



# Changing Bodies



## CHANGING BODIES: REPRODUCTIVE AND SEXUAL ANATOMY

### Summary

Understanding medically-accurate names and functions of the reproductive system is the foundation upon which other sexuality topics are learned. This unit focuses on sexual and reproductive anatomy and clarifies information, debunks myths, and empowers young people to take control over and care of their bodies. For most body systems, people have the same basic parts and functions. The reproductive system, on the other hand, is different for males and females. Throughout this curriculum, educators are encouraged to use inclusive language, acknowledging that a person's body parts may or may not match up with how a person identifies as male, female or something else along the gender spectrum.

### Student Learning Objectives

After completing the *Changing Bodies* unit, students will:

- Identify and understand the anatomy and functions of the reproductive system (knowledge)
- Describe how puberty starts the process for the human body to potentially reproduce (knowledge)
- Differentiate myths from facts on how our bodies change during puberty (skills)



### Educator Note

People whose gender matches the sex they were assigned at birth are known as **cisgender**. People who identify as the opposite gender they were assigned at birth are **transgender**. People who don't identify with either gender are **non-binary**. Some people might also be born with reproductive organs that are not clearly male or female, and might identify as **intersex**.

Activities	Minutes	Materials & Preparation Checklist
A. Understanding our Bodies	5-10	<input type="checkbox"/> White board for brainstorming activity
B. The Reproductive System*	40-45	<input type="checkbox"/> Make copies of the anatomy worksheets with diagrams for each student <input type="checkbox"/> Locate and prepare to project slides of the male and female anatomy and menstruation
Supplemental Activity: optional videos		<input type="checkbox"/> View optional videos describing the anatomy and/or menstruation and determine if you will use them in class
C. Anonymous Questions and Exit Ticket	5	<input type="checkbox"/> Index cards or small pieces of paper for questions and exit ticket

**Instructional time:** Times for each activity are estimates. Varying class times may require educators to shorten, add or split up activities into multiple days.

\* These activities are deemed essential for meeting the learning objectives in this unit.

### Advanced Preparation for Educators:

- [www.kidshealth.org](http://www.kidshealth.org). Information about puberty and growing up is provided under *Kids Health*; interactive diagrams of female and male reproductive systems are on the *Teens Health* tab under Sexual Health.
- View information about the reproductive system and changes that occur during puberty: <http://www.sexandu.ca/your-body/sexual-reproduction/>

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## Common Student Questions and Suggested Answers

*Why do girls have eggs in their bodies?*

A: The eggs that girls/women have in their bodies are different than the eggs that you buy at the grocery store. The official name for eggs is ova. These carry genes, or certain traits that will be passed on to a baby like eye color or height. In males, sperm carry their genes. When they meet, the egg and sperm grow together and over time, develop into a baby. Most months, the egg isn't fertilized by a sperm so it passes out of the body.

A. For many people when they are born, they are assigned a gender that matches the body they were born into – but some people are born into a body that doesn't line up with who they are as a person. And that's okay! Talk about what you are feeling with your parents or other trusted adult, like a school counselor or nurse.

*I have a boy brain but a girl body, what do I do?*

*I am a boy, why do I need to learn about girl's body parts?*

A. Just because we might know what's going on in our own body doesn't mean we aren't curious about what's going on for the opposite sex. Knowing more about the changes puberty brings will help you feel more comfortable around people of both sexes.

A. It can feel that way, but actually knowing the correct medical names can help you feel more comfortable and confident in understanding your body. It will help you be better equipped to tell a parent, trusted adult or doctor if you have a concern or health issue with those body parts. These are ways we can protect ourselves and take charge of our bodies.

*Why do we need to know the scientific names for our private parts? It's embarrassing!*

## ACTIVITY A: UNDERSTANDING OUR BODIES

Say,

*Why do most people go through puberty?*

Let students answer to see what they remember from the *Puberty Changes* unit.

Continue by saying:

*Puberty starts the process of becoming an adult, including making it possible to reproduce (make a baby) if someone chooses to in the future. Today we are going to learn about the reproductive system and how it functions for most people. Remember our group agreements to use scientific names for the body parts, even if your family uses different words or you don't know the scientific names yet.*

*The reproductive system is just one of many systems that make up our bodies. There are many other body systems--can anyone name one?*

Depending on what your students have covered, they may only know a few body systems or none at all. Provide examples, such as: the **circulatory** system (which makes up our heart, blood and vessels), the **skeletal** system (consisting of our bones), the **muscular** system (our muscles), or the **digestive** system (includes our mouth, throat, stomach, intestines).

Say,

*Can anyone name a body part that most people have in common?*

Let several students respond prompting them with some obvious body parts, if needed—nose, eyes, elbow, etc. Acknowledge that many of us share the same body parts, even if they may look different for each person.

