

# Introduction to HGD

# Foundation:

- Talk to the adult(s) in your life about our sessions
- There will be an opportunity to ask questions
- Use appropriate language (if you don't know, ask!)
- In HGD, when we talk about the male and female body, it's referring to the *biological sex* assigned to you at birth.
- Gender identity is different from biological sex.
- Some students may identify as male, female, non-binary, gender-fluid, non-conforming, intergender, agender, or another term we may not be familiar with, so please let us know.
- While we go through this presentation, please be aware that "male and female" are referring to biological sex that has been assigned at birth and not a person's gender.

## Terminology

### Sex - Biology:

- Male - XY Chromosome
- Female - XX Chromosome

**Sex assigned at birth:** The sex (male or female) given to a child at birth, most often based on the child's external anatomy. This is also referred to as "assigned sex at birth."

# Puberty

Puberty is the name for the time when your body begins to develop and change as you move from kid to adult.

Everyone goes through puberty

Hormones - endocrine system

Reproduction

# What is the Endocrine System?

- It influences almost every cell, organ, and function of our bodies
- Regulating mood, growth and development, tissue function, metabolism and reproductive processes.

## Hormones and glands.

- Hormones transfer information and instructions to cells.
- Each type of hormone is designed to affect only certain cells.

A gland is a group of cells that produces and secretes hormones.

- Some glands release their secretions in specific areas in the body.

## Pituitary Gland:

Responsible for making Growth Hormones, which stimulates the growth of bone and other body tissues and plays a role in the body's handling of nutrients and minerals

# Glands

The major glands that make up the human endocrine system include the:

- *Pituitary gland*
- *Reproductive glands\** (*ovaries and testes*)
- Hypothalamus
- Thyroid
- Parathyroids
- Adrenal glands
- Pineal body
- Pancreas

\*These glands, along with the external genitalia of a baby, are used to assign biological sex at birth.

# Reproductive Glands

## XY Chromosome (Male):

- Testes or Testicles
  - Secrete hormones
    - Testosterone
      - Puberty
      - Sperm Production

## XX Chromosome (Female):

- Ovaries
  - Secrete hormones
    - Estrogen
      - Puberty
      - Regulate menstruation
      - Pregnancy
    - Progesterone
      - Regulate menstruation
      - Pregnancy

# XY Chromosome - Male

- Vocal changes
- Hair growth
  - Body and face
    - Usually not full, uneven
    - Pubic area, underarms, arms, chest, legs and face
- Body odor - sweat changes
- Acne
- Weight gain
- Dramatic emotional changes
- Growth Spurt
  - During puberty, your body will grow faster than at any other time in your life, except for when you were a baby.
- Increase muscle mass
- Widening of shoulders
- Testicles produce sperm
- Nocturnal emission (wet dreams)
  - Ejaculation of semen out of the penis during sleep

# XX Chromosome - Females

- Breast Development
- Wider hips
- Hair growth
  - Body
    - Pubic region, legs, arms and underarms
- Body odor - sweat changes
- Acne
- Weight gain
- Dramatic emotional changes
- Growth Spurt
  - During puberty, your body will grow faster than at any other time in your life, except for when you were a baby
- Ovaries produce eggs
- Menstruation (having a period)



# Things to remember:

Take a shower or bath everyday or every other day to stay clean

Ask about deodorant/antiperspirant

Brush your teeth 2x/day

Wear clean clothes every day!

Make sure you wash your winter gear regularly

## WASH YOUR HANDS!

“Bad” Bacteria, Viruses, Fungus moves from object to hand, or from a hand to a hand.

