



6th Grade

Human Growth And Development



Standards

10.1.6 A. Describe growth and development changes that occur between childhood and adolescence and identify factors that can influence these changes.

- Education
- Socioeconomic

10.1.6 B. Identify and describe the structure and function of the major body systems.

- Endocrine
- Reproductive

10.1.6 C. Analyze nutritional concepts that impact health.

- Healthful food selection

10.1.6 D. Identify health problems that can occur throughout life and describe ways to prevent them.

- Diseases (e.g., cancer, diabetes, STD/HIV/AIDS, cardiovascular disease)
- Preventions (i.e., do not smoke, maintain proper weight, eat a balanced diet, practice sexual abstinence, be physically active)



Classroom Expectations

- Participate in an appropriate manner.
- Use proper terminology (do not use slang).
- Share today's information with your parents/guardians. Not with younger students... it's not their time)
- Show respect for self and others.



Unit Overview

1

Puberty, Hygiene, Self-Care Review and the Function of the Male Reproductive System

2

Social Changes and the Function of the Female Reproductive System

3

Fertilization



Learning Objectives

Students will be able to...

- understand how to manage physical changes during puberty, including personal hygiene and self-care.
- identify the parts and functions of the reproductive system.
- identify emotional changes, such as stress management and coping strategies.
- navigate social changes, including communication skills and conflict resolution.
- make healthy choices regarding nutrition, exercise, and other lifestyle factors.

Why?



Learning about human growth and development in 6th grade is essential for several reasons...

Understanding Changes: At this age, physical, emotional, and social changes are significant. Understanding development helps you recognize your own changes and those of your peers, fostering empathy and support.

• **Promoting Respect:** Understanding the diverse experiences you and your peers will encounter encourages respect and appreciation for developmental differences. This helps reduce stereotypes and fosters a more inclusive environment.

• **Healthy Relationships:** Understanding differences in development helps build healthy relationships. You will learn to communicate more effectively, respect boundaries, and appreciate individual experiences.

• **Encouraging Collaboration:** Learning together about development fosters teamwork and collaboration, enabling you to work effectively with all peers.

• **Preparing for Future Challenges:** Knowledge prepares you for real-world interactions and challenges, equipping you with the tools to navigate social situations thoughtfully and respectfully.

The background is a light cream color with decorative elements. In the top left, there are several concentric, wavy lines in shades of yellow and orange. In the top right, there is a green leafy branch. In the bottom left, there is another green leafy branch. In the bottom right, there are more wavy lines in shades of yellow and orange. There are also some small, dark green circular shapes scattered around.

Lesson 1

- Puberty, Hygiene, and Self-Care Review
- The Function of the Male Reproductive System

An illustration of a male teacher with a mustache, wearing a green long-sleeved shirt and dark blue trousers, standing to the right of a green chalkboard. He is holding a brown folder in his left hand and gesturing with his right hand towards the chalkboard. The chalkboard has a wooden frame and a small white eraser on a shelf at the bottom. The background is a light yellow with abstract green and orange shapes, including wavy lines and circles. The text on the chalkboard is as follows:

Today we will...

- review what puberty is and the importance of good hygiene and self-care
- identify the male reproductive organs
- understand the function of the male reproductive system

- review what puberty is and the importance of good hygiene and self-care
- identify the male reproductive organs
- understand the function of the male reproductive system

What is Puberty?

Review

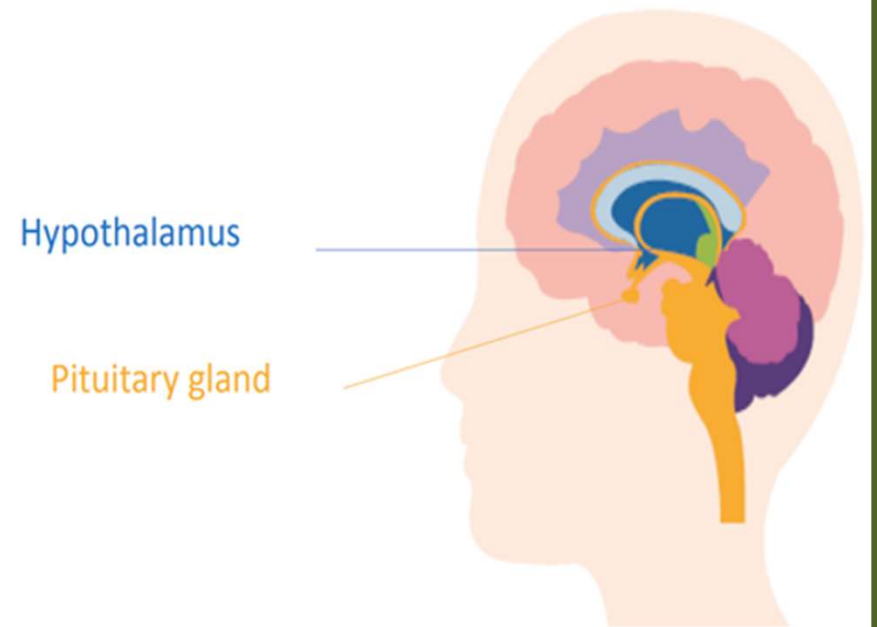
Puberty is the process of physical maturation where an adolescent reaches sexual maturity and becomes capable of reproduction.

What causes Puberty?

Review

- When your body reaches the ages between 8-15, your pituitary gland in your brain releases a special hormone that starts the changes of puberty.
- What are hormones? Hormones are chemical messengers that tell the body what to do.
 - Males = testosterone
 - Females = estrogen

Changes Start Happening in Your Brain



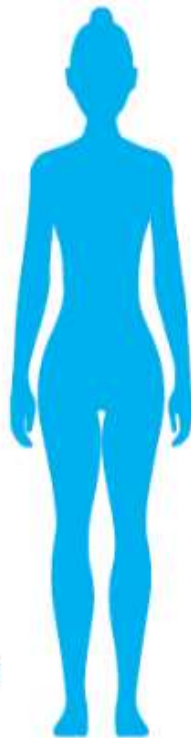
Signs of Puberty and Adolescence

Review

- Breasts begin to develop and grow

- Vaginal discharge begins

- Body becomes curvy as hips widen



- Emotions and feelings may seem stronger

- Brain development improves the way you think and understand

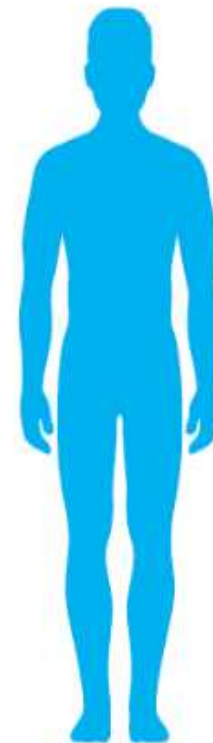
- New feelings of attraction may begin

- You grow taller and heavier as bones increase in size

- Hair and skin become oily, spots may develop

- Sweating increases

- Body hair grows – e.g. legs, pubic, facial



- Adam's apple enlarges

- Voice deepens

- Penis and testicles grow

Hygiene and Self-Care

Review

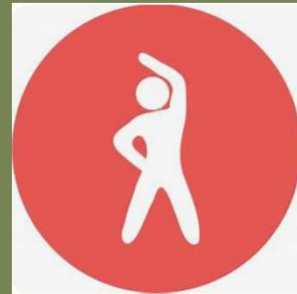
Sleep



Nutrition



Exercise



Hygiene



Nutrition

Review



- ✓ Eat a well-balanced diet.
- ✓ Drink plenty of water.
- ✓ Eat regular meals.
- ✓ Avoid eating when you are bored.
- ✓ Limit junk food.
- ✓ Eat more vegetables, fruits, and protein.
- ✓ Don't skip meals.

Sleep

Review

How many hours of sleep should you get each night?

- It is recommended for children ages 6-12 to have 9-12 hours of sleep per 24 hours



What are some routines you can put into place that will help you get the appropriate amount of sleep?



Exercise



Review

How many minutes of exercise per day is recommended?

- 60 minutes of moderate to vigorous exercise per day.

What does exercise do for my body and brain?

- Improves memory and thinking skills.
- It also improves one's mood and sleep and reduces stress and anxiety.

What is Good Hygiene?

Review



Male Anatomy





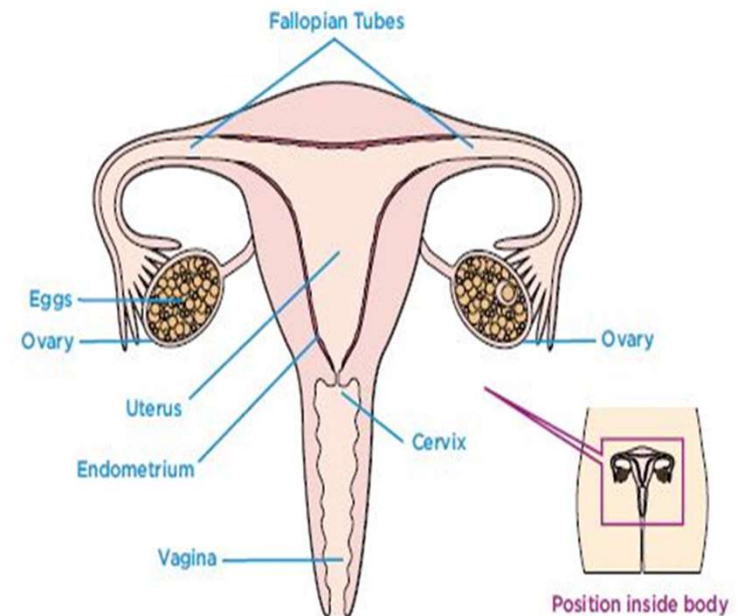
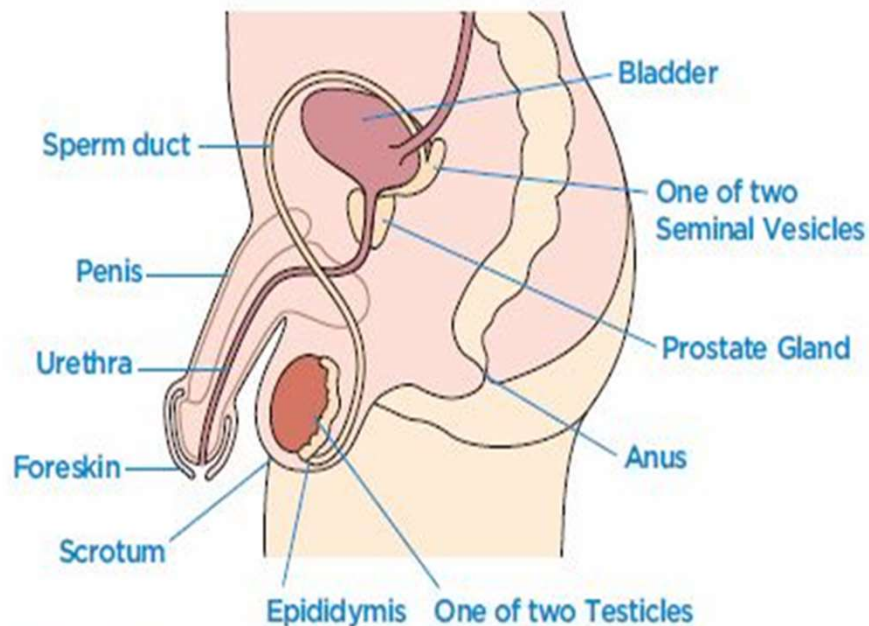
Male
Stages
of
Development