*Next, we are going to learn about the reproductive system which includes some body parts that not everyone shares.*



### Educator Note

If you have questions in the anonymous question box, you can take a few minutes to answer them before moving on to the contents in this unit. Questions in the box related to reproductive body parts and functions can be answered as you go through this lesson.



### Tips for Being Inclusive

- Use inclusive language such as "most" boys or girls rather than "all" and the word "common" instead of "normal" when explaining the reproductive system. Instead of "girl body" or "boy body" you might say "body with a penis" or "body with a vulva".
- Remind students that the body parts someone has does not define who they are as a person or how they express themselves. Everyone should be treated with respect.
- Having all students learn the following information together, rather than separating them by gender, is an important way to respect the range of gender identities or expressions in your classroom.
- Additional information and resources about gender roles and identity is included in a supplemental resource at the end of this curriculum.

## ACTIVITY B: THE REPRODUCTIVE SYSTEM

The educator script in this activity follows the reproductive system worksheets at the end of this unit. Students can fill in the blanks for the different body parts as you read through the suggested script and show the accompanying slides found on the [mainfamilyplanning.org](http://mainfamilyplanning.org) website, under *For Educators, Puberty Happens*.

Other resources, such as videos and diagrams can be found at [www.Kidshealth.org](http://www.Kidshealth.org)

- *diagram of the female reproductive system:*  
<http://kidshealth.org/en/teens/female-repro.html>
- *diagram of the male reproductive system:*  
<http://kidshealth.org/en/teens/male-repro.html>

Say,

*We talked in the last unit about the changes that happen during puberty. Now we're going to talk more in depth about what's happening inside your bodies during puberty. There are some body parts that most boys have and some parts that most girls have. You may have heard the term genitals or private parts. Some people refer to them as the parts covered up by our underwear or bathing suits.*

*Puberty actually starts off in the brain when the pituitary gland releases hormones to different parts of the body. This can start as early as 9 or as late as 16. The timing depends on each person's unique body. It is common to compare yourself to other people, but your body will start these changes when it is right for you.*

*During puberty, the hormone testosterone tells the testicles in most male bodies to start producing sperm. For most female bodies, the hormone estrogen tells the ovaries to start producing eggs. Together the egg and sperm have the potential to someday join together to reproduce, or make a baby.*



### Educator Note

In this unit, Fun Facts and Truth or Myth questions break up the scripted presentation. Explain to students that you will ask them myth or fact questions. Students will give a “thumbs up” if they think the statement is a fact, or “thumbs down” if they think it is a myth. It's okay if they don't know the answer...we are all learning together!



### *Resources on puberty and transgender individuals*

For a child who is transgender, parents may work with a doctor to delay the onset of puberty. For more information, refer to these resources:

*What are the Gender-Affirming Management Options for Transgender Individuals?*

<https://queer.stanford.edu/trans-education-videos>

*Supporting and Caring for Transgender Children* from the Human Rights Campaign, American Academy of Pediatrics, and American College of Osteopathic Pediatricians.

<https://www.hrc.org/resources/supporting-caring-for-transgender-children>

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## i. The path of the sperm

Start by saying,

*Let's first look at the diagram of the parts most male bodies have.*

Make sure students have the correct diagram out to follow along. You can either give them a few minutes to name the parts they already know, or ask them to fill in the blanks as you describe the various parts.

Say,

*First find the pituitary gland on your worksheet.* Give students a minute to find the pituitary gland.

*Starting in the pituitary gland, signals are sent to the testicles that tell it to start producing testosterone, the hormone that makes sperm. In addition to producing sperm, testosterone causes the voice to grow deeper, penis to grow, shoulders to broaden, and other characteristics of a body changing from a boy into an adult male body.*

*Most male bodies have two testicles. These are small, egg-shaped glands that are inside the scrotum. The scrotum is a sac that hangs on the outside of the body, under the penis. The scrotum protects the testicles. The job of the scrotum is to hold the testicles at the proper temperature for making sperm. Once sperm are made in the testicles, they are stored there to mature.*

Stop to make sure students can accurately identify the location of the testicles and scrotum on the diagram before continuing.

*The vas deferens is a tube that the sperm travel through when leaving the body. There is a vas deferens that leads out of each of the testicles.*

*The sperm travel through the vas deferens, past the bladder (where urine or "pee" is stored), and into a tube called the urethra that will carry the sperm out of the body.*

*The urethra is the tube that runs through the penis and has two jobs: carrying urine (pee) and semen out of the body—but not at the same time. Semen is a white, milky liquid that helps keep sperm healthy so they can potentially fertilize an egg.*

*The penis is where urine and sperm exit the body. The penis is made up of soft tissue that may become erect. This is called an erection and happens when the penis fills with blood.*

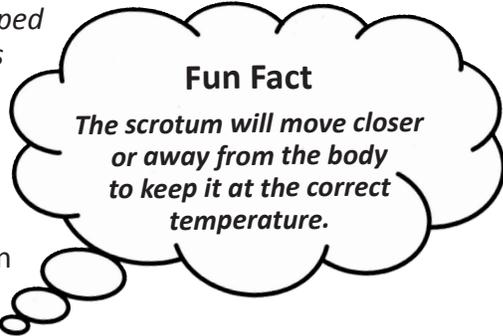
*In the male body, the testicles in the scrotum and the penis are on the outside of the body. There are two openings; the urethra is one and the other is the anus, where a bowel movement (feces or "poop") comes out.*

Stop to make sure that students have identified all of the male body parts correctly. Ask if they have any questions at this point.



