

Reproductive system components, physiology and function

[Science](#), [Biology](#)



The human body is an amalgamation of different organ-systems which function independently towards the sustenance of different components of life. Starting from the circulatory, reproduction, nervous, digestive, and lymphatic system, each of these body systems is crucial such that body functions would collapse if its functions were withdrawn. These systems have different physiologies and functions and can be broken down to individual components that make them (Heffner & Schust, 2010). This paper will examine and present the physiology and function of Ovum, corpus Luteum, scrotum, fallopian tubes, and Ovulation.

Ovum is a single-celled female egg which carries the feminine genetic material to be passed on to the offspring. For this egg to develop into a zygote, a male seed usually carried by the sperm has to be introduced into it (Rogers, 2011). Ovum physiology is very detailed. Its development is induced at the follicle by a specialized hormone (Follicle Stimulating Hormone) while upon maturity; luteinizing hormone induces its release from the ovary into the mouth of the fallopian tube. An ovum is related to the reproductive system in that without an ovum fusion of gametes cannot take place (Heffner & Schust, 2010). Each ovum is haploid leaving the other half to come from the sperm; this would constitute a diploid molecule, the zygote which grows to become a fetus.

Corpus Luteum (CL) is a yellow mass resulting from the rapture of the ovarian follicle which produces the ovum. The principal physiological function of CL is inhibition of Gonadotropin-releasing hormone in case of implantation occurs. Its characteristic yellow color is because of the high content of carotenoids. This component is crucial to the reproductive system in that it

supplies a high level of progesterone which supports the zygote in the early stages of development (Rogers, 2011). In case implantation never occurs, corpus Luteum degenerates. Scrotum only functions as a sack to hold the testes, which are the male gamete secreting centers. Scrotum is essential in the reproductive system because it offers a sack cooler than the normal body temperature, which is adept for spermatogenesis.

Ovulation has been scientifically defined as the ovarian release of ovum into the fallopian tube. This process is hormonally controlled by hormones released by the hypothalamus namely luteinizing hormone and follicle-stimulating hormone (Rogers, 2011). Ovulation is important because it provides a chance for fertilization to take place. Correct timing of ovulation can help improve the sexing of the offspring.