NCLEX 2026 · MATERNITY & WOMEN'S HEALTH

Pregnancy *Nutrition* & *Exercise* Across the Three Trimesters

HIGH-YIELD REVIEW | CLINICAL JUDGMENT | PRIORITIZATION | PATIENT TEACHING

01 · DEFINITION & OVERVIEW

§ What & Why It Matters

Pregnancy increases demand for *calories, nutrients, hydration,* and safe physical activity. Balanced nutrition and exercise support *fetal development* and protect *maternal health*.

WHY IT'S TESTED

- Prevents neural tube defects (folate)
- Reduces risk of gestational diabetes & preeclampsia
- Supports healthy weight gain & fetal growth
- Decreases preterm labor & IUGR risk
- Maintains maternal mental & cardiovascular health

02 · PATHOPHYSIOLOGY (SIMPLIFIED)

§ The Physiologic Chain

Pregnancy
↑ Metabolic demand & hormonal shifts (hCG, progesterone, estrogen)

→

Plasma Volume ↑ 50%
Physiologic anemia → need for iron

→

Fetal Organogenesis
Weeks 3–8 → folate is *critical* for neural tube closure

→

Rapid Fetal Growth
2nd/3rd tri → ↑ protein, calcium, iron, calories

→

Slowed GI Motility
Progesterone → constipation, reflux, heartburn

03 · SIGNS & SYMPTOMS OF NUTRITIONAL / ACTIVITY ISSUES

§ Normal vs. Red Flag

Expected / Mild

- Morning sickness — nausea & vomiting (1st tri)
- Fatigue & mild constipation
- Heartburn / reflux (2nd–3rd tri)
- Mild, gradual weight gain
- Breast tenderness, frequent urination

Red Flags — Report Immediately

- **Hyperemesis gravidarum** — wt loss >5%, ketonuria, dehydration
- **Pica** — craving ice, clay, starch (iron deficiency)
- **Preeclampsia** — sudden wt gain >2 lb/wk, edema, BP ≥140/90, HA, visual changes
- **↓ Fetal movement** (<10 kicks in 2 hr after 28 wk)
- **GDM signs** — polyuria, polydipsia, recurrent yeast
- **Vaginal bleeding, contractions, fluid leak** during exercise

TRIMESTER-SPECIFIC PLAN · NUTRITION & EXERCISE

§ Three Trimesters, Three Plans

First 1st Trimester

WEEKS 1 – 13

NUTRITION

+0 kcal/day

- **Folic acid 400–800 mcg** daily — prevents NTDs
- Prenatal vitamin daily (with food if nauseated)
- Small, frequent meals for nausea
- Ginger, dry crackers, B6 for morning sickness
- Hydration: 8–12 cups water/day
- Avoid: alcohol, raw fish, deli meats, soft cheeses

EXERCISE

- Continue pre-pregnancy routine if cleared
- 150 min/wk moderate activity (ACOG)
- Walking, swimming, prenatal yoga, stationary bike
- Avoid hot yoga, saunas, hot tubs (hyperthermia → NTDs)
- Avoid contact sports, scuba, altitude >6,000 ft

Second 2nd Trimester

WEEKS 14 – 27

NUTRITION

+340 kcal/day

- **Iron 27 mg** — fetal blood, physiologic anemia
- **Calcium 1,000 mg** — bone & teeth
- **Protein ~71 g/day** — tissue growth
- Continue folate & prenatal vitamin
- Iron w/ Vit C (OJ) — avoid milk/antacids/tea
- Add fiber for constipation

EXERCISE

- "Golden trimester" — energy returns
- **No supine position** after 20 wk (vena cava)
- Swimming is ideal — buoyancy & low impact
- Kegels & pelvic tilts daily
- Watch balance — center of gravity shifts

Third 3rd Trimester

WEEKS 28 – 40

NUTRITION

+450 kcal/day

- Continue iron, calcium, protein, folate
- Small frequent meals (fundal pressure)
- ↑ Fiber & fluids — constipation, hemorrhoids
- Limit sodium if edema; no severe restriction
- Caffeine <200 mg/day (≈1 cup coffee)