### Educator Note

While reproduction occurs through the fertilization of the egg by sperm, this process is not only achieved through sexual intercourse. There are many ways families are formed including through in vitro fertilization or by adoption. Families are formed in many different ways and there is no one better way than another.



### Fun Fact

*The scrotum will move closer or away from the body to keep it at the correct temperature.*

### Myth or Fact?

*During puberty, some boys may get an erection for no reason at all.*

**Fact:** *This is common and the erection may not be noticeable and will go away in a few minutes. Some boys also have wet dreams. This is when sperm exits the body, called an ejaculation, during sleep. It is totally normal and is the body's way of adjusting to the process of making sperm.*

## ii. The path of the egg

Have students turn to the diagram of the female reproductive system. Continue by saying:

*Now we will look at the diagram of the parts most female bodies have.*

*Let's start again with the pituitary gland which sends signals to the two ovaries to begin making hormones (estrogen and progesterone). These hormones start off the changes of puberty in most female bodies, like breasts developing and the start of menstruation (getting a period).*

Stop here to make sure everyone is focused on the first diagram of the internal body parts and that they have identified the ovaries.

*The ovaries contain eggs, and take turns releasing an egg each month starting in puberty.*

### Myth or Fact?

*The ovaries contain all the eggs a person will release in their lifetime.*

**Fact:** *While 300,000-400,000 eggs are stored in the ovaries, only 300-500 eggs will be released in a person's lifetime. Sometimes two eggs are released at the same time. When this happens, it's possible that twins will develop.*

*When an egg leaves an ovary it travels through the fallopian tube. There is a fallopian tube attached to each ovary. The egg follows the fallopian tube into the uterus.*

*If the egg is fertilized by a sperm during its path through the fallopian tube, it will attach to the lining of the uterus and grow there and may form into a baby.*

*If the egg is not fertilized, then the lining of the uterus is shed in the form of blood through the vagina. This is called menstruation (or having a period).*

Make sure everyone sees the path from the ovary to the uterus.

*The vagina is a tube-like organ that connects the uterus to the outside of the body. The vagina is where menstrual flow leaves the body and also where most babies come out of the body when born.*

*We will talk more about having a period but first let's go over the outside parts of a female body.*

### Fun Fact

***The fallopian tube is no wider than a head of pin!***

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Refer students to the other diagram with the external view of the female anatomy.

*The outside of most female bodies is called a vulva. In the front or top part of the vulva is the opening of the urethra. Both male and female bodies have a urethra which is a tube that is attached to the bladder where urine (or pee) can leave the body.*

*In the middle of the vulva is an opening to the vagina where the menstrual flow, or a period, leaves the body.*

*The third opening is the anus, where a bowel movement comes out. Both male and female bodies have an anus.*

*The vulva has two folds of skin that protect the openings to the urethra and the vagina. Where the skin folds meet is the clitoris, which has many nerve endings and is sensitive to touch.*

### iii. Understanding Ovulation and Menstruation

Say,

*Even though not everyone has periods, we will spend some time talking about this since a lot of people may have heard myths about periods. It's important that everyone—whether you will have periods or not—has the correct information.*

*Does anyone know the medical or scientific name for getting your period? Menstruation.*

*We said that ovaries have eggs that are released about once a month starting at puberty. When menstruation begins is different for each person.*

Refer to the diagram on the menstrual cycle and have students follow along as you explain how a period happens.

Find Step 1 on the diagram:

*The menstrual cycle begins when the ovaries get ready to release an egg. This is called ovulation. At this time, the lining of the uterus starts to thicken.*

Find Step 2 on the diagram:

*Next the egg will follow the path down the fallopian tube to the uterus.*

Find Step 3 on the diagram:

*When it reaches the uterus, if the egg was fertilized by a sperm, it implants in the lining of the uterus, and may grow into a fetus and become a baby.*

*Most times the egg is not fertilized so the lining that has built up in the uterus will leave the body through the vagina. This is called menstruation, or having a period.*



#### Educator Note

A possible video as an introduction (or to reinforce learning) below can be found at [amaze.org](http://amaze.org) under the section on puberty:

– All About Getting Your Period. <http://amaze.org/?topic=puberty#popup1116>

#### Fun Fact:

*An egg can take up to 7 days to journey from the ovary, through the fallopian tube, to the uterus!*

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When someone has a period, they wear pads or tampons to absorb the tissue and blood that leaves the body. It is important for someone to talk to a trusted adult—like a parent, guardian or another family member, school nurse, doctor—on ways to manage periods. Remember that most people with ovaries and a uterus will eventually have periods—it is a common part of growing up.

