

NCLEX REPRODUCTIVE REVIEW • ONE CYCLE, TWO PHASES

The *Ovarian* Cycle, start to finish

Every hormone, phase, and number you need for the exam — built around the one fact that anchors all of it: **Day 1 is the first day of bleeding, ovulation is Day 14, and the next period is 14 days after that.**

28

days in the standardized cycle (use this on the NCLEX, even if a real cycle is 27 or 32)

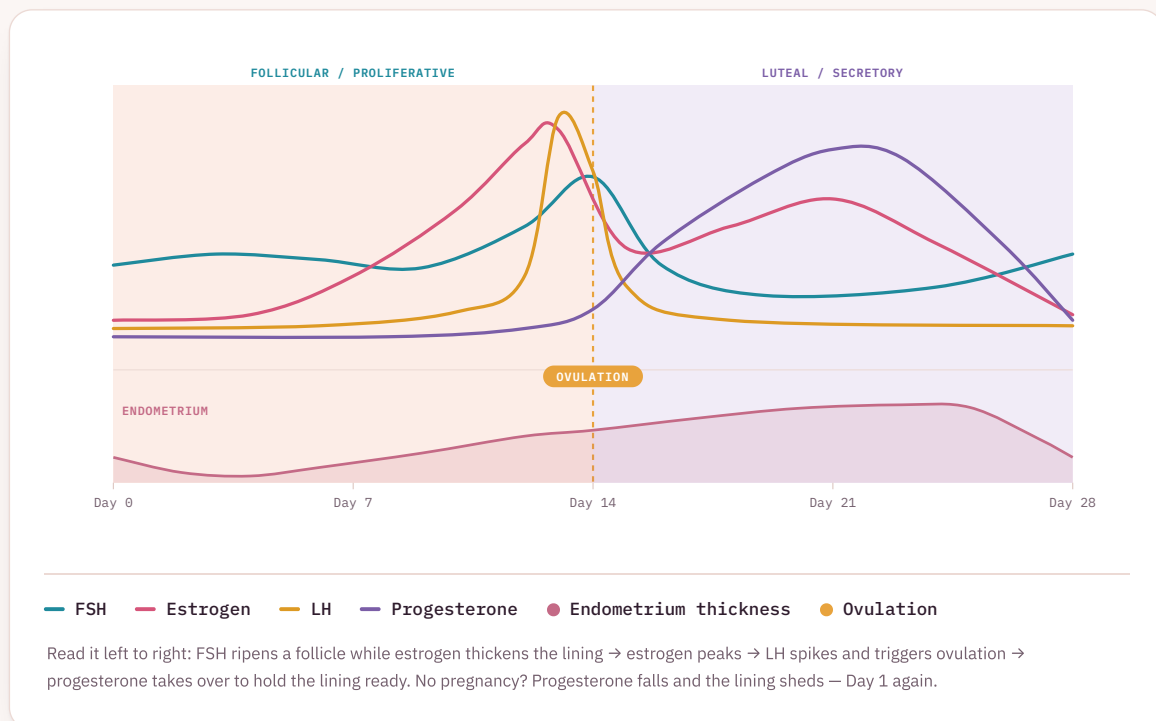
Day 14

ovulation — the hinge between the two phases

+14

days from ovulation until menstruation begins again

01 The whole cycle, at a glance



02 Two phases, split by ovulation

FIRST HALF

SECOND HALF

Follicular phase

Days 1 – 14

Starts with **menstruation** (the lining sheds), ends with **ovulation**.

FSH matures the follicle.

Estrogen rises and rebuilds the endometrium.

aka the proliferative phase



Luteal phase

Days 14 – 28

Starts with **ovulation**, ends as **menstruation** begins.

Ruptured follicle becomes the **corpus luteum**.

Progesterone maintains the lining for implantation.

aka the secretory phase

03 The four hormones — and the one job each does

FSH Follicle-Stimulating Hormone

Matures the follicle (the Graafian follicle) so it's ready to release an egg.

Peaks

Early follicular phase

EST Estrogen

Thickens the endometrium during the proliferative phase, prepping it to receive an egg. Its peak triggers the LH surge.

Peaks

Just before ovulation

LH Luteinizing Hormone

Triggers ovulation — the release of the egg from the follicle. That's its one job.

