

NCLEX 2026 • HIGH-YIELD REVIEW

Nägele's Rule

Calculating Estimated Date of Delivery

The standard bedside formula every nurse uses to estimate a pregnant client's due date from the Last Menstrual Period (LMP).

MATERNAL-NEWBORN

OBSTETRICS

PRENATAL CARE

HEALTH PROMOTION

01 Definition & Overview



- ▶ **Nägele's Rule** is a formula used to estimate the **Date of Delivery (EDD)** — also called the due date — based on the **first day of the Last Menstrual Period (LMP)**.
- ▶ Assumes a **regular 28-day cycle** and an average pregnancy length of **280 days (40 weeks)**.
- ▶ Why it matters: accurate EDD drives prenatal scheduling, screening timing, fetal growth assessment, and term-vs-preterm delivery decisions.

02 The Formula — Step by Step



PRIMARY FORMULA

$$\text{EDD} = \text{LMP} - 3 \text{ months} + 7 \text{ days} + 1 \text{ year}$$

STEP 1

Start with LMP

First day of period



STEP 2

Subtract 3 months

- 3 mo



STEP 3

Add 7 days

+ 7 d



STEP 4

Add 1 year

+ 1 yr

WORKED EXAMPLE

LMP = June 10, 2025

- 3 months → March 10, 2025

+ 7 days → March 17, 2025

+ 1 year → **EDD = March 17, 2026**

- ▶ **Alternative method:** LMP + 9 months + 7 days = EDD (same result, different path).
- ▶ If subtracting 3 months crosses into the previous year, you'll still add 1 year at the end.

03 When Reliable vs. Unreliable



✓ RELIABLE WHEN

- ▶ Client knows the **first day** of LMP
- ▶ Regular **28-day** menstrual cycles
- ▶ No hormonal contraception in the last 3 months
- ▶ Not breastfeeding at time of conception

✗ RED FLAGS — UNRELIABLE

- ▶ **ALERT** Irregular or unknown cycles
- ▶ **ALERT** Recent oral contraceptive / Depo use
- ▶ **ALERT** LMP uncertain or remembered vaguely
- ▶ **ALERT** First-trimester bleeding
- ▶ **ALERT** Recent postpartum or lactating client

- ▶ **Term definitions to memorize:** Early term 37^{0/7}–38^{6/7} · Full term 39^{0/7}–40^{6/7} · Late term 41^{0/7}–41^{6/7} · Post term ≥42^{0/7} weeks.
- ▶ Only ~5% of clients deliver on the exact EDD — it's an *estimate*, not a guarantee.

04 Priority Nursing Interventions



- ▶ **ASSESS** menstrual history: ask for the *first day* of LMP, cycle length, and regularity.
- ▶ **CONFIRM** contraception history and last hormonal method used — affects dating accuracy.
- ▶ **CALCULATE** EDD using Nägele's Rule; double-check math before documenting.
- ▶ **DOCUMENT** EDD, gestational age (GA), and gravida/para status (GTPAL) in the prenatal record.
- ▶ **MONITOR** fetal growth at each visit (fundal height ≈ weeks gestation from 20–36 wks).
- ▶ **REFER** for **ultrasound dating** if LMP is unknown, cycles irregular, or discrepancy >1 week.
- ▶ **EDUCATE** the client that EDD is an estimate; normal delivery window is 37–42 weeks.
- ▶ **SAFETY FIRST:** any first-trimester bleeding, severe cramping, or sudden symptom change → notify provider immediately.

05 Related Pharmacology



Nägele's Rule itself doesn't involve medications, but EDD triggers the prenatal pharmacology timeline.

Folic Acid

WATER-SOLUBLE VITAMIN • B9

- Mechanism:** Required for neural tube formation in early embryo.
- Dose:** 400–800 mcg/day (4 mg if previous NTD pregnancy).
- Timing:** Ideally start *before* conception, continue through first trimester.
- Nursing:** Teach food sources (leafy greens, fortified cereals, legumes).

Prenatal Vitamins (Iron + Calcium)

SUPPLEMENT

- Key SE:** Constipation, nausea, dark stools (iron).
- Nursing:** Take with vitamin C to enhance iron absorption; avoid milk/calcium within 1 hr (blocks iron).

⚠ Teratogens to AVOID

CATEGORY D & X

- Examples:** Isotretinoin (Accutane), warfarin, ACE inhibitors, ARBs, methotrexate, valproic acid, tetracyclines, live vaccines (MMR, varicella).
- Also avoid:** Alcohol, tobacco, recreational drugs, high-dose vitamin A.

06 NCLEX Test Traps



Trap #1 • First day vs. last day of LMP

Always use the *first* day the period started **NOT** the last day it ended.

Trap #2 • Forgetting the + 1 year

If the LMP is in the current calendar year, the EDD is almost always in the *following* year. Don't skip this step.

Trap #3 • LMP ≠ Date of Conception

Conception occurs about *2 weeks after* the LMP. Gestational age is counted from LMP, not conception.

Trap #4 • Applying the rule to irregular cycles

Nägele assumes 28-day cycles. Irregular cycles = dating **REQUIRES** ultrasound confirmation.

Trap #5 • Priority on NCLEX

Calculating EDD is *important*, but if the stem describes bleeding, severe pain, or abnormal vitals, **ABC & SAFETY** come first — assessment and provider notification over math.

Trap #6 • Month math errors

Watch short months (February) and leap years when adding 7 days across a month boundary.

07 Patient Education



- ▶ "Your due date is an **estimate** — most babies arrive between 37 and 42 weeks."
- ▶ "Keep track of the **first day** of your last period and any cycle changes."
- ▶ "Attend **every** prenatal visit — they're timed to your EDD for important screenings."
- ▶ "Start **folic acid 400–800 mcg daily** and prenatal vitamins as prescribed."
- ▶ "Avoid **alcohol, tobacco, and any medication** not approved by your provider, including OTC drugs and herbal supplements."
- ▶ "Call your provider for: **bleeding, severe cramping, severe headache, swelling of face/hands, decreased fetal movement, or fever.**"
- ▶ "An **ultrasound** may be needed to confirm or adjust your due date — this is normal and not a problem."

08 Memory Boosters



"Minus 3, Plus 7, Plus 1"

-3 MONTHS · +7 DAYS · +1 YEAR

- ▶ "**3-7-1**" → simplest chant for the formula order.
- ▶ "**First, not Last**" → always the **FIRST** day of LMP.
- ▶ "**9 + 7**" alternative → LMP + 9 months + 7 days = EDD (same answer).
- ▶ **Pattern recognition:** if LMP is early in the year (Jan–Mar), subtracting 3 months crosses into the prior calendar year — but the + 1 year at the end still lands you in the future.
- ▶ **Quick check:** EDD should be roughly *40 weeks* (or 9 months + 1 week) after LMP. If your answer doesn't pass this sanity check → recalculate.
- ▶ **GTPAL quick recall:** Gravida · Term · Preterm · Abortions · Living children — document alongside EDD.