Brief overview of Male and Female Reproductive System

The human reproductive system functions to produce human offspring with the male providing sperm and the female providing the ovum.

fig. 1 The Human Male Reproductive System Cross-sectional diagram of the male reproductive organs.

The male reproductive system consists of external organs. The testes in the scrotum produce the male gamete, sperm, which is ejaculated in seminal fluid by the penis.

The female reproductive consists of primarily internal organs. The female gamete, ovum, is produced in the ovaries, but upon release, once monthly, the ovum travels via the fallopian tube to the uterus.

Fertilization can occur if the penis is inserted through the vulva into the vagina and the sperm is ejaculated towards the cervix. Sperm that manages to get through the cervix then has the opportunity to fertilize an ovum.

Once fertilized, an ovum becomes a zygote, and, if all goes well, develops into a fetus in the uterus.

fallopian tubes
The Fallopian tubes, also known as oviducts, uterine tubes, and salpinges (singular salpinx) are two very fine tubes lined with ciliated epithelia, leading from the ovaries of female mammals into the uterus, via the utero-tubal junction.

vagina
A fibromuscular tubular tract which is the female sex organ and has two main functions; sexual intercourse and childbirth.

penis
The male sexual organ for copulation and urination; the tubular portion of the male genitalia (excluding the scrotum).

EXAMPLES

While the ultimate purpose of the human reproductive system is to produce offspring, the proximate purpose is to produce pleasure and induce bonding. This can be seen in our closest relatives the bonobo chimpanzees who have sex for a wide variety of reasons including pleasure, bonding, and alleviating tensions, in addition to producing offspring.

The reproductive system or genital system is a set of organs within an organism that work together to produce offspring. Many non-living substances such as fluids, hormones, and pheromones are also important accessories to the reproductive system. Unlike most organ systems, the sexes of differentiated species often have significant differences. These differences allow for a combination of genetic material between two individuals, which allows for the possibility of greater genetic fitness of the offspring.

Human reproduction takes place as internal fertilization by sexual intercourse. During this process, the erect penis of the male is inserted into the female's vagina until the male ejaculates semen, which contains sperm, into the female's vagina. The sperm then travels through the vagina and cervix into the uterus or fallopian tubes for fertilization of the ovum. Upon successful fertilization and implantation, gestation of the fetus then occurs within the female's uterus for approximately nine months. This process is known as pregnancy in humans. Gestation ends with labor resulting in birth. Labor consists of

fig. 2 The Human Female Reproductive System
the muscles of the uterus contracting, the cervix dilating, and the baby passing out the vagina. Human's babies and children are nearly helpless and require high levels of parental care for many years. One important type of parental care is the use of the mammary glands in the female breasts to nurse the baby.

The human male reproductive system is a series of organs located outside of the body and around the pelvic region of a male that contribute towards the reproductive process Figure 0. The primary direct function of the male reproductive system is to provide the male gamete or spermatozoa for fertilization of the ovum. The major reproductive organs of the male can be grouped into three categories. The first category is sperm production and storage. Production takes place in the testes which are housed in the temperature-regulating scrotum. Immature sperm then travel to the epididymis for development and storage. The second category is the ejaculatory fluid-producing glands which include the seminal vesicles, prostate, and the vas deferens. The final category are those used for copulation and deposition of the spermatozoa (sperm) within the male. These include the penis, urethra, vas deferens, and Cowper's gland.

Only our species has such a distinctive mushroom-capped glans, which is connected to the shaft by a thin tissue of frenulum (the delicate tab of skin just beneath the urethra). Chimpanzees, gorillas, and orangutans have a much less extravagant phallic design: more or less all shaft. One of the most significant features of the human penis isn’t so much the glans per se, but rather the coronal ridge it forms underneath. The diameter of the glans where it meets the shaft is wider than the shaft itself. This results in the coronal ridge that runs around the circumference of the shaft. Magnetic imaging studies of heterosexual couples having sex reveal that during coitus the typical penis completely expands and occupies the vaginal tract; and with full penetration can even reach the woman’s cervix and lift her uterus. This combined with the fact that human ejaculate is expelled with great force and considerable distance (up to two feet if not contained), suggests that men are designed to release sperm into the uppermost portion possible of the vagina. This may be an evolutionary adaptation to expel the semen left by other males while at the same time increasing the possibility of fertilization with the current male's semen.

The human female reproductive system is a series of organs primarily located inside the body and around the pelvic region of a female that contribute towards the reproductive process Figure 1. The human female reproductive system contains three main parts: the vagina, which leads from the vulva, the vaginal opening, to the uterus; the uterus, which holds the developing fetus; and the ovaries, which produce the female's ova. The breasts are also a reproductive organ during the parenting stage of reproduction. However, in most classifications breasts are not considered to be part of the female reproductive system. The vagina meets the outside at the vulva, which also includes the labia, clitoris, and urethra. During intercourse, this area is lubricated by mucus secreted by the Bartholin's glands. The vagina is attached to the uterus through the cervix, while the uterus is attached to the ovaries via the fallopian tubes. At certain intervals, typically
approximately every 28 days, the ovaries release an ovum, which passes through the fallopian tube into the uterus. The lining of the uterus, called the endometrium, and unfertilized ova are shed each cycle through a process known as menstruation. If the ova is fertilized by sperm, it attaches to the endometrium and the fetus develops.