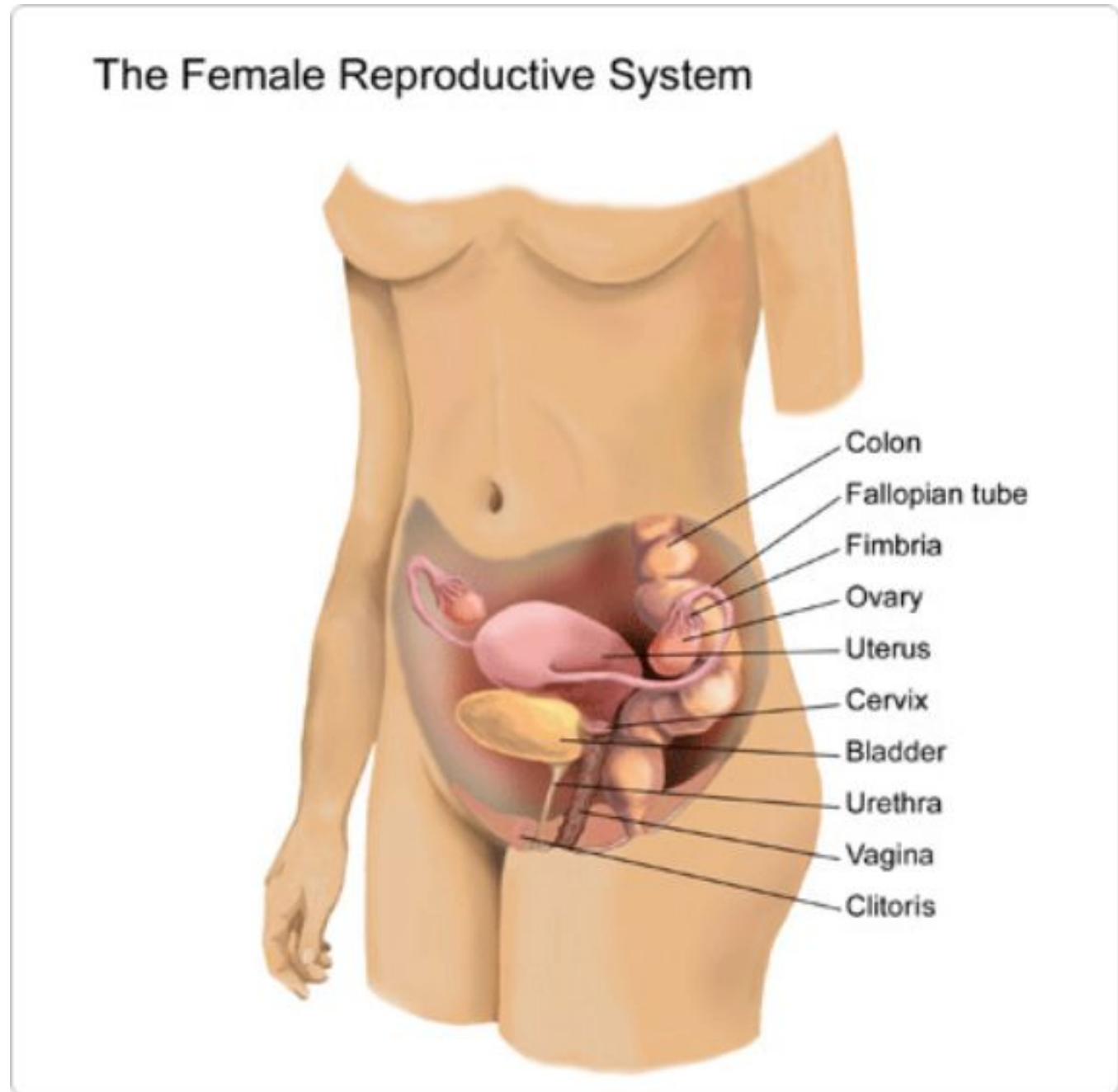


FEMALE REPRODUCTIVE

Main Structures

- Ovary
- Uterus
- Fallopian Tubes
- Vagina
- Cervix





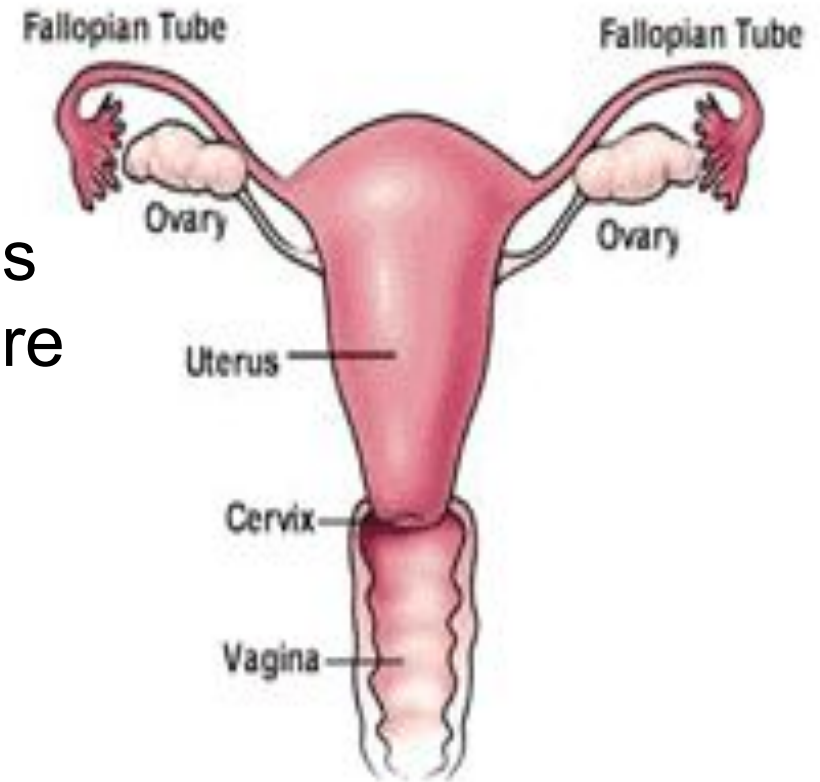
OVARY - this is where the eggs are produced through cell division (MEIOSIS)

- each ovary takes turns releasing eggs every month, twins occur if two eggs are released

Ovaries secrete both estrogen and progesterone.

Estrogen is responsible for the appearance of secondary sex characteristics of females

Progesterone regulates menstruation



A fertilized egg is called a **ZYGOTE**.

An egg is usually a few days old before it implants in the uterus. At this point, it has already divided several times and is called a **blastula**.



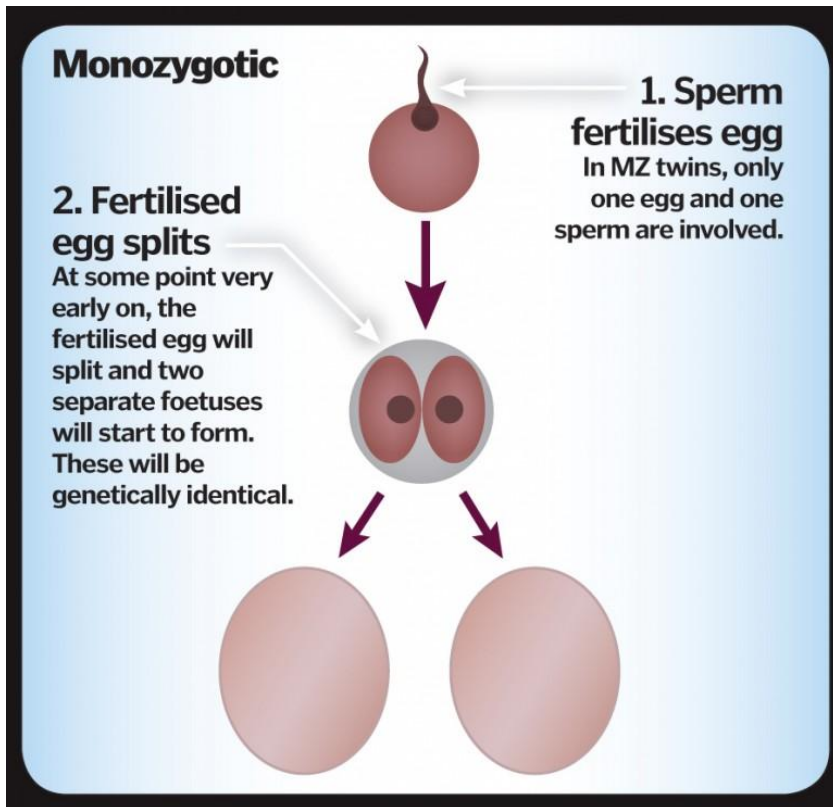
Twins

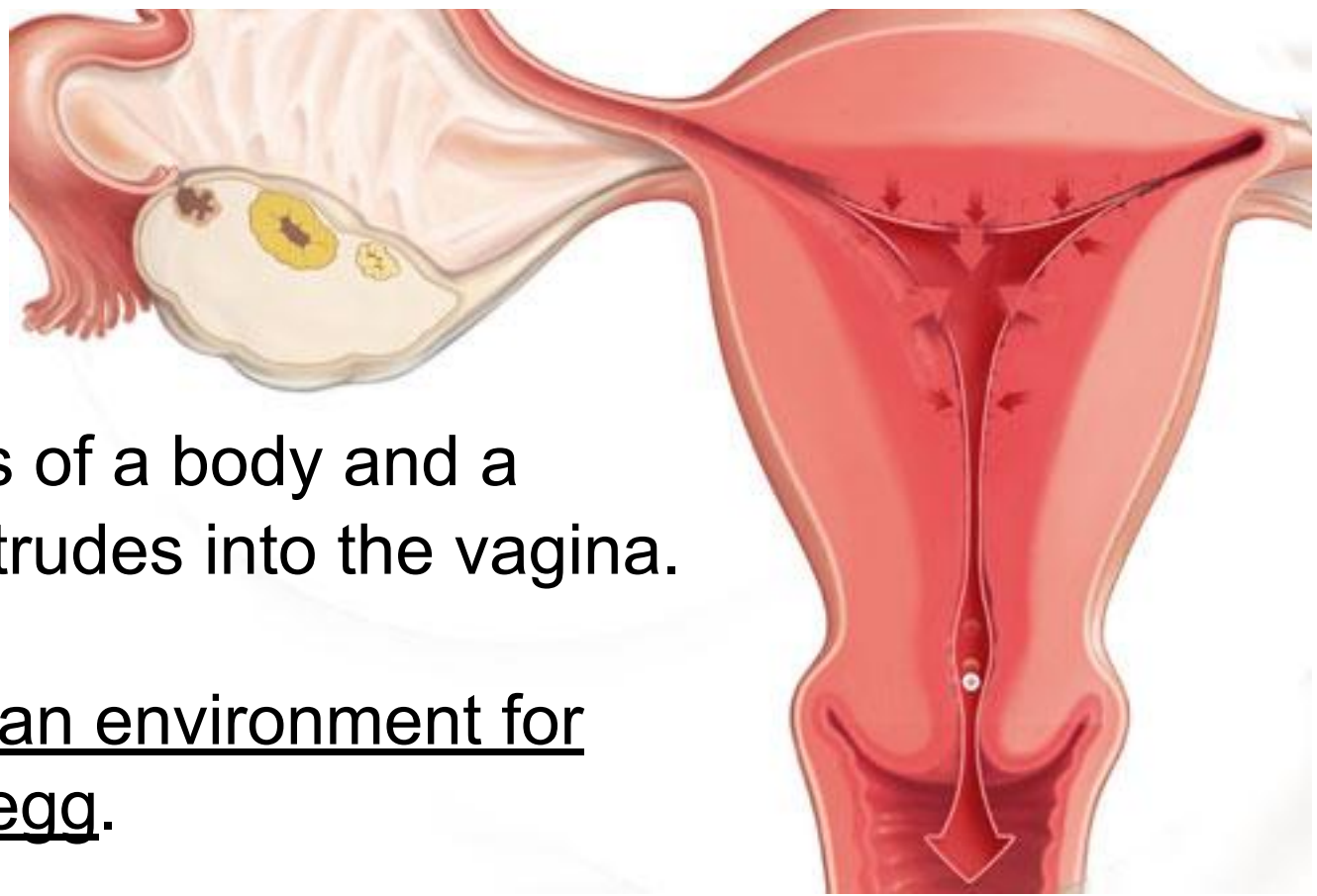
Identical twins develop when a single zygote splits

The babies are genetically identical. They also share one placenta.