The Reproductive Systems

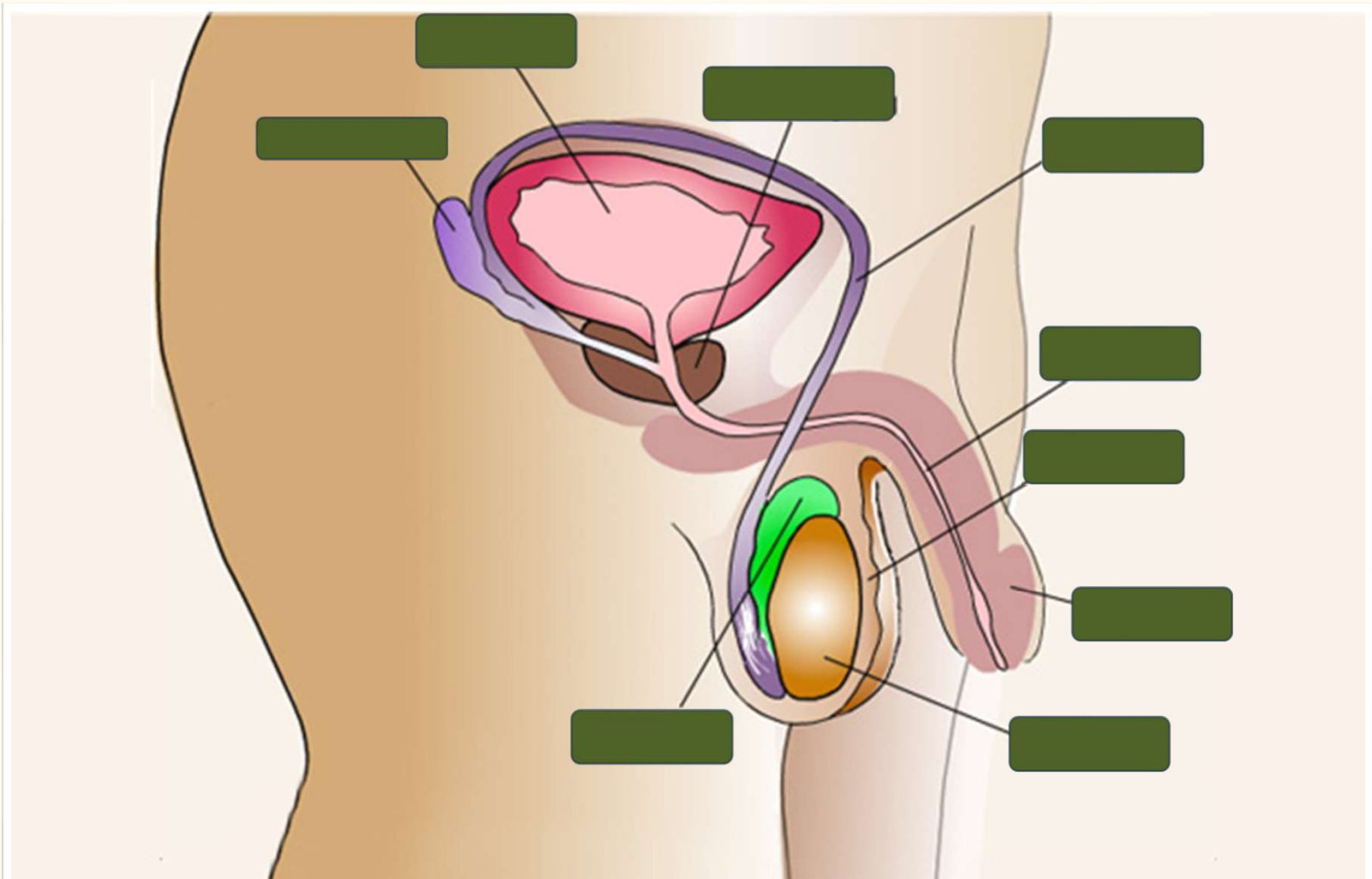
Review

The reproductive system is a system of organs and parts made up of the internal and external sex organs that function in the reproduction of babies.



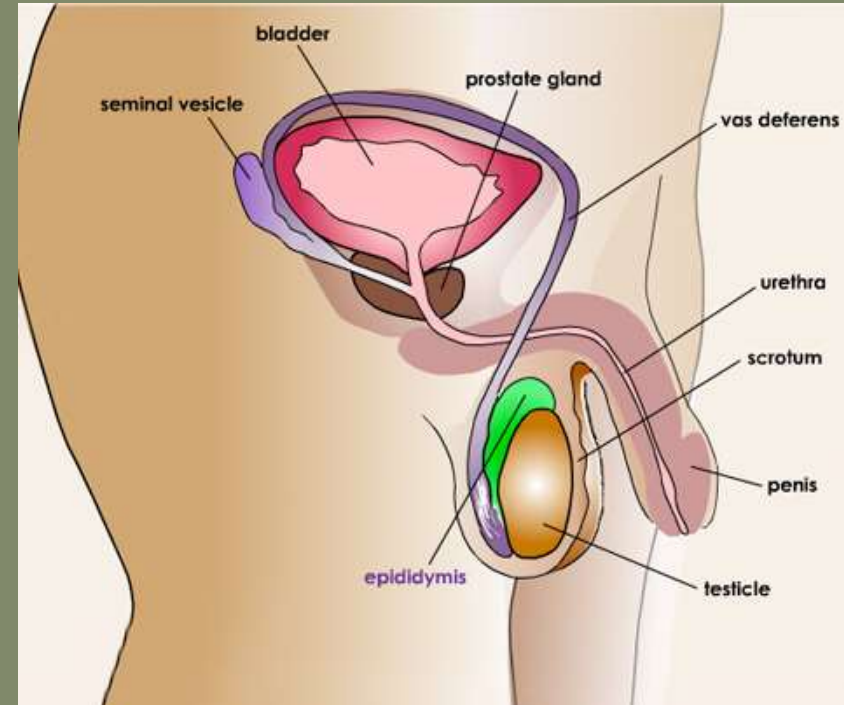
Male Reproductive System Functions

The Male Reproductive Anatomy



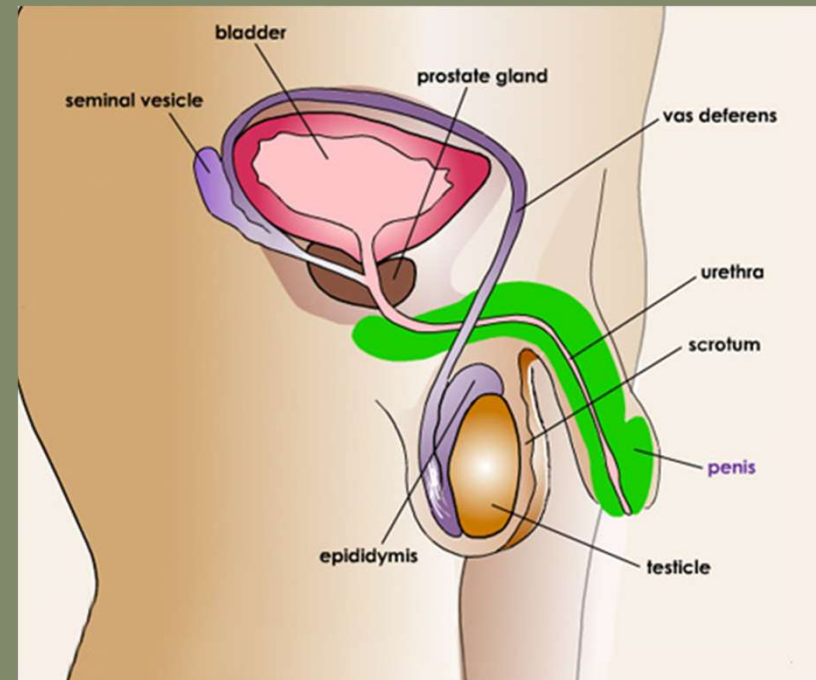
Epididymis

- Next to each testicle, the epididymis is a light-colored tube where sperm is stored. From here, sperm are transported to the vas deferens.



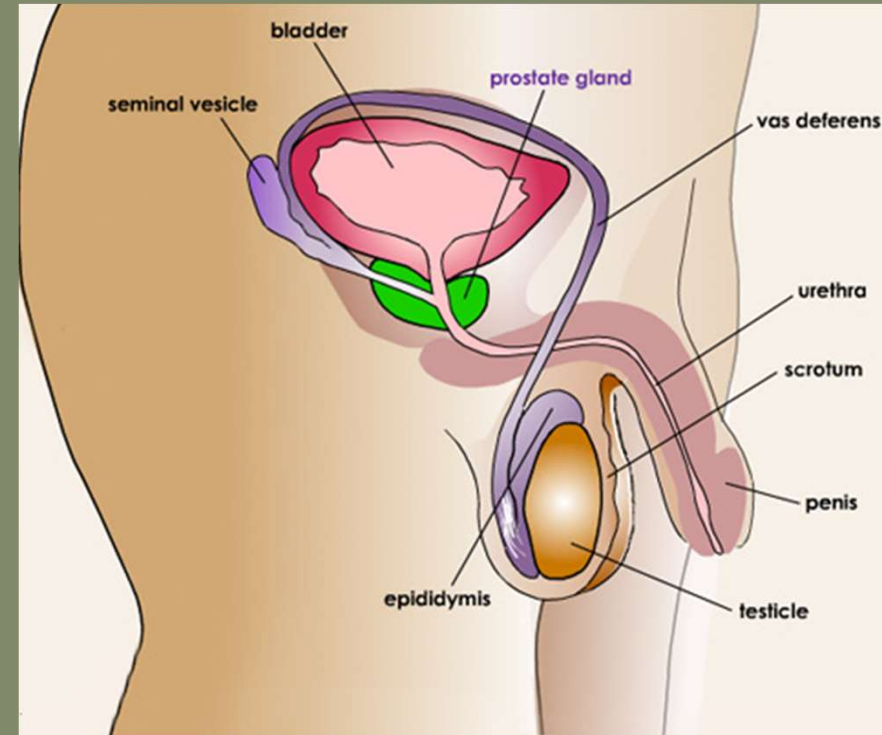
Penis

- The 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.



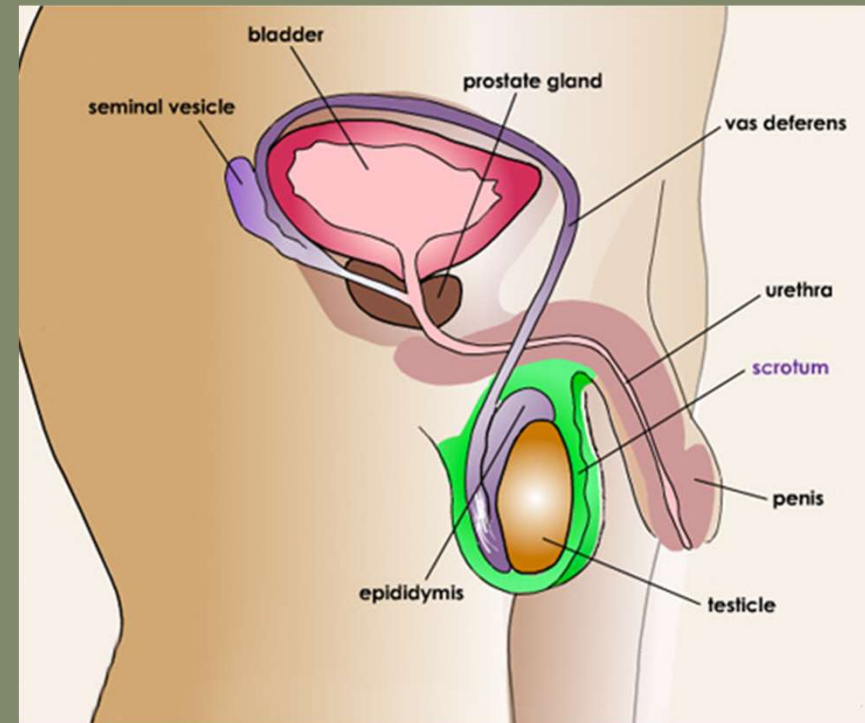
Prostate Gland

- This walnut-sized gland surrounds a portion of the urethra and produces some of the fluid in semen.



