

FEMALE REPRODUCTION

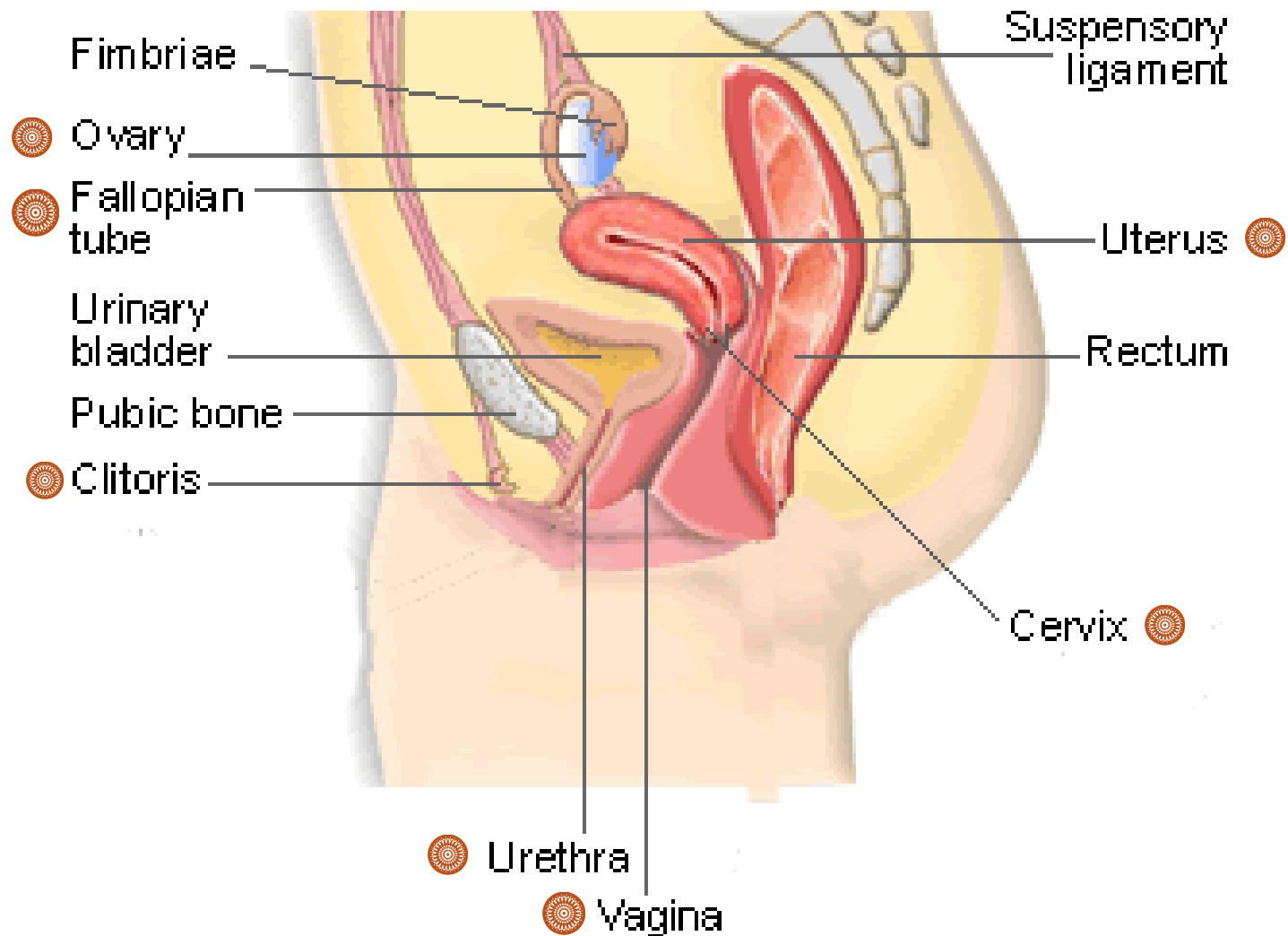


Reproductive System

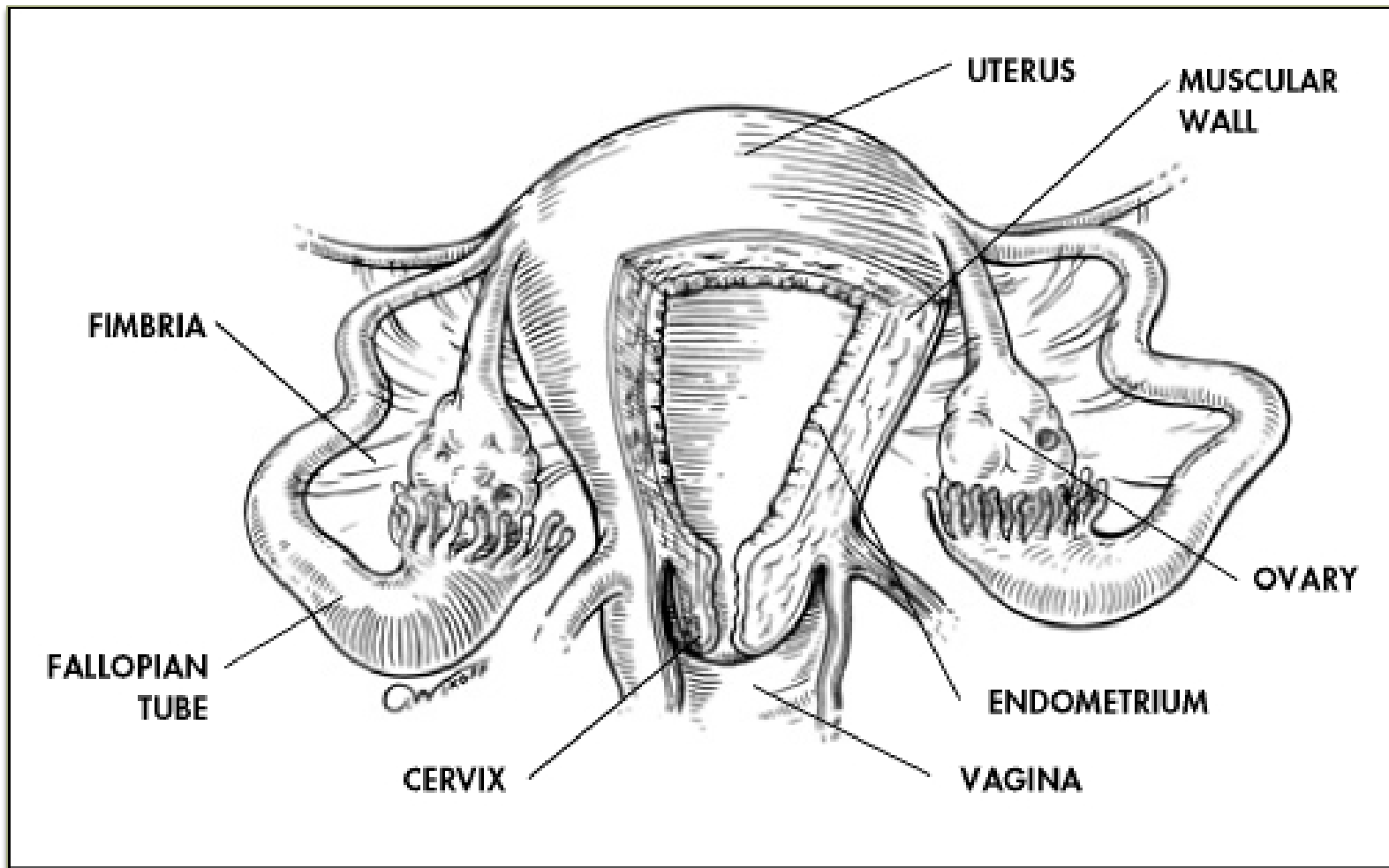
- Female Reproductive System

- ▣ Used during intercourse, reproduction, urination, pregnancy and childbirth

Internal Female Anatomy

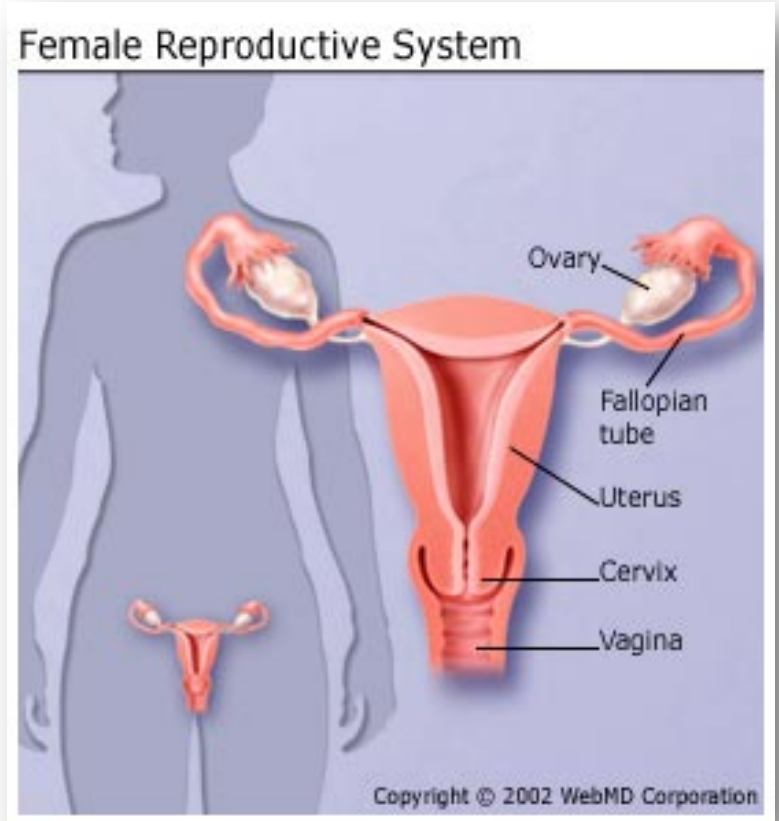


Front View



Ovary (Ovaries)

- *Two solid egg-shaped structures*
- *Attached to the uterus by ligaments*
- *The counterpart of the male testicles.*



