

Menstrual Cycle, Pregnancy, & Birth

Menstrual Cycle

- A series of _____ changes that help to prepare a woman's body for pregnancy.
- _____: First female period that usually occurs around age 12.
- A cycle can range from 21-45 days, with _____ days being the average.
- Consists of 2 cycles:
 - _____ Cycle
 - _____ Cycle

Ovarian Cycle

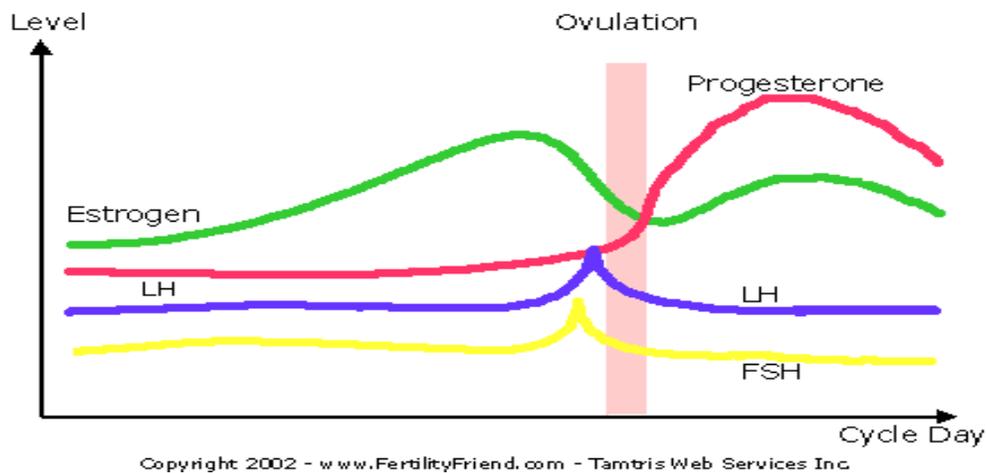
- Involves changes in the ovaries
- Can be divided into 2 phases:
 - _____ Phase (Days 1-13)
First day of _____ until _____.
Egg growth/maturation is occurring in the ovaries.
 - _____ Phase (Days 14-28)
From _____ until _____ begins.

Uterine Cycle

- Involves changes in the uterus.
- Occurs together with the Ovarian Cycle.
- Can be divided into 2 phases:
 - _____ Phase (Days 5-14)
Occurs after _____ but before ovulation
Endometrium rapidly grows in thickness
 - _____ Phase (Days 14-28)
Occurs at _____ if fertilization does not occur.
Egg & _____ begin to break down.

Ovulation

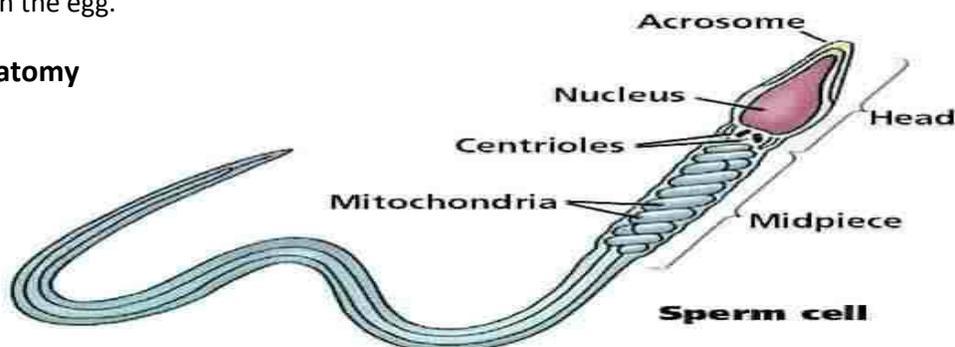
- During the first half of the menstrual cycle, as many as 20 _____ begin to grow in the ovaries due to Follicle Stimulating Hormone (FSH).
- Half way through the cycle, there is a spike in the _____ Hormone (LH) which signals the release of the most _____ egg from the ovary. This is referred to as _____.
- The remaining egg follicles undergo _____, or cell degeneration.
- If more than one egg follicle grows to maturity, they can also be released from ovary increasing the chance of _____ twins or triplets.



