as the baby grows).

[Show illustration of the uterus.]

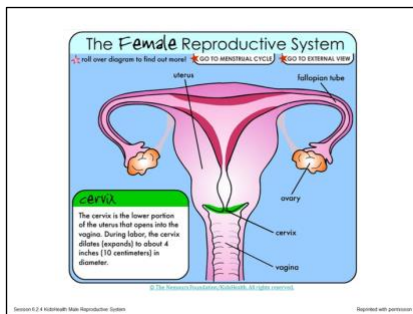


[Slide 4]

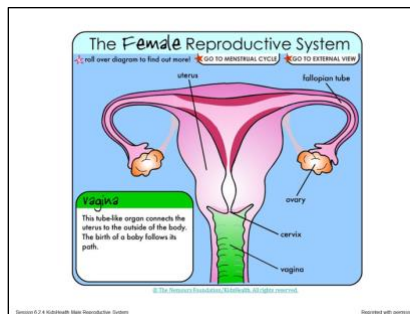
Educator states:

At the lower part of the uterus is a small opening called the **cervix**, which opens into the **vagina**. The vagina is a tube-like organ that connects the vagina to the outside of the body. The vagina is where vaginal sexual intercourse takes place and is the birth canal during childbirth. When a male ejaculates, it may happen here. If a male ejaculates in or near the female's vagina, the sperm may make its way up to the fallopian tubes and fertilize the egg. Together they will travel into the uterus where the baby grows until it is ready to be born. During labor (the process of childbirth), the cervix dilates (expands to about 4 inches or 10 centimeters in diameter) to allow the baby to leave the uterus, through the vagina (birth canal), and exit the mother's body.

[Show illustrations of the cervix and vagina.]



[Slide 5]



[Slide 6]

Notes:

Notes:**Educator states:**

Let's do a quick review:

What do you call the process where an egg is released from the ovary?

[Ovulation]

Where does vaginal sexual intercourse take place?

[The vagina]

What happens if an egg is fertilized by a sperm?

[It may develop into a baby]

Where does the baby grow?

[In the uterus]

Does anyone have any questions?

Great job boys. This is the end of the puberty lesson and now I want to pass out a parent connection form to bring home to your parent or guardian.

[Give instructions]

[Pass out Parent Connection Form Session 6.2: Puberty and collect completed question cards.]

Notes:**Educator states:**

Let's make a list of all the changes we all go through during puberty. What changes have you noticed or heard about?

[Allow time for answers and briefly explain changes. Only list the changes that happen to both and specific changes for the gender in your classroom.]

[Both Boys and Girls Changes:

- Grow / Get taller - also *hands, arms, legs, feet are getting bigger, you even gain weight.*
- Clumsiness - *this will go away as you get older, as you get used to your growth*
- Body Odor - produce more sweat, *mixes with germs to cause body odor*
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- Breast Growth - *breast tissue will become very tender and sore with some swelling, the tenderness will eventually go away. Girls breast will continue to develop*
- Voice Changes - *boys voice will get deeper, as for girls it is not as deep*

Girls: (Only share this with the girls)

- Hips widen - *your hips get broader, because the pelvis is growing larger inside of you (the pelvis is made up of bones that contain the reproductive system)*
- Menstrual Cycle (Period) - *bleeding that occurs once a month, that we will explain more about in just a moment*
- Vagina discharge white, sticky substance - *A sign a girl is going to get her first menstrual period soon. You will have this for most of your womanhood as a means for the vagina to clean itself and remain healthy]*



Notes:

Now some of these changes happen in both boys and girls. We are going to go over our list again. Each change that just happens to girls only we will mark it with a G, if the change happens to both, then we will mark it B/G.

[At this time briefly explain changes that happen to both: voice, breast growth, emotional, and reproduction. Pass out My Changing Body (Handout 6.2.4).]

I think you will see that there are some changes that both boys and girls experience during puberty. During this time, boys and girls do have some changes that are unique to their gender, but overall you're going through a similar process.

[Circle those changes unique ONLY to the specific gender in your classroom. Do not mention the unique changes for the opposite gender not in your classroom.]

