

MENSTRUAL CYCLE BASICS

**UNDERSTANDING YOUR
HORMONES IS THE FIRST
STEP TOWARDS**

**HORMONE
BALANCE**

KEY HORMONES

ESTROGEN

Estrogen is primarily produced by the ovaries, although smaller amounts are produced in the adrenal glands and fat cells. It influences the thickening of the uterine lining (endometrium) during the menstrual cycle and is responsible for the development of secondary sexual characteristics like breast growth and widening of the hips. It also plays a role in bone health and cardiovascular health.

PROGESTERONE

Progesterone is primarily produced by the corpus luteum, which forms after ovulation from the follicle that released the egg. Its main role is to prepare the uterine lining for pregnancy by maintaining its thickness and creating a nourishing environment for a potential embryo. If pregnancy occurs, the corpus luteum continues to produce progesterone. If pregnancy doesn't occur, progesterone levels drop, triggering the start of menstruation.

FOLLICLE STIMULATING HORMONE (FSH)

FSH is also produced by the pituitary gland. Its primary function is to stimulate the growth and maturation of follicles in the ovaries. Follicles are small fluid-filled sacs in the ovaries that contain developing eggs. During the follicular phase of the menstrual cycle, FSH levels rise, stimulating the growth of multiple follicles. As the cycle progresses, one dominant follicle emerges and continues to develop, eventually leading to ovulation.

LUTEINIZING HORMONE (LH)

LH is a hormone released by a structure in the brain called the pituitary gland. Its main role is to trigger ovulation, where an egg is released from the ovary. The LH surge, usually occurring around the middle of the menstrual cycle, is what prompts the dominant follicle to release the egg. Monitoring LH levels can help predict the timing of ovulation and is often used in fertility tracking methods.

THE FOLLICULAR PHASE

CYCLE DAYS 1-14 (period to ovulation)

KEY EVENTS -

Menstruation: The cycle begins with menstruation—the shedding of the uterine lining from the previous cycle. This marks the start of the follicular phase and is accompanied by a decrease in estrogen and progesterone levels.

Cycle day 1 is considered the first day of full bleeding, not spotting. This is important for cycle tracking, especially for fertility purposes.

Rising Estrogen: As menstruation ends, the pituitary gland releases follicle-stimulating hormone (FSH), signaling the ovaries to prepare follicles for maturation. These follicles, sacs containing immature eggs, begin producing estrogen. As estrogen levels rise, they stimulate the growth of the lining in the uterus.

Growth of a Dominant Follicle: Among the developing follicles, one typically becomes dominant and continues to mature. The others are reabsorbed by the body.

Preparation for Ovulation: Increasing estrogen levels trigger the production of luteinizing hormone (LH). The surge in LH triggers ovulation—the release of a mature egg from the ovary.

THE LUTEAL PHASE

CYCLE DAYS 15-28 (ovulation to next period)

KEY EVENTS -

Corpus Luteum Formation: After ovulation, the ruptured follicle transforms into the corpus luteum, a temporary endocrine structure. This corpus luteum secretes both estrogen and progesterone.

Progesterone Dominance: Progesterone becomes the dominant hormone during the luteal phase. It maintains the thickened endometrial lining in case a fertilized egg implants.

Nurturing the Uterine Lining: Progesterone's presence nurtures the uterine lining, creating a hospitable environment for potential pregnancy. Blood vessels in the endometrium increase, providing nourishment.

Preparation for Implantation: Should fertilization occur, the embryo implants into the enriched uterine lining. The corpus luteum continues producing hormones until the placenta takes over this role.

Decline and Menstruation: If pregnancy does not occur, the corpus luteum begins to shrink and hormone production declines. Estrogen and progesterone levels drop, signaling the start of menstruation and the beginning of a new cycle.

BENEFITS OF CYCLE TRACKING

Mind-Body Connection: Observing your cycle fosters a deeper connection between your mind & body. It encourages you to appreciate and honor the natural rhythms that influence your life.

Fertility Awareness: By tracking your cycle, you become attuned to your fertile window—the days when you're most likely to conceive. This awareness can be valuable for those trying to conceive or those looking to avoid pregnancy.



Personalized Health Insights: Changes in your menstrual cycle can indicate broader health trends. Irregular cycles, unusually heavy or painful periods, or changes in PMS symptoms could be signs of hormone imbalance.

Elevated Self-Care: Armed with the knowledge of your cycle's phases, you can adjust your self-care routines to better align with your body's changing needs. Whether it's adjusting exercise intensity, dietary choices, or sleep patterns, cycle tracking enhances your overall well-being.