Ovary (Ovaries)

- Ovaries have two main functions:
 - ▣ *Store and release the ova or female egg cell.*
 - Some of the ova disappear
 - Others are dormant until each is ripened and released after puberty
 - ▣ *Produce female sex hormones ESTROGEN and PROGESTERONE*

Estrogen

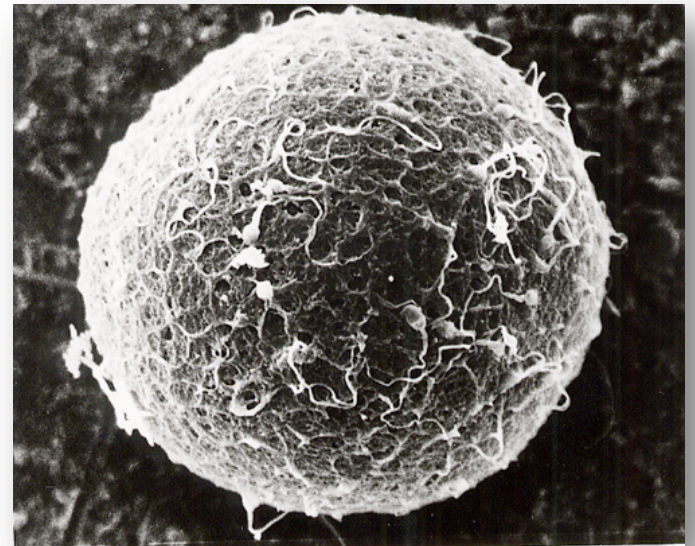
- *Responsible for the secondary sex characteristics*
 - ▣ Breasts and other female physical characteristics
- *Sex drive in females*
- *Spurs the onset of puberty*
- *Responsible for OVULATION.*

Progesterone

- *Builds up the lining of the uterus called the endometrium in preparation for the fertilized ovum*

Ovum

- The *female reproductive cell*
- The female baby is born with all the ova she will ever have (about 200,000 in each ovary)
- They are the largest cells in the female body
 - ▣ About the size of a grain of sand
- *About 400-500 ova mature released over a lifetime*