Fraternal twins develop from the fertilization of two individual eggs.

The babies are not the same.





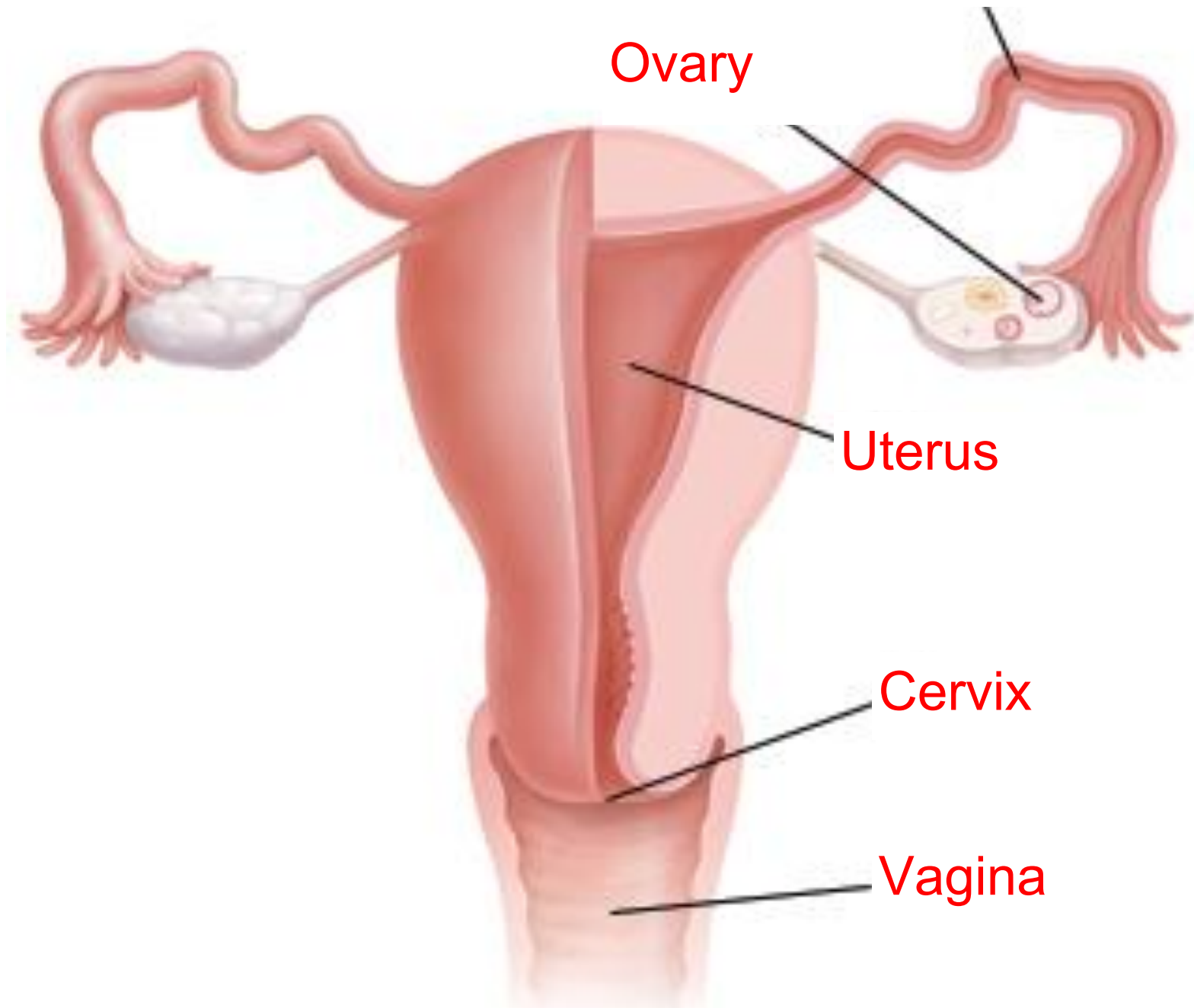
The **uterus** consists of a body and a cervix. The cervix protrudes into the vagina.

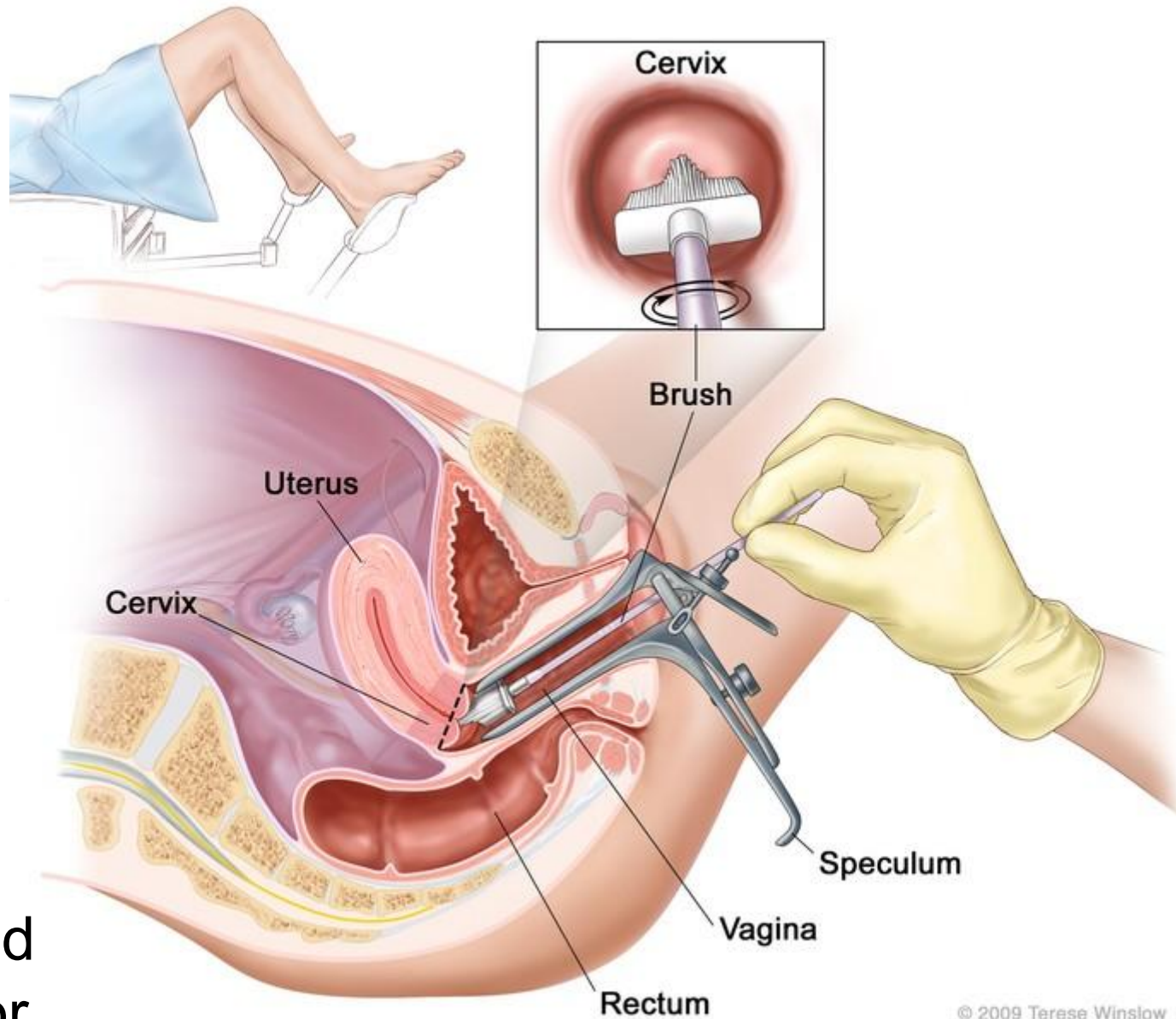
The uterus maintains an environment for accepting a fertilized egg.

The fertilized ovum becomes an embryo, attaches to a wall of the uterus, creates a placenta, and develops into a fetus (gestates) until childbirth.

If no fertilized egg reaches the uterus, the lining is shed monthly in a process known as **menstruation**

Fallopian Tubes





Women should receive an annual PAP test. A doctor removes cells from around the cervix and a lab checks them for abnormalities.

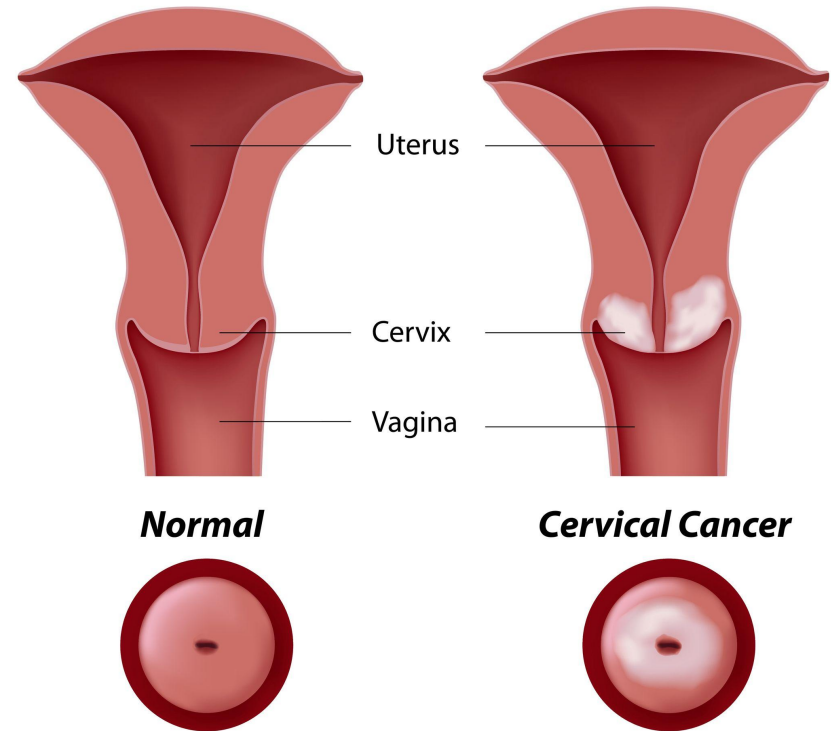
A doctor called a gynecologist performs this procedure.

Pap smear:
cells are scraped from the cervix
and examined under a microscope
to check for
disease or other
problems



Cervix viewed
through speculum
with patient in
lithotomy position

© ADAM, Inc.