CYCLE TRACKING 101

1. Download a menstrual tracking app
2. Mark the first day of your flow (full bleed rather than spotting) as day one
3. Update the dates of your period to reflect how many days you bled for
4. Specify whether full bleed or just spotting
5. Note any physical or emotional changes such as mood swings, energy levels, cravings, etc.
6. Consider recording symptoms throughout the cycle - i.e. signs of ovulation (mild cramping, change in cervical mucus)

Tracking App Recs - Clue, Flo, Kindara, Natural Cycles

SIGNS OF OVULATION



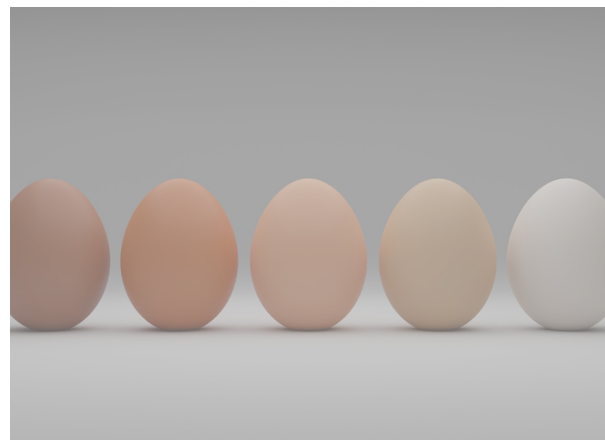
Changes in Cervical Mucus: As you approach ovulation, your cervical mucus becomes clearer, thinner, and more slippery, resembling the texture of raw egg whites. This type of mucus is conducive to sperm movement and indicates increased fertility.

Ovulation Pain: Some experience mild pelvic pain or twinges on one side of the lower abdomen around the time of ovulation. This discomfort is known as mittelschmerz and is caused by the follicle's rupture to release the egg.

Positive Ovulation Predictor Kit (OPK) Result: If you use an OPK, a positive result indicates a surge in luteinizing hormone (LH), which triggers ovulation within the next 12-36 hours.

Basal Body Temperature (BBT) Rise: After ovulation, your basal body temperature (resting temperature) typically increases by about 0.5 to 1 degree Fahrenheit due to the release of progesterone. Tracking this temperature rise can help confirm that ovulation has occurred.

Symptoms: heightened sex drive, breast tenderness, light spotting



WHAT'S A "NORMAL" CYCLE?

Regular cycles occurring every 21 -35 days

Some naturally have shorter cycles, while others have longer - 21-35 The average being 28 days. Cycles shouldn't shift more than a few days per cycle. If so, this could be a sign of hormone imbalance.

3-7 days of bleeding

The amount bled also varies from woman to woman and cycle to cycle. If lasting longer or shorter than this time frame, it would be a good idea to get checked out by a doctor. If spotting for a prolonged period of time, either before or after, this could be due to a hormone imbalance.

Less than 80 ml of blood

Bleeding more than 80 mL is considered heavy menstrual bleeding. This can occur due to hormone imbalance, fibroids, endometriosis, clotting disorders, copper IUD, and thyroid issues. The biggest risk is development of anemia or iron deficiency. For reference -

- **Regular Tampon:** 6 to 9 ml
- **Super Tampon:** 9 to 12 ml
- **Light Pad:** 5 to 10 ml
- **Medium Pad:** 10 to 15 ml
- **Heavy Pad:** 15 to 20 ml
- **Menstrual Cups:** 20 to 40 ml

Little to no PMS

PMS (breast tenderness, headaches, bloating, gut issues, mood swings) is accepted as normal, however this is a sign that hormones are off. On the flip side, fatigue and increased appetite/cravings are normal, given that the body wants & needs to up its resources during this time.

ARE YOU...

STRUGGLING WITH PERIODS THAT ARE

HEAVY
PAINFUL
IRREGULAR

EXPERIENCING PESKY PMS LIKE

BLOATING
CRAMPING
MOOD SWINGS
BREAST TENDERNESS
HEADACHES

OR HAVE YOU...

STRUGGLED TO DETECT OVULATION
HAD A HARD TIME GETTING PREGNANT
EXPERIENCED PREGNANCY LOSS



IF YES, THEN -

**CHECK OUT OUR OTHER
WELLNESS GUIDES**

**BOOK A 1:1 CONSULT
WITH DR. MEG**

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