Impetigo  
Measles  
Meningitis  
MRSA  
Mumps  
Ringworm  
Scarlet Fever  
Thrush  
Chicken pox  
Common cold  
Conjunctivitis (pink eye)  
Croup  
Norovirus (stomach bug)  
Fifth Disease  
Flu  
Hand Foot and Mouth Disease  
Whooping cough

# Female Reproductive System

# Reproductive System

External part - Vulva, or covering

Vagina and other reproductive  
organs located inside the body

Located in the pelvis - lower  
abdomen

# Vulva

## Labia

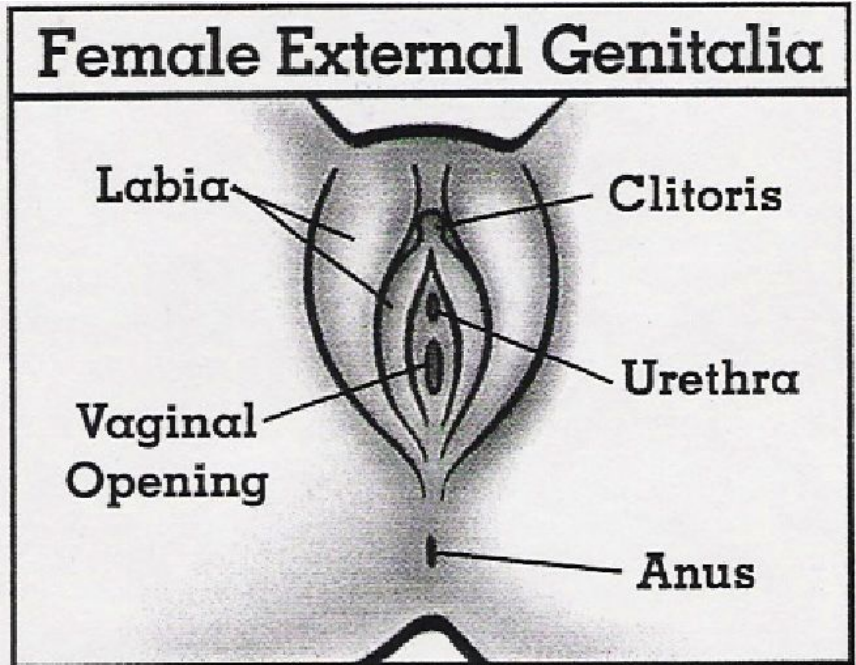
- Skin flaps that surround the vaginal opening & urethra

## Clitoris

- Small sensory organ, toward the front of the vulva where the labia folds join

## Urethra

- Carries urine from the bladder out of the body
- Located between the labia



# Internal Organs

- Vagina
- Uterus
- Fallopian tubes
- Ovaries

# Vagina

- Muscle-contract and expand
- Hollow, extends from vaginal opening (just below the urethra) to the uterus
- 3-5" long in grown women

