

Factors facilitating the movement of sperm in the female reproductive tract.

1.) Change in cervical mucus: The cervix is not only very small, but it is blocked by cervical mucus. During most times in the menstrual cycle, cervical mucus is highly sticky and represents an almost impenetrable barrier to sperm penetration. Around the time of ovulation, however, the estrogenic environment of the female reproductive system brings about a change in cervical mucus, rendering it more watery and more amenable to penetration by sperm.

2.) Availability of fructose: Fructose is a nutrient provided by the seminal vesicles, within the semen. It is a very important element in the semen as it helps with sperm motility.

3.) Change of pH level of the vagina: Direct measurements have shown that within 8 seconds from the introduction of semen the pH of the upper vagina is raised from 4.3 to 7.2, creating an environment favorable for sperm motility.

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4.) Hyperactivation of the sperm: A phenomenon occurring while the sperm are attached to the distal tubal lining is hyperactivation of the sperm. Hyperactivation is manifest by the increased vigor in their swimming movements and allows the sperm to break free from their binding with the tubal epithelial cells. Hyperactivated sperm are more efficient in making their way up the uterine tube and penetrating the coverings of the egg.

5.) Contractions of the uterus walls: Sperm transport into and through the uterus is assisted by contractions of its thick smooth muscle walls.