

Name: Adeola Temiloluwa

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Factors Facilitating Sperm Transport In The Female Reproductive Tract

- Alkaline secretions from prostate gland into the semen helps to create an alkaline environment in the acidic vagina to protect the sperm in the vagina.
- Prostaglandins present in the semen and the female reproductive tract facilitates myometrial contractions to help the movement of sperm towards the oviduct.
- Oestrogen and oxytocin secreted in the female help to assist myometrial contractions in order to facilitate the upward mobility of sperm towards the oviduct
- Oestrogen facilitates the production of a watery mucus in the cervix during the timing of ovulation to allow easy passage of sperm.
- In the female reproductive tract, sperm undergoes capacitation, this occurs after the sperm becomes more fluid ensuing the removal of cholesterol and glycoproteins from the membrane in order to expose the zona pellucida binding sites
- There is a change in the sperm membrane potential that permits Ca^{2+} (calcium) to enter the sperm to facilitate vesicle release for acrosomal reactions.
- Also during capacitation of sperm there is phosphorylation of numerous proteins needed in fertilization.