# Uterus

- Womb
- Expands/contracts
- Above the cervix

# Cervix

Narrow passage forming the lower end of the uterus

This is what changes when a woman is in labor

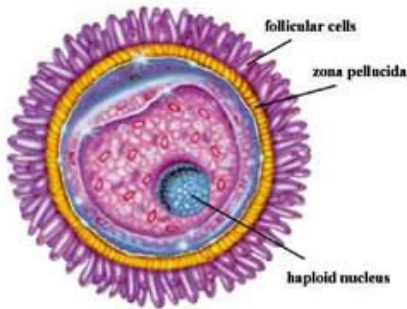


# Fallopian Tubes

- Transfer ovum(egg) from ovary to uterus
- Site of fertilization

# Ovary

Ova/Egg



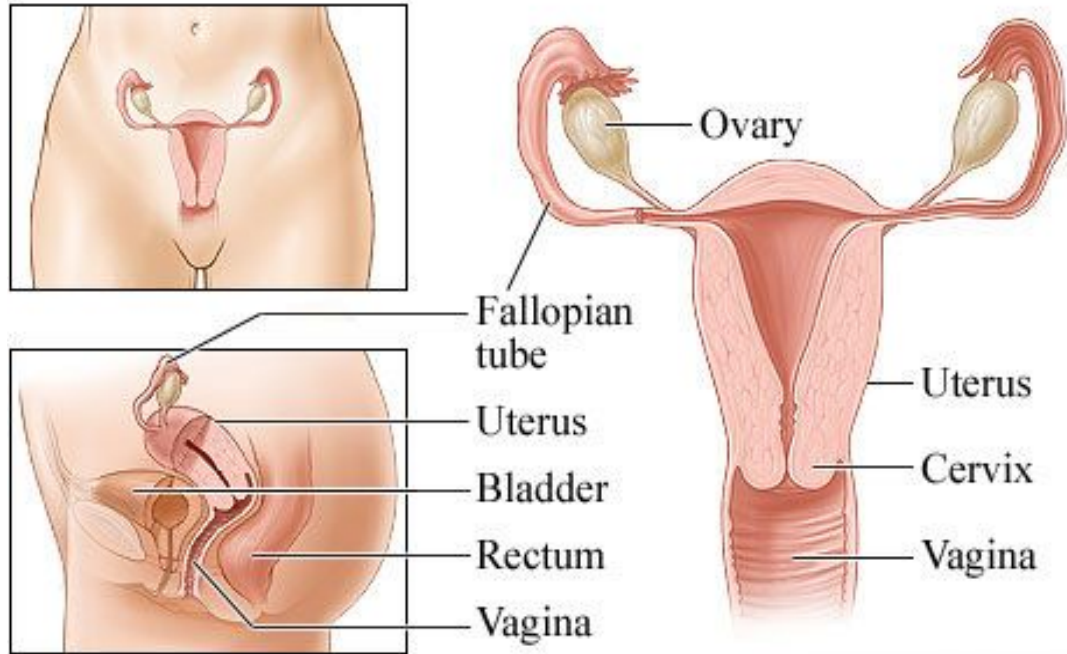
- Produce, Store & Release eggs
  - Female Sex Cell
    - Ovulation
    - Needed for reproduction

Born with this cell - mature and release during puberty

Do not regenerate

When eggs no longer mature, ovulation and menstruation stops - menopause (begins around 45 yr old)

# Internal - Vagina/Uterus



# Periods

- Start usually between 10-16 years old
  - About 2 years after breasts develop
  - Soon after growing pubic hair
  - After start to notice vaginal discharge
- Usually lasts 3-7 days
- Might not be regular at first
  - Could take years!



**1**

An ovary gets ready to release an egg.



**2**

The egg is released. The soft lining starts to thicken inside the uterus.



**3**

The egg travels along the fallopian tube to the uterus. The lining of the uterus gets thicker.



**4**

The lining is not needed and most of it is shed through the vagina. This is your period.

# Ovulation Day 14

✓ = Ovulation

★ = menstrual cycle

## January 2010

Mon	Tue	Wed	Thu	Fri	Sat	Sun
				1	2	3
4★	5★	6★	7★	8★	9	10
11	12	13	14	15	16	17✓
18	19	20	21	22	23	24
25	26	27	28	29	30	31

# Menstrual Cramps

Ache or cramp in the lower abdomen or along the inner thighs, back

What to do:

- Take a warm bath
- Heating pad - no longer than 15 minutes
- Exercise
- Check with an adult before taking medication

# Male Reproductive System



# Male

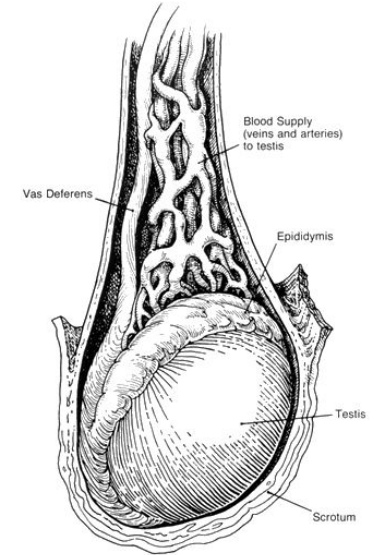
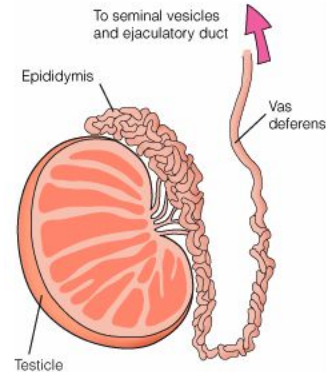
Internal and external reproductive organs or genitals