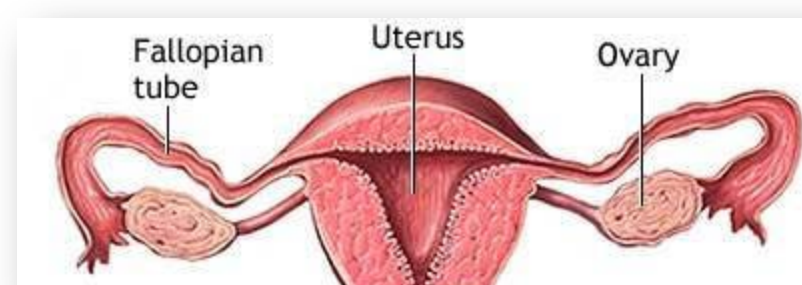
Ovulation

- *Occurs when the egg is released from the ovary*
 - ▣ At the onset puberty the ovum moves to the surface of the ovary and bursts out
 - ▣ The ova falls into the fallopian tube and waits for fertilization
- *Occurs on the 14th day of a 28 day menstrual cycle*



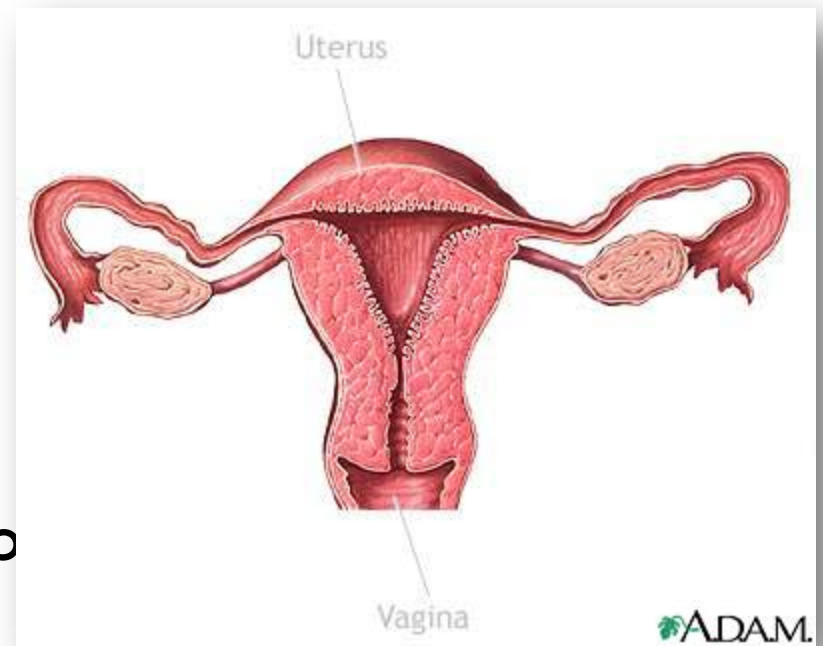
FALLOPIAN TUBES (oviducts)

- *Two tubes attached on either side of the uterus.*
- They are about four inches long and 3/16 inch in diameter
 - ▣ Size of a cooked spaghetti noodle
- *Carry egg cells toward the uterus and sperm cells toward the egg cell*
- Fertilization takes place in the upper third of the oviduct



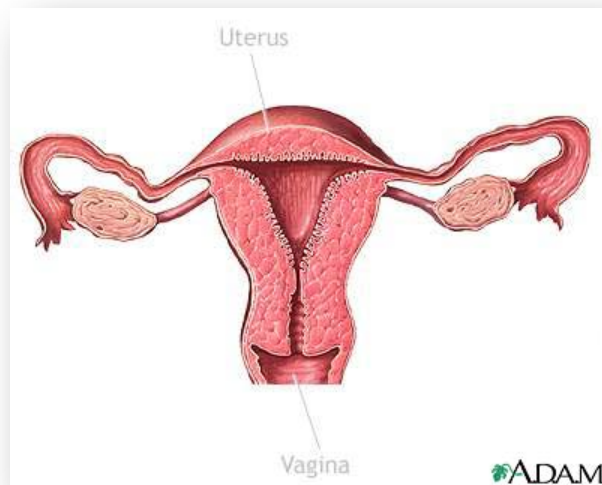
Uterus

- *A hollow, muscular organ*
 - ▣ Shaped somewhat like an upside-down pear
 - ▣ About the size of a fist
- The uterus is lined with endometrium (a blood lining)
- *The uterus has one main function*
 - ▣ *To protect and nourish a fetus*