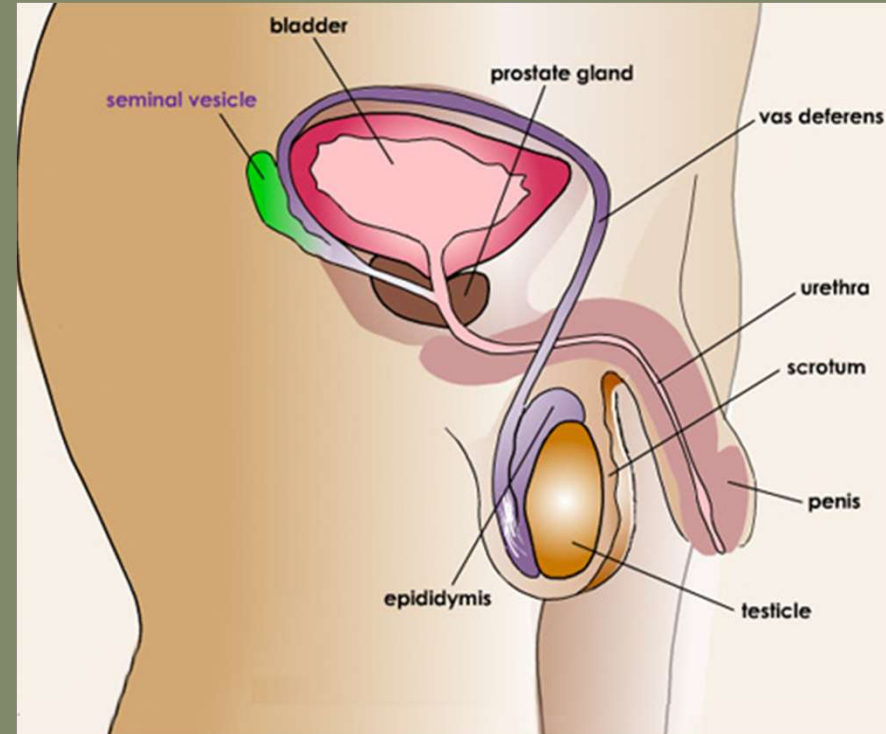
Scrotum

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



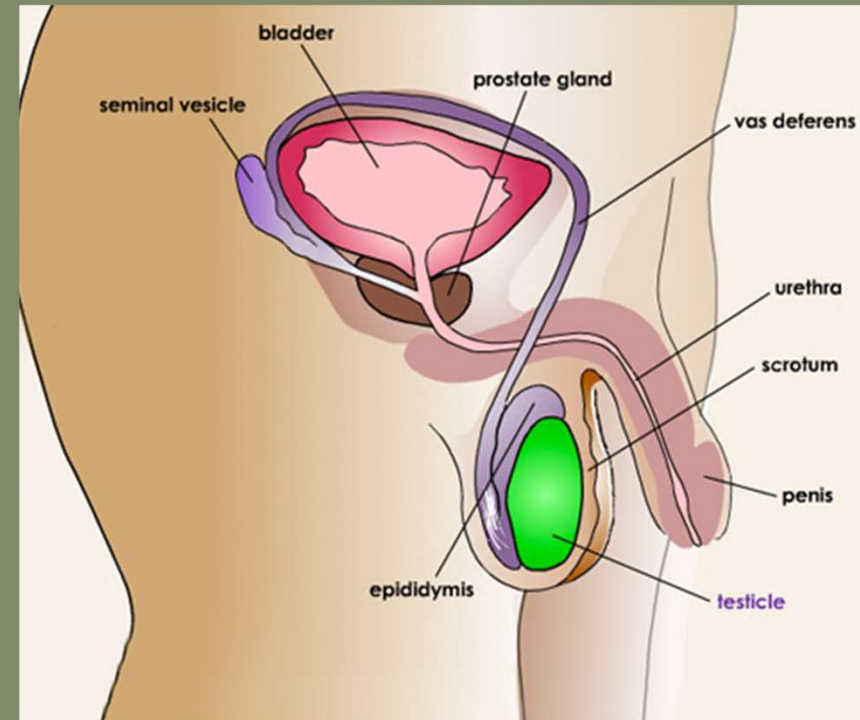
Seminal Vesicle

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



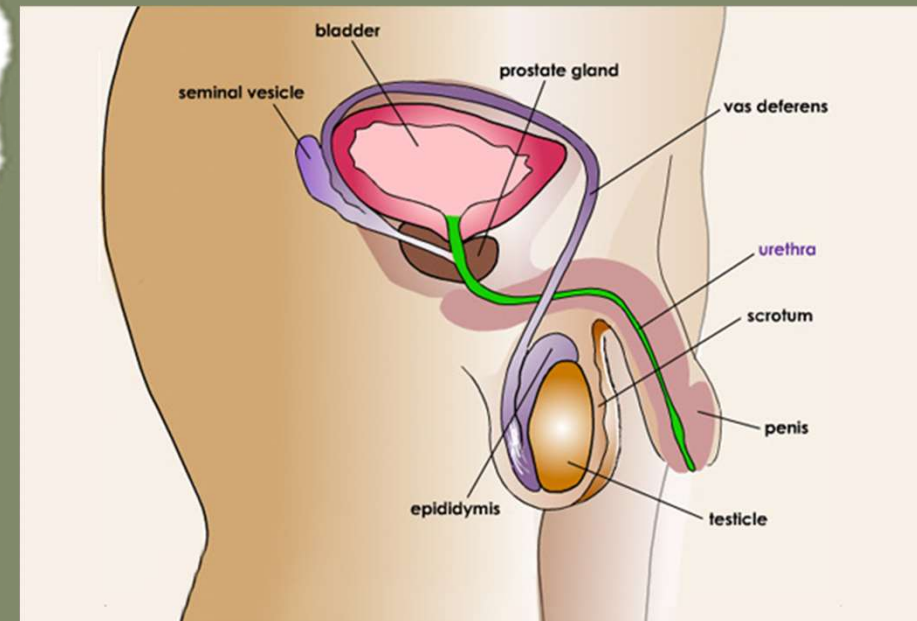
Testicle

- The two testicles (or testes) produce sperm and the male sex hormone testosterone.



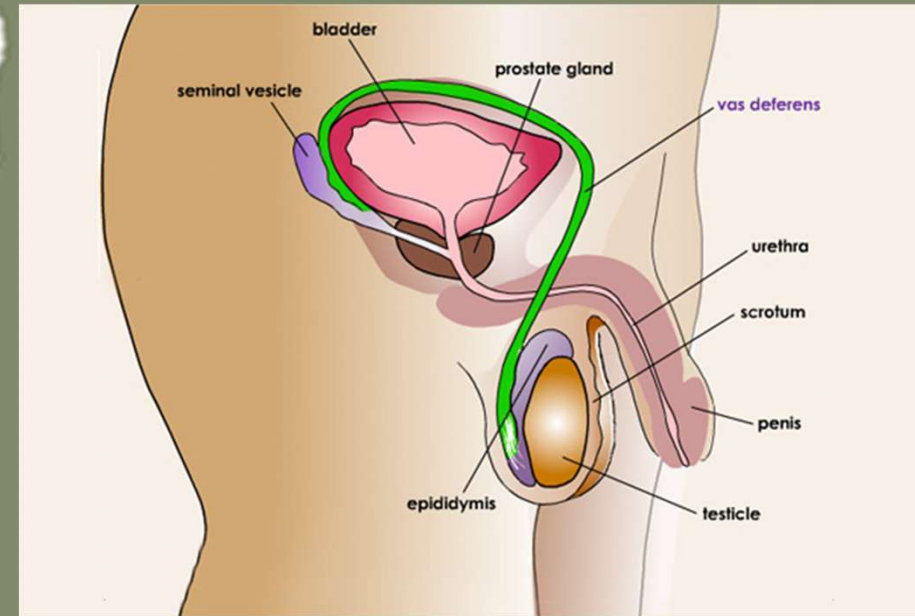
Urethra

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



Vas Deferens

- This thin muscular tube transports the sperm from the epididymis to the urethra.



Checking for Understanding

Vocabulary Quiz- Male

Directions: Match the words at the top with their descriptions below.

- | | |
|-----------------------|-------------------|
| A. Puberty | H. Epididymis |
| B. Sperm cells | I. Ejaculation |
| C. Erection | J. Genitals |
| D. Testosterone | K. Semen |
| E. Scrotum | L. Testicles |
| F. Nocturnal emission | M. Prostate gland |
| G. Hypothalamus | N. Penis |

1. ____ Releasing semen while asleep or almost asleep. It is also called a "wet dream."
2. ____ The principle external male reproductive organ.
3. ____ The external organs of the reproductive system.
4. ____ The period during which children experience the physical changes of growing up.
5. ____ A storage chamber, attached to each testicle, where sperm cells are nourished and mature.
6. ____ The release of semen from the penis.
7. ____ A gland that surrounds the male urethra. It contributes a milky fluid that makes up the largest part of the semen.
8. ____ The tiny cells in a male, shaped like tadpoles that contain half the genetic material necessary to create a baby.
9. ____ The main male hormone which must be released for puberty to begin in males.
10. ____ The sticky white fluid that helps transport sperm through the urethra and out the tip of the penis during ejaculation.
11. ____ The area of the brain that is responsible for sending the message to the pituitary gland to start production of the hormones necessary for puberty to begin.
12. ____ The sac of loose skin that hangs under a male's penis and contains the testicles.
13. ____ The enlarging and hardening of the penis.
14. ____ Two oval-shaped glands contained in the scrotum that make sperm.

Answers

Part II: Vocabulary Quiz- Male

Directions: Match the words at the top with their descriptions below.

- | | |
|-----------------------|-------------------|
| A. Puberty | H. Epididymis |
| B. Sperm cells | I. Ejaculation |
| C. Erection | J. Genitals |
| D. Testosterone | K. Semen |
| E. Scrotum | L. Testicles |
| F. Nocturnal emission | M. Prostate gland |
| G. Hypothalamus | N. Penis |

1. F Releasing semen while asleep or almost asleep. It is also called a "wet dream."
2. N The principle external male reproductive organ.
3. J The external organs of the reproductive system.
4. A The period during which children experience the physical changes of growing up.
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13. C The enlarging and hardening of the penis.
14. L Two oval-shaped glands contained in the scrotum that make sperm.



Closure

- Understanding how to take care of our bodies is an important way to support our overall health and wellness.
- Everyone goes through puberty when it is the right time for them.
- Understanding the male reproductive system, the parts, functions and appropriate vocabulary will allow me to understand how the body works.

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Lesson 2

- Social Changes
- Function of the Female Reproductive System

An illustration of a female teacher with dark hair, wearing a mustard-colored cardigan and brown trousers, standing to the right of a large green chalkboard. She is holding a small yellow object (possibly a piece of chalk) in her right hand and a book in her left. The chalkboard has a wooden frame and a small white eraser on the ledge. The background is a light yellow with stylized green plants and orange circular patterns.

Today we will...

- understand the concepts of independence, peer influence, and peer pressure during puberty.
- identify the female reproductive organs
- understand the function of the female reproductive system

Social Signs of Puberty

- ✓ Independence from parents/guardians
- ✓ Peer influence and acceptance becomes important
- ✓ Peer relationships
- ✓ Peer pressure increases



What does it mean to be dependent?

Being **dependent** means relying on someone else for help or support. When you're **dependent**, you need others to assist you with things like making decisions, taking care of daily tasks, or even providing emotional support. For example, younger kids often **depend** on their parents for things like meals, transportation, and guidance. It's a normal part of growing up, but as people get older, they usually work towards being more independent!



What does it mean to be independent?



Being **independent** means being able to take care of yourself and make your own choices without always relying on others.

It means you can do things on your own, like managing your time, solving problems, and handling responsibilities.

Independent people can think for themselves and make decisions that are best for them, whether it's about what to wear, what to eat, or how to spend their free time.

It's an important part of growing up!





Independence vs. Dependence

The transition from childhood dependence to adolescent independence is about growing up and learning to take care of oneself while still having support from family. This time may also cause challenges with friends and family dynamics.

It's a normal part of becoming a teenager!

Discussion



How can the shift from childhood to adolescent affect relationships with family and peers?



Relationships with Family



Increased Self-Control: You may start to seek more independence and start making your own decisions. This could lead to conflicts with parents or guardians.

Communication Changes: You may begin to express thoughts and feelings more openly. While this can enhance understanding, it may also lead to misunderstandings or arguments as both sides adjust to new ways of communicating.

Shifting Roles: You may start to see yourself as an equal in family discussions, which can shift the parent-child dynamic. This change can foster greater respect but may also lead to power struggles.

Emotional Distance: You might feel a need to assert independence by distancing yourself emotionally from your family. This can create a sense of separation, making it challenging for parents to connect.

Support Needs: As you navigate new challenges, such as academic pressures and social dynamics, you will still need parental/family support, even while seeking independence. This need for support can sometimes lead to confusion or frustration.

Relationships with Peers



Social Identity Formation: You may become more focused on peer relationships, which can lead to a stronger sense of identity based on group affiliations. This shift can create new friendships but may also lead to the exclusion of others.

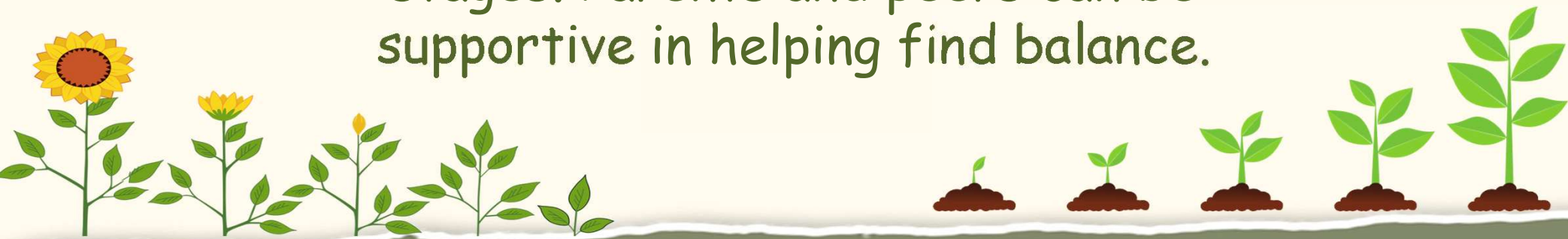
Peer Influence: With growing independence, peers may have a stronger influence on choices related to behavior, interests, and even values. This can sometimes conflict with family expectations and create tension.