During puberty a girl's body begins to change shape. Everyone gets bigger during puberty, but we are all unique (meaning we will all look different). A girl's **breasts grow larger** and her **hips get broader** in preparation for having a baby one day. The hips get broader, because the pelvis is growing larger inside of her. The **pelvis** is made up of bones that contain the **reproductive system**. When the baby is ready to be born, the baby passes through the woman's pelvis (that's why it needs to get bigger and why a female pelvis is a different shape than a male's pelvis).

One very important part of puberty is that the reproductive system will begin to mature. The body becomes capable of reproduction (making babies).

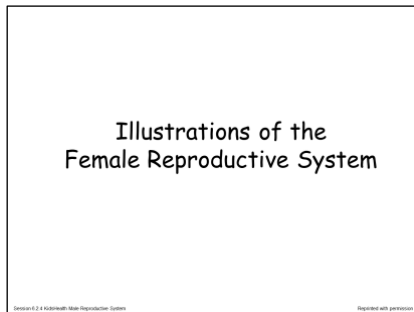
Remember as we said before, males and females have different roles to play in reproduction. The male's role is to provide the sperm and the female's role is to provide the egg. Now we are going to talk about the human reproduction systems and how males and females are different. I'm going to take you through the female anatomy first and then share about the male anatomy.



Notes:**Educator states:**

Now we will talk about the female reproductive system, ovulation, and menstruation.

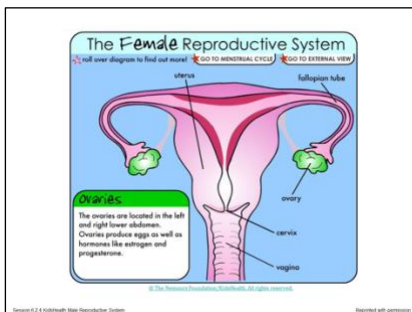
[Present the KidsHealth Female Reproductive System PowerPoint (6.2.4).]

PPT Slides: KidsHealth Female Reproductive System PowerPoint

[Slide 1]

Looking at the reproduction system, you can see that there are many parts. There are two ovaries. The ovaries are located in the left and right lower abdomen. Their function is to release eggs as well as the hormones like estrogen and progesterone. These chemicals give women their female characteristics (such as breasts, wider hips, menstrual period, etc.). A female has all of her eggs when she is born. These eggs are only about the size of a pencil dot (so that is why so many eggs would be able to fit inside of you).

[Show illustration of the ovaries.]

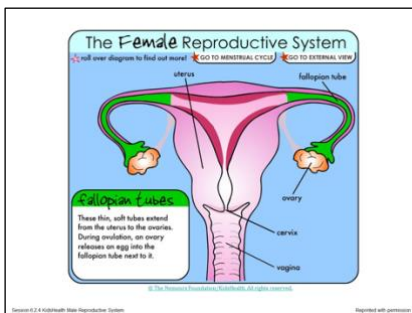


[Slide 2]

Notes:**Educator states:**

There are also two **fallopian tubes**. There is one tube associated with each ovary. These thin, soft tubes extend from the uterus and end close to the ovaries. Because there is no connection between the fallopian tubes and the ovaries, at time of ovulation the fingerlike structures at the end of the fallopian tubes create a current to help move the egg from the ovary to the fallopian tube. Once inside the fallopian tube, millions of tiny, hair-like cilia move the egg through the fallopian tube and into the uterus. If a female engages in vaginal sex with a male around the time of ovulation, this is where the male's sperm will meet with the egg in a process called fertilization.

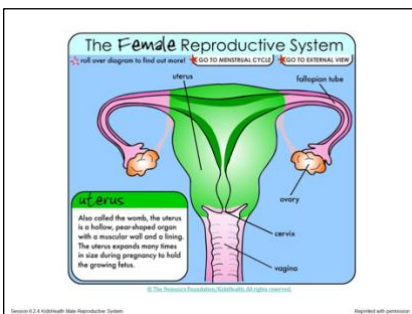
[Show illustration of the fallopian tubes.]