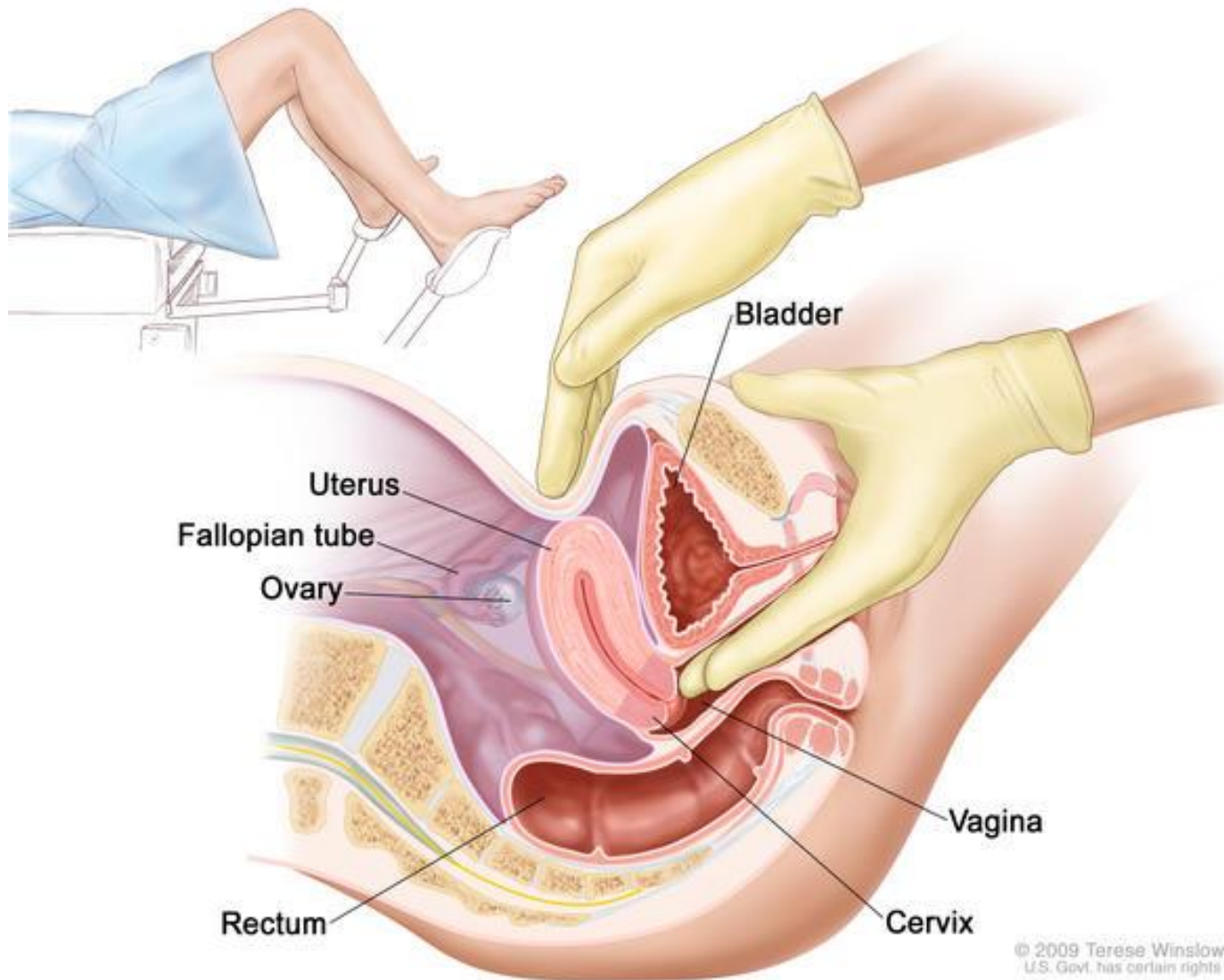
[Cervical cancer](#): Virtually all cases
of cervical cancer are caused by
HPV, human papillomavirus.

Because HPV infection is so common,
most people get HPV infections shortly
after becoming sexually active for the
first time.

Fortunately, there is a **VACCINE**,
recommended for young girls before they
become sexually active.

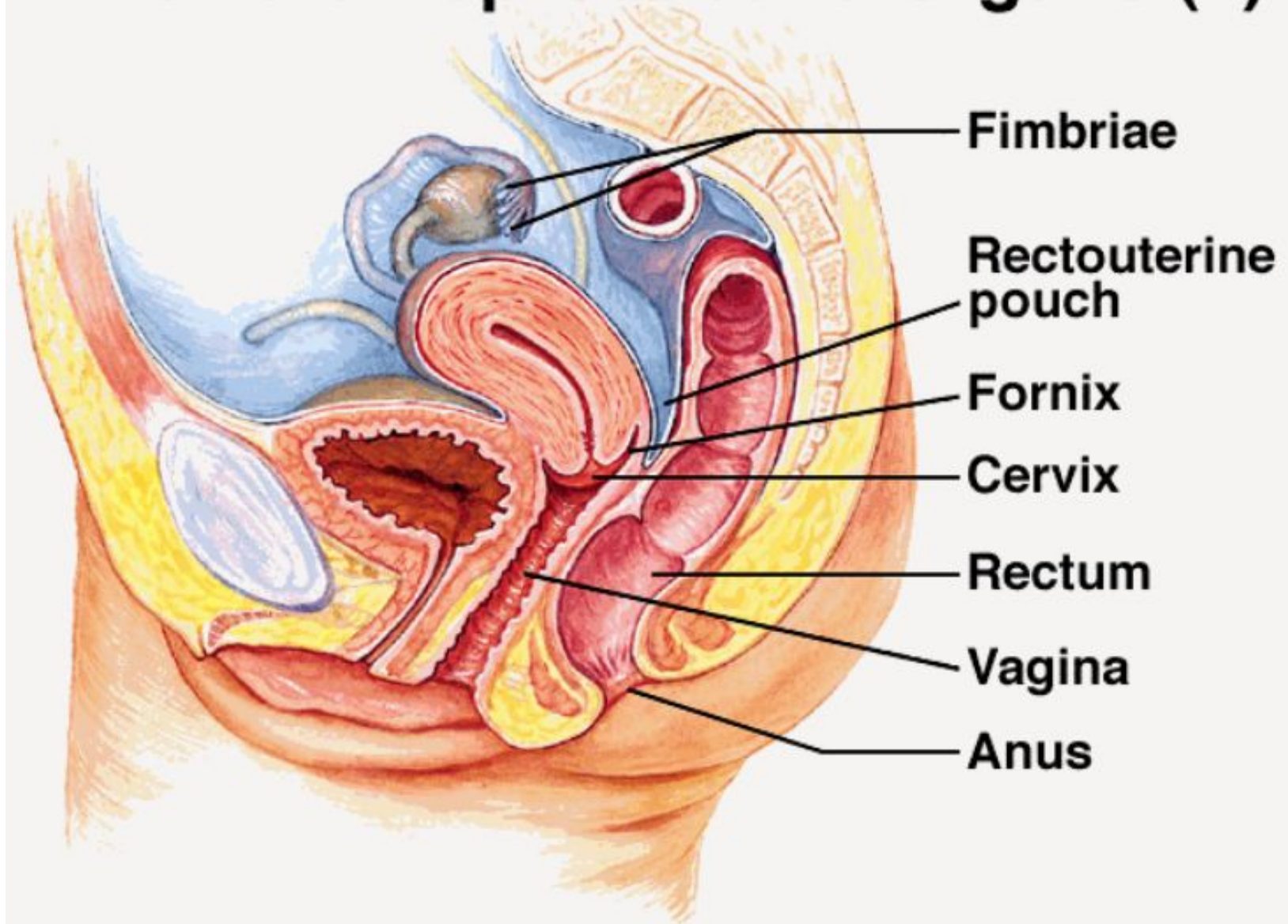


Source: Cancer.gov

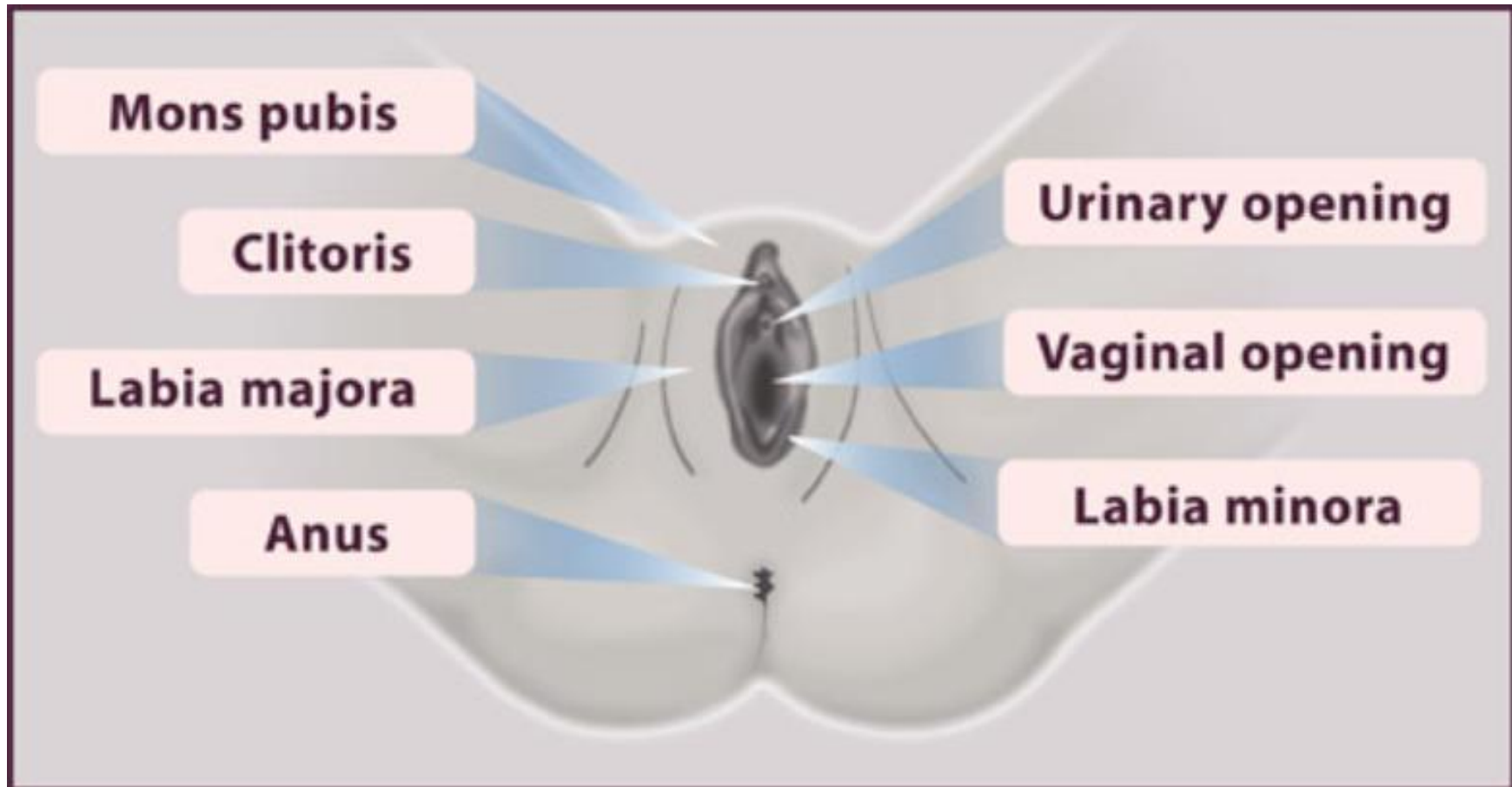


The doctor can also check for abnormalities with the uterus and the bladder.

Female Reproductive Organs (2)