Conflict and Rivalry: As social dynamics become more complex, you may experience more conflicts with friends, stemming from competition, jealousy, or misunderstandings. Navigating these challenges is part of learning how to manage relationships.

Friendship Quality: The nature of friendships may deepen, seeking more meaningful connections. However, this can also lead to hurt feelings if friendships change or if peers do not reciprocate the same level of commitment.

Acceptance and Belonging: The desire for acceptance can lead to exploring different social groups. This exploration is crucial for personal growth but can also result in peer pressure and the risk of engaging in unhealthy behaviors.

Social changes that occur during puberty may require adjustments and open communication to help navigate the challenges that may arise during these stages. Parents and peers can be supportive in helping find balance.





What is peer influence?

Peer Influence is when the opinions, behaviors, or choices of friends or classmates affect how you think or act.

During puberty, a time when kids start to change and grow, peer influence can play a big role in shaping behaviors and choices.

For example, if your friends are interested in certain activities, like sports or music, you might feel encouraged to join in because you want to fit in or be part of the group.



Acceptance

Desire for Acceptance is the wish to be liked and valued by your friends. This desire can impact decision-making a lot. When kids want to be accepted, they might make choices based on what their peers think is cool or popular, even if those choices aren't the best for them. For instance, they might try something risky, like skipping school or trying a new style, just to feel included.

In summary, *peer influence* and the desire for *acceptance* can strongly affect how kids behave and what choices they make during puberty. Understanding this helps kids make better decisions and find their own path while still appreciating their friendships.



What is peer pressure?

Peer pressure is when you feel influenced by your friends or classmates to do something, whether it's trying new things, behaving a certain way, or making choices.



This pressure can be **positive**, like encouraging you to study or play a sport, or **negative**, like pushing you to do something you know isn't right. It's about wanting to fit in or be accepted by your friends.



Activity:

+ or -

Directions:

- On the following slides, there are 6 scenarios of peer pressure.
- After each scenario is read, as a class, we will vote on whether it is positive + pressure, or negative - pressure.
- Ask for a volunteer to explain why after each scenario.

Scenario #1



Your friends encourage you to join a soccer team because they think it will be fun and good for your health.

+

—

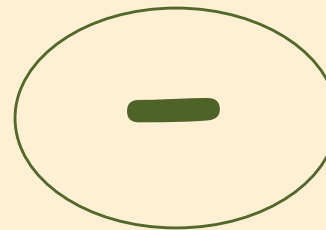
Why?

Scenario #2



During lunch, everyone is trying to convince you to play a game that you're not comfortable with.

+



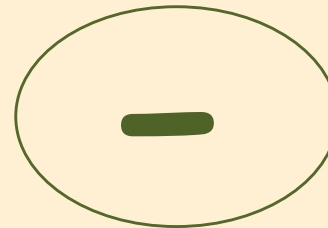
Why?

Scenario #3



Your friends encourage you to eat junk food or drink soda when you're trying to eat healthier.

+



Why?

Scenario #4



Your friends motivate you to study for a big test
and are helping you to stay focused.

+

—

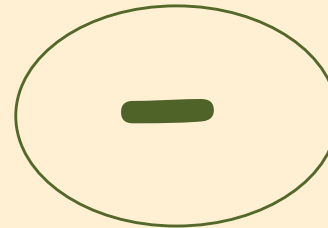
Why?

Scenario #5



Your teammates pressure you to take shortcuts during practice.

+



Why?

Scenario #6




Your friends encourage you to talk to your parents about someone bullying you at school.

+

—

Why?



Understanding peer pressure helps you make
better choices and feel confident in standing up
for what you believe is right!

Female Anatomy





Review

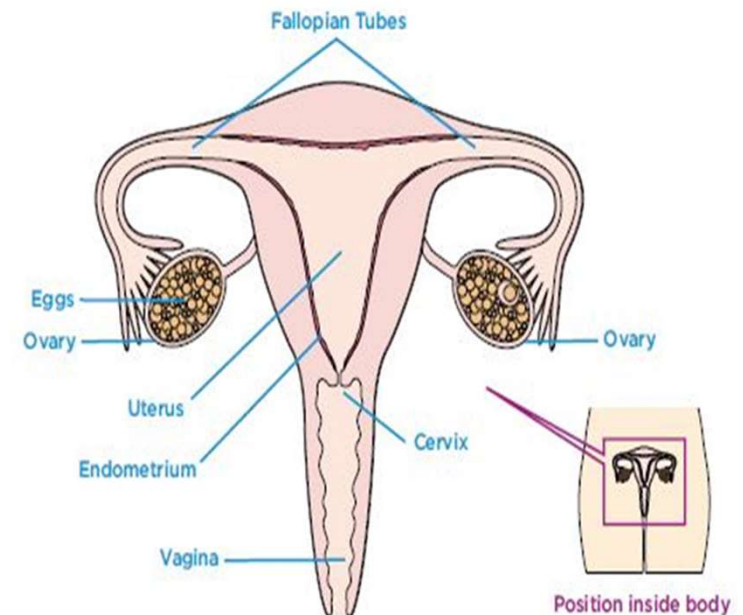
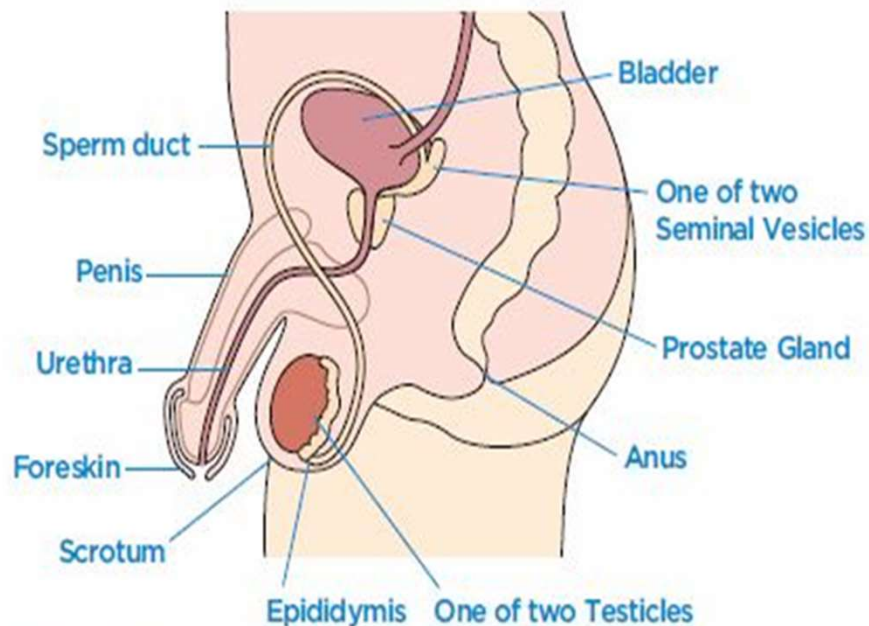
Female
Stages
of
Development



The Reproductive Systems

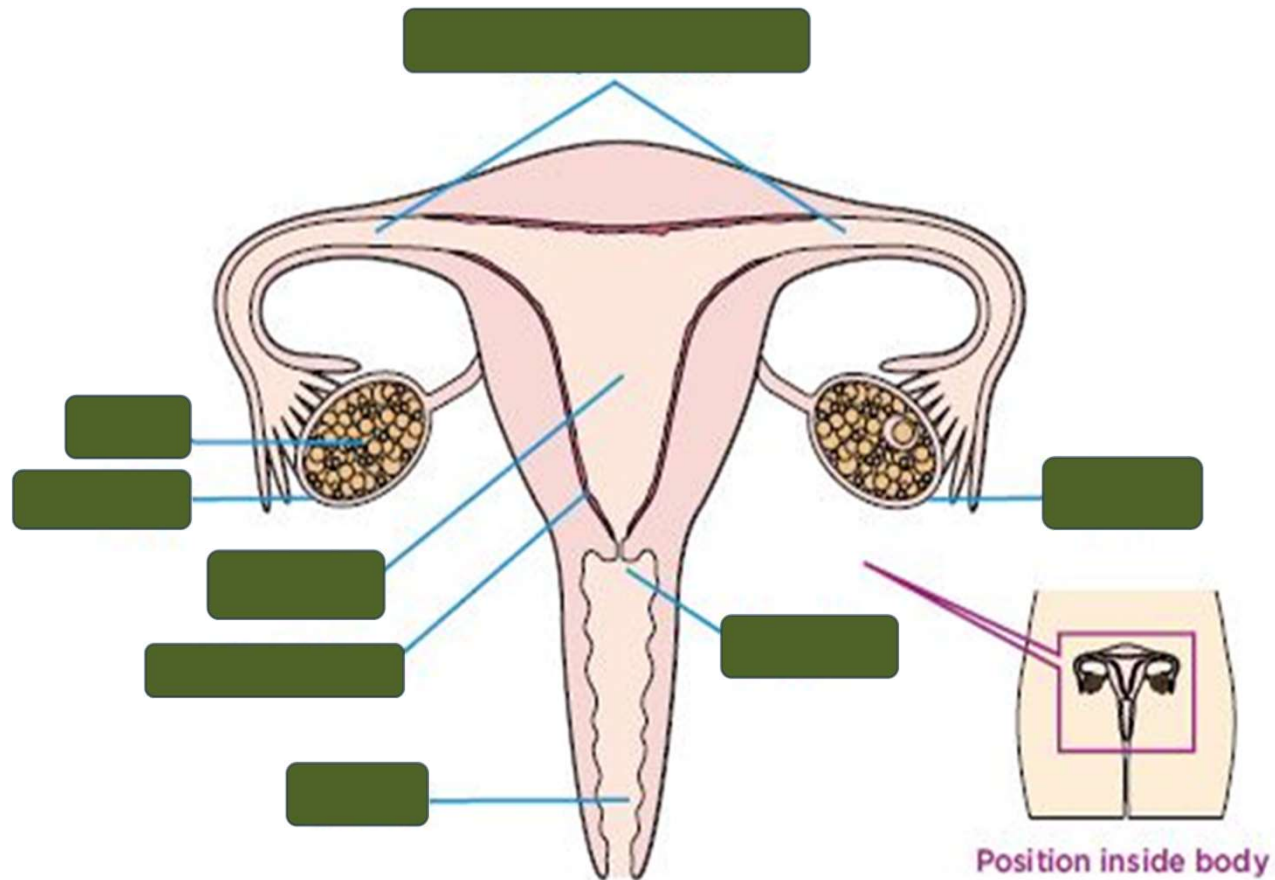
Review

The reproductive system is a system of organs and parts made up of the internal and external sex organs that function in the reproduction of babies.



