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Phs 212

Assignment: Discuss the factors facilitating the movement of sperm in the female reproductive tract

Answer:

The term "implantation" is used to describe process of attachment and invasion of uterus endometrium by the blastocyst (conceptus) in placental animals. In humans, this process begins at the end of week 1, with most successful human pregnancies the conceptus implants 8 to 10 days after ovulation, and early pregnancy loss increases with later implantation. The implantation process continues through the second week of development.

The initial phase of the implantation process is "adplantation". This first phase requires the newly hatched blastocyst to loosely adhere to the endometrial epithelium, often "rolling" to the eventual site of implantation where it is firmly adhered. This process requires both the blastocyst adhesion interaction with the endometrium during the "receptive window".

Subsequent development of the placenta allows maternal support of embryonic and fetal development. If implantation has not proceeded sufficiently during the menstrual cycle to allow hormonal feedback to the ovary, then the next cycle may commence leading to conceptus loss. There is also evidence, from animal models, that a conceptus with major genetic does not develop or implant correctly leading to their loss during the first and second weeks of development.

In recent years with the development or [Assisted Reproductive Technologies](#) (ART or IVF) there is a growing interest in this process, with techniques that introduce the blastocyst into the uterus to allow normal implantation to occur.

Abnormal implantation is where this process does not occur in the body of the [uterus](#) (ectopic) or where the placenta forms incorrectly. In addition implantation can occur normally but with an abnormal conceptus, as in a hydatiform mole development.

**possible signs of implantation**

**Bleeding**

It's actually a little unclear how common implantation bleeding is. Up to **25 percent** of women experience bleeding or spotting in the first trimester — and implantation is one cause of first trimester bleeding.

This bleeding can be confusing, because it may happen around the time that your regular period would start. Most commonly though, it will occur a few days to a week before you expect your menstrual period.

There are other differences that can help you determine whether you are experiencing implantation bleeding or your period:

- implantation bleeding is most likely to be light pink or brown (as opposed to the bright or dark red of your period)
- implantation bleeding is more like spotting than an actual flow of blood

This spotting may occur once, or last for a few hours, or even up to three days. You may notice some pink or brown discharge when you wipe or on your underwear, but you won't need a full pad or tampon — possibly not for many months!

### **Cramps**

It's no secret that early pregnancy causes a rapid shift of hormones. More specifically, implantation is a trigger for the hormone surge. And the changing hormonal tide can also cause **cramping**. Furthermore, there's a lot going on in your uterus as the fertilized egg implants and begins to grow.

While there's no research indicating that implantation itself causes cramps, some women do feel abdominal tenderness, lower back pain, or cramping around the time of implantation. This may seem like a mild version of how you feel before your period starts.

### **Discharge**

Let's talk about what's going on down there.

If you've been monitoring your **cervical mucus**, good work, future mama! Being aware of what's going on with your body can be empowering when trying to conceive.

You may notice some cervical mucus changes around the time of implantation.

During ovulation, your cervical mucus will be clear, stretchy, and slippery (sort of like egg whites). You probably already know this as your green light to get your baby dance on.

After implantation occurs, your mucus might have a thicker, "gummier" texture and be clear or white in color.

And in the days of early pregnancy, rising progesterone and estrogen may cause your mucus to become even thicker, more profuse, and white or yellow in color.

We hate to say it, though: Cervical mucus can be affected by a number of things (hormones, stress, intercourse, pregnancy, implantation bleeding or your period, etc.) and may not be a reliable indicator of whether or not implantation has occurred.

Start tracking your cervical mucus while you're not pregnant, and a more useful indicator may be how different it is from your norm during each stage of your cycle.