Include:

- Testicles
- Duct System, epididymis and vas deferens
- Accessory glands, seminal vesicles and prostate gland
- Penis and scrotum

# Testes/Testicles

- Produce and store sperm cells.
- Oval-shaped
- Located in scrotum
  - Bag of skin, regulates temperature of the testes to protect sperm
- Produce testosterone
  - Puberty

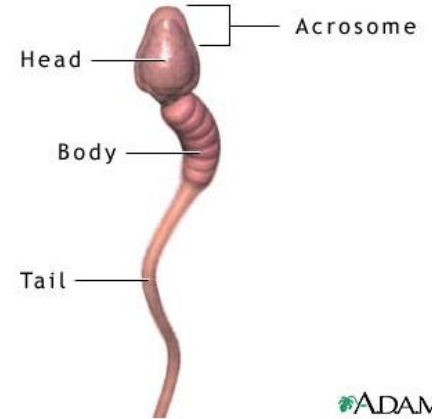


# Sperm

Male sex cell

Needed for reproduction

Not born with this cell - puberty -  
changes in testicles to begin sperm  
cell production.



 ADAM

# Epididymis/Vas Deferens

Alongside testicles

Transport sperm and fluid called semen

# Seminal Vesicles/Prostate

Provide fluid that lubricates the duct system

Assists with nourishment and transportation of sperm

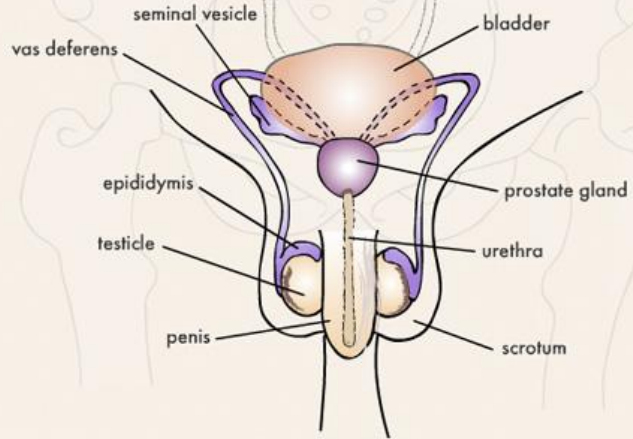
# Penis

- Shaft
  - Main part of the penis
- Glans
  - Tip or head of the penis
- Small opening/slit
  - Urethra
  - Semen and urine exit the body

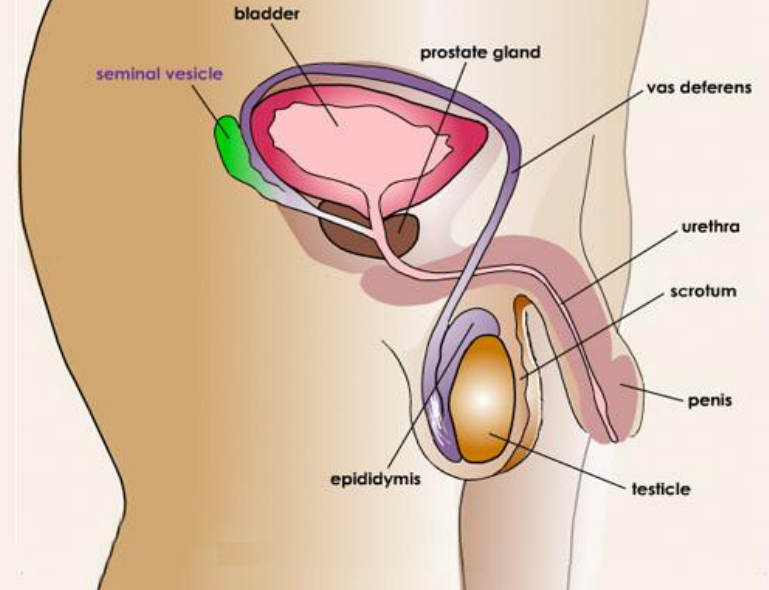
# Foreskin

- Layer of skin that covers the end of the penis.
- All boys are born with foreskin
- Removal - Circumcision
  - A few days old

