

MENSTRUAL CYCLE

1. Match the terms with the appropriate definitions:

OOCYTE *UTERINE CYCLE* *OVULATION* *ENDOMETRIUM* *FOLLICLE*
STIMULATING HORMONE (FSH)* *CORPUS LUTEUM* *OVARY* *LUTEINIZING
HORMONE (LH)* *FOLLICLE* *OVARIAN CYCLE* *(O)ESTROGENS*

The site on the ovary from where the ovum was released; it releases hormones to prepare the endometrium for implantation of the fertilized ovum -

The blood-rich interior lining of the uterus, where implantation of the fertilized ovum occurs-

A hormone released by the pituitary gland that stimulates ovum production and maturation.-

A hormone released by the pituitary gland that stimulates ovum release from the ovary and corpus luteum production-

The female reproductive cell (egg, or ovum)-

Creates the ovum-

The sequence of physiological changes in the ovary involved in ovulation-

The cycle that involves changes in the uterus-

The process of producing an ovum-

A small sac where the ovum matures-

Hormones responsible for the development of secondary and tertiary sexual features-

2. Read the text about the ovarian cycle. Then put the steps of the ovarian cycle in the correct order:

The main function of the female reproductive system is based on two cycles: the ovarian cycle and the uterine cycle. Both cycles are controlled by hormones and also result in related changes in the breasts and the cervix. The two cycles are closely related and they happen at the same time. Thus, the first day of the uterine cycle is the first day of the ovarian cycle.

The ovarian cycle is approximately 28 days long and includes the development of an ovarian follicle, the rupture of the follicle, the discharge of the ovum, and the formation and the regression of a corpus luteum. The changes that take place in the ovarian cycle can be divided into three phases:

The follicular phase:

It lasts from the first day of menstruation to about 13th day of the cycle. It's called the follicular phase because the growth of the egg (ovum) takes place inside a follicle. Each female is born with

about 1 million of immature eggs, or oocytes, within each of the ovaries. The majority of these oocytes die before they can mature. Besides, no new oocytes develop during a woman's life, so their number decreases all the time. A woman, when she reaches maturity, has got about 200 000 oocytes in each ovary.

On average a woman will ovulate 400 times during her lifetime. The selection of follicles that will be involved in the process of ovulation takes place during the first few days of the ovarian cycle. Each follicle is an oocyte surrounded by a layer of cells. The number of the selected follicles varies from 3 to 30 during a cycle. The FSH stimulates the change from the primary oocyte to the secondary oocyte in case of one follicle. This follicle is then called the dominant follicle. When the dominant follicle has been selected, the level of FSH drops so that the other follicles stop growing.

The next stage of development is the pre-ovulatory follicle. About 24-36 hours before the ovulation takes place, the level of (o)estrogens increases significantly. When the level of (o)estrogens reaches its peak, we can observe that the level of the LH starts to increase.

(from:<http://www.tubalreversal.net/clomid-clomiphene.htm>)

The ovulatory phase:

During the ovulation, the production of progesterone begins to increase. One of the functions of progesterone is to destabilize the follicular wall so that the ovum can be released. The main symptoms of the ovulation are: an increase in body temperature by 0.5°C, a gradual increase in the secretion of the cervical mucus (caused by (o)estrogens), in some women: "mittelschmerz" (aching around ovaries), in some women: spotting (small amount of blood mixed with vaginal discharge).

The luteal phase:

The luteal phase lasts approximately for the last 14 days of the cycle, that is from the moment the ovulation finishes until the first day of menstruation. The luteal phase is characteristic of high levels of progesterone, whereas the luteinizing hormone and follicle-stimulating hormone continue to decrease. After the follicle ruptures, the corpus luteum is formed in the ovary. If the ovum is fertilized, the corpus luteum will produce hormones. The function of these hormones is to protect

the developing pregnancy. If the ovum is not fertilized, the corpus luteum will regress (involution) around 26th-28th day of the cycle and new follicles will be selected for the next cycle.

Step 1: _____

Step 2: _____

Step 3: _____

Step 4: _____

Step 5: _____

The corpus luteum forms and produces progesterone. Ovulation takes place. Corpus luteum disintegrates (if there is no fertilization). Follicular cells divide and produce (o)estrogen. A cavity fills with fluid. The follicle contains the oocyte.

Decide if the sentences are true or false:

1. An egg (ovum) lives 2-6 hours after leaving the ovary.
2. Normally only one egg is released each time of ovulation.
3. Ovulation can be affected by stress, illness or disruption of normal routines.
4. Some women may experience some light blood spotting during ovulation.
5. Implantation of a fertilized egg normally takes place 2-4 days after ovulation.
6. Each woman is born with millions of immature eggs that are awaiting ovulation to begin.
7. A menstrual period can't occur when ovulation has not occurred.
8. Some women can feel a bit of pain or aching, near the ovaries during ovulation. This is called "mittelschmerz".
9. If an egg is not fertilized, it disintegrates and is absorbed into the uterine lining.
10. Sperm can live in a woman's body for at least 10 days after intercourse.
11. Pregnancy is most likely if intercourse occurs anywhere from 3 days before ovulation until 2-3 days after ovulation.

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