The Female Reproductive System

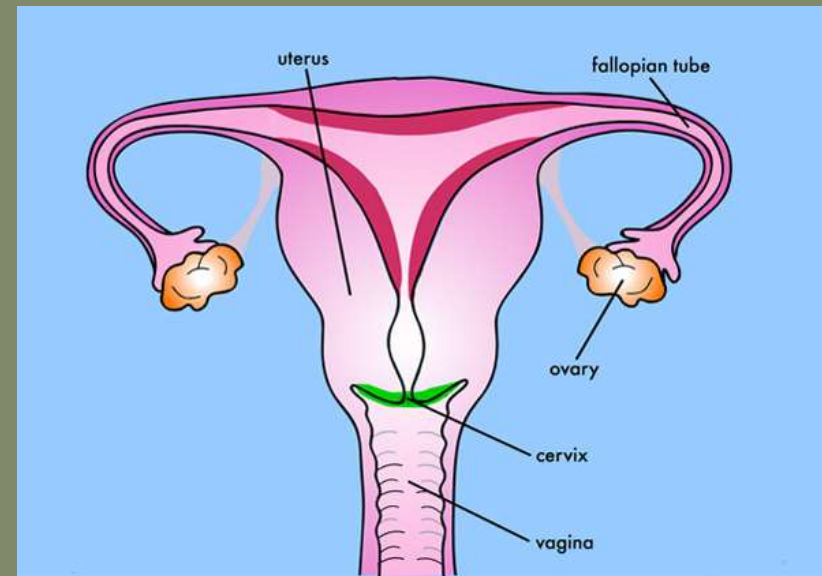
Review



Female Reproductive System Functions

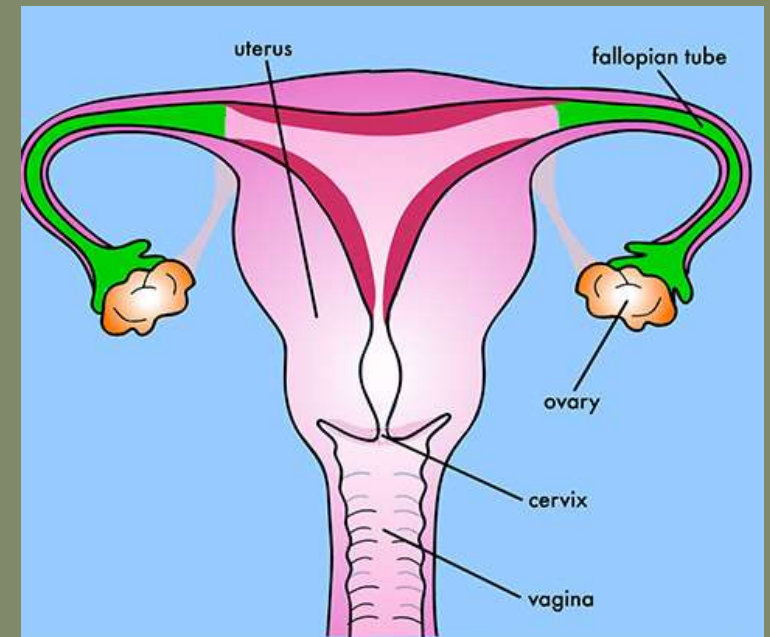
Cervix

- The cervix is the lower part of the uterus that opens into the vagina.



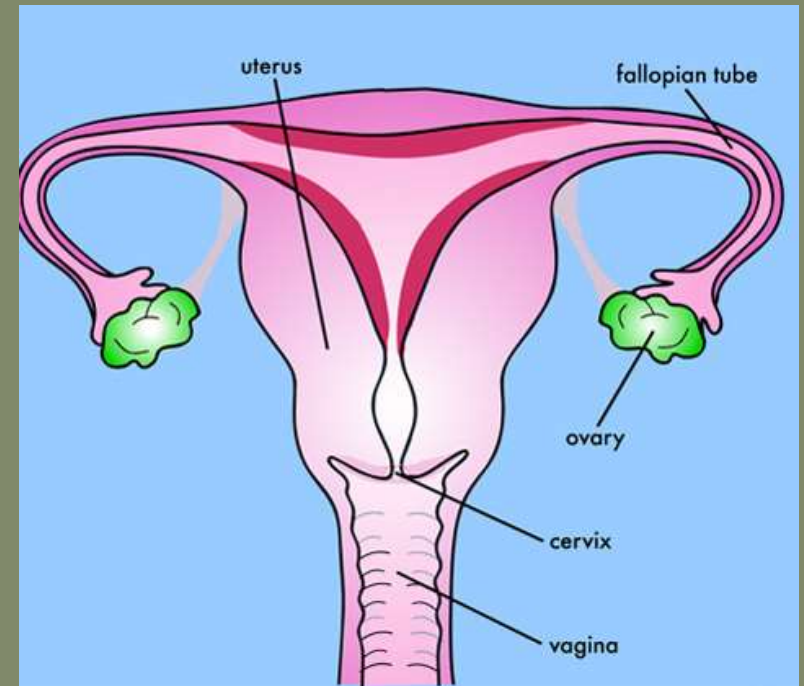
Fallopian Tubes

- Fallopian tubes go from the uterus to the ovaries. During ovulation, an ovary releases an egg into the fallopian tube next to it.



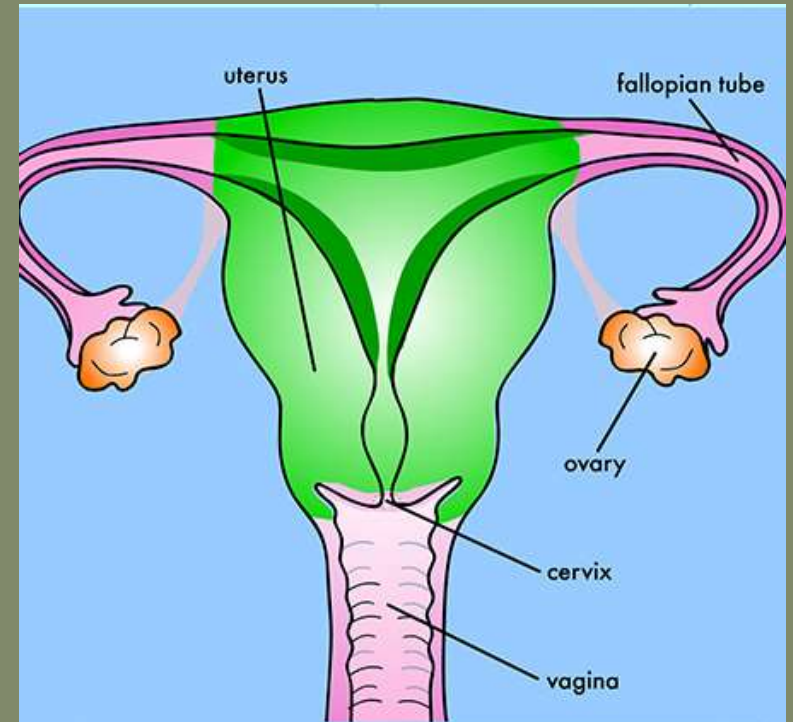
Ovaries

- There are two ovaries, one on either side of the uterus. Ovaries make eggs and hormones like estrogen and progesterone. These hormones help development and make it possible for a woman to have a baby.
- The ovaries release an egg as part of the menstrual cycle. When an egg is released, it's called ovulation. Each egg is tiny - about one-tenth the size of a poppy seed.



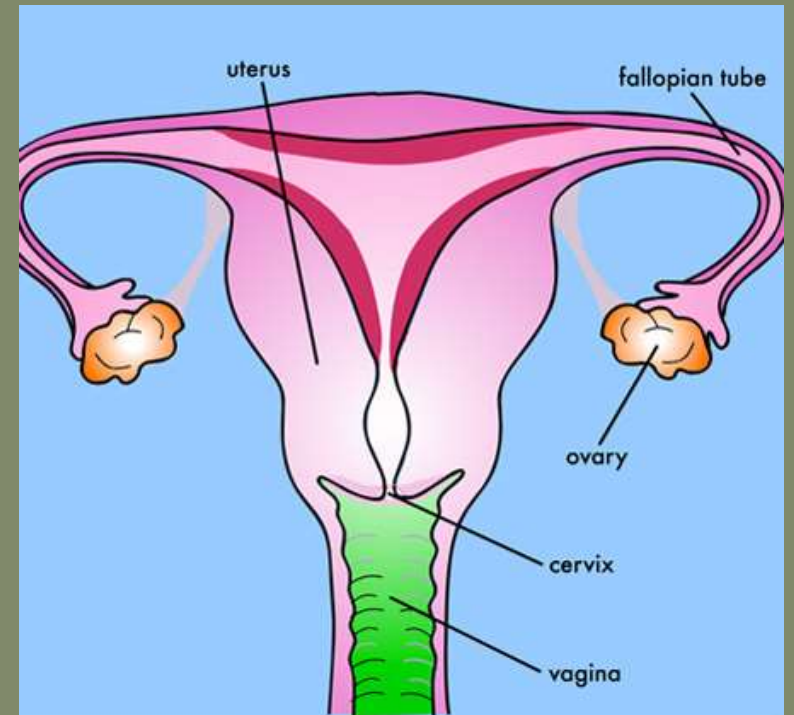
Uterus

➤ The uterus is where a fetus, or baby, grows. It is a hollow, pear-shaped organ with a muscular wall.



Vagina

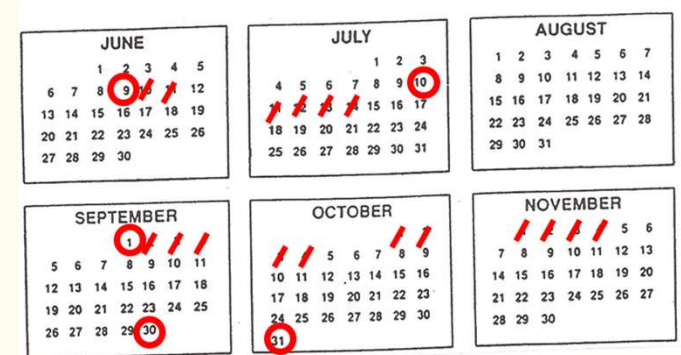
- The vagina is a tube that connects the uterus to the outside of the body. The entrance to the vagina is on the outside of the body. It's called the vaginal opening.



Review

What is menstruation?

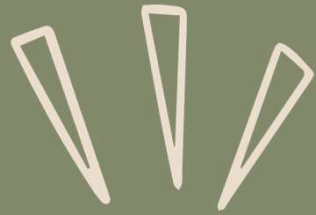
- **Menstruation** is a natural process that happens in the bodies of girls and women. It usually starts during puberty, around ages 9 to 16.
- Each month, the body prepares for a possible pregnancy by thickening the lining of the uterus. If there's no pregnancy, that lining sheds, and blood comes out through the vagina.
- This cycle typically lasts about 3 to 7 days and happens roughly every month. It's a normal part of growing up!



THE MYSTERIES OF LIFE

WITH CASSIE & RITA





Checking for Understanding

Lesson 2: Vocabulary Quiz

Directions: Match the words at the top with their descriptions below.

Dependent independent peer pressure estrogen vagina
Period cervix fallopian tubes ovaries uterus

1. Understanding _____ helps you make better choices and feel confident in standing up for what you believe is right.
2. Being _____ means being able to take care of yourself and make your own choices without always relying on others.
3. The hormone _____ causes changes to begin to take place in a female's body.
4. The group of days during menstruation is called the _____.
5. Every month or so, an egg cell is released by one of the _____ found inside a female's body.
6. The lining of the _____ breaks up and leaves the body as menstrual flow.
7. Being _____ means relying on someone else for help or support.
8. The _____ is the lower part of the uterus that opens into the vagina.
9. During ovulation, an ovary releases an egg into the _____.
10. The _____ is where a fetus, or baby, grows.



Lesson 2: Vocabulary Quiz

Directions: Match the words at the top with their descriptions below.

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Period cervix fallopian tubes ovaries uterus

1. Understanding PEER PRESSURE helps you make better choices and feel confident in standing up for what you believe is right.
2. Being INDEPENDENT means being able to take care of yourself and make your own choices with always relying on others.
3. The hormone ESTROGEN causes changes to begin to take place in a female's body.
4. The group of days during menstruation is called the PERIOD.
5. Every month or so, an egg cell is released by one of the OVARIES found inside a female's body.
6. The lining of the UTERUS breaks up and leaves the body as menstrual flow.
7. Being DEPENDENT means relying on someone else for help or support.
8. The CERVIX is the lower part of the uterus that opens into the vagina.
9. During ovulation, an ovary releases an egg in to the FALLOPIAN TUBES.
10. The UTERUS is where a fetus, or baby, grows.



Closure

- Understanding how to take care of our bodies is an important way to support our overall health and wellness.
- Everyone goes through puberty when it is the right time for them.
- Understanding the female reproductive system, the parts, functions and appropriate vocabulary will allow you to understand how the body works.

Lesson 3

Fertilization

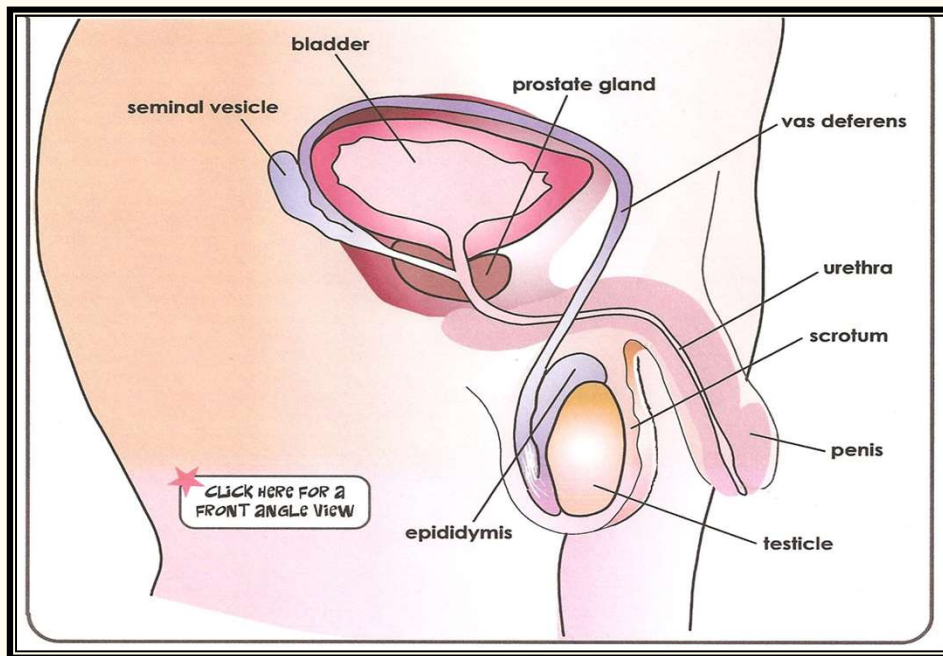


Today we will...

