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**SPERM TRANSPORT IN THE FEMALE REPRODUCTIVE TRACT**

At coitus human sperm are deposited into the anterior vagina, where, to avoid vaginal acid and immune responses, they quickly contact cervical mucus and enter the cervix. Cervical mucus filters out sperm with poor morphology and motility and as such with poor morphology and motility and as such only a minority of ejaculated sperm actually enter the cervix. In the uterus, muscular contractions may enhance passage of sperm swim through the uterine cavity. A few thousand sperm swim through the uterotubal junctions to reach the fallopian tube (uterine tubes, oviduct) where sperm are stored in a reservoir or at least maintained in a fertile state by interacting with end salpingeal (oviduct) epithelium. As the time of ovulation approaches, sperm become capacitated and hyperactivated, which enables them to proceed towards the tubal ampulla. Sperm may be guided to the oocyte by combination of thermotaxis and chemotaxis. Motility hyperactivation assists sperm in penetrating mucus in the tubes and the cumulus oophorous and zona pellucida of the oocyte, so that they may finally fuse with the oocyte plasma membrane.

**FACTORS** **THAT** **FACILITATES/AIDS** **MOVEMENT** **OF** **SPERM**

**• The prostaglandins:** aid the movement of sperm to the secondary oocyte and to bring the fertilized eggs into the uterus from the uterine tubes, the smooth muscle contracts.

**• Flagellum:** The flagellum gives the sperm cell movement. It whips and undulates so that the cell can travel to the egg. The activation of tail movements is part of the process of capacitation, in which the sperm undergoes a series of cellular changes that enables its participation in fertilization.

• **Availability** **of** **fructose:** a nutrient provided by the seminal vesicles, within the semen, this is the main nutrient to sperm cells. It is responsible for energy for the sperm.

• **Motility** **hyper** **activation:** this assists the sperm in penetrating mucus in the tubes and the cumulus oophorous and zona pellucida of the oocyte, so that they may finally fuse with the oocyte plasma membrane.

**Structural** **factors**

* The ciliated epithelium of the vagina and cervix
* The mucus of the vagina is receptive to sperm
* Contraction of the uterus also helps sperm moves up