[Slide 3]

The next part is the **uterus**. It is a stretchy muscle where a baby might grow one day. It is also called the “womb”. The uterus is a hollow, pear-shaped organ with a muscular wall and a lining. The uterus expands many times in size during pregnancy to hold the growing fetus (meaning it becomes larger as the baby grows).

[Show illustration of the uterus.]

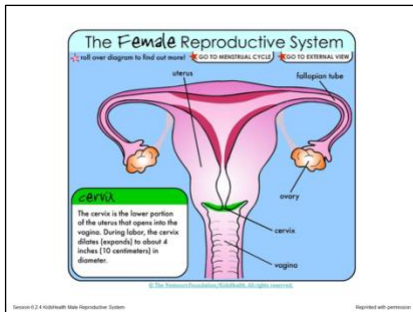


[Slide 4]

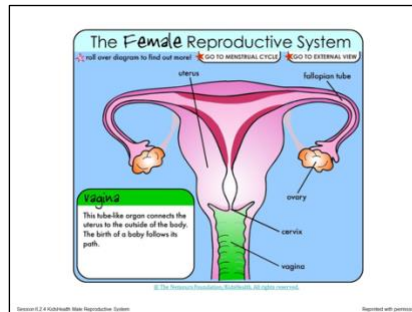
Notes:**Educator states:**

Another function of the cervix and vagina is to allow the blood lining of the uterus to leave the body during menstruation.

[Show illustrations of the cervix and vagina.]



[Slide 5]



[Slide 6]

There are three openings on the outside of a female's body. One is the vagina opening where a female has her period, where vaginal sexual intercourse takes place, and where a baby may pass through during childbirth. The second one is the urethra where urine leaves the body (the urethra is attached to the bladder). The third opening is the anus where solid waste leaves the body.

Notes:

[Read script first then play animated graphics in video to show movement of egg during ovulation and menstruation.]

Educator states:

Now we are going to talk about menstruation. One day between the ages of 9 and 17 years, a female will begin her menstrual cycle. The cycle lasts for about 28 days then the process starts all over again. For the first year or two of a female starting her period, she may not get her period every month. This is normal because her body is still getting used to this new change.

[Play video until the end.]

Educator states:

Let's do a quick review:

What do you call the process where an egg is released from the ovary?

[Ovulation]

What happens if an egg is fertilized by a sperm?

[It may develop into a baby]

When an egg is not fertilized it will dissolve and then a blood flow will come out of the vagina, what is this blood flow called?

[Menstruation or period]

How many days does a female have her period for?

[Two to seven days]

If a female becomes pregnant, what is the name of the part where the baby grows?

[The uterus]

[Take out a pad and a tampon for visual aids. Pass around for about 2 minutes, then facilitate a discussion about pads and tampons.]



Notes:**Educator states:**

It is very important to remember that your first period usually comes as a surprise, so you want to be prepared. **What are you going to need?** A pad or tampon. You can keep one in your locker, purse or small pencil case. We also recommend having an extra pair of underpants and pants in your locker in case the blood leaks out onto your clothes while you are in school. If this happens, you can wrap a sweater or sweatshirt around your waist until you can get to your locker or the nurse's office. The nurse can provide you with a pad.

So how do you use pads or tampons? Pads are worn on the inside of your underpants. One side is sticky so that you can stick it to your underpants and it won't slide around when you move. Some pads have wings, which wrap around the outside of your underpants to keep it even more secure.

Tampons are inserted into the vagina. As I said before, the vagina is only about the length of your middle finger, so when the tampon is inserted into the vagina, there is no need to worry that it will go too far. The tampon can't get past the cervix, because the cervix opening is only big enough for blood or semen to pass through. A string hangs off the tampon outside of the body so that you can pull the tampon out.