- review the male and female reproductive organs
- understand fertilization and fetal development

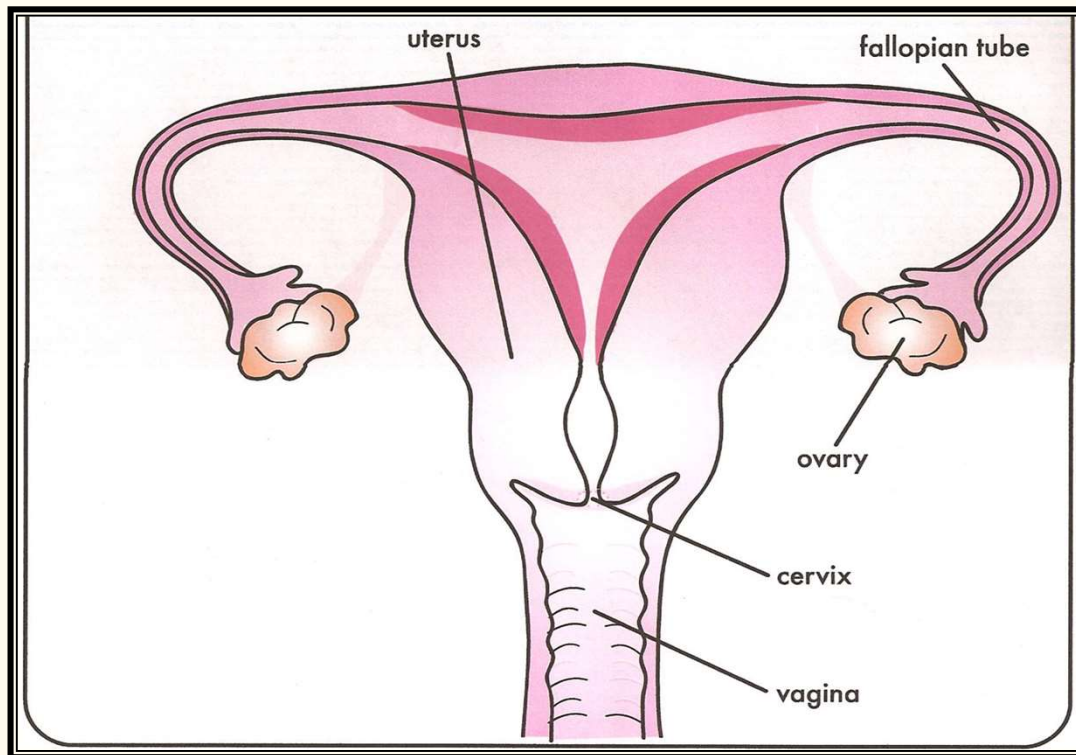


The Reproductive System Male Review



In the male reproductive system, puberty happens when the pituitary starts making more of two hormones, luteinizing hormone (called LH) and follicle-stimulating hormone (called FSH), which cause the testicles to grow and produce the male hormone testosterone. Puberty can begin any time between ages 9-15.

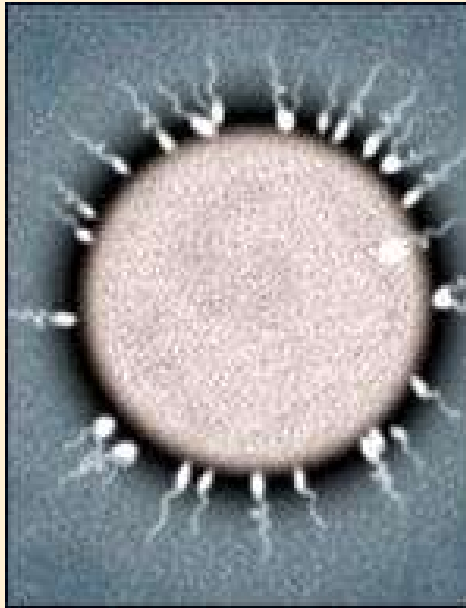
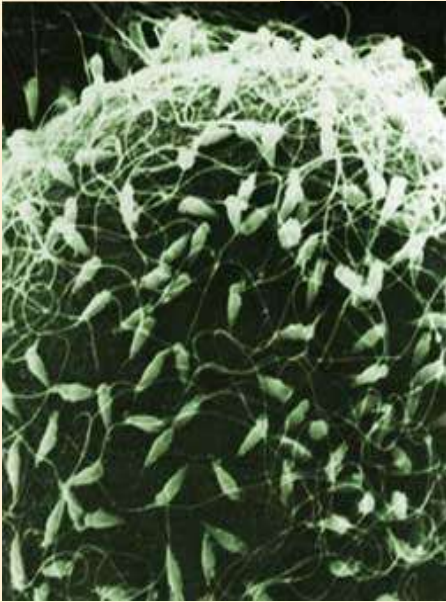
The Reproductive System Female Review



In the female body,
the pituitary glands
and ovaries interact to
start menstruation.
Puberty can start
between 8-13 years of
age.

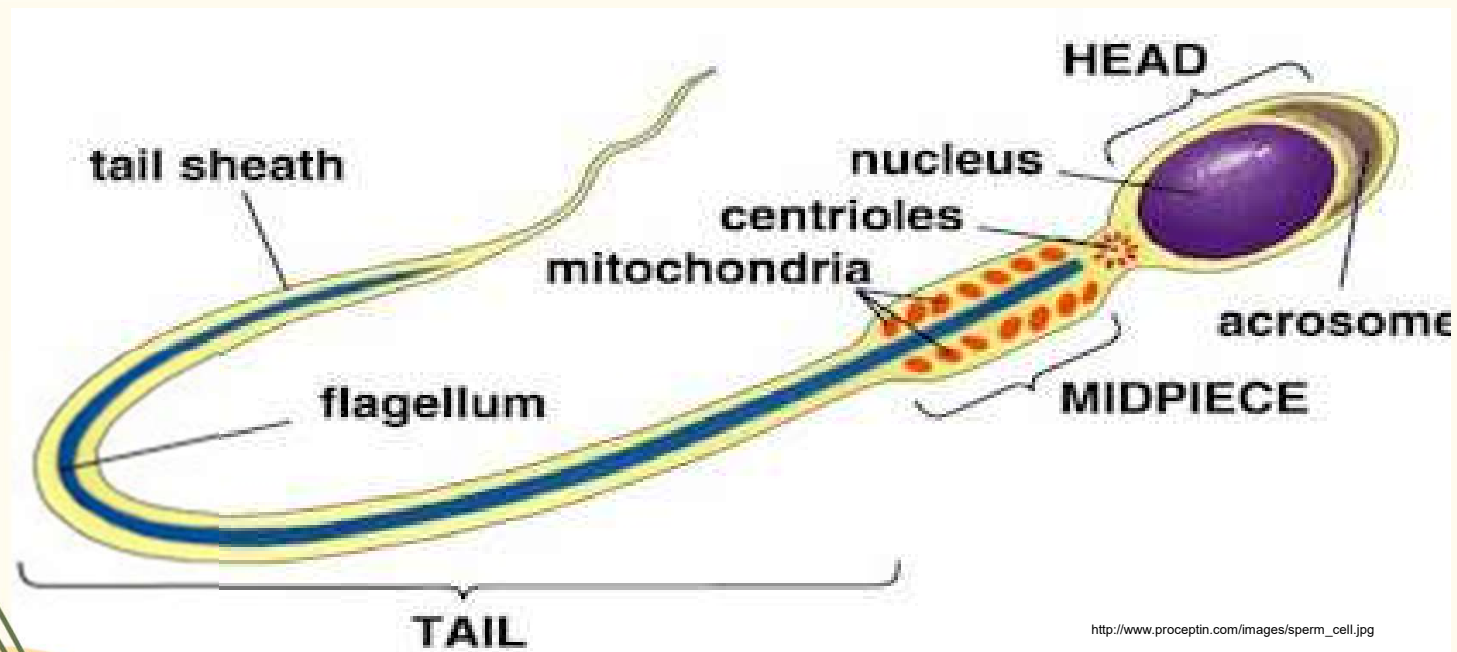
Fertilization

Occurs when sexual intercourse allows the sperm to travel to the ovum.



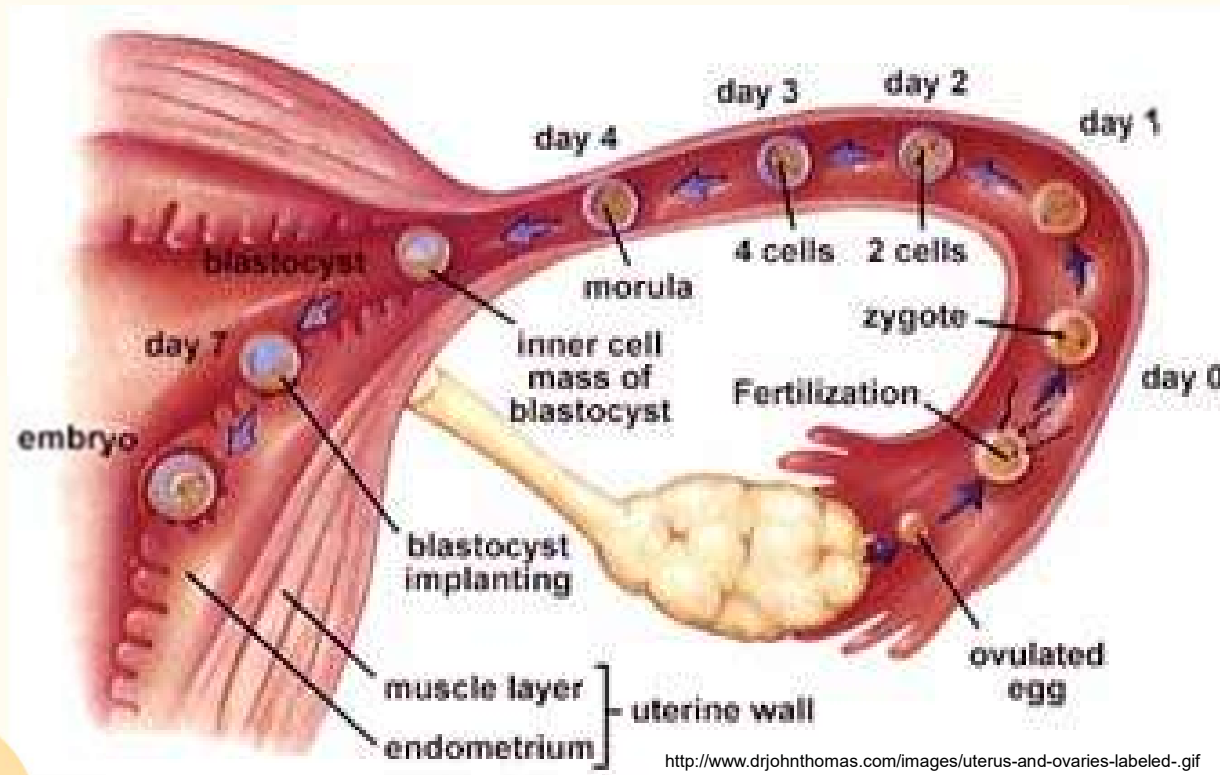
Sperm

- Male reproductive cell
- Average volume of ejaculate is around a half-teaspoon
- An ejaculation contains 40 million to 600 million sperm