EXERCISE

- Reduce intensity — joint laxity from relaxin
- Walking, swimming, stationary bike, prenatal yoga
- Avoid balance-risk activities
- **Left lateral** rest position best
- Pelvic floor prep for labor
- Stop if contractions, bleeding, or fluid leak

04 · PRIORITY NURSING INTERVENTIONS

§ ABCs · Safety · Prioritization

MONITOR

Weight gain at every visit (normal BMI: 25–35 lb total). Sudden gain >2 lb/wk = preeclampsia work-up.

ASSESS

24-hr dietary recall & nutritional history; screen for food insecurity & pica.

ADMINISTER

Prenatal vitamin with folic acid daily; iron supplement as ordered.

MEASURE

Fundal height each visit after 20 wk (cm ≈ weeks gestation).

SCREEN

GDM with 1-hr glucola at 24–28 weeks; earlier if high risk.

EDUCATE

Food safety: avoid **listeria** (soft cheeses, deli meats, raw sprouts, unpasteurized dairy).

ASSESS

Hydration status — especially 1st-trimester hyperemesis risk.

ENCOURAGE

Safe physical activity **150 min/wk moderate** (ACOG); Kegels daily.

TEACH

Fetal kick counts after 28 wk; report <10 in 2 hr.

POSITION

Left lateral for rest after 20 wk to prevent supine hypotensive syndrome.

05 · PHARMACOLOGY & SUPPLEMENTS

§ Key Drugs & Vitamins

DRUG / NUTRIENT	MECHANISM	KEY SIDE EFFECTS	NURSING CONSIDERATIONS
Folic Acid (Vit B9)	Neural tube formation — DNA synthesis	Rare (masks B12 deficiency)	400–800 mcg daily; **start pre-conception**; 4 mg if prior NTD hx
Prenatal Vitamin	Provides folate, iron, Ca^{2+}, DHA, B-complex	Nausea, constipation	Take with food if nauseated; continue through lactation
Ferrous Sulfate (Iron)	↑ RBC mass for ↑ plasma volume	Constipation, dark stools, GI upset, N/V	27 mg/day; take w/ **Vit C (OJ)**; avoid milk, antacids, tea; empty stomach if tolerated
Calcium	Fetal bone & teeth; maternal stores	Constipation, kidney stones (excess)	1,000 mg/day; **separate from iron by 2 hr**
DHA / Omega-3	Fetal brain & retinal development	Fishy aftertaste, mild GI upset	200–300 mg/day; choose low-mercury sources
Vitamin D	Calcium absorption, bone health	Rare at standard doses	600 IU/day; higher if deficient
Pyridoxine (B6) ± Doxylamine	Reduces N/V of pregnancy	Drowsiness (w/ doxylamine)	First-line for morning sickness; Category A

⚠ Absolutely AVOID in Pregnancy

Teratogens: Isotretinoin (Accutane), Warfarin, ACE inhibitors/ARBs, Statins, Methotrexate, Lithium, Valproate, Tetracyclines, Fluoroquinolones, high-dose Vitamin A, live vaccines (MMR, varicella), alcohol, tobacco, illicit drugs, high-mercury fish (shark, swordfish, king mackerel, tilefish), raw/undercooked meat & eggs, unpasteurized dairy.

06 · NCLEX TEST TRAPS

§ What Students Miss

⚠ **Weight gain is expected.** Only *sudden* gain >2 lb/wk or >6 lb/month signals preeclampsia — not steady gain.

⚠ **Caffeine is not banned.** <200 mg/day (≈1 cup coffee) is acceptable — don't pick "eliminate all caffeine."

⚠ **Fish is encouraged** (DHA!) — only HIGH-MERCURY fish are avoided: Shark, Swordfish, King mackerel, Tilefish.