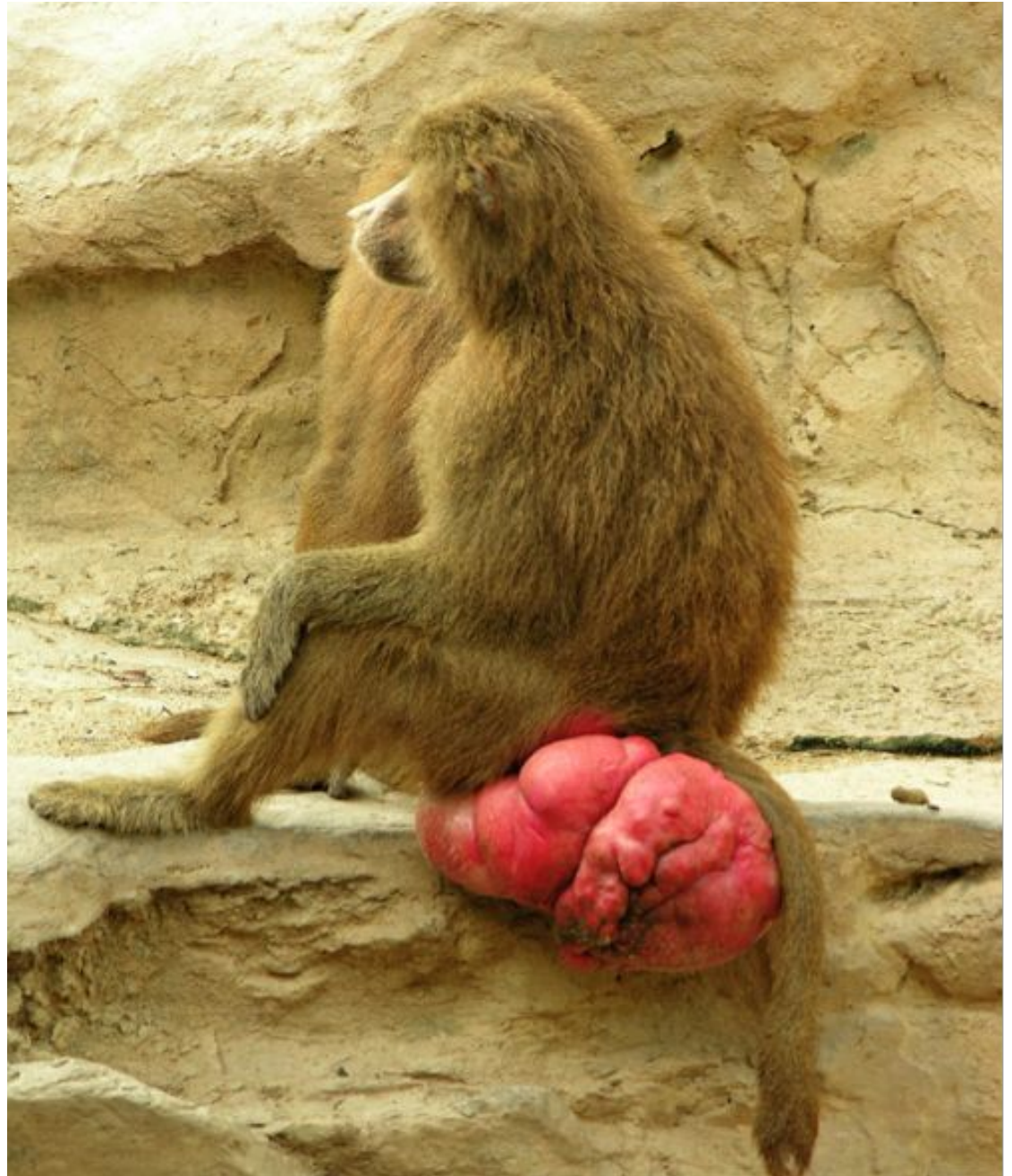
Female External



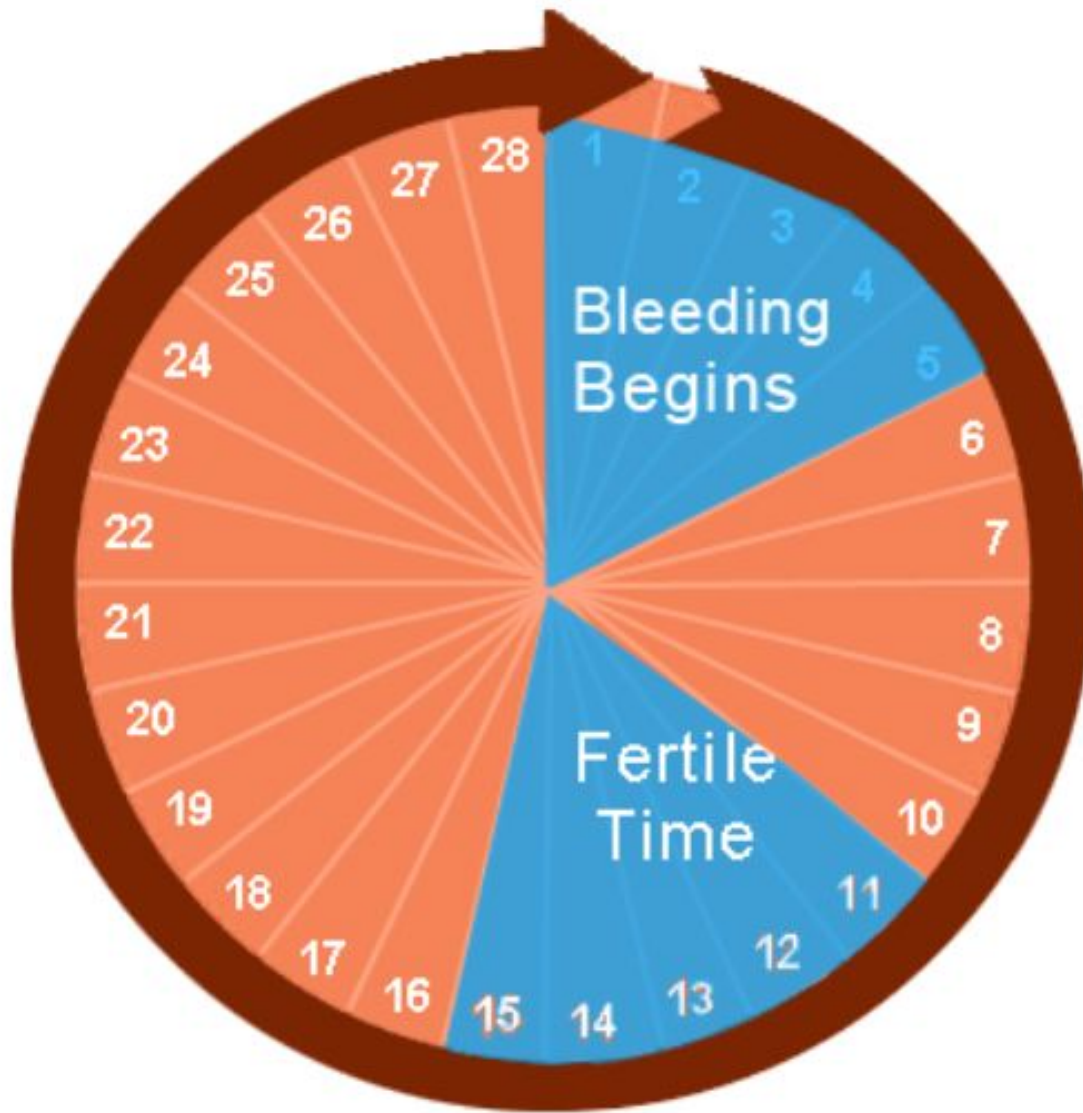
Female Cycles

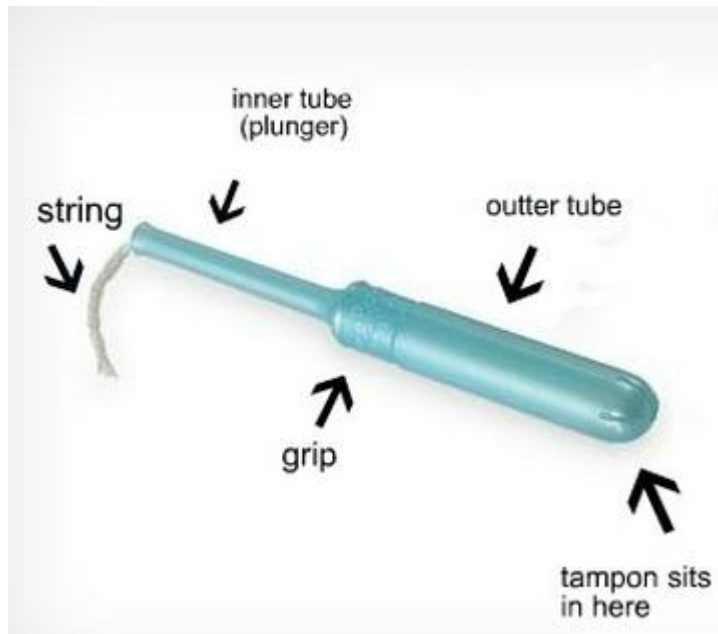
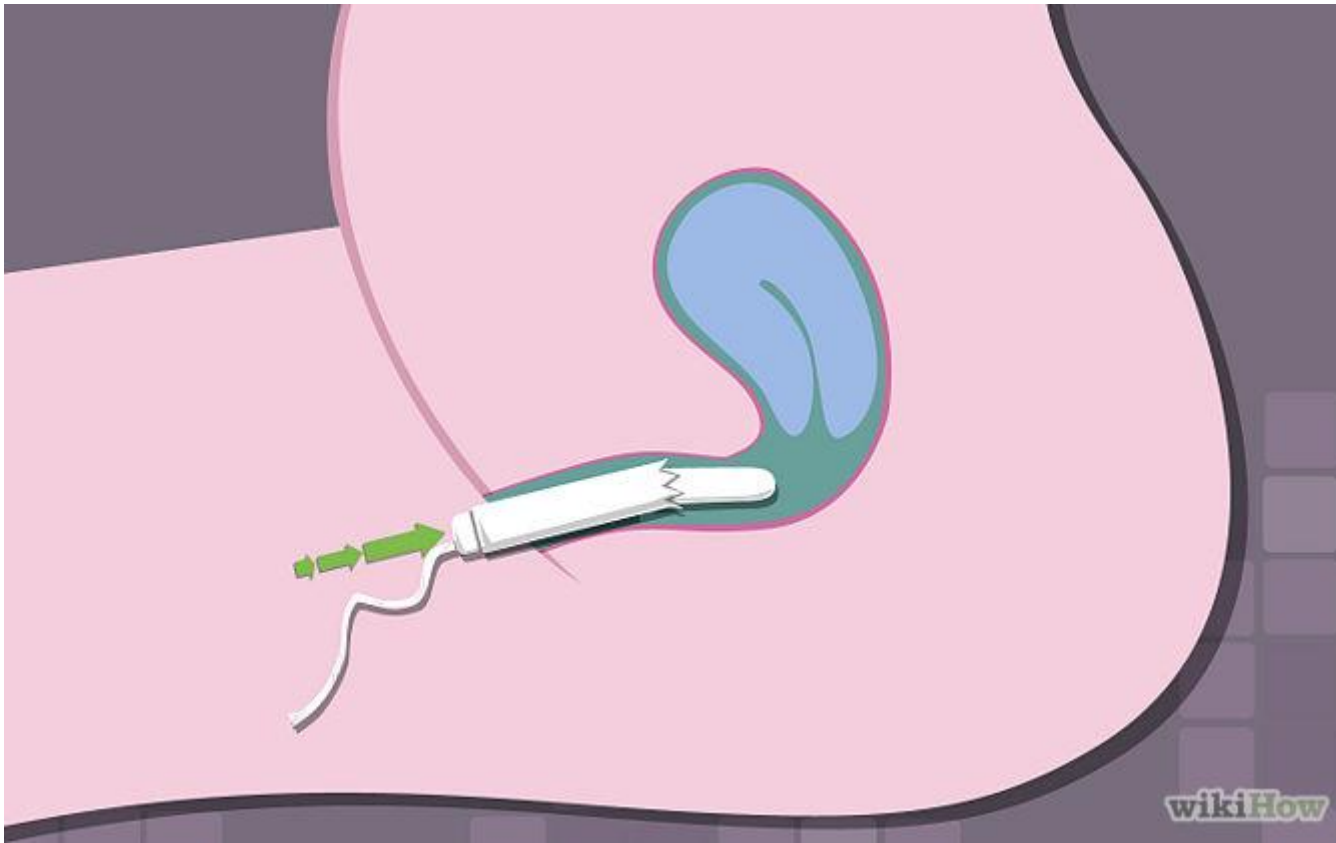
*Interesting fact – humans are one of the few animals that do not have some kind of visible obvious display of fertility.

Evolutionary biologists suggest this trait evolved as a way to keep males interested for more than just the fertile period, increasing the likelihood of male parental care of offspring.



The Menstrual Cycle







No Strings.

Sans Liens.