## THE MALE REPRODUCTIVE SYSTEM



## THE MALE REPRODUCTIVE SYSTEM



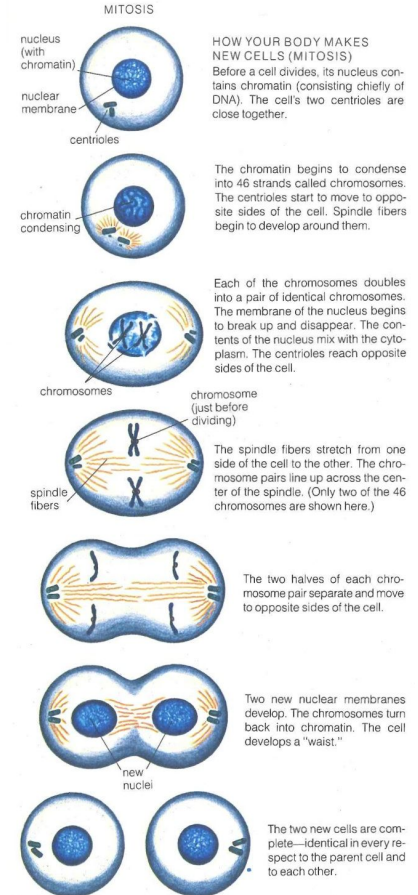


# Cell Division

- Almost all cells regenerate (divide) - 46 chromosomes = Mitosis
- Reproductive cells (Sperm and Egg) have 23 chromosomes = Meiosis
- When the Sperm and Egg unite, they each bring 23 chromosomes - totaling 46 chromosome = the start of new life
  - Sexual intercourse
  - Artificial insemination through fertility treatments