### Myth or Fact?

Once someone starts getting their period, it will happen on the same day every month.

**Myth:** It is common for a period to come at irregular times, particularly for the first few years. This is why it may be difficult to know when a period will start. What to do if your period happens during school: tell your teacher you would like to speak to the school nurse or counselor. It may feel embarrassing or strange, but school staff are prepared for this to happen.

Check for understanding of how menstruation happens. Depending on the amount of time you have, you may include some or all of the following information about periods:

- When periods begin is different for each person.
- It is also common that periods do not come at regular monthly times during puberty.
- A period can last between 3-7 days.
- Only a small amount of blood and tissue is lost during a period (around four tablespoons).
- A pad or a tampon is used to soak up this blood and tissue. A teacher or school nurse can help if someone's period starts all of a sudden during the school day. Some people will start carrying supplies in their backpacks or purses when they start puberty, just in case.
- Sometimes people can have cramps or discomfort during menstruation.
- Most of the time, people who are having a period can still exercise and play sports, swim and do other activities like they normally would.
- It's important for someone to get help from a trusted adult if they are concerned or having trouble managing their periods.



### Educator Note

- Many teachers or school nurses set time aside to meet with girls together as they often have additional questions about periods.
- Boys-only groups may also be helpful as well to discuss changes most boys experience, such as wet dreams or spontaneous erections.
- In general, all students should learn about the anatomy parts and functions that happen for most boys and girls. This helps reduce misinformation and stigma.

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#### iv. Understanding pregnancy

*You may be curious how a pregnancy occurs. A pregnancy occurs when an egg gets fertilized by a sperm. This often happens when sperm leaves the penis (called ejaculation) and enters the vagina through sexual intercourse.*

*There are other ways that a sperm and an egg can be joined to produce a baby. As you grow older you will learn more about sexual intercourse as well as how babies are made and grow.*

#### **ACTIVITY C: ANONYMOUS QUESTIONS AND EXIT TICKET**

Say,

*We just learned about the reproductive system including the names of our body parts and how they function. Having the facts helps us know what to expect and what is happening to the body during puberty and why. If you have any concerns about your body, you know the medical words to use when you talk to a parent, a nurse or doctor, or another trusted adult.*

Take time to answer any questions the students may have. Ask them to write down on a notecard the following:

- 1) *One thing you learned about the reproductive system today.*
- 2) *One thing you still want to know*
- 3) *One adult you would go to if you had questions or concerns.*



