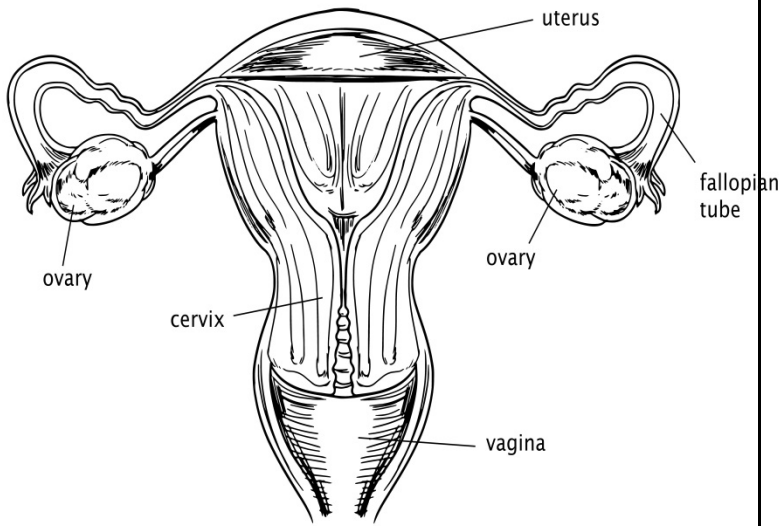


Understanding Reproduction

In order for a woman to get pregnant, two things are required:

- The woman's egg must be fertilized by a man's sperm; and
- The fertilized egg must implant in the uterus.

Female anatomy



A woman's reproductive organs perform these functions in a cycle of roughly 28 days:

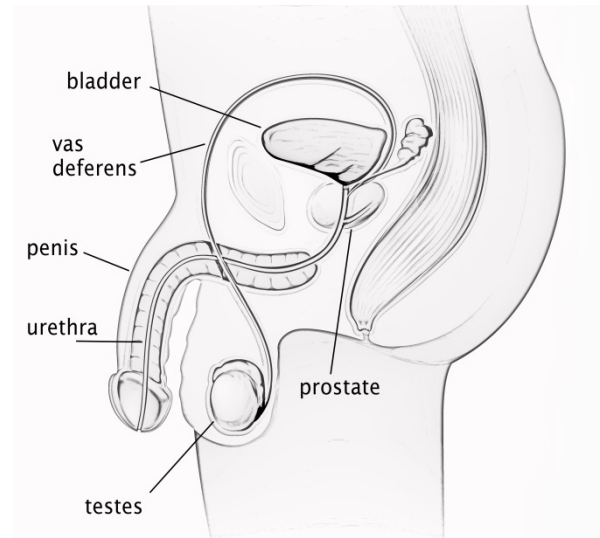
- Mature an egg inside one of the ovaries.
- Prepare the uterus for a fertilized egg.
- Release the egg into the fallopian tube, where fertilization may or may not take place.
- If no fertilized egg implants during the cycle, shed the endometrium and begin again.

The **ovaries** are small glands that produce eggs and the female sex hormones estrogen and progesterone.

The **uterus** is a hollow organ that leads down from the ovaries to the vagina. During pregnancy, a developing fetus grows inside the uterus.

The **fallopian tubes** reach from the uterus to the ovaries. The fallopian tubes pick up eggs released from the ovaries and transport them to the uterus. The inner lining of the uterus is the **endometrium**.

Male anatomy



The function of a man's reproductive organs is to:

- Produce sperm and testosterone.
- Produce enough semen to transport sperm.
- Ejaculate sperm outside the man's body.

Sperm are the male reproductive cells. Sperm is produced in the **testicles** (or testes) along with testosterone, the main male sex hormone.

Sperm is contained in **semen**, a fluid that comes out of the penis when the man reaches sexual climax with ejaculation.

Internally, the **seminal vesicle** and **prostate gland** produce most of the fluid that makes up semen.

The **epididymis**, **vas deferens** and **urethra** are responsible for storing and transporting sperm from the testes to the penis.

Men can produce sperm at any time, but women only release an egg once a month. The sperm must get together with the egg at a specific time in the month for fertilization to occur. That is why understanding a women’s reproductive cycle, or menstrual cycle, is important for fertility.

The menstrual cycle lasts 28 days for most women. Variation (24-38 days) is normal. It is divided into phases as follows:

Follicular Phase

This phase begins on the first day of menstrual bleeding (day 1). In this phase, the body releases follicle-stimulating hormone (FSH) to stimulate the production of eggs in the ovaries. As soon as menstrual bleeding stops the lining of the uterus starts growing again to prepare for a fertilized egg.

Ovulation

After about 14 days, a surge of luteinizing hormone (LH) causes an ovary to release an egg into the

fallopian tube. This is called ovulation. Presence of LH in a woman’s urine can indicate that ovulation is taking place.

Luteal Phase

In this phase the lining of the uterus thickens and fills with nutrients to nourish a potential embryo. If a fertilized egg implants, cells begin to form around the developing embryo. If the egg is not fertilized or if the fertilized egg does not implant, the lining of the uterus breaks down and menstruation starts.

Fertile window

For a woman to get pregnant, intercourse needs to happen during her fertile period, which starts about five days before ovulation. Sexual intercourse a few days *before* ovulation ensures that sperm is ready and waiting in the woman's reproductive tract when the egg is released. This increases the chance of fertilization.

Hormones in the Menstrual Cycle (28-day)