46 Chromosomes = blueprint to build you

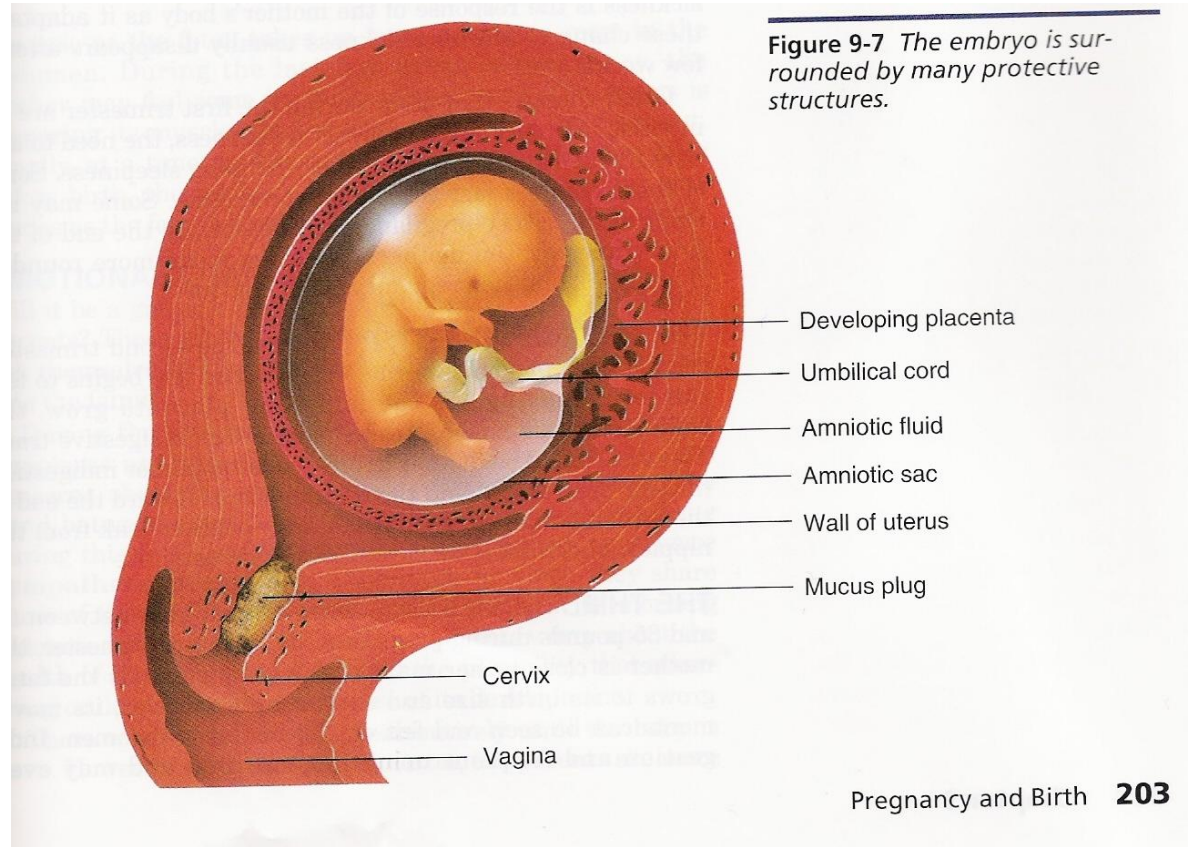
## Mitosis: When Cells Divide

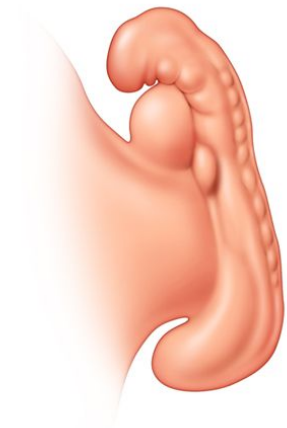


# Fetal Development

# Trimesters

- 1st Trimester
  - 1-12 weeks
- 2nd Trimester
  - 13-27 weeks
- 3rd Trimester
  - 28-40 weeks





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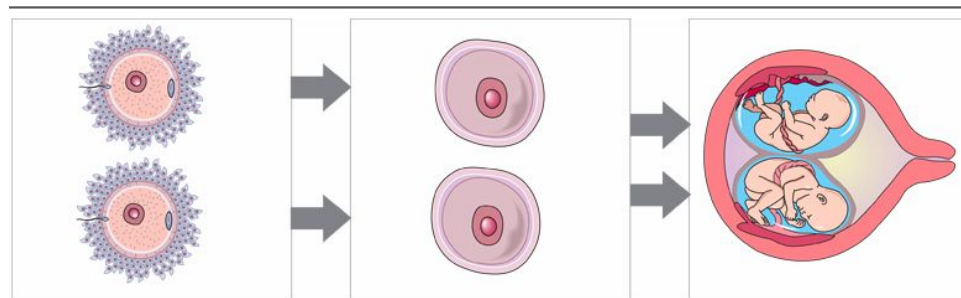
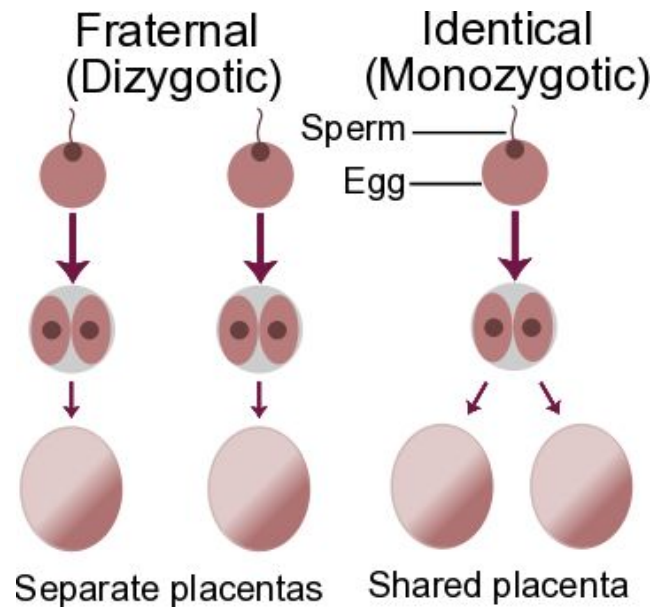
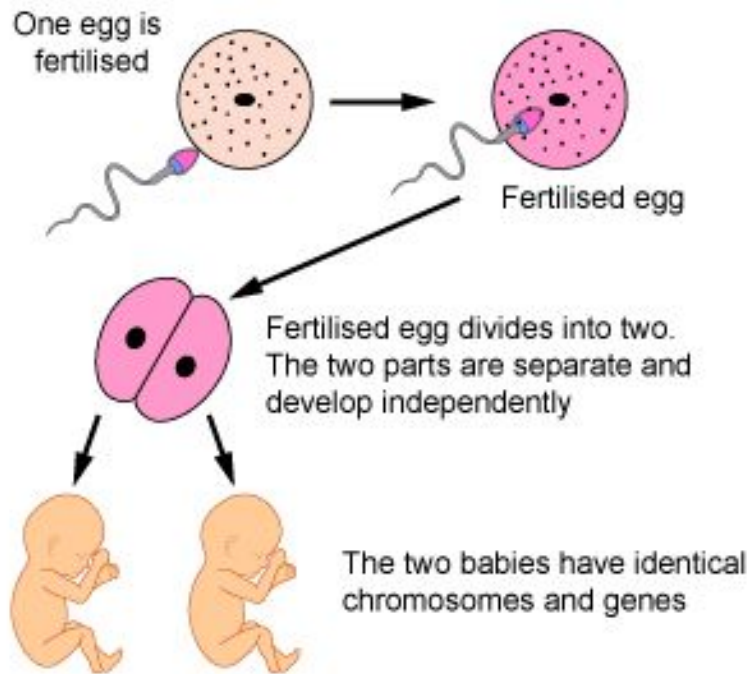
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# Wrap up