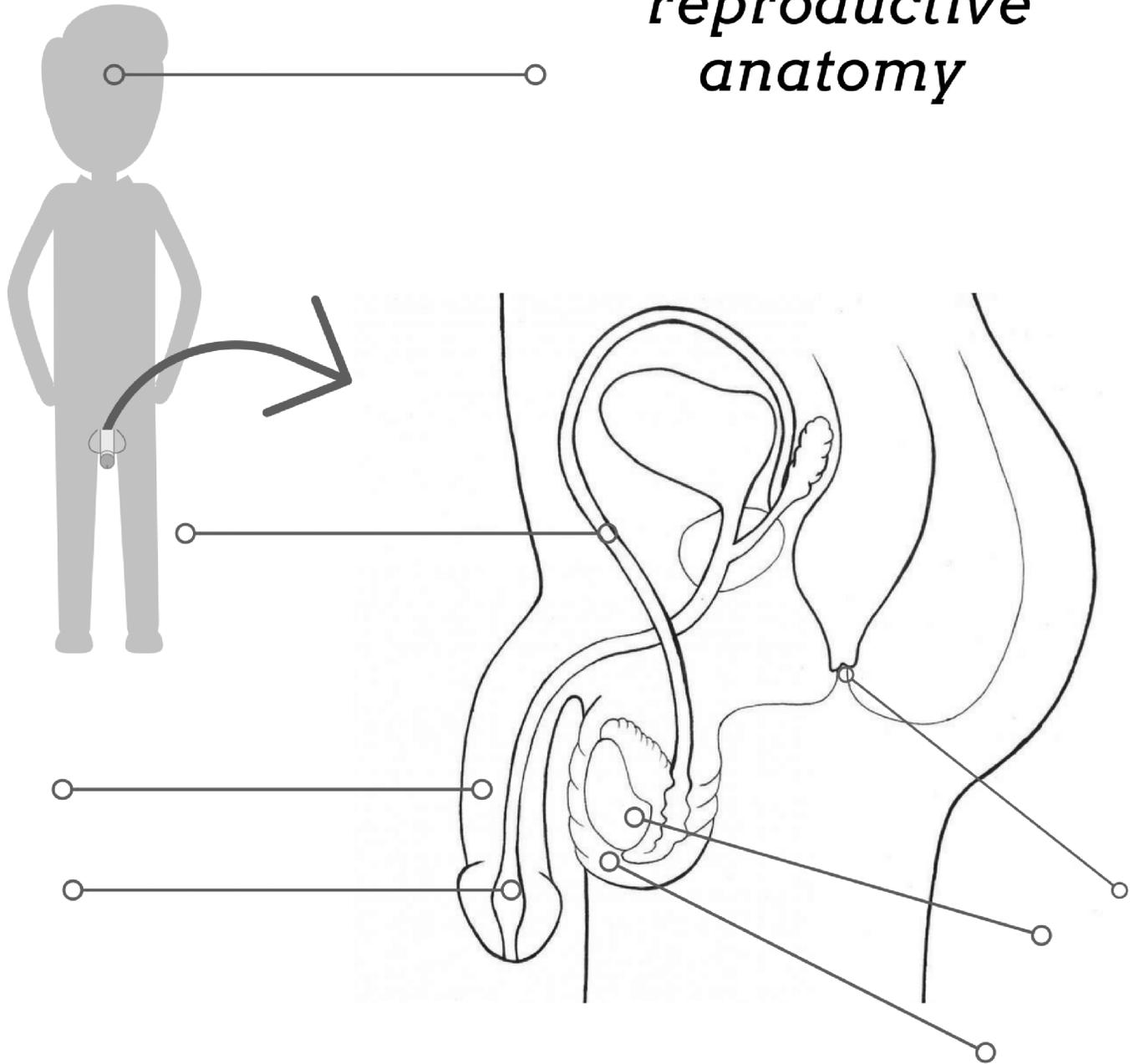
#### **Educator Note**

- It is common for many students to react with embarrassment and curiosity when talking about body parts and functions as well as when the term sexual intercourse comes up.
- Some students will know more than others and may want to tell others what they know. Keep the topic focused on puberty changes. Since all families have different approaches to these topics, refer them to a parent or trusted adult if they have questions about sexual intercourse or reproduction.
- Be prepared and discuss with colleagues how you will answer questions about sexual intercourse and more advanced topics that may come up during these units.



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# *male reproductive anatomy*



