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Level/Department: 200L/Nursing.

Course Code: PHS 212.

Assignment Title: Fertilization.

Discuss the factors facilitating the movement of sperm in the female reproductive tract.

Movement of the sperm through uterus is facilitated by the antiperistaltic contractions of uterine muscles.

Uterine contractions are induced by oxytocin, which is secreted from posterior pituitary by neuroendocrine reflex during sexual intercourse.

Uterine contractions are also facilitated by prostaglandin present in Male seminal fluid.

Among 200 to 300 millions of sperm entering female genital tract, only a few thousand sperms reach the spot near the ovum. Among these two thousand sperms, only one succeeds in fertilizing the ovum.

During fertilization, the sperm enters the ovum by penetrating the multiple layers of granulosa cells known as Corona radiata present around the ovum. It is facilitated by hyaluronidase and proteolytic enzymes present in acrosome of sperm. Proteolytic enzymes from acrosome of the successful sperm diffuse through the structures of Zona Pellucida and inactivate the other sperms entering the ovum.

Penetrating movement of sperm is enabled by a protein called catSper present in the tail portion of the sperm. It is a tunnel-shaped protein and forms the ion channel for entry of calcium into sperm cell.