- Puberty
  - Hormones
    - Testosterone
    - Estrogen/Progesterone
  - Reproductive systems
    - XY Male
      - Sperm Cells
    - XX Female
      - Egg (ovum) Cells
  - Body changes
  - Emotional changes
- Cell Division
  - Fertilization (meeting of the sperm and ovum)
- New Life
  - Pregnancy
  - Fetal Development
  - How babies are born
  - Twins

# Reflections

## Write about it:

1. What are 5 changes that will happen to me during puberty?
2. I am \_\_\_\_\_ about these changes:  
(excited/nervous/anxious/worried/concerned)
3. Why do I feel this way?
4. How can I address these feelings?
5. Here are the FACTS I know about puberty and growing up:
6. Here are the adults in my life that I can talk to about this:
7. I can also talk to my doctor. Her/His name is:  
(If you don't know - now is a great time to ask the adults at home!)



# Multiple Choice Q's

1. The best way to protect yourself from germs, and to avoid spreading germs to other people, is to (choose one):

- a) wear a surgical mask and gloves
- b) stay inside
- c) wash your hands
- d) keep a bar of soap in your backpack
- e) sneeze into your desk

2. Underline the times when it's important to wash your hands (choose one or more):

- a) before eating
- b) before putting on gloves
- c) after using the bathroom
- d) after blowing your nose or coughing
- e) after taking a shower
- f) after playing outside or with a pet
- g) after being with someone who's sick

# Multiple Choice Q's

3. If you have to cough or sneeze, you should cover your mouth and nose with (choose one or more):

- a) a tissue
- b) your elbow
- c) your hands
- d) a book

4. True or false: It's OK to eat food if it's on the floor for less than 5 seconds.

- a) true
- b) false

## Being active is important!

What are some activities you can do to keep you moving?

- swim
- play tag
- ride a bike
- run
- walk
- skip
- jog
- have a dance contest
- shoot hoops
- rollerskate
- skateboard
- go for a walk
- walk the dog
- hula hoop
- capture the flag
- kickball
- street hockey
- soccer
- Frisbee
- make an obstacle course
- volleyball
- tennis
- exercise video games
- football
- flashlight tag
- hide-and-seek
- baseball or softball
- gardening
- hopscotch
- jumping rope
- Ballet
- What else???