

A COMPLETE SCIENCE-BASED GUIDE



The **Female** Cycle

Everything you need to know about your hormones, nutrition, and training — phase by phase, grounded in science.

● Menstrual

● Follicular

● Ovulation

● Luteal

Overview

● Menstrual

● Follicular

● Ovulation

● Luteal

In Practice

CHAPTER 01

Understanding Your Cycle

"You are not the same person every day of your cycle."

Your menstrual cycle is not just about your period. It is a sophisticated hormonal symphony that influences your energy, strength, mood, metabolism, sleep, and cognitive performance — **every single day**.

Research describes the menstrual cycle as having **four distinct hormonal environments**, not two phases as commonly simplified. A 28-day cycle is typical, though 25–35 days is entirely normal.

DAYS 1-5

Menstrual

Restore & Rest

DAYS 6-13

Follicular

Build & Rise

DAYS 14-16

Ovulation

Peak & Shine

DAYS 17-28

Luteal

Slow & Nourish

SCIENCE NOTE

Estrogen and progesterone can fluctuate by 5× and 50× respectively across a single cycle. Estrogen promotes insulin sensitivity and fat oxidation. Progesterone is largely anti-estrogenic — it promotes insulin resistance and has a sedative effect on the nervous system.

KEY INSIGHT

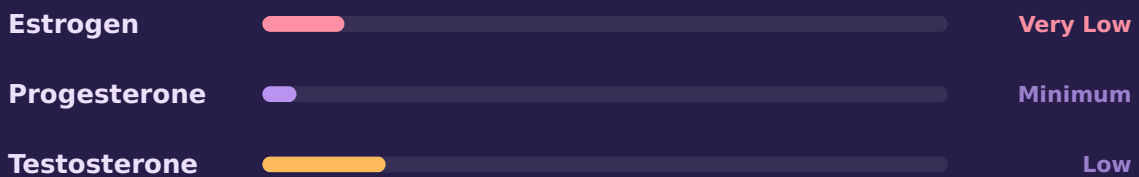
Your nutritional needs, optimal training intensity, and recovery capacity all shift with your hormones. Working *with* this rhythm — rather than against it — is the foundation of everything in this guide.

● DAYS 1-5

Menstrual *Phase*

"Your body is working harder than you think"

HORMONE LEVELS



Estrogen and progesterone drop to their absolute minimum. The uterine lining sheds, prostaglandins are released causing cramping. The body simultaneously loses **iron, zinc, magnesium, and calcium** through menstrual blood.

Nutrition

Women can lose 5-40 mg of iron per cycle. Iron deficiency — even without anemia — reduces endurance performance by **3-19%**.

IRON (HEME)

Replaces blood losses. Heme iron is absorbed 2-3× more efficiently than plant sources.

Beef, liver, lamb, sardines, turkey

VITAMIN C

Increases non-heme iron absorption by up to 67%. Always combine with iron-rich plant foods.

Lemon, bell peppers, tomatoes, oranges

MAGNESIUM

Relaxes uterine smooth muscle, reducing cramping. Also reduces irritability and fatigue.

Dark chocolate 85%+, pumpkin seeds, spinach

OMEGA-3

Anti-inflammatory. Directly counteracts prostaglandins, reducing cramp intensity and duration.

Salmon, sardines, chia seeds, flaxseed

ZINC

Lost through menstrual blood. Supports immune function and uterine lining healing.

Red meat, eggs, lentils, pumpkin seeds

NETTLES

One of the most iron-dense plants. Also contains vitamin C, magnesium, and calcium.

Nettle eggs, nettle soup (best in spring)

⚠️ AVOID DURING MENSTRUATION

Excess caffeine causes vasoconstriction, intensifying cramps. Alcohol is inflammatory. Excess sodium increases water retention. Refined sugar worsens the prostaglandin response.

Training

Gentle movement reduces cramp intensity. The evidence supports **adjusted intensity, not total rest.**



DAYS 1-2

Mobility & Gentle Movement

Yoga, light stretching, short walks. If energy is very low — rest without guilt.



DAYS 3-5

Light Strength & Low-Impact Cardio

As bleeding reduces, energy returns. Lighter weights, swimming, cycling. Avoid high-impact.

Supplementation

Magnesium Glycinate

300-400mg daily. Reduces cramping and irritability.

Evening — most calming form

Omega-3

1-3g EPA/DHA. Anti-prostaglandin effect after 2-3 cycles.

With meals

Vitamin D3 + K2

Supports immune function and mood. Most women are deficient.

Morning with fat

Iron

Only if deficient — check ferritin first. Food-first approach preferred.