Reusable 12-Hour Period Protection

Protection Menstruelle de 12 Heures réutilisable

2

Softcups

Softcup



Softcup



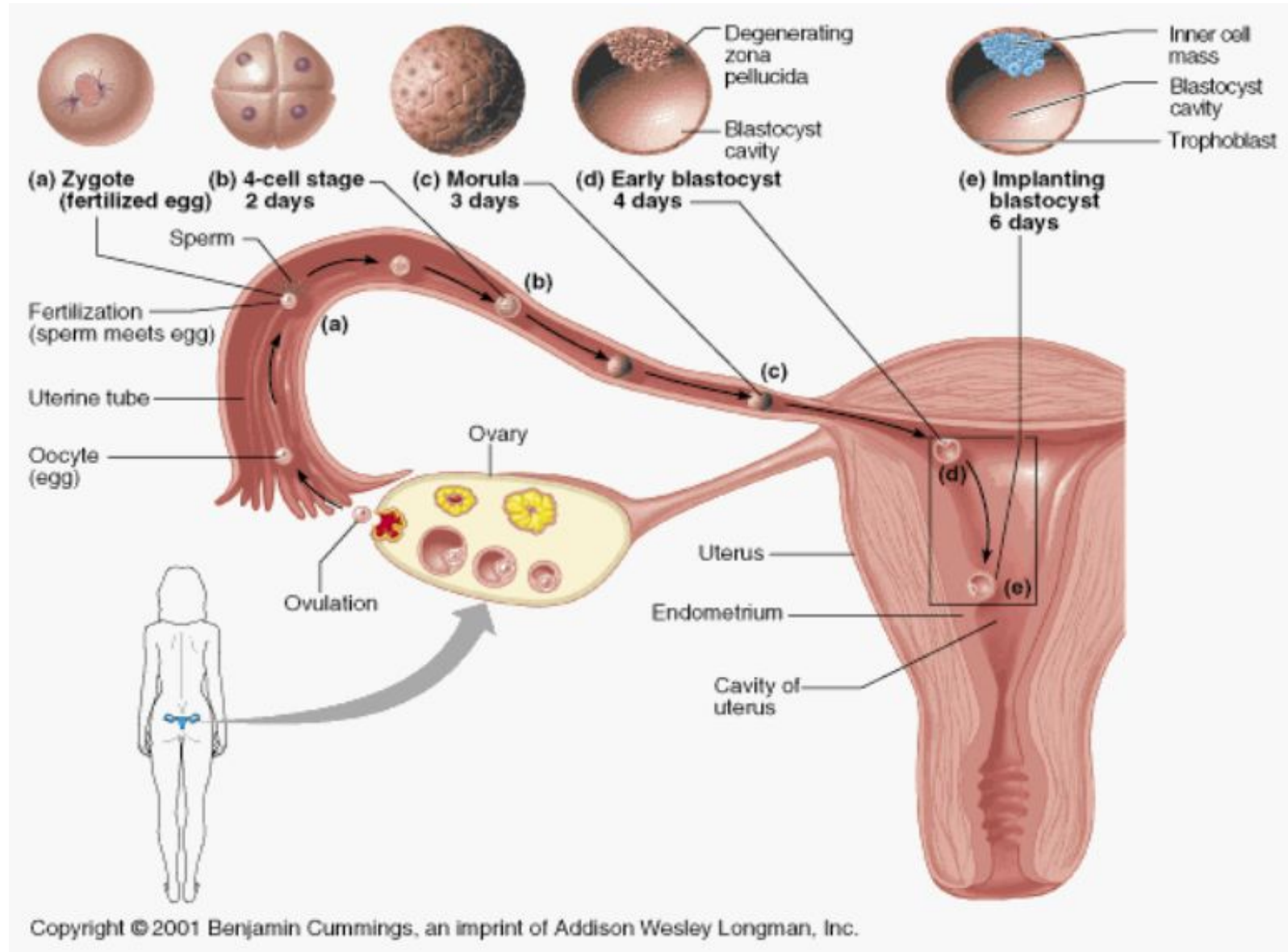
2

Reusable for up to 1 cycle

Réutilisable pour jusqu'à 1 cycle

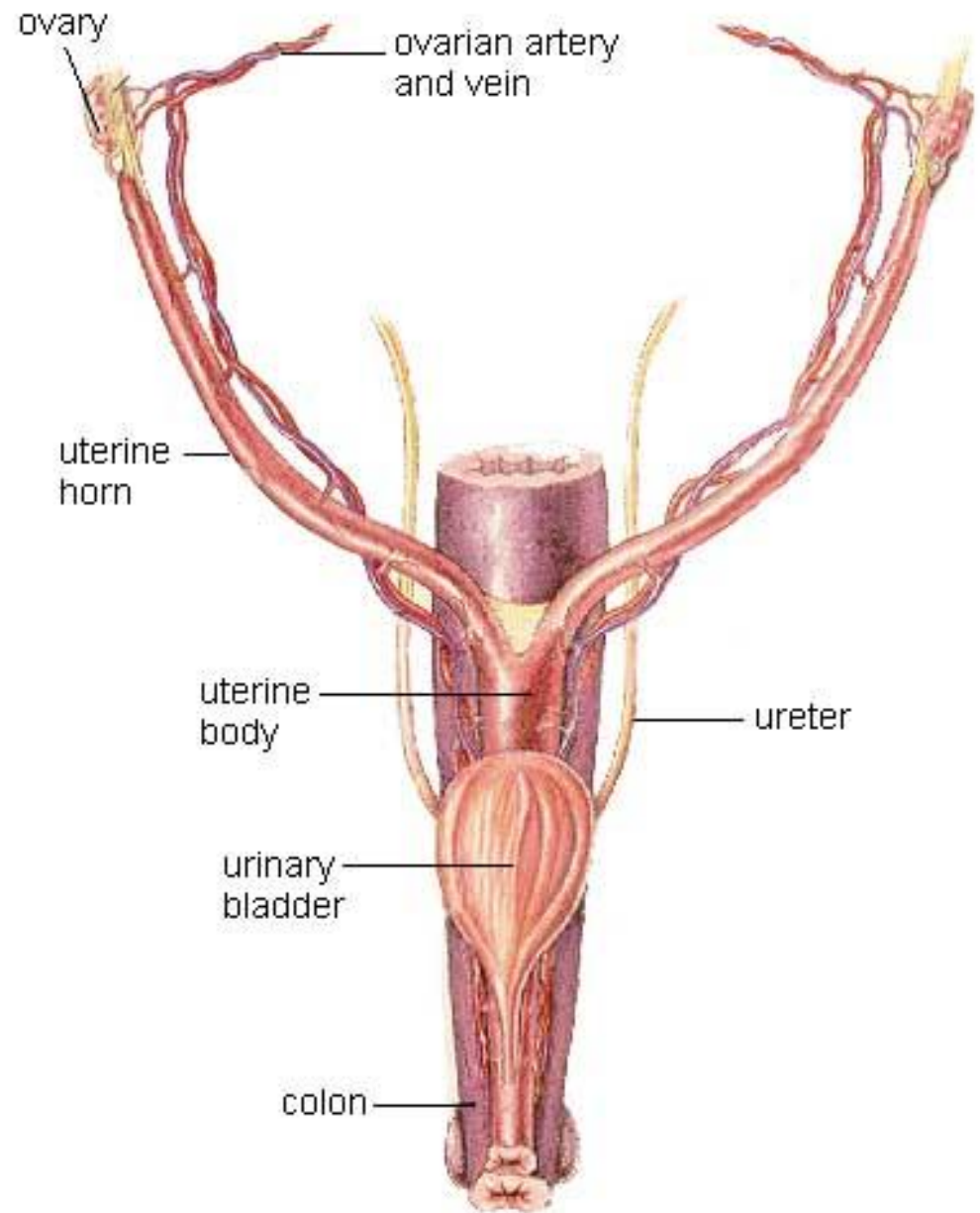
New Product!
Nouvel Produit!

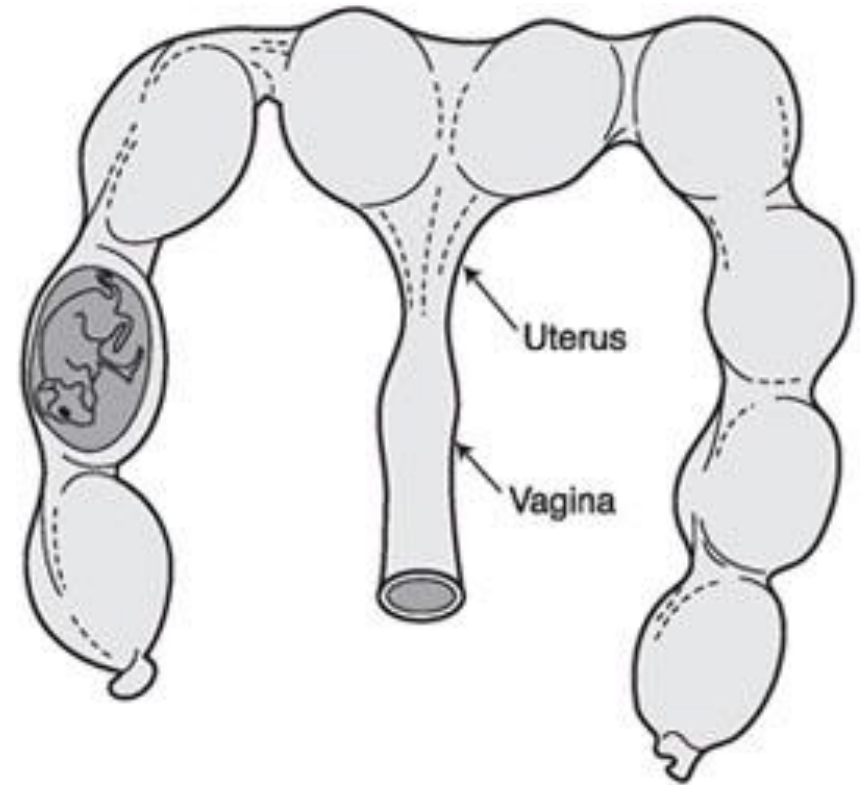
FERTILIZATION normally occurs in the Fallopian Tubes



The fertilized egg (zygote) implants in the uterus

In animals that have a large number of offspring (like cats) the uterus is divided into two uterine horns (the fallopian tubes in humans). Gestation of embryos occurs in these tubes.

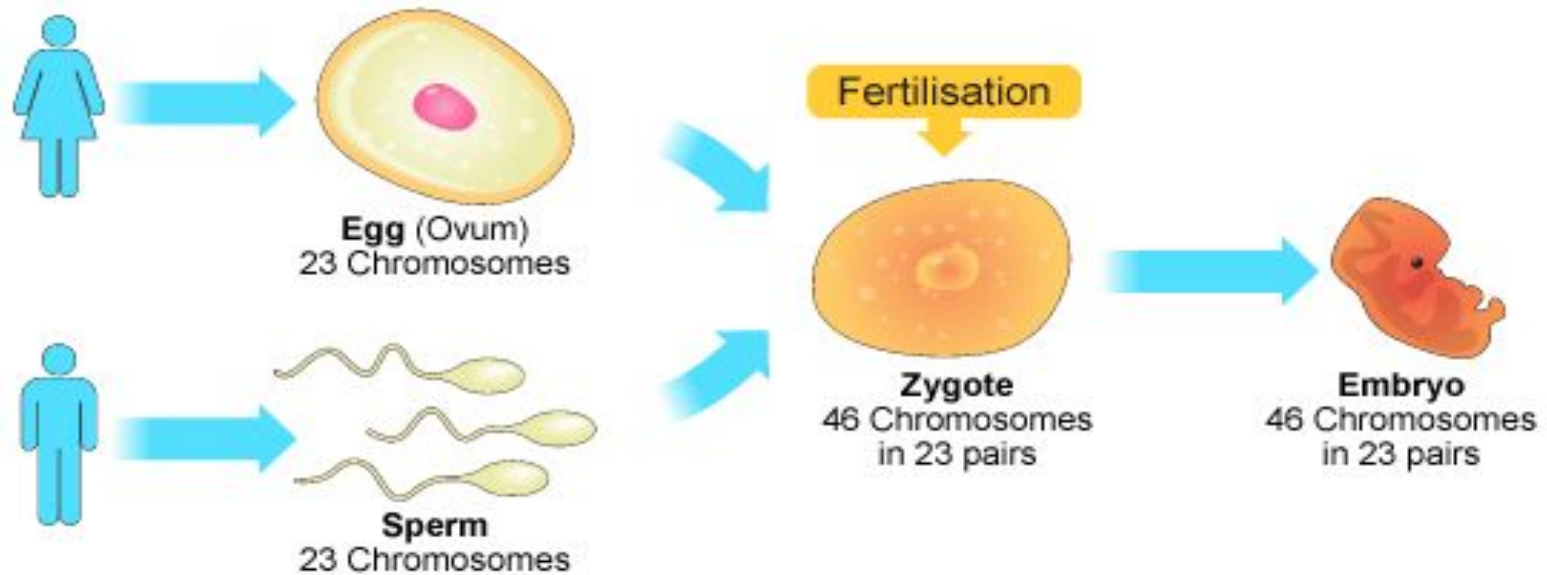




FERTILIZATION & PREGNANCY

Sperm must travel to the egg and penetrate to combine the DNA from both parents -- this creates the first cell after fertilization: the ZYGOTE