Ovum

- Female reproductive cell
- Usually, one ovum is released monthly





Fertilization

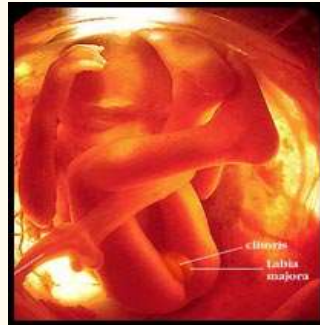


Fetal Development

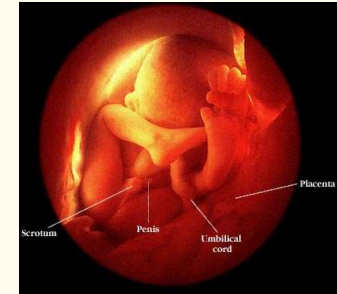
First Trimester

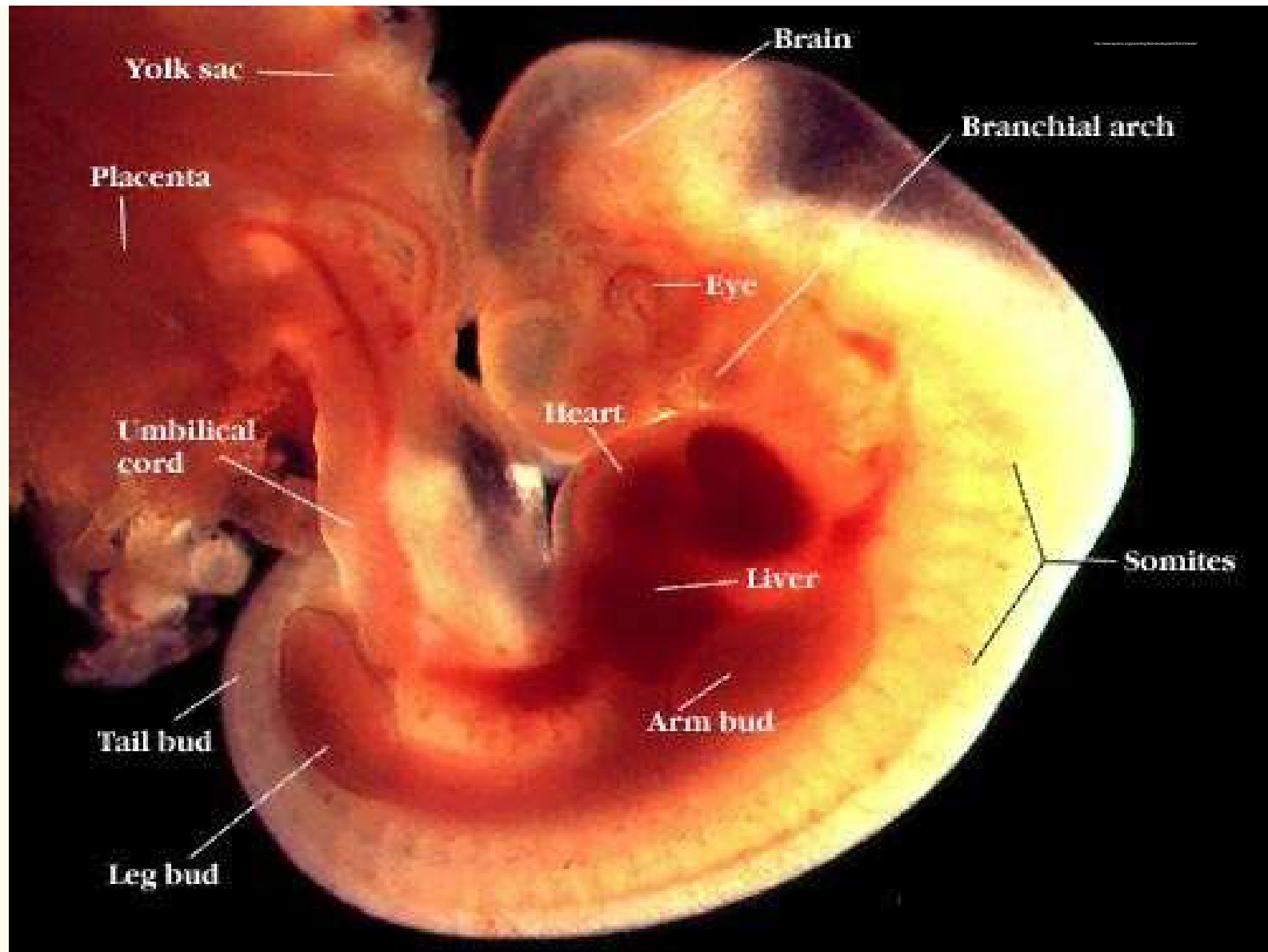


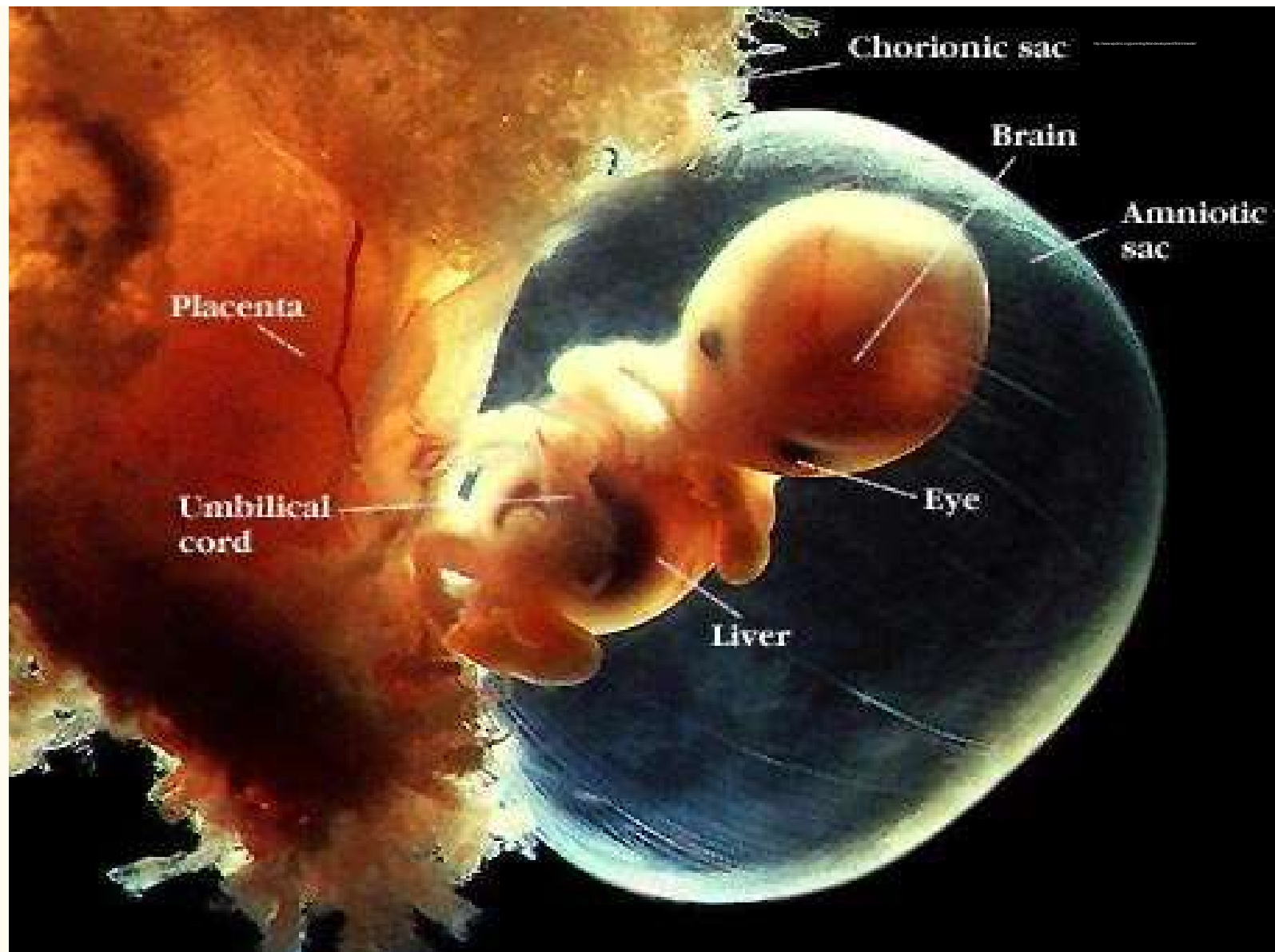
Second Trimester

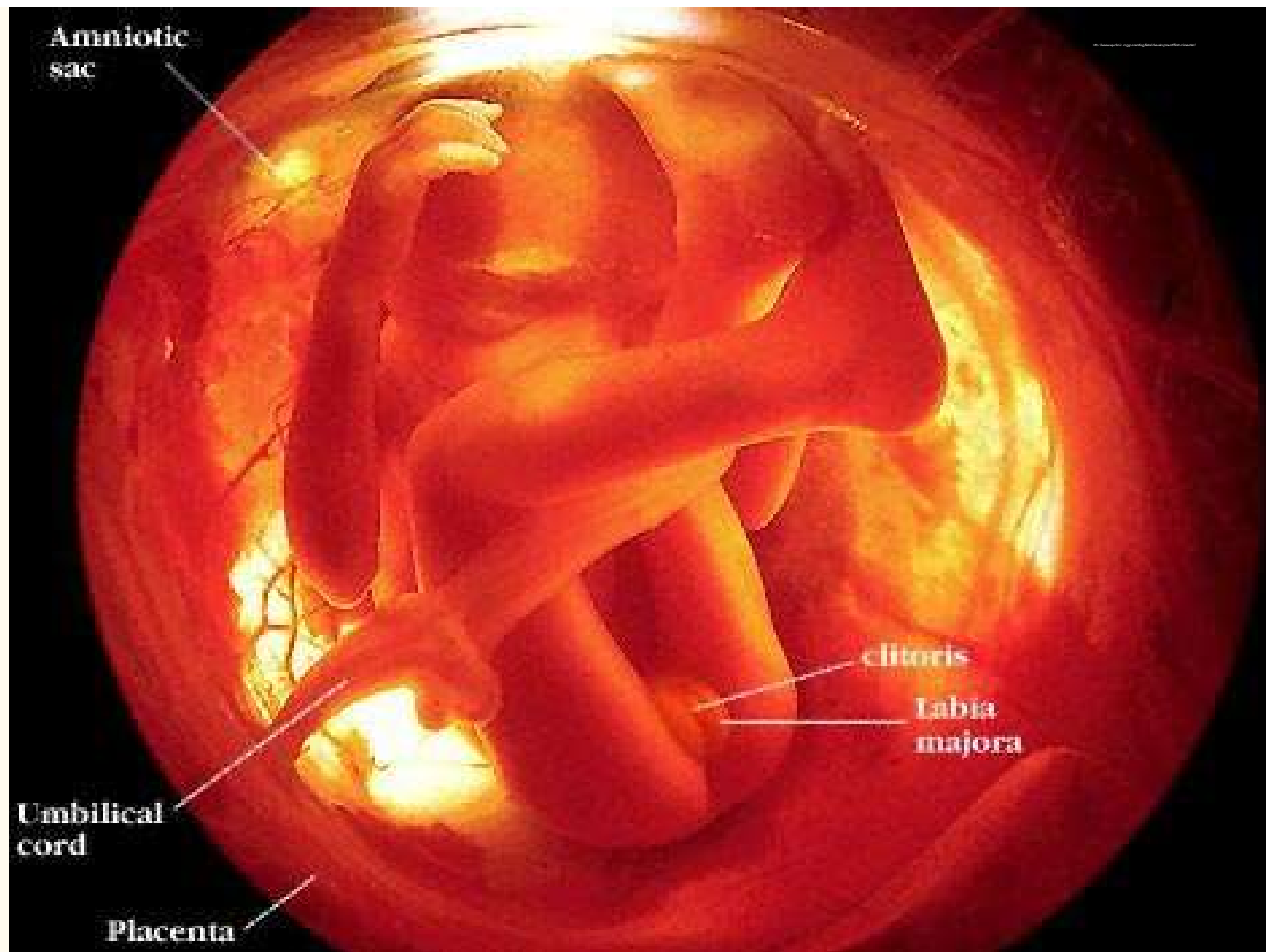


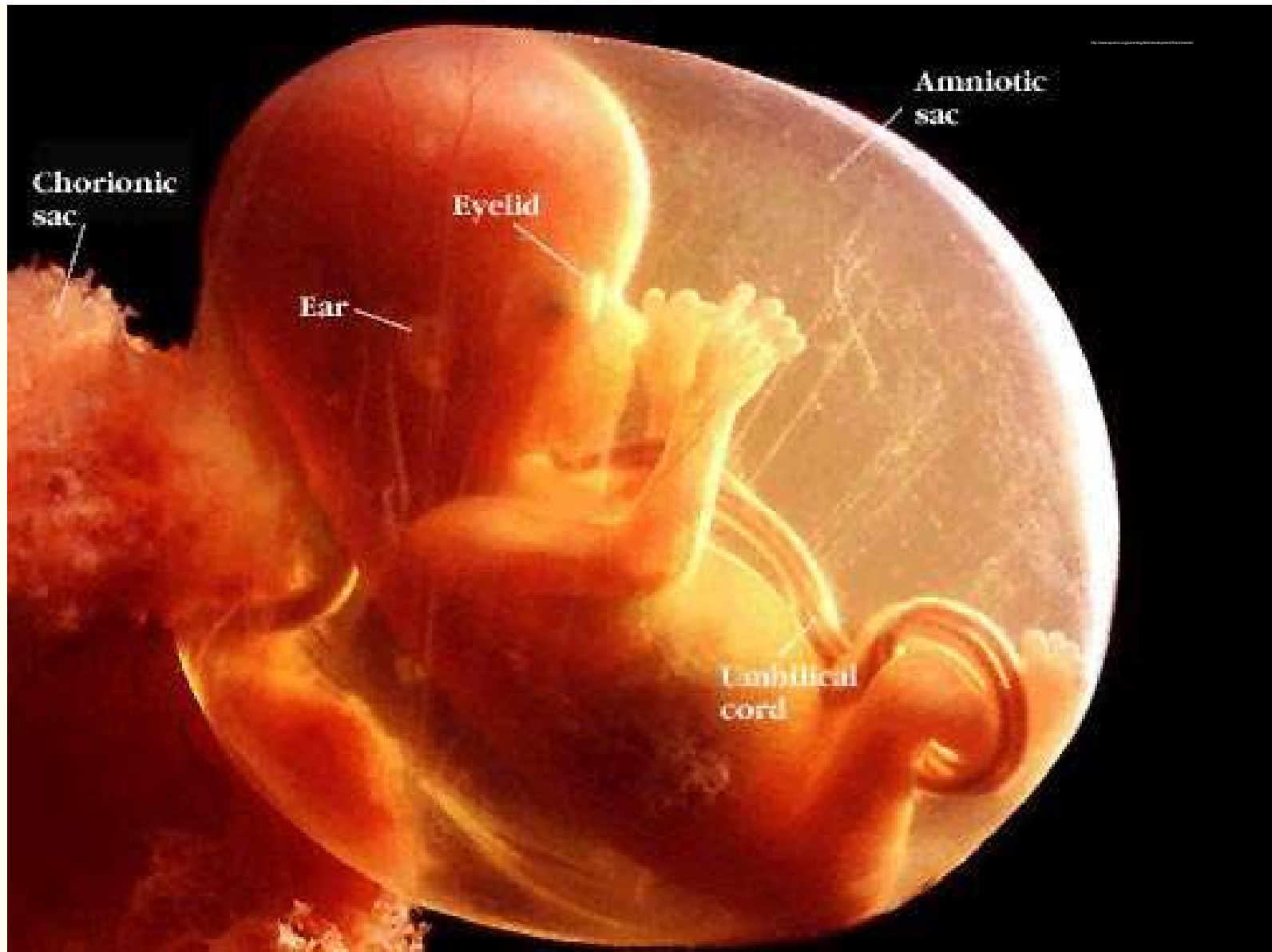
Third Trimester

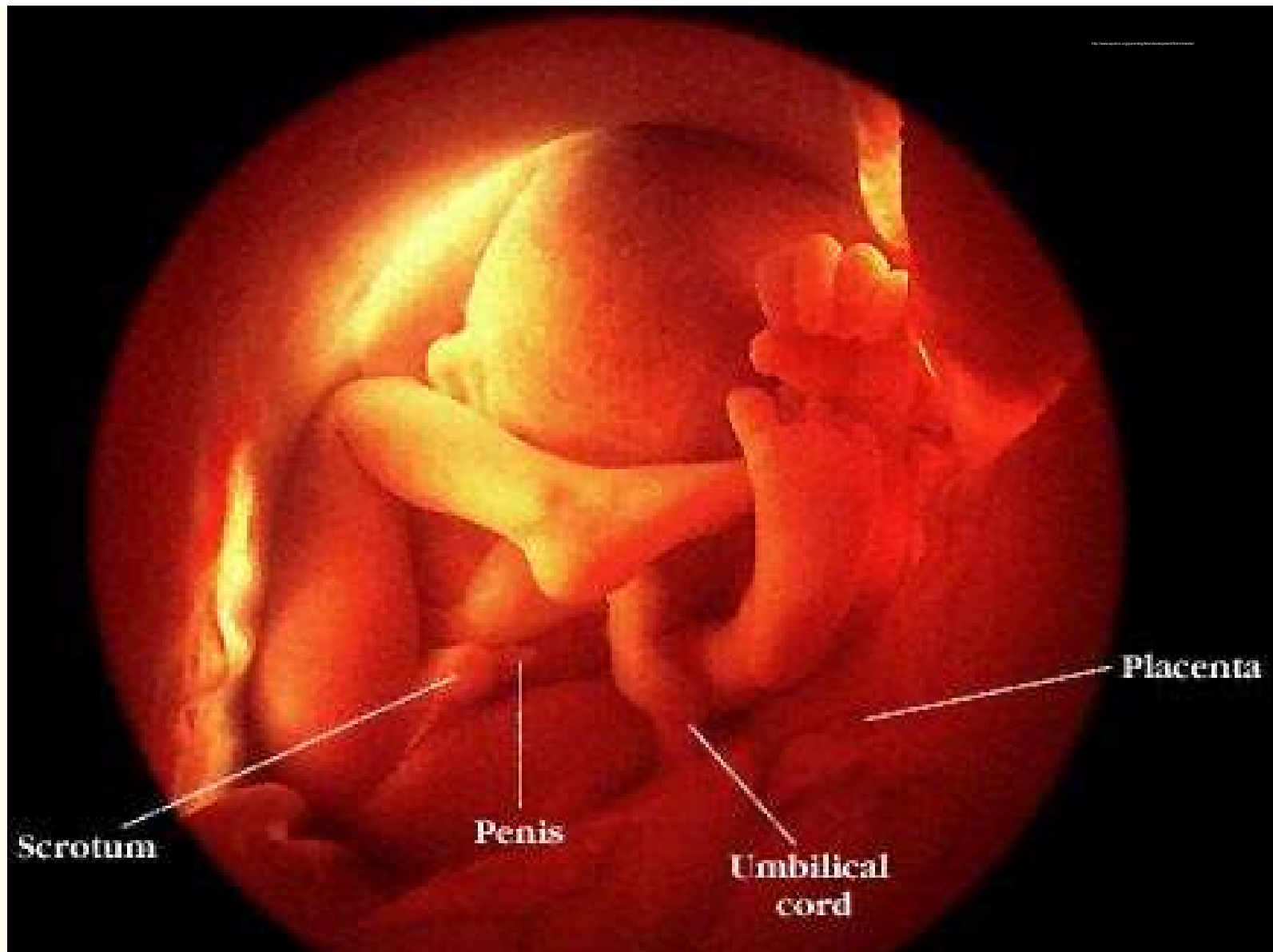




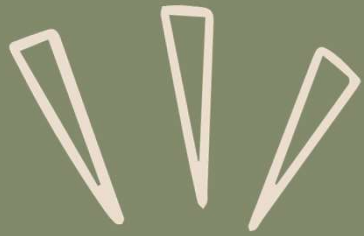












Let's see
what we
have
learned



Part V

Vocabulary Review

Match the words at the top with their description below.

A. Fertilization	F. Fetus
B. Umbilical Cord	G. Placenta
C. Embryo	H. Amniotic Fluid
D. Contractions	I. Gestation
E. Birth Canal	J. Labor

1. ____ The period between conception and birth of a baby - around nine months.
2. ____ The moment when a sperm joins an egg, and an embryo is formed.
3. ____ The growing fertilized egg from conception until the end of the second month of pregnancy.
4. ____ This clear liquid surrounds a baby during pregnancy.
5. ____ The ropelike cord connecting the growing baby to the placenta.