How Conception Occurs

- Fertilization occurs when a sperm and egg unite in the _____, creating new life.
- The female egg can only be fertilized for _____ hours after being released.
- An average 300 million sperm are released in one ejaculation, however only _____ will reach the uterus due to the harsh acidic environment of the vagina.
- Most sperm only survive for _____ in the vagina with a maximum of about _____ hours.
- This environment is necessary to deplete a fatty covering on the sperm that will then allow the sperm to fuse with the egg.

Sperm Anatomy



Sperm Physiology

- To fertilize an egg, sperm must undergo a 3-step modification process.
1. _____: Secretions in the female reproductive tract modify the sperm's membrane to allow it to fertilize the egg.
 2. _____: They become better, more efficient swimmers.
 3. _____ Reaction: The acrosome creates an enzyme reaction with the egg's zona pellucida, weakening it and allowing entry.

Fertilization

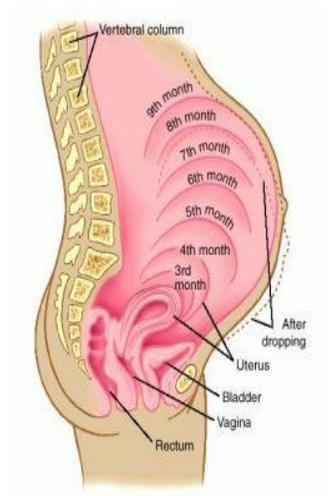
- Once a sperm(_____) has penetrated the egg (_____), a chemical reaction takes place within the egg making it impossible for another sperm to enter.
- Almost immediately the nuclei of the sperm and egg fuse to produce a _____ containing genetic material from both mother and father.
- The sex of the fetus is determined at this point.
 - If an _____ sperm meets the X egg = _____ (XX)
 - If a _____ sperm meets the X egg = _____ (XY)

Implantation

- The fertilized egg will make its way to the uterus where it will _____.
- It takes roughly _____ days for the fertilized egg (blastocyst) to travel and implant.
- Occasionally a fertilized, dividing egg will attach to the lining of the fallopian tube. This is called an _____.
- This type of pregnancy must be terminated for the safety of the mother. The fallopian tube is not _____ and the growing blastocyst will _____ the tube.

Pregnancy

- A typical pregnancy lasts approximately _____ weeks (280 days)
- These 40 weeks are broken up into _____:
 - 1st Trimester: Weeks _____
 - 2nd Trimester: Weeks _____
 - 3rd Trimester: Weeks _____



Embryonic Development

- Fertilized egg is called an _____ until _____ weeks after fertilization.

Fetal Development

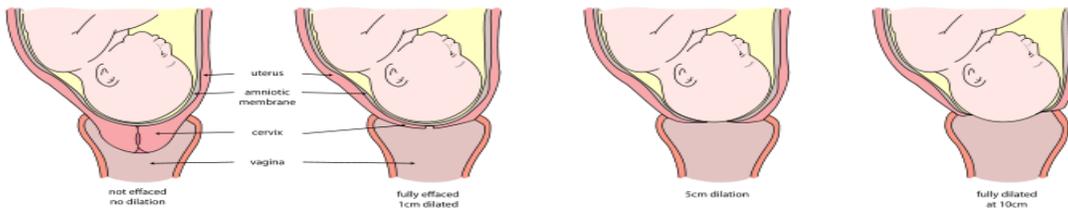
- From weeks _____, the baby is termed a _____.

Birth (Parturition)

- 3 Stages
 - Shortening/dilation of _____
 - Descent/birth of _____
 - Delivery of _____

Labor Stage 1: Effacement & Dilation

- As baby moves down, the cervix thins (_____).
 - Given as a _____ (75% effaced).
- Cervix begins to open (_____).
 - Assigned a number _____



Labor Stage 2: Fetal Expulsion

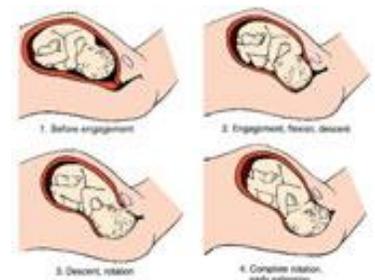
- Cervix must be fully _____ to _____.

- Mother is pushing

- Baby's head is _____

- Baby has large _____ and _____
_____ and must maneuver out in a s

pecific pattern of rotation:



Labor Stage 3: Umbilical Cord Clamped & Placenta Expulsion

- Typically the _____ is clamped & cut in the first _____ minutes of birth.

- The _____ is delivered _____ minutes after birth.