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Nursing science

200lvl

Physiology

Topic: IMPLANTATION OF HUMAN PREGNANCY

In human, implantation is the stage of pregnancy at which the embryo adheres to the wall of the uterus. At this stage of parental development, the conceptus is called a blastocyst. It is by this adhesion that the embryo receives oxygen and nutrients from the mother to be able to grow.

In human, implantation of a fertilized ovum is most likely to occur around nine days after ovulation. However, this can range between 6-12 days.

IMPLANTATION WINDOW

The receptive ready face of the endometrium of the uterus is usually termed the implantation window and lasts about 4 days. The implantation window occurs around 6 days after the peak in luteinizing hormone levels. With some disparity between sources, it has been stated to occur from 7 days after ovulation until 9 days after ovulation, on average, it occurs during the 20th to the 23rd day after the last menstrual period.

The implantation window is characterized by changes of endometrium cells, which aid in the absorption of the uterine fluid; these changes are collectively known as the plasma membrane transformation and they bring the blastocyst nearer to the endometrium and immobilize it. During this stage, the blastocyst can still be eliminated by being flushed out of the uterus. Scientists have hypothesized that hormones cause a swelling that flattens out the uterine cavity just prior to this stage, which may also help press the blastocyst against the endometrium of the uterus, both structurally and compositionally of its secretions.