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**MATRIC NUMBER: 18/MHS02/003**

**COURSE CODE: PHS 212**

**COURSE TITLE: PYSIOLOGY**

**ASSIGNMENT**

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

The factors that facilitate the movement of sperm (sperm motility) in the female reproductive tract are as follow:

1. The flagellum (the tail): confers motility upon the sperm, and has three principal components which are; a central skeleton constructed of 11 microtubles collectively termed the axoneme and similar to the equivalent structure found in cilia, a thin cell membrane covering the axoneme, mitochondria arranged spirally around it the axoneme. Back and forth movement of the tail results from a rhythmical longitudinal sliding motion between the anterior and posterior tubules that make up the axoneme. The energy for this process is supplied by ATP produced by mitochondria. this causes the sperm cell to move towards the ovum.
2. The help of other sperm cells: the sperm cell only moves with the help of others, the more the sperm cells the faster it goes. The velocity increases. When a man has low sperm count (lesser number of sperms being ejaculated into the female reproductive tract) he is unable to get the ovum fertilized because the sperm cells wouldn’t be able to reach the eggs.
3. Changes in intracellular ion concentration: the changes in ion concentration he changes in ion concentration that provoke motility are different among species. In [marine invertebrates](https://en.wikipedia.org/wiki/Marine_invertebrates) and [sea urchins](https://en.wikipedia.org/wiki/Sea_urchin), the rise in pH to about 7.2–7.6 activates [ATPase](https://en.wikipedia.org/wiki/ATPase) which leads to a decrease in intracellular potassium, and thus induces membrane [hyperpolarization](https://en.wikipedia.org/wiki/Hyperpolarization_(biology)). As a result, sperm movement is activated.



