

MONTHLY MEMO:

MENSTRUAL CYCLE 101

OVERVIEW:

This month's memo introduces the menstrual cycle and the way it influences overall health. It explains what menstruation is, the key hormones involved in the cycle, and the phases that take place in the ovaries and uterus. It also highlights the value of tracking cycles and how shifts in hormones can make energy, mood, and appetite fluctuate throughout the month.



What is Menstruation?

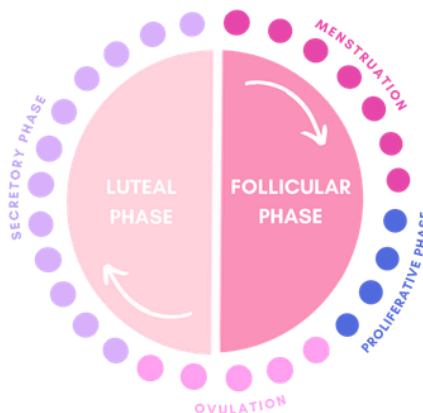
Menstruation is a natural biological process that occurs as part of the menstrual cycle when pregnancy does not take place. Each month, the uterus prepares for the possibility of fertilization by building a thickened lining (the endometrium). If no pregnancy occurs, this lining is shed through the vagina in the form of blood and tissue, known as a menstrual period.

The menstrual cycle starts on the first day of the menstrual period and lasts until the first day of the next menstrual period. A typical cycle lasts about 28 days, but cycles ranging from 21 to 35 days is also considered normal. Periods usually last three to seven days.

Female Sex Hormones

The menstrual cycle is regulated by a delicate balance of hormones:

- **Estrogen** – Helps thicken the uterine lining
- **Progesterone** – Prepares the uterus for possible implantation
- **Follicle-Stimulating Hormone (FSH)** – Stimulates growth of ovarian follicles before ovulation
- **Luteinizing Hormone (LH)** – Triggers ovulation (the release of an egg)



Menstrual Cycle Tracking

Tracking the menstrual cycle can be an empowering tool for health and wellness. Recording cycle length, the timing of menstruation, and associated symptoms can provide valuable insight into bodily patterns. It is useful in highlighting irregularities that may signal underlying health concerns, such as missed periods or unusually heavy bleeding. Cycle tracking is equally beneficial for different reproductive goals, whether the intention is conception or pregnancy prevention. Additionally, observing hormone-related changes in mood, energy, and appetite supports more effective management of lifestyle and regulation throughout the cycle.

Four Phases of the Menstrual Cycle

Follicular and Proliferative Phases

The menstrual cycle begins with the follicular phase, which starts on the first day of menstrual bleeding and ends with ovulation. During this phase, the pituitary gland releases FSH, which encourages ovarian follicles to grow. One follicle becomes dominant and produces

increasing amounts of estrogen. This estrogen helps the endometrium grow and thicken during the proliferative phase, preparing the uterus for potential pregnancy.

Ovulation

Ovulation happens when estrogen levels reach a peak and trigger a surge in LH. This surge causes the mature follicle to release an egg, typically about halfway through the cycle (day 14 in a 28-day cycle). After the egg is released, estrogen briefly drops, and the body shifts into the next phase.

Luteal and Secretory Phases

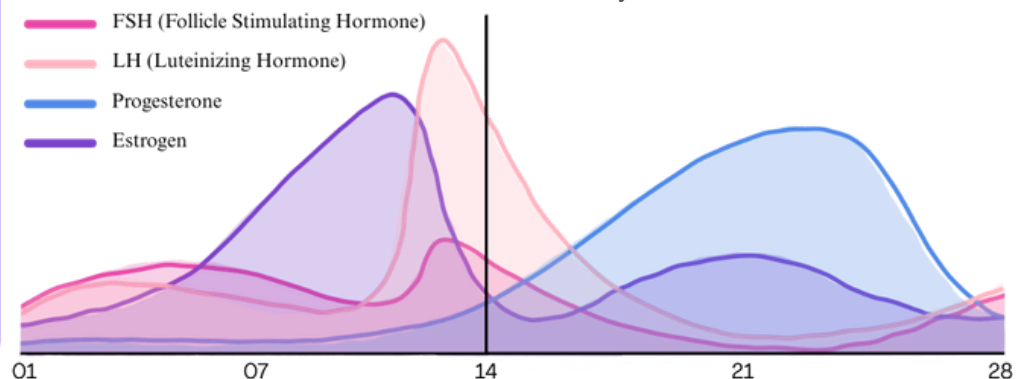
After ovulation, the empty follicle transforms into the corpus luteum, which produces progesterone. Progesterone further prepares the uterine lining by increasing blood supply, nutrient stores, and gland development — all designed to support a fertilized egg. If pregnancy does not occur, the corpus luteum breaks down, causing progesterone and estrogen levels to fall.

Menstruation Phase

The drop in progesterone and estrogen signals the body to shed the uterine lining, leading to menstruation. The first day of bleeding marks the beginning of a new cycle.

Ovarian and Endometrial Cycles

The menstrual cycle is comprised of two overlapping cycles: the ovarian cycle and the endometrial cycle. The **ovarian cycle** focuses on events in the ovaries, including follicle development, ovulation, and the formation of the corpus luteum. The **endometrial cycle** refers to changes in the uterine lining—shedding during menstruation, rebuilding in the *proliferative phase*, and maturing under progesterone in the *secretory phase*.



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Energy, Mood, and Appetite

Energy, mood, and appetite fluctuate throughout the menstrual cycle as hormone levels rise and fall. During the *follicular phase*, rising estrogen often brings increased energy and a more positive mood. Around *ovulation*, energy peaks and social or sexual drive may be heightened. In the *luteal phase*, the dominance of progesterone can lead to lower energy, fatigue, and an increase in appetite. Mood changes such as irritability or increased sensitivity are also common during this time. As hormone levels drop *leading up to menstruation*, fatigue, appetite changes, and premenstrual symptoms like bloating or mood swings may appear. Once *menstruation* begins, energy levels are often at their lowest.

SOURCES:

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