## **word bank**

penis

urethra

scrotum

testicle

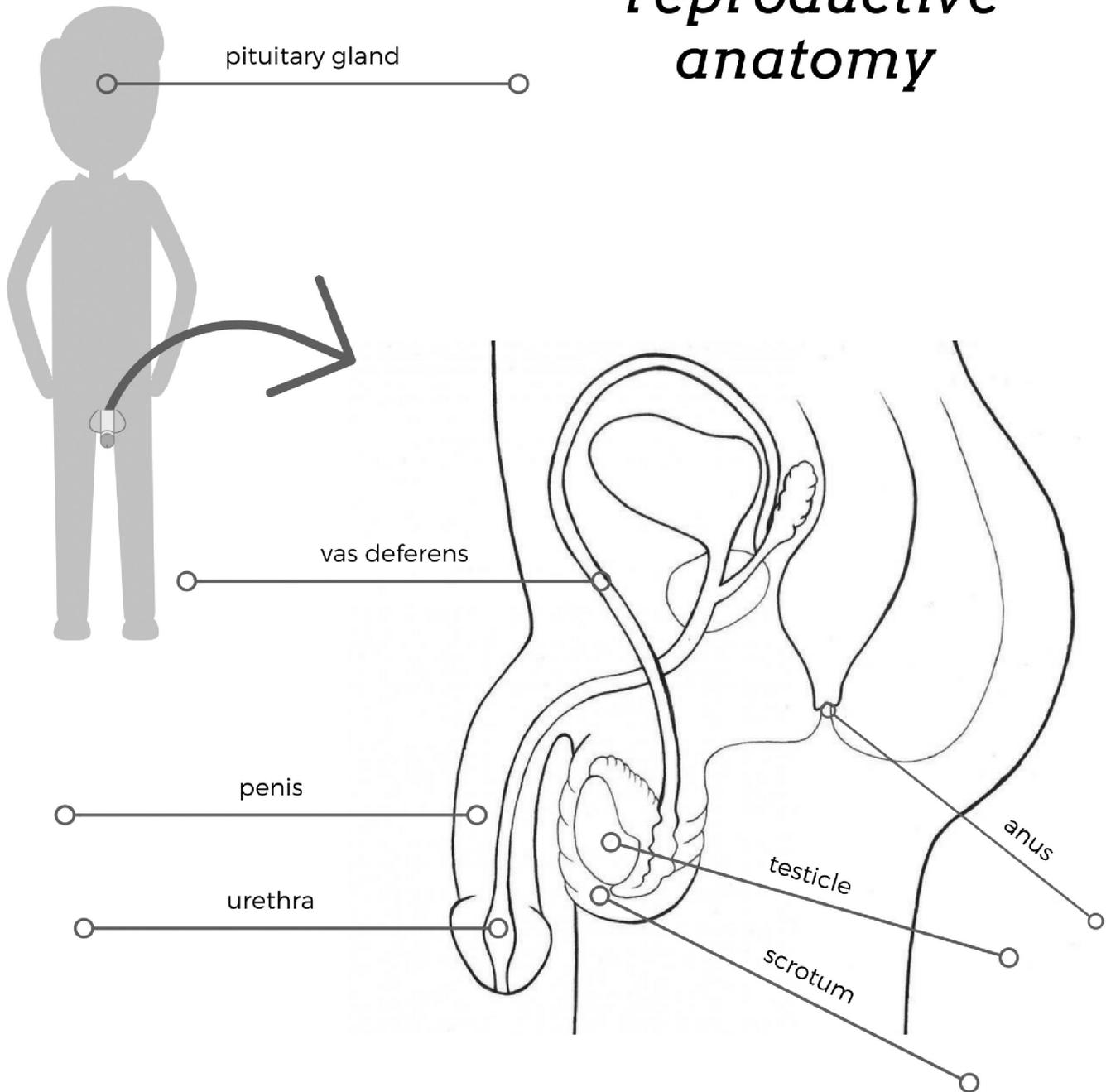
vas deferens

anus

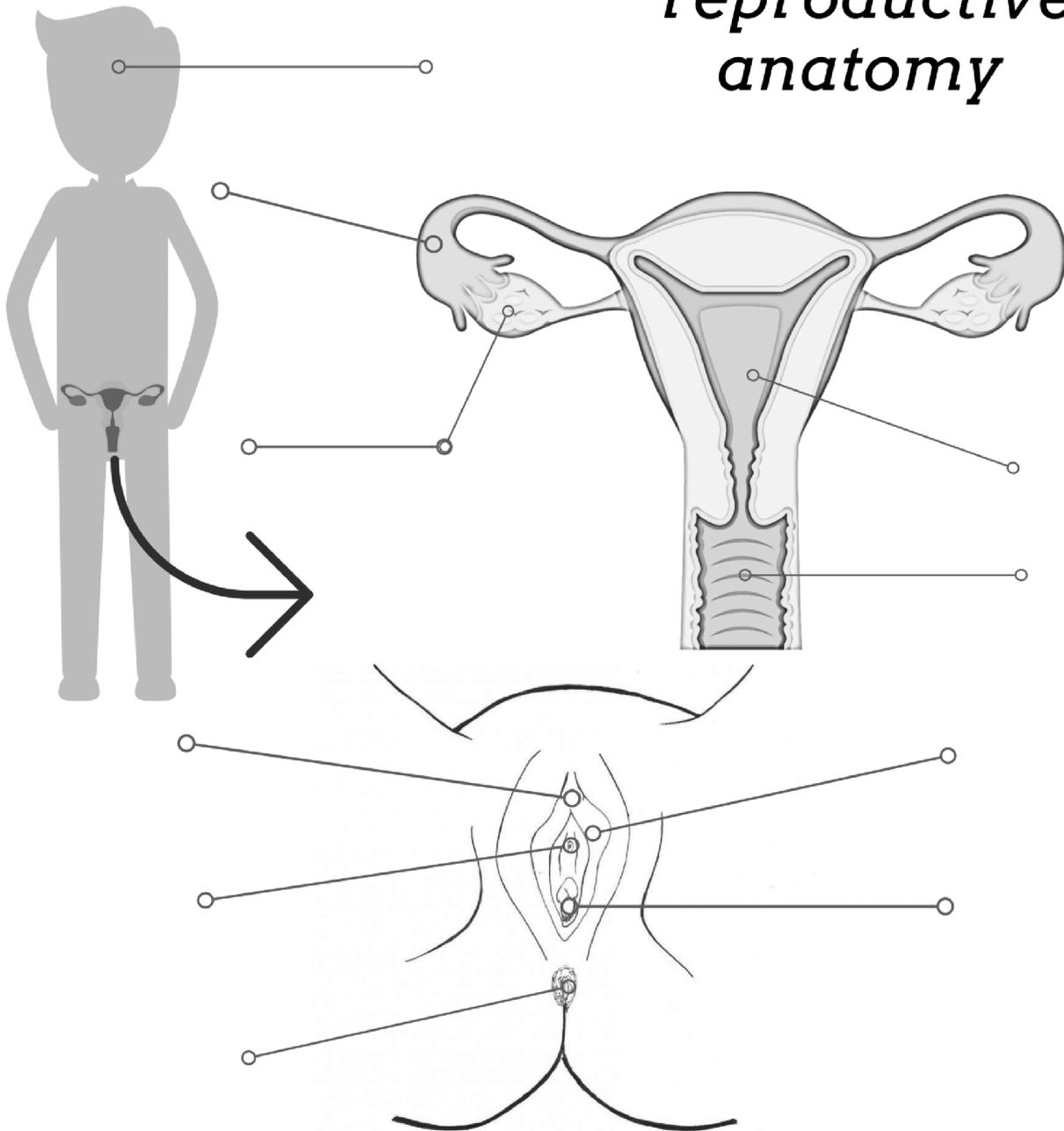
pituitary gland

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# *male reproductive anatomy*