Peaks

At ovulation (Day 14)

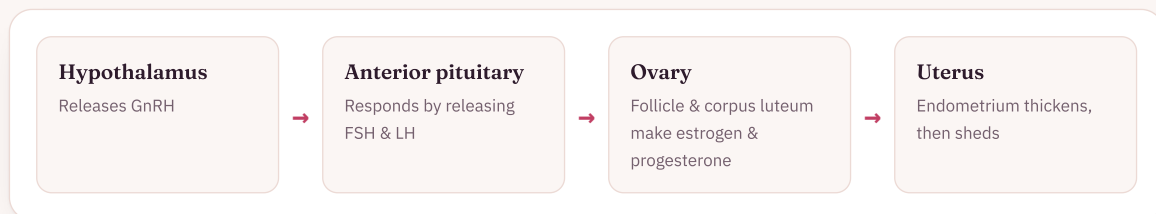
PRG Progesterone

Maintains the corpus luteum & lining, keeping the endometrium ready for implantation. Falls → menstruation.

Peaks

Mid-luteal (≈ Day 21)

04 Who's giving the orders? — the HPO axis (added context)



Rising estrogen feeds **back to the pituitary** and flips its signal from "hold" to "go," producing the sudden LH surge that causes ovulation. This positive-feedback switch is why LH spikes so sharply.

05 Vocabulary decoder

The NCLEX rewords the same idea to see if you flinch. These pairs mean the same thing.

IF THE QUESTION SAYS...

...IT MEANS

Proliferative phase

=

Follicular phase (lining is regrowing)

IF THE QUESTION SAYS...	...IT MEANS
Secretory phase	= Luteal phase (corpus luteum is <i>secreting</i> progesterone)
Graafian follicle	= The mature follicle that releases the egg
Corpus luteum	= The ruptured follicle after ovulation, making progesterone

06 Numbers worth memorizing

50–60 mL

Average blood loss per period. Treat anything roughly **50–80 mL** as normal; over 80 mL is heavy.

1.5 mg/day

Average iron used in **everyday metabolism** by all adults (e.g. building hemoglobin).

+0.5–1 mg/day

Extra iron demand **during menstruation** to replace lost red cells — why iron needs run higher in menstruating women.

21–35 days

Added: normal range for real cycle length. The luteal phase stays ~14 days; cycle-length differences come from the follicular phase.

~Day 14

Added: fertile window. The egg lives ~24 hrs; sperm survive up to ~5 days, so conception usually occurs within ~5 days of ovulation.

≈ 12 yrs

Added: average age of menarche (normal range ~9–15). Ovulatory cycles may be irregular at first.

07 If the egg *is* fertilized

Normally the corpus luteum dies after ~14 days, progesterone drops, and the lining sheds. If implantation happens, a new hormone steps in to keep it alive:

1. Fertilization occurs (usually within ~5 days of ovulation).
2. The implanting embryo secretes **hCG (human chorionic gonadotropin)**.
3. **hCG rescues the corpus luteum**, so progesterone keeps flowing and the lining is *not* shed — no period.

HCG DETECTABLE IN BLOOD & URINE

10–14 days

after conception. By the time a period is missed, ~10+ days have passed — which is why a pregnancy test reads positive **after the first missed period**. Same timing for blood and urine tests.

08 Mnemonics & test strategy (added)

Order of the hormones

F · E · L · P — FSH ripens it, Estrogen builds it, LH releases it, Progesterone protects it. That's also their order of peaking across the cycle.

"L" for the last steps

LH → ovuLation. Luteal → Lining held. Both "L" jobs happen in the back half of the cycle.

Pick the umbrella answer

When two options are both true, choose the one that covers **most** of the phase. "Follicles mature & estrogen rises" beats "the lining is shed," because shedding is only the first few days of the follicular phase.

Always assume 28 days

If a question doesn't say otherwise, ovulation = Day 14 and the period returns 14 days later. Don't overthink a stated 30- or 32-day cycle on review questions.

Estrogen has two humps

A big peak **before ovulation** (it triggers LH) and a smaller rise in the luteal phase. Progesterone, by contrast, only matters **after** ovulation.

LH is a one-trick hormone

If a lab shows an **LH peak**, the answer is almost always **ovulation** — not menstruation, not follicular development.

Source: Built from a Clinical Review "Blue Book" NCLEX lecture on the ovarian cycle, reorganized into a study reference. Mechanism details (HPO axis, estrogen positive feedback, hCG corpus-luteum rescue), cycle-length ranges, the fertile window, and menarche figures were **added** for completeness.

This is a study aid, not clinical guidance. Always confirm against your course materials and current evidence-based references before applying to patient care.