

The female reproductive system

[Science](#), [Anatomy](#)



Shakeeta Morgan For life to have an on-going process, there must be the process of creating new life. This process is called reproduction. Human beings reproduce in much the same way as other mammals. There is need for both male and female to be involved in the human reproductive process.

The Female Reproductive System The female reproductive system consists of the fallopian tube, ovum, ovary, uterus, cervix and vagina. **Ovary** This is the name for the sex gland that is similar in function to the male testicle. They are two in number and are located on either side of the uterus (womb).

Each ovary is covered by a tough protective capsule and contains many follicles. A follicle is an egg cell surrounded by one or more layers of follicle cells. It is estimated that about 400,000 eggs (ovum) are stored in each ovary at birth. However, only one egg becomes ripe each month, once puberty begins, and departs from the ovary and travels into the fallopian tubes (oviduct). They also manufacture the female hormones estrogen and progesterone which is instrumental in the onset of the menstrual cycle.

Ovum(ova) egg cell

A microscopic egg cell is released from one of the two ovaries at an average cycle of once every 28 days. When sperm cells encounter an ovum in the fallopian tube, they swarm around it like bees around honey. Once one sperm cell breaks through the outer membrane of the ovum by using hydrolytic enzymes, the egg immediately produces a wall that blocks a second sperm from entering. When fertilization of an ovum occurs, menstruation stops and no other ovum can be discharged until the fetus has left the uterus. **Luteinizing hormone (LH)**

This hormone is responsible for triggering the release of the ripe egg from the ovary. Corpus Luteum-sound After the ovum (egg) is released from the ovary, a small temporary gland forms in the ovary and begins to produce the hormone progesterone. Progesterone-sound Progesterone is secreted to help prepare the endometrium to receive a fertilized ovum. Once menstruation occurs, progesterone levels decrease and slowly rise again to form a new endometrium. Fallopian tube (oviduct)-sound The ovum is transported from the ovary to the uterus over a period of one to five days via the fallopian tube.

They are two in number and lead directly to the uterus. As the egg travels down the tube, hair-like cilia move the egg toward the uterus by a swaying motion. If one fallopian tube becomes blocked and an egg attempts to travel down to the uterus through it, the egg will not be able to make contact with a sperm cell. Occasionally, an egg will implant on the fallopian tube wall. When this happens, the tube painfully ruptures as the egg matures into an embryo. The embryo is expelled from the body and the fertilization process must begin again. Fertilization (conception)

Fertilization occurs when one sperm unites with an egg. This usually happens in the fallopian tubules of the female. Ovulation Ovulation is a period of time when a female becomes fertile and can conceive (when a sperm cell and an egg can unite). It usually occurs two weeks before the onset of the female menstrual cycle and lasts for one to five days; the amount of time it takes for an egg to travel down the fallopian tube. Blastula-sound The name for a

zygote after the process of cleavage, cell division. The blastula is a hollow ball of cells and travels down the fallopian tube to the uterus.

During this stage the growing egg implants itself into the endometrium. Zygote-sound The fertilized ovum that can divide into a group of human tissue cells and becomes an embryo is called the zygote. A zygote usually forms in the fallopian tubes. Menstruation-sound Two weeks, on the average, after ovulation, if the egg is not fertilized, it dies and the blood rich cells of the membrane of the uterus and the microscopic unfertilized ovum pass through the uterus out through the vagina in a process called menstruation.. Uterus (womb)-sound

The uterus is a thick, muscular organ in the reproductive system shaped like an upside down pear located within the abdomen of a female. It is the place where the membrane lining of the uterus endometrium becomes thicker as it amasses blood and nutrients to accommodate the embryo which will develop and grow into a fetus. It is also the origin of the bloody discharge that usually occurs monthly during the reproductive years of a female. The unique arrangement of the When it is time for the fetus to be born, the uterus will contract to expel its contents.

Cervix An opening at the top end of the vagina leading to the uterus is called the cervix. After an embryo has favorably been implanted in the uterus, the cervix is sealed off to stop infection and allow amniotic fluid (the fluid that surrounds the fetus) to fill the uterus. During the first stage of labor, expulsion of the fetus from the uterus, the cervix dilates (increases in size) to

form a passageway for the fetus into the vagina. Endometrium-sound This is the lining of the uterus that is prepared to receive the fertilized ovum.

The rich endomerium is equipped with blood vessels which attach to the growing embryo and nourish it. Vagina-sound This tubular female sex organ serves many functions. It is the place where menstrual discharges pass out of the body. It also stretches to function as a birth canal when it is time for the fetus to be expelled from the uterus. It is the channel through which the sperm in the semen travel up toward the fallopian tube to fertilize an egg. Although its muscular tissue is much thinner than the uterus, the walls are strong enough to contract to hold a penis or allow passage of a babys head.