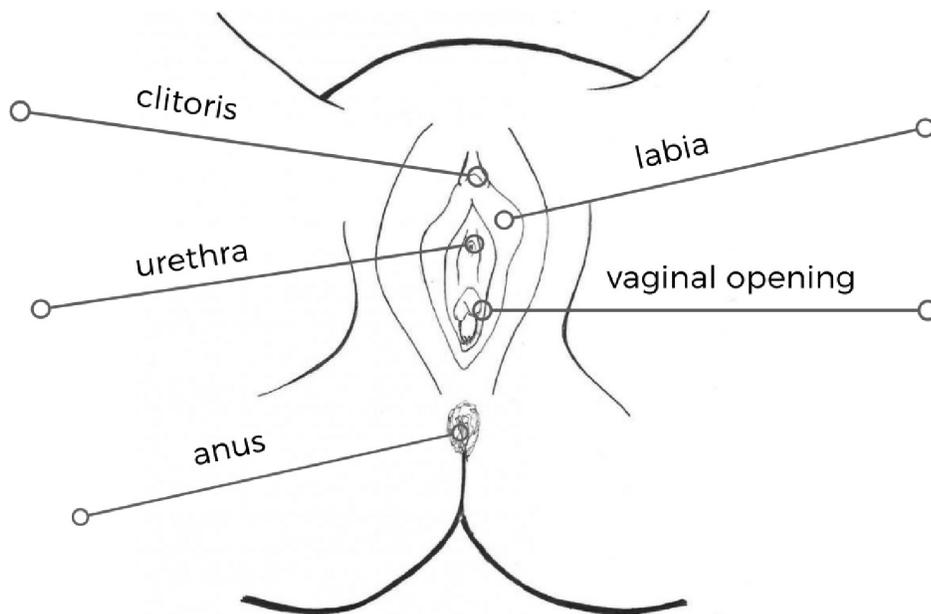
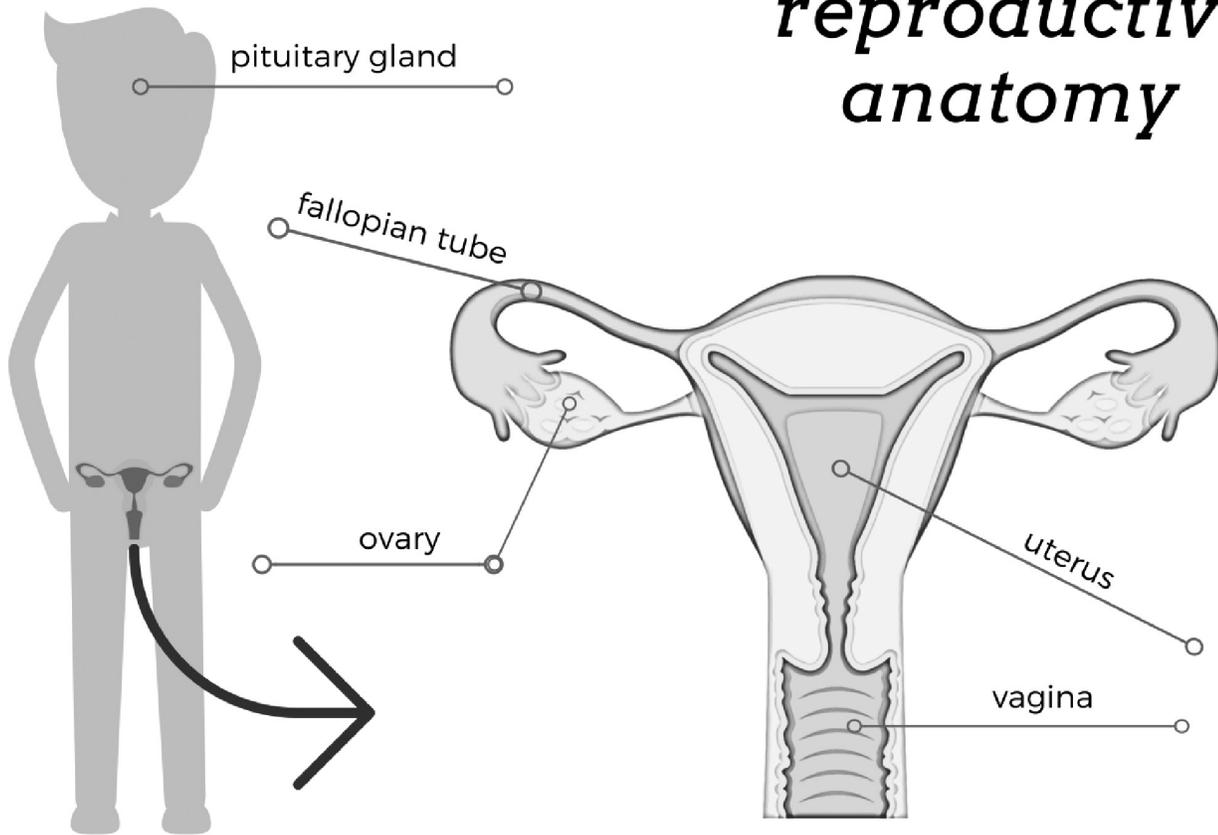
# female reproductive anatomy