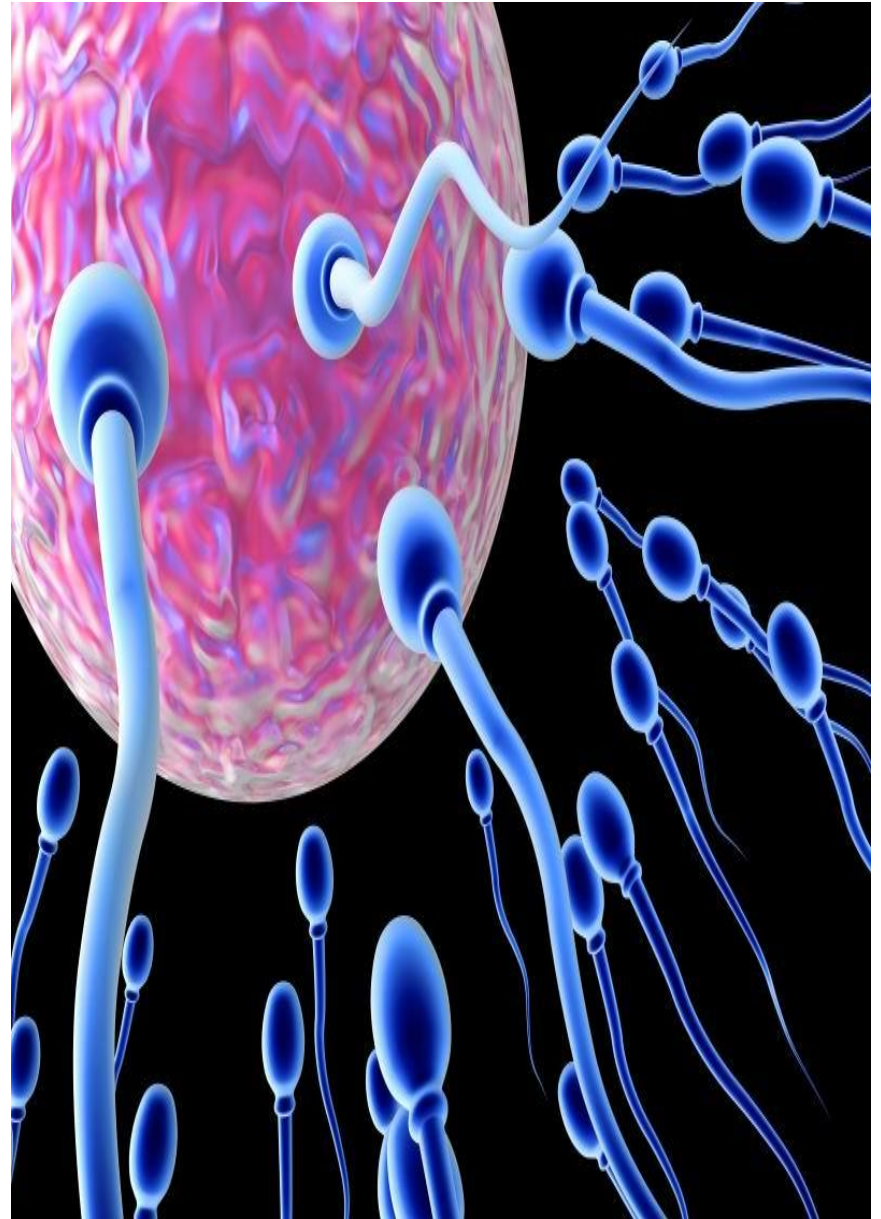
23 chromosomes from each parent; zygote has a total of 46 chromosomes



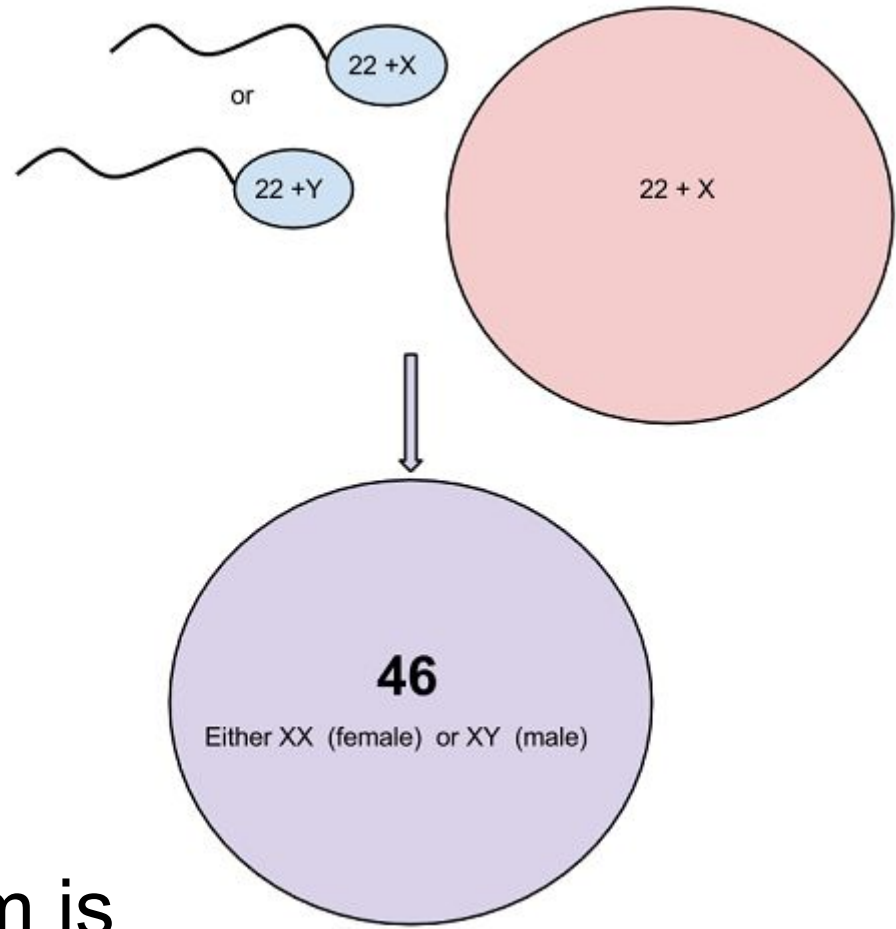
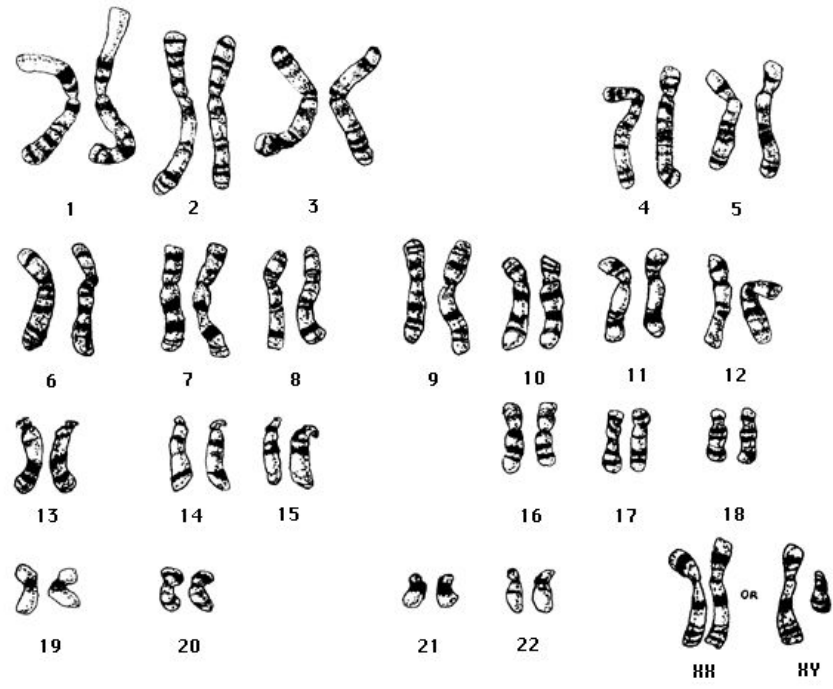
CONCEPTION

Refers to the point at which the egg is fertilized

Some believe life begins at conception



SEX DETERMINATION

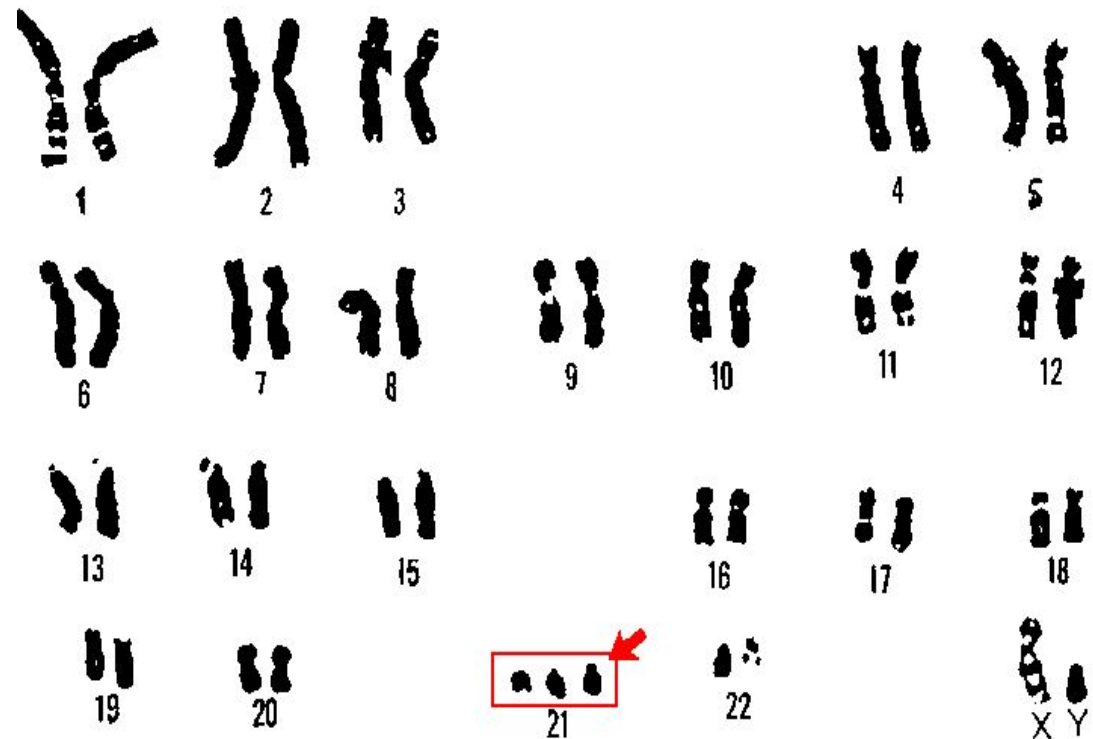


The sperm is what determines the sex of the baby!