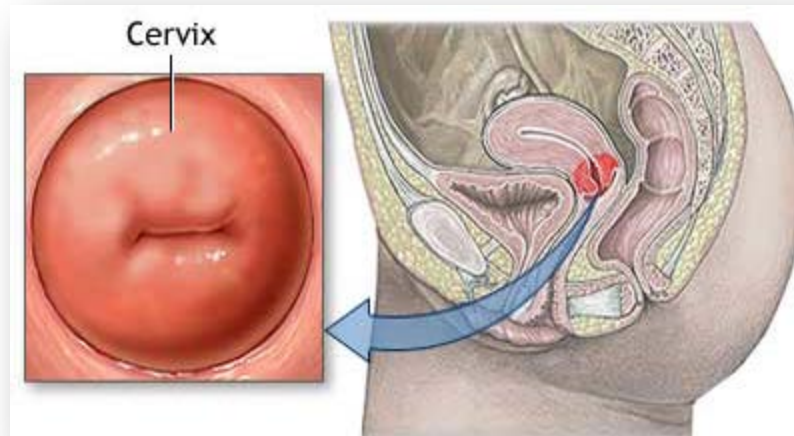
Uterus

- ❑ The walls of the uterus have the ability to stretch to the size of a small watermelon
- ❑ After childbirth the uterus shrinks back to the original shape in 6-8 weeks, but it can take up to nine months for the uterus to fully recover



Cervix

- *The neck or opening of the uterus*
- A normal healthy cervix is the *strongest muscle in the body*
- It dips down about half an inch into the vagina
- It is normally plugged by mucus so that it stays tightly closed during pregnancy--but thins and opens for the delivery of the baby



Vagina

- *Female organ used for intercourse*
- *It is an empty passageway leading from the vaginal opening to the uterus*
- It is only 3-4 inches long, but will lengthen during arousal
- The vaginal walls are made of many small folds of membrane that stretch greatly to accommodate a baby during birth.
- The vaginal wall also secretes a fluid that helps to make intercourse easier.



Urethra

- *The opening to the bladder*



Clitoris

- *A small, pea shaped bump at the front of the labia*
- It contains a small amount of erectile tissue
- The clitoris *increases sexual pleasure*



Fertilization

□ A sperm entering an ovum

- *Sperm enters the vagina goes up through the cervix, uterus and into both fallopian tubes*
- IF an ovum is present in the fallopian tube, the sperm surround it
- *One sperm (only one) penetrates the ovum*
- The other sperm move on
- If the egg is fertilized it moves through the Fallopian tubes to the uterus
- If not fertilized it disintegrates and is flushed away with menstruation

Fertilization



Menstrual Cycle

- *Menstrual cycle will occur after the beginning of puberty, approximately ages 8-13. (Menarche)*
- *During the menstrual cycle:*
 - ▣ *One ovary produces a mature egg cell*
 - ▣ *The lining of the uterus prepares for a fertilized egg*
 - ▣ *The lining breaks down if an egg is not fertilized*

Menstrual Cycle

- Day 1
 - ▣ *Menstruation begins (bleeding)*
- Day 5
 - ▣ *Menstruation is usually ended*
- Day 14
 - ▣ *Ovum has matured and bursts out of the ovary*
- Day 15
 - ▣ *After 24 hours the egg disintegrates*
- Day 26
 - ▣ *In the absence of fertilization, estrogen/progesterone levels drop and the endometrial lining breaks down*
- Day 28
 - ▣ *Last day of cycle—menstruation begins again*

Other

□ **PREMENSTRUAL SYNDROME (PMS):**

- *Symptoms include out of control emotions, headaches, water retention, irritability, and painful uterine cramps*

□ **TUBAL LIGATION:**

- *A sterilization operation for women*
- The surgeon makes a small incision in the abdomen and cuts and ties the oviducts.
- Tubal ligation does not interfere with menstruation or sexual capacity; the ovaries continue to produce hormones.

□ **HYSTERECTOMY**

- *Surgical removal of the uterus, either through an abdominal incision, or through the vagina, which leaves no abdominal scar*

Cause of Infertility

□ Endometriosis

- *Uterine lining grows in other places besides the inside of the uterus such as the bladder, intestinal walls, etc.*

□ Abnormal Ovulation

- *Eggs does not ripen—Easily treated with easily with fertility drugs*

□ Other

- *Cervical Factors, Amenorrhea, pH content of Vagina, Ovum Problems, Abnormal Tubes, Obesity, Eating Disorders, Drug Use, Psychological Based Problems, STD's*