6. ____ The growing unborn baby from the second month after conception until birth.
7. ____ The process of childbirth.
8. ____ The action of the muscles of the uterus that help to push the baby during childbirth.
9. ____ The passage through which a baby is born.
10. ____ A structure from which the developing baby receives its nourishment. It is connected to the umbilical cord.



Let's see
what we
have
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Vocabulary Review

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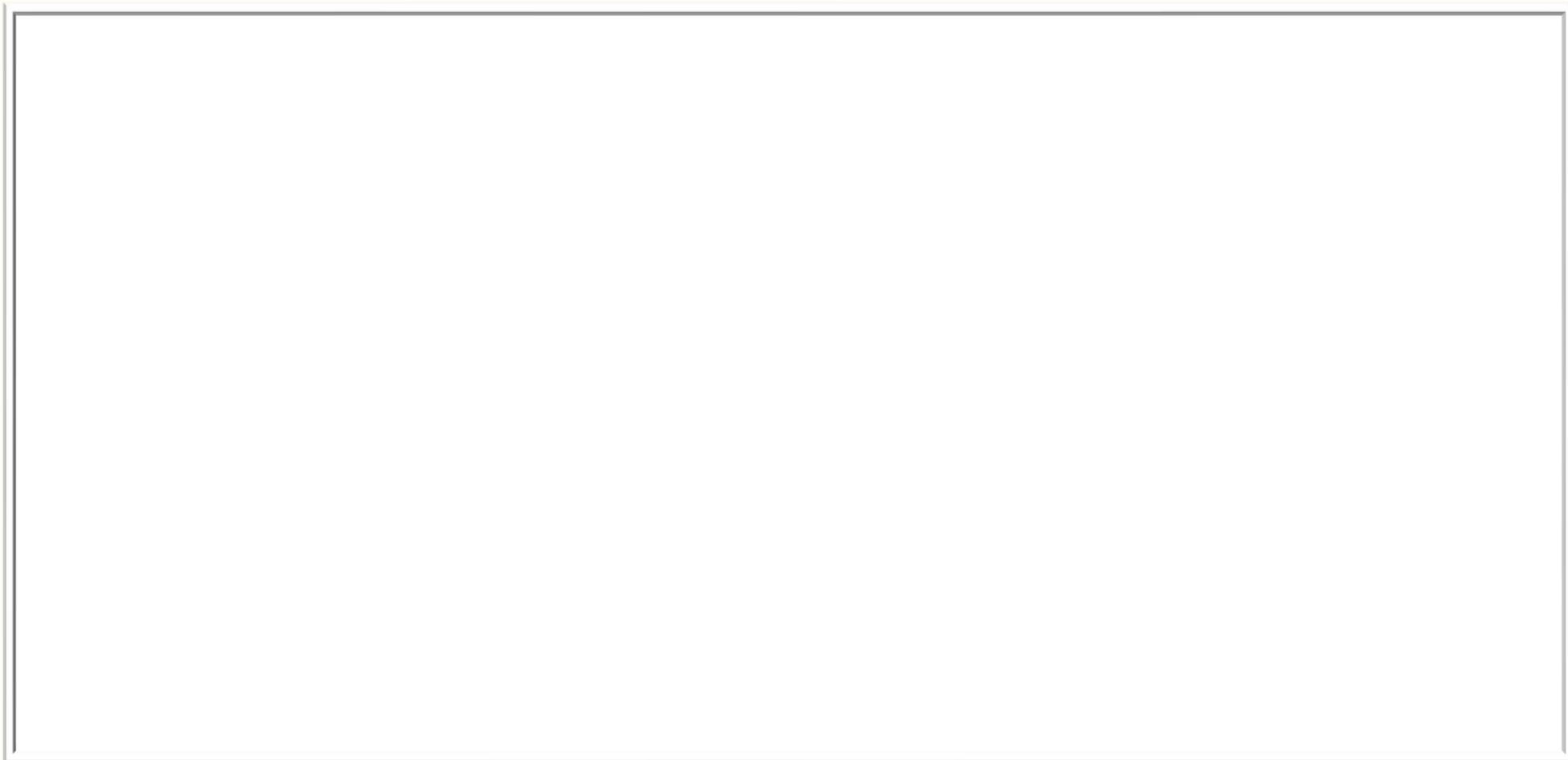
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Always Changing and Growing Up

(24 minutes)



Closure

- Understanding how to take care of our bodies is an important way to support our overall health and wellness.
- Everyone goes through puberty when it is the right time for them.
- Understanding the male and female reproductive systems, the parts, functions and appropriate vocabulary will allow you to understand how the body works.



Common Questions



- Does everyone go through puberty at the same time?
- How do you know when you are going through puberty?
- How long does puberty last?
- What if I have more questions?
- Any other questions?