It is all up to the men

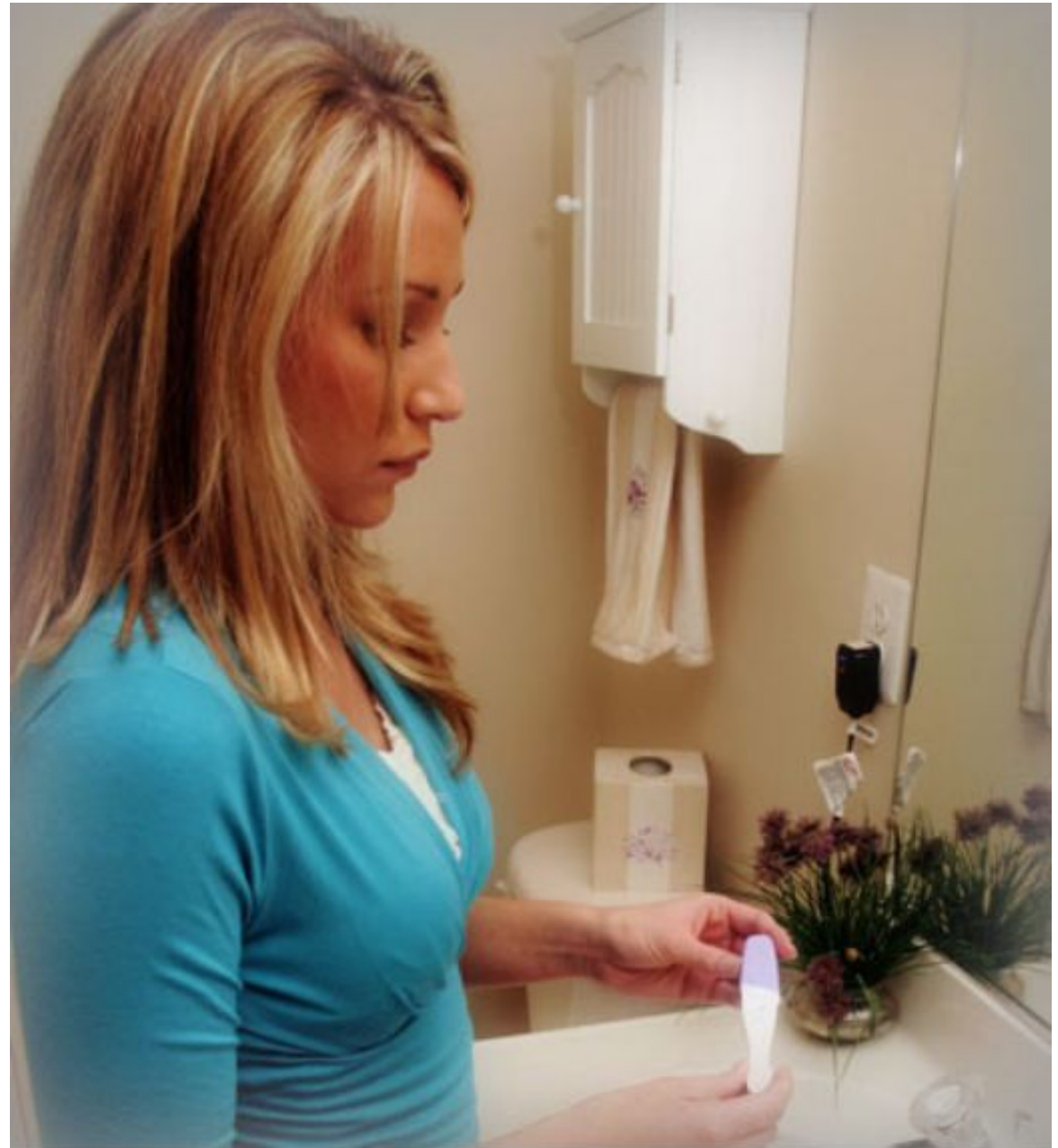


If the zygote has the incorrect number of chromosomes, it may never start growing. An extra chromosome #21 will result in the baby having Down Syndrome.



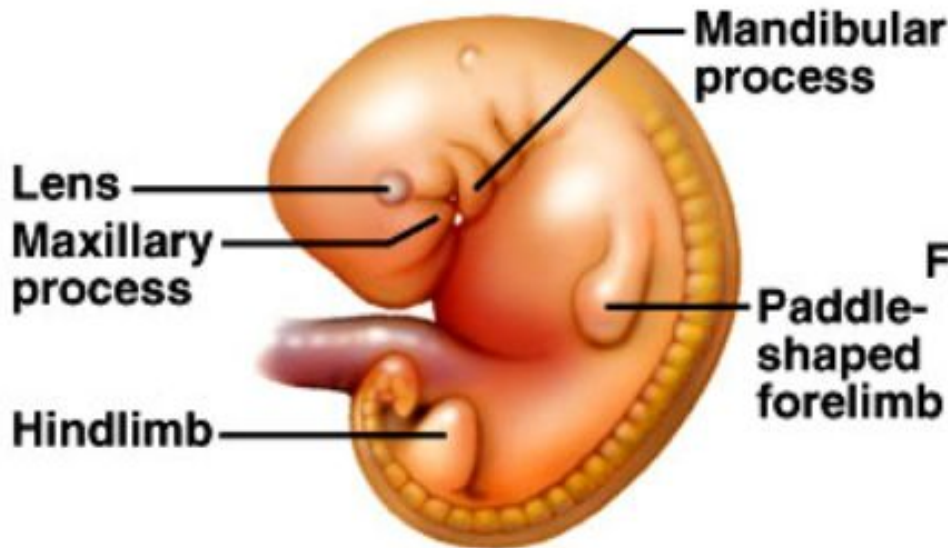
How does a woman know she is pregnant?

- Missed period
- Changes in body, tenderness in breasts, nausea...etc
- Pregnancy test – tests urine for

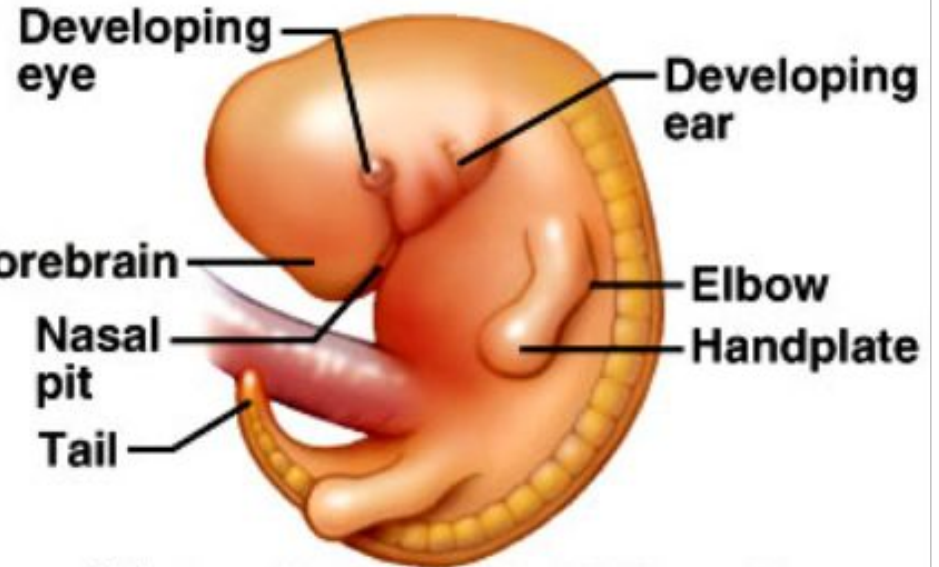


Fetal Development

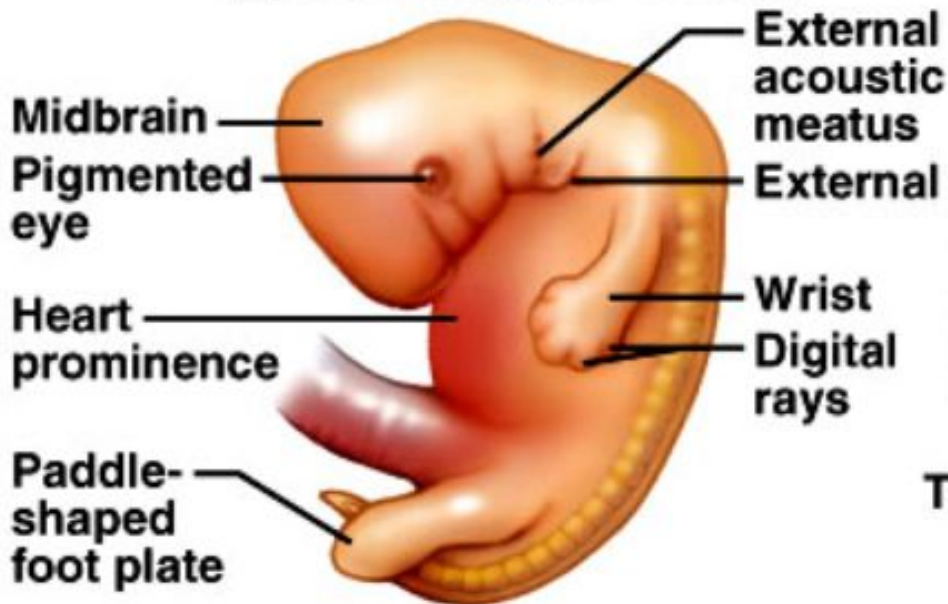
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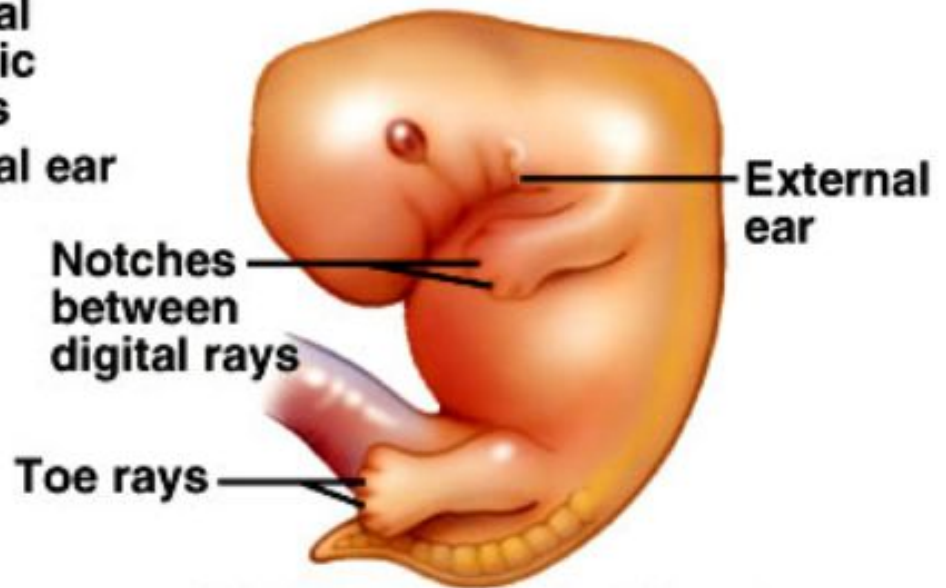
(a) 35 ± 1 day (10–12 mm)



(b) 37 ± 1 day (12.5–15.75 mm)



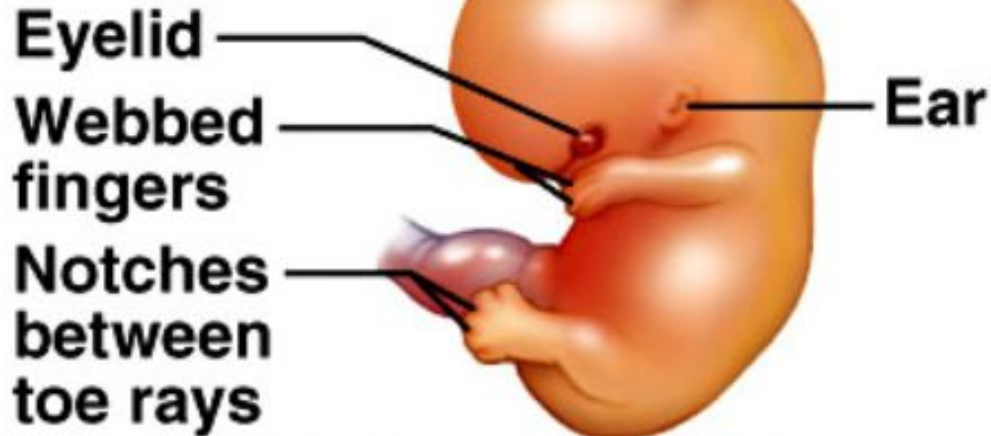
(c) 40 ± 1 day (16–21 mm)



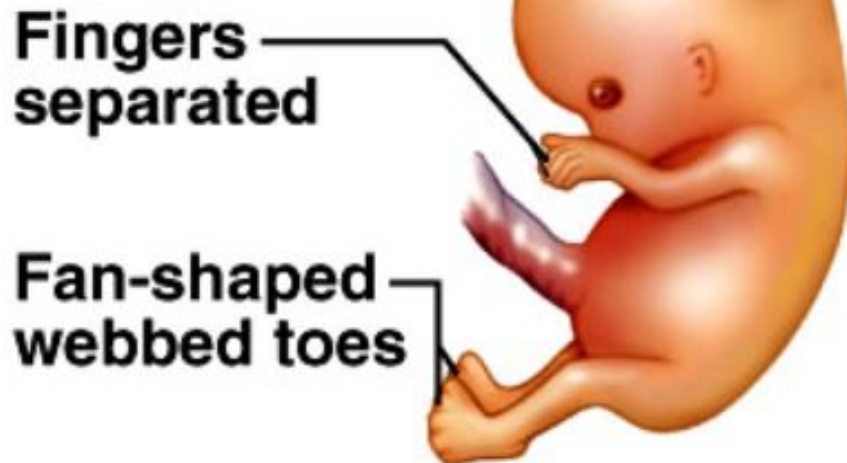
(d) 45 ± 1 day (22–24 mm)

Fetal Development

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(e) 49 ± 1 day (28–30 mm)



