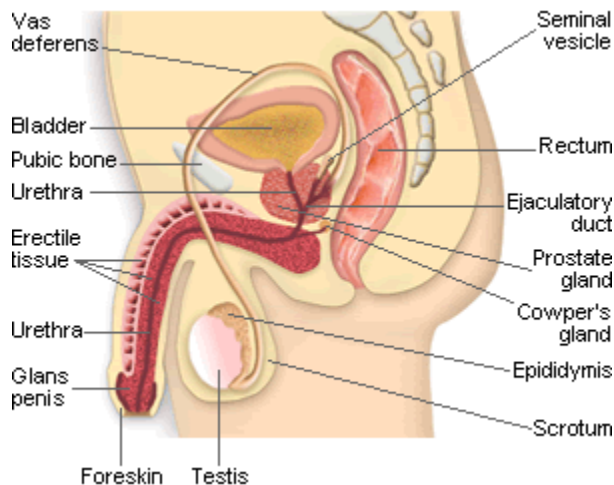


Male reproductive system

Male reproductive organs or male reproductive system

Side view



The main reproductive organs of the male body are the testes, which produce sperm and also male hormones, in the form of testosterone. The male reproductive system also includes the external genitals — the penis and the scrotum — and the internal structures, including the prostate gland, the vas deferentia (plural for the 2 vas deferens), the urethra, and the seminal vesicles.

Testes

The paired oval testes, also known as the male gonads, hang in the scrotal sac. Usually the right testis hangs higher than the left one by about 1 cm. The testes hang outside the body because the temperature inside the body is too high to produce sperm, so they are produced in the testes at about 3 °C lower than body temperature.

Epididymis

At the back of the olive-shaped body of each testis is a cap formed by the many coils of a 20-foot long tube called the epididymis. The function of the epididymis is to collect the immature sperm from the testis.

As the sperm make their long journey through the epididymis they become mature sperm. This journey takes about 20 days and during its course the sperm become fertile and they also become able to move in a swimming motion (doctors refer to the sperm then as 'motile').

Vas deferens

Joined to the epididymis is the vas deferens — a thick walled tube which transports sperm from the epididymis up to the prostate gland. The section of the vas deferens that is above the testis can be felt through the loose part of the scrotum. When a vasectomy is performed, it is this part of the vas deferens that is snipped.

The vas deferens empties into the ejaculatory duct, which passes through the prostate gland to merge with the urethra.

The urethra

The urethra serves as the tube down which urine passes from the bladder through the penis to the outside and also the tube down which semen is ejaculated.

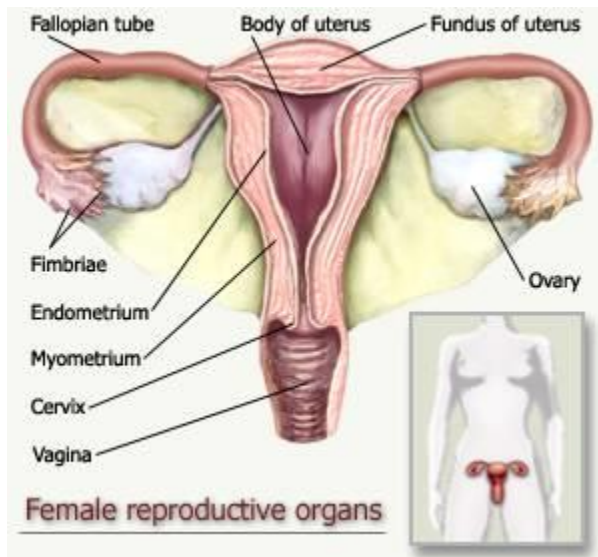
The prostate

The prostate is a walnut-shaped gland that surrounds the urethra. Along with the seminal vesicles it produces the fluid secretions that support and nourish the sperm. Without this fluid to dilute them the sperm cannot move easily.

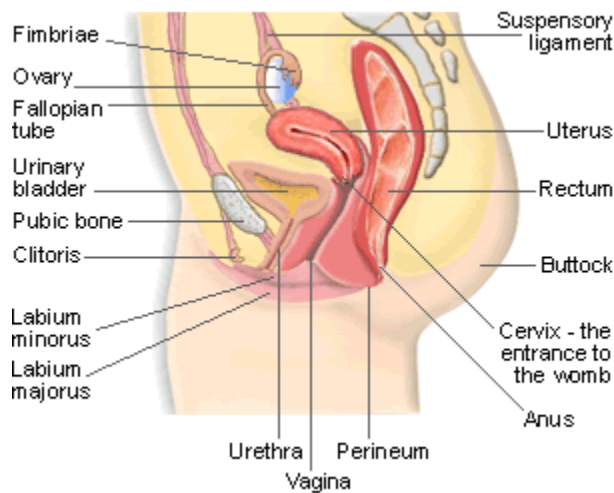
After the age of 40 the prostate enlarges and can press on the urethra. An enlarged prostate is often the cause of urinary problems in older men.

Female reproductive organs

Front view of female reproductive organs



Side view of female reproductive organs



The female reproductive organs include the ovaries, fallopian tubes, uterus and vagina.

Ovaries

The ovaries are the main reproductive organs of a woman. The two ovaries, which are about the size and shape of almonds, produce female hormones (estrogens and progesterone) and eggs (ova). All the other female reproductive organs are there to transport, nurture and otherwise meet the needs of the egg or developing fetus.

The ovaries are held in place by various ligaments which anchor them to the uterus and the pelvis. The ovary contains ovarian follicles, in which eggs develop. Once a follicle is mature, it ruptures and the developing egg is ejected from the ovary into the fallopian tubes. This is called ovulation. Ovulation occurs in the middle of the menstrual cycle and usually takes place every 28 days or so in a mature female. It takes place from either the right or left ovary at random.

Fallopian tubes

The fallopian tubes are about 10 cm long and begin as funnel-shaped passages next to the ovary. They have a number of finger-like projections known as fimbriae on the end near the ovary. When an egg is released by the ovary it is 'caught' by one of the fimbriae and transported along the fallopian tube to the uterus. The egg is moved along the fallopian tube by the wafting action of cilia — hairy projections on the surfaces of cells at the entrance of the fallopian tube — and the contractions made by the tube. It takes the egg about 5 days to reach the uterus and it is on this journey down the fallopian tube that fertilization may occur if a sperm penetrates and fuses with the egg. The egg, however, is usually viable for only 24 hours after ovulation, so fertilization usually occurs in the top one-third of the fallopian tube.

Uterus

The uterus is a hollow cavity about the size of a pear (in women who have never been pregnant) that exists to house a developing fertilized egg. The main part of the uterus (which sits in the pelvic cavity) is called the body of the uterus, while the rounded region above the entrance of the fallopian tubes is the fundus and its narrow outlet, which protrudes into the vagina, is the cervix.

The thick wall of the uterus is composed of 3 layers. The inner layer is known as the endometrium. If an egg has been fertilized it will burrow into the endometrium, where it will stay for the rest of its growth. The uterus will expand during a pregnancy to make room for the growing fetus. A part of the wall of the fertilized egg, which has burrowed into the endometrium, develops into the placenta. If an egg has not been fertilized, the endometrial lining is shed at the end of each menstrual cycle.

The myometrium is the large middle layer of the uterus, which is made up of interlocking groups of muscle. It plays an important role during the birth of a baby, contracting rhythmically to move the baby out of the body via the birth canal (vagina).

Vagina

The vagina is a fibromuscular tube that extends from the cervix to the vestibule of the vulva. The vagina receives the penis and semen during sexual intercourse and also provides a passageway for menstrual blood flow to leave the body.