⚠ **Pica = iron deficiency** until proven otherwise. Priority action: check H&H, not "counsel to stop."

⚠ **Physiologic anemia ≠ iron-deficiency anemia.** Dilutional drop in Hgb is normal — don't over-treat.

⚠ **No supine after 20 weeks.** Vena cava compression → maternal hypotension & fetal hypoxia. Pick LEFT lateral.

⚠ **Listeria sources** = soft cheeses (feta, Brie), deli meat, raw sprouts, hot dogs, pâté, unpasteurized dairy — not "all cheese."

⚠ **Exercise continues** in uncomplicated pregnancy — don't pick "bed rest" as default. Stop signs are specific (bleeding, contractions, dyspnea).

⚠ **Hot tubs & saunas** are out — hyperthermia in 1st tri → NTDs. Warm showers are fine.

⚠ **Don't restrict sodium or calories** to "control" edema or weight — can harm fetus. Mild dependent edema is normal.

07 · PATIENT EDUCATION

§ What to Teach Every Patient

Weight Gain by Pre-Pregnancy BMI

Underweight BMI <18.5 → 28–40 lb	**Normal** BMI 18.5–24.9 → 25–35 lb
Overweight BMI 25–29.9 → 15–25 lb	**Obese** BMI ≥30 → 11–20 lb

Calorie Needs per Trimester

1st tri: No additional calories

2nd tri: +340 kcal/day

3rd tri: +450 kcal/day

Lactation: +450–500 kcal/day

Core Teaching Points

Take prenatal vitamin with food or at bedtime

Iron with Vit C, not with milk/tea/antacids

8–12 cups of water/day

Avoid: alcohol, tobacco, illicit drugs, raw/undercooked meats, deli meats, soft cheeses, raw sprouts, high-mercury fish, unpasteurized dairy

Limit caffeine <200 mg/day

Kegel exercises throughout pregnancy & postpartum

Left lateral rest/sleep position after 20 wk

Wear seat belt: lap belt below belly, shoulder strap between breasts

STOP Exercise & Call Provider If:

- Vaginal bleeding
- Dizziness / fainting
- Headache or blurred vision
- Chest pain / dyspnea
- Uterine contractions
- Calf pain/swelling (DVT)
- Fluid leakage
- ↓ Fetal movement

08 · MEMORY BOOSTERS

§ Mnemonics & Pattern Recognition

MNEMONIC

"FINE" for Pregnancy

- **F** Folic acid 400–800 mcg (pre-conception)
- **I** Iron 27 mg/day (with Vit C)
- **N** No alcohol, tobacco, raw foods, high-mercury fish
- **E** Exercise 150 min/week of moderate activity

CALORIE RULE

"0 · 340 · 450"

1st trimester: **0** extra kcal · **2nd**: **+340** · **3rd**: **+450**
Think: *"Zero, three-forty, four-fifty."*

STOP SIGNS

"VBDCLC" – Exercise STOP

- **V** Vaginal bleeding
- **B** Blurred vision / headache
- **D** Dizziness / dyspnea
- **C** Chest pain / Contractions
- **L** Leakage of amniotic fluid
- **C** Calf pain (DVT)

AVOID-FISH

"SSKT" – High-Mercury Fish

Shark · **S**wordfish · **K**ing mackerel · **T**ilefish
Remember: *"Some Swimmers Kick Tummies."* Safe picks: salmon, sardines, shrimp, tilapia, canned light tuna.

POSITION

"LEFT is BEST"

After 20 weeks, **Left Lateral** position relieves **vena cava** compression and maximizes **placental perfusion**. Never let a third-trimester patient lie flat on her back.

INFECTION

"TORCH" to AVOID

- **T** Toxoplasmosis (cat litter, raw meat, unwashed produce)
- **O** Other (syphilis, varicella, parvovirus, Zika)
- **R** Rubella (no live vaccine in pregnancy)
- **C** CMV (hand hygiene around toddlers)
- **H** Herpes/HIV (screening & antivirals)