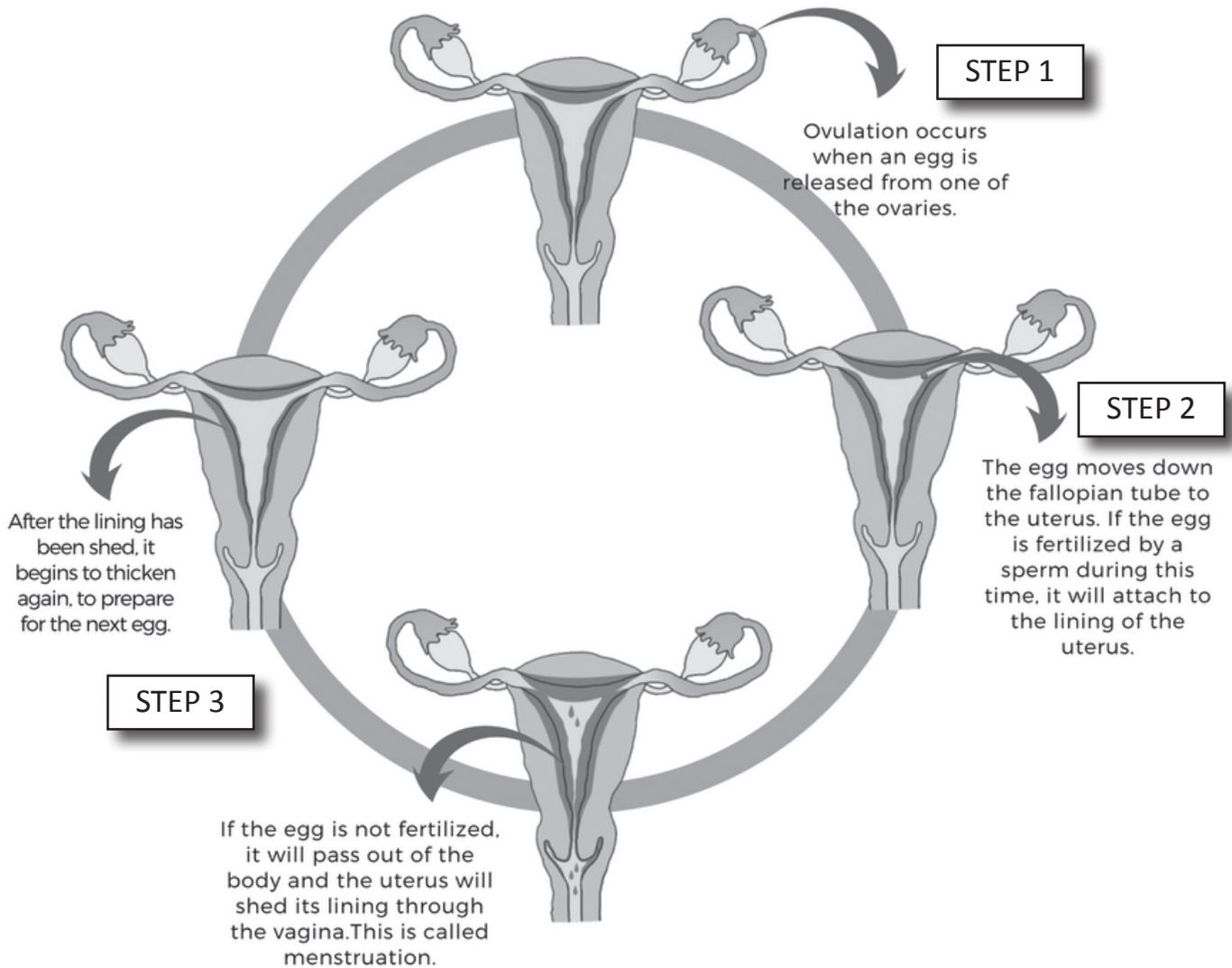
## word bank

clitoris    pituitary gland    urethra    fallopian tube  
anus    vagina    labia    uterus    ovary    vaginal opening

# female reproductive anatomy



## Ovulation & Menstruation



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## Ovulation & Menstruation

Next to each arrow, describe what is going on at the stage of the menstrual cycle.

