

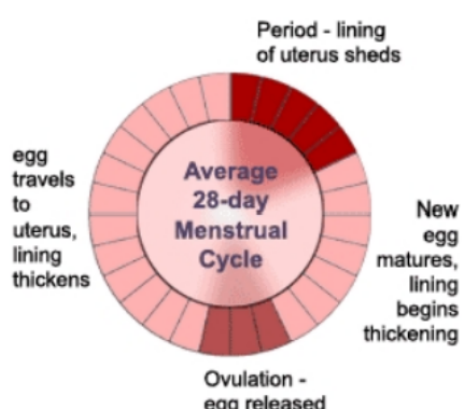


The menstrual cycle is a recurring cycle of physiological changes in females that are associated with reproductive fertility.

MENSTRUAL CYCLE

What Is The Menstrual Cycle?

During the menstrual cycle, the sexually mature female body builds up the lining of the uterus with gradually increasing amounts of oestrogen, and when this hormone reaches a critical level, estradiol is produced, and shortly thereafter there is the stimulation of the ovaries with follicle stimulating hormone (FSH), and luteinizing hormone (LH).

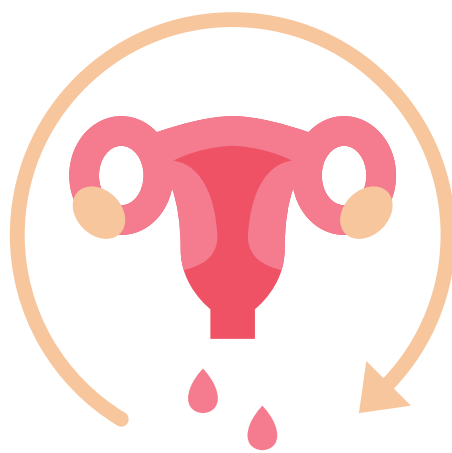


Follicles begin developing, and within a few days one "matures" into an ovum or egg. The ovary then releases this egg, at the time of ovulation. The lining of the uterus, the endometrium, peaks shortly thereafter in a synchronized fashion. After ovulation, this lining changes to prepare for potential conception and implantation of the fertilized egg to establish a pregnancy. The hormone progesterone rises after ovulation, and peaks shortly thereafter.

If fertilization and pregnancy do not ensue, the uterus sheds the lining, culminating with menstruation, which marks the low point for estrogen activity. This manifests itself to the outer world in the form of the menses (also menstruum): essentially part of the endometrium and blood products that pass out of the body through the vagina. Although this is commonly referred to as blood, it differs in composition from venous blood. Common usage refers to menstruation and menses as a period.

Menstruation forms a normal part of a natural cyclic process occurring in healthy women between puberty and the end of the reproductive years. Amenorrhea refers to a prolonged absence of menses during the reproductive years of a woman for reasons other than pregnancy.

For example, women with very low body fat, such as athletes, may cease to menstruate. The presence of menstruation does not prove that ovulation took place; women who do not ovulate may have menstrual cycles. Those anovulatory cycles tend to take place less regularly and show greater variation in cycle length. In addition, the absence of menstruation also does not prove that fertilization did take place, because hormone disruptions in nonpregnant women can suppress bleeding on occasion.



Physical Experience Of Menstruation

In many women, various intense sensations brought about by the involved hormones and by cramping of the uterus can precede or accompany menstruation. The sensations experienced vary from woman to woman and from cycle to cycle.



Stronger sensations may include:

- significant menstrual pain (dysmenorrhea)
- abdominal pain
- migraine headaches
- depression and emotional sensitivity
- changes in sex drive



Diarrhea or loose stools are common for the first few days of a woman's period. Breast discomfort caused by premenstrual water retention is very common. The sensations experienced vary from woman to woman and from cycle to cycle.

Menstrual Cramps

Cramps associated with menstruation are common among women during their period cycle. Cramps last 2 or 3 days and usually occur with each menstrual period. There are several drugs that can lessen the pain to a very mild level.

Cause:

- More than 50% of girls and women have cramps during their menstrual periods. The cramps are caused by strong contractions (and sometimes spasms) of the muscles in the uterus as it expels menstrual blood.
- Menstrual periods usually are not painful during the first 1 to 2 years after a girl has started having periods. However, once ovulation (the release of an egg from the ovary) begins, the level of progesterone in the bloodstream increases and leads to stronger contractions and some cramps.

Description:

- Cramps during the first 1 or 2 days of a menstrual period
- Pain in the lower abdomen
- Pain that sometimes radiates to the lower back or both thighs
- Similar cramps in the past with menstrual periods
- Nausea, vomiting, diarrhea, or dizziness in some girls



Care:

- Ibuprofen (Advil and Motrin are two brand names):
 - Ibuprofen is an excellent drug for menstrual cramps. It not only decreases the pain but also decreases contractions of the uterus.
 - It can be obtained without a prescription in 200 mg tablets. You can take 2 or 3 tablets four times a day. Always take 3 tablets (600 mg) as the first dose.
 - Start taking the drug as soon as there is any menstrual flow, or even the day before, if possible. Don't wait until your menstrual cramps begin. Ibuprofen should make you feel well enough not to miss anything important.
 - If you don't have ibuprofen, you can take acetaminophen until you can get ibuprofen.
- Local heat:
 - A heating pad or warm washcloth applied to the area of pain may be helpful.
 - A 20-minute warm bath twice a day may reduce the pain.



Aggravating Factors

If you are tired or upset, the pain will seem more severe. Try to avoid getting exhausted or too little sleep during menstrual periods. If you have troubles or worries, talk to someone about them.

Full Activity During Menstrual Cramps:

- You do not need to restrict any activity because of menstrual cramps.
- If the pains are limiting your activities even though you are using ibuprofen, ask your physician about stronger prescription medication.

Common Mistakes:

- A common mistake is to go to bed when the cramps are bad. However, busy people usually notice their pain less.
- There are absolutely no restrictions on your activities.

**Call your physician immediately if:**

- **The pain becomes severe and is not relieved by ibuprofen.**
- **You develop an unexplained fever (over 100 degrees F).**
- **You start feeling very sick.**