Both pads and tampons should be changed every few hours. It is important to change them both (pads and tampons) regularly so that they do not fill up with too much blood and so that they do not begin to smell. Changing them regularly will also help prevent infection. **Good hygiene during this time of month is very important!** When you change your pad or tampon, wipe from front to back to avoid infection. You can even use baby wipes to wipe clean and then dry yourself with tissue before a new pad or tampon. **Take a shower daily and change into clean clothes.** It is probably best that you don't wear a tampon at night, because you'd have to leave it in for too many hours. No matter which one you wear it is important to talk to your parent/guardian and/or doctor about choosing the one that is best for you!

How do you dispose of a pad or tampon? Always wrap your tampon or pad with bathroom tissue first and then put it in the wrapper of the new one before you dispose of it in the trash or sanitary napkin tins; never flush either one in the toilet.

So what if you are not in school, but are in a store or restaurant? You can go into the public bathroom and there might be a machine in there (you've probably seen one) that has pads or tampons for some change (so always keep some money with you!). If you don't have any money, I'll let you in on "The Secret Code of Girls." Huddle in...

The "Secret Code of Girls" is that no matter where you are, you can always ask another trusted adult woman near you - a nurse, teacher, someone from your church or place of worship, a librarian etc., if they have a pad or tampon—even if you don't know them that well. If they have one, they will give it to you, because as a woman they know what it's like to get your period unexpectedly and not be prepared. That's pretty cool right? We're all in this together! Also, once something like this has happened to you, believe me; you don't want it to happen to someone else. So be a friend and tell a friend.



Notes:**Educator states:**

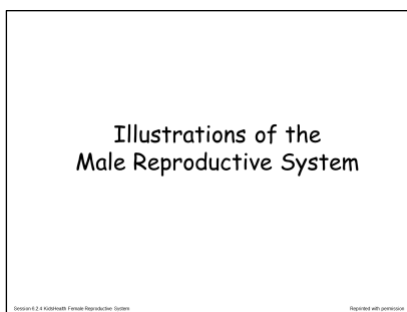
If you see that another girl in school (friend or not) had an accident, tell her in private that they need to see the nurse. If you can help them out, that would be great too! Chances are, if it ever happened to you, I'm sure they would help you out.

[Transition to the male reproduction system.]

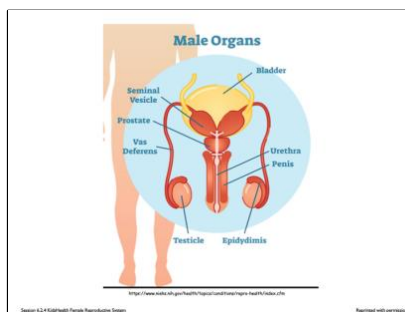
Now we will talk about the **male reproductive** system.

Males and females have different roles to play in reproduction. The woman provides the egg and the man provides the sperm. Here is the picture of the male reproduction system. I am going to take you through the journey of the sperm.

[Present the KidsHealth illustrations slides of the Male Reproductive System PowerPoint.]



[Slide 1]



[Slide 2]

[Point to each organ as you read its definition and purpose.]

Educator states:

The **scrotum** (sometimes called the scrotal sac) contains the testicles and epididymis and hangs under the penis.

Next to each testicle the **epididymis** is a lightly coiled tube where the sperm are stored. From here, sperm are transported to the vas deferens.

Vas Deferens: Also called the ductus deferens, this thick muscular tube transports sperm from the epididymis to the urethra.

Seminal Vesicles: Located at the base of the bladder, the two seminal vesicles secrete a thick fluid that nourishes the sperm.



Notes:**Educator states:**

The bladder is the muscular sac that stores the urine until it is released through the urethra.

Prostate Gland: This walnut-sized gland surrounds a portion of the urethra and produces some of the fluids in semen.

Penis is made of two parts: the shaft (the main part) and the glans (the tip sometimes called the head). The penis delivers sperm through the urethra into the female reproductive tract.

Urethra: The urethra is the tube that carries semen and urine out of the penis.

Does anyone have any questions?

Great job girls. This is the end of the puberty lesson and now I want to pass out a parent connection form to bring home to your parent or guardian.

[Give instructions]

[Pass out Parent Connection Form Session 6.2: Puberty and collect completed question cards.]