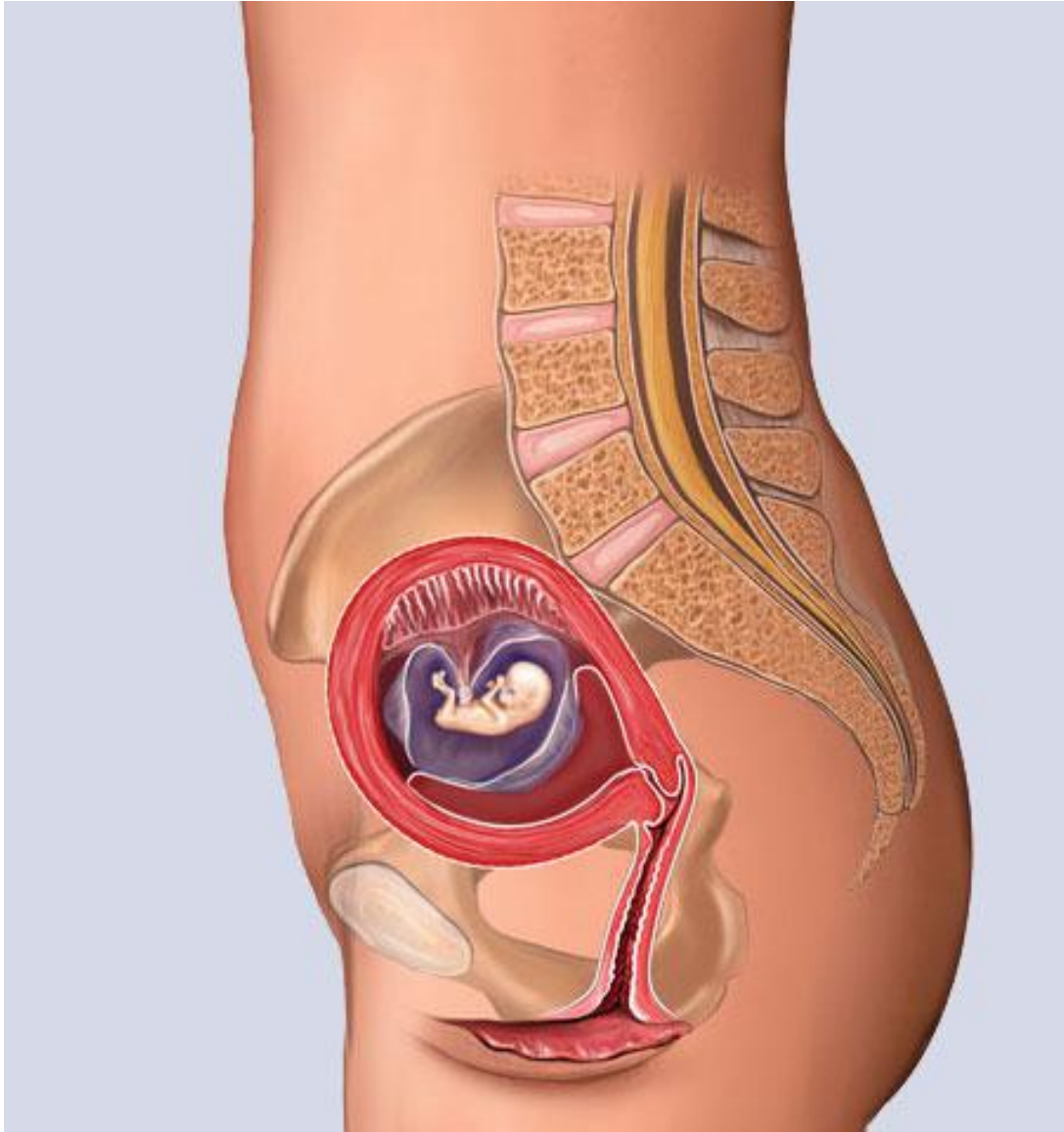
(f) 52 ± 1 day (32–34 mm)



(g) 56 ± 1 day (34–40 mm)

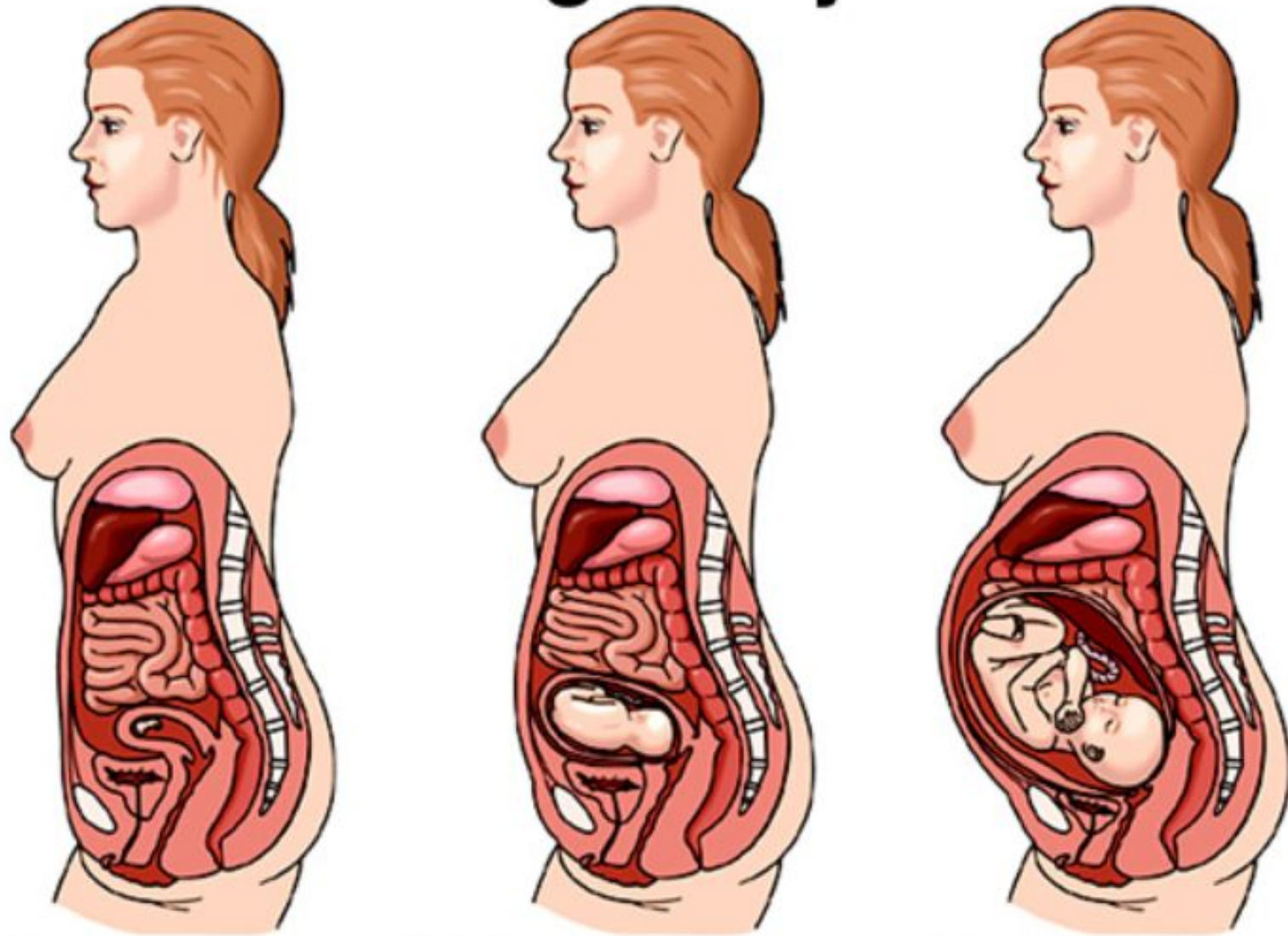
At the 8th week, the embryo is called a FETUS

At 8 weeks



<http://www.flickr.com/photos/lunarcaustic/3385925240/>

Changes in Woman's Body During Pregnancy



(a) First trimester (b) Second trimester (c) Third trimester



dani de pablos.

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(b)

What Causes Morning Sickness?

It is likely hormones that rise rapidly with most incidences occurring in the first trimester

Human chorionic gonadotropin (hCG): This hormone rises rapidly during early pregnancy. No one knows how hCG contributes to nausea, but it's a prime suspect because the timing is right: Nausea tends to peak around the same time as levels of hCG. What's more, conditions in which women have higher levels of hCG, such as carrying multiples, are associated with higher rates of nausea and vomiting.



Fetal Tests

Ultrasound - sound waves produce an image of the baby

You can tell the sex of the baby and its position



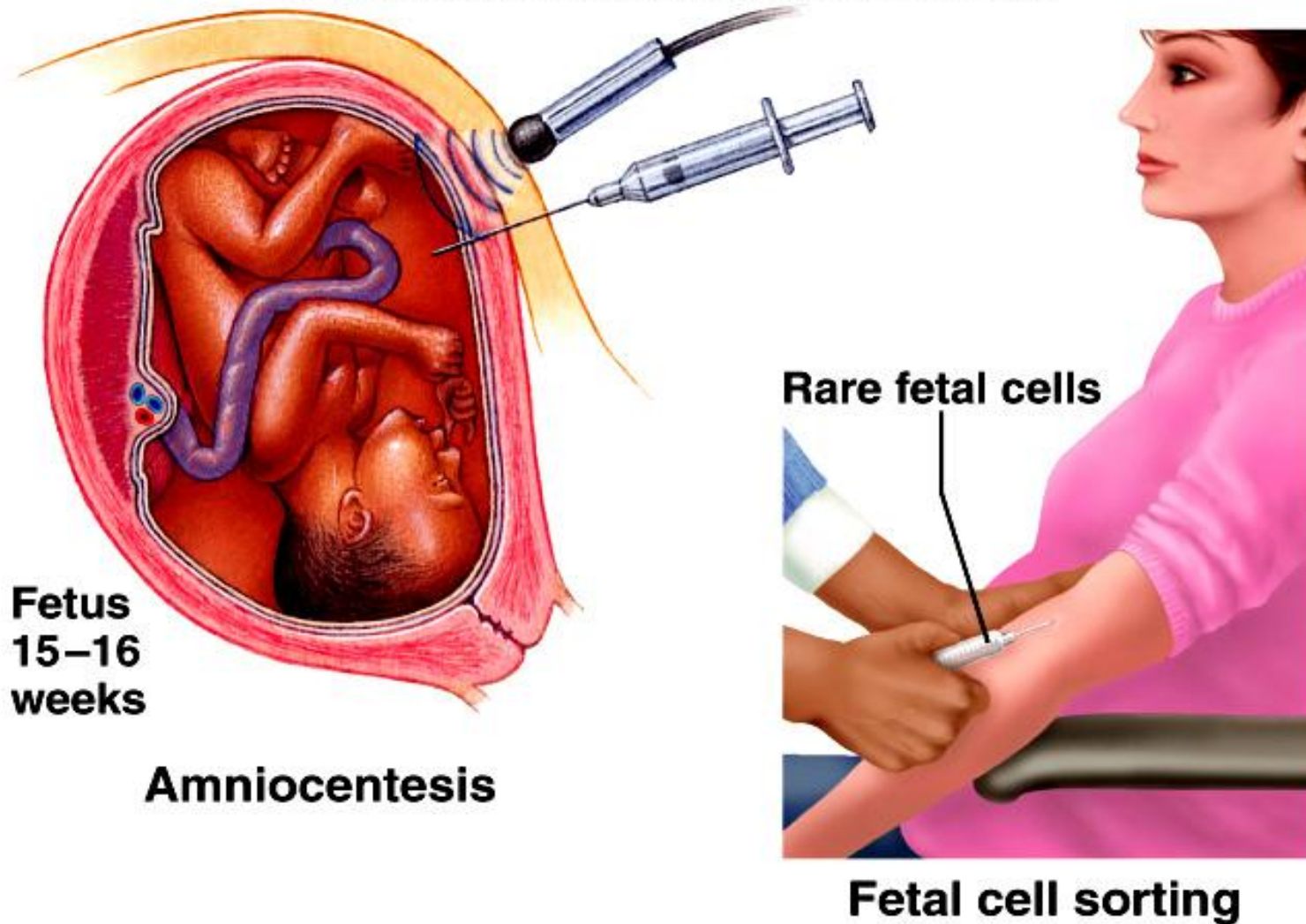
3D ultrasound uses a computer to render the image.



Amniocentesis

Tests fetal cells for abnormalities, such as chromosome numbers

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CHILDBIRTH

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The Fetus, Uterus & Placenta