With vitamin C

● DAYS 6-13

Follicular Phase

"Your most anabolic window of the entire cycle"

HORMONE LEVELS

Estrogen  Rising ↑

Progesterone  Still Low

FSH  Elevated

FSH stimulates follicle development. As follicles grow, estrogen rises progressively. This is the body's **most anabolic period** — protein synthesis is enhanced, recovery is rapid, and the body tolerates high training loads exceptionally well.

 **SCIENCE NOTE**

Estrogen promotes insulin sensitivity and fat oxidation during exercise. With progesterone low, interference is minimal — this is why strength, coordination, and power output peak in this phase.

Nutrition

PROTEIN — PRIORITY #1

Anabolic window is open. Muscle protein synthesis at maximum. Aim for 25–35g per meal.

Chicken, turkey, eggs, fish, cottage cheese

COMPLEX CARBOHYDRATES

Estrogen enhances glycogen storage. Carbs are fuel now — not stored as fat.

Oats, rice, sweet potato, quinoa

CRUCIFEROUS VEGETABLES

Contain DIM — helps the liver metabolize estrogen into healthy metabolites.

Broccoli, cauliflower, kale, cabbage

FLAXSEED

Lignans modulate estrogen activity at receptor level. Unique benefit in this phase.

Ground flaxseed in porridge, smoothies, yogurt

HEALTHY FATS

Hormones are synthesized from cholesterol. Support rising estrogen production.

Avocado, olive oil, nuts, eggs, salmon

PROBIOTICS & FIBRE

Gut bacteria metabolize circulating estrogen. A healthy gut = proper hormonal regulation.

Kefir, yogurt, sauerkraut, lentils

Training



PRIORITY

Progressive Strength Training

Increase load progressively. Compound movements respond best. Protein synthesis is elevated — use it.



EXCELLENT

HIIT

Cardiovascular capacity is enhanced by estrogen. HIIT in this phase produces better adaptation than in the luteal phase.



GOOD

Cardio & Endurance

Estrogen promotes fat oxidation. Fuel well with complex carbs before sessions.



BEYOND THE BODY

Estrogen enhances dopamine and serotonin. Ideal phase for new projects, creative challenges, and complex cognitive work. Your confidence and working memory are elevated.

● **DAYS 14-16**

Ovulation *Phase*

"The biological peak of the female cycle"

HORMONE LEVELS



Estrogen reaches its peak, triggering an LH surge that causes the follicle to rupture and release the egg. Testosterone peaks simultaneously — the only time in the cycle where both are elevated at once. This 2–3 day window represents the **absolute peak of physical and cognitive performance**.

Nutrition

ANTIOXIDANTS

Oxidative stress increases at ovulation. Protect the egg and surrounding tissue.

Berries, pomegranate, spinach, sorrel

ZINC

Essential for follicle rupture and egg release. Zinc requirement is highest exactly now.

Shrimp, pumpkin seeds, sardines, oysters

NETTLES (ANTIHISTAMINE)

Quercetin in nettles counters the local histamine response from follicle rupture (mittelschmerz).

Nettle soup, nettle eggs — best in spring

OMEGA-3

Supports egg quality and reduces the inflammatory response of ovulation.

Salmon, sardines, tuna steak

HYDRATION

Cervical mucus requires optimal hydration. Body temperature rises slightly at ovulation.

Water + watermelon, cucumber

CRUCIFEROUS FIBRE

Liver must eliminate peak estrogen rapidly. Cruciferous fibre binds estrogen in the gut.

Broccoli, cauliflower, kale

Training



PEAK WINDOW

Maximum Effort — Strength & Power

Testosterone and estrogen peak simultaneously. Attempt heavy compound lifts, new 1RM records, sprint protocols.



EXCELLENT

Coordination & Dance

Coordination and proprioception peak at ovulation. Dance classes, precision sports, skill-based training.



PRACTICAL NOTE

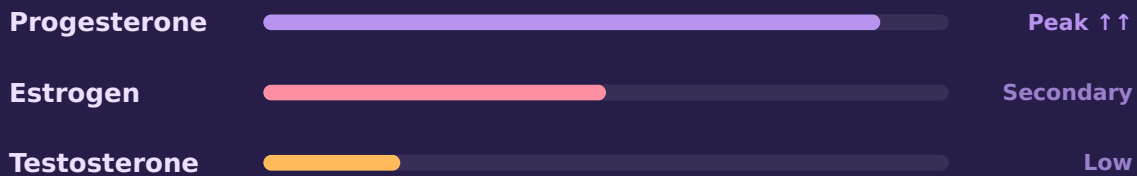
Injury risk begins to increase slightly as estrogen affects ligament laxity. Warm up thoroughly and prioritise proper form over maximum load.

● DAYS 17-28

Luteal Phase

"The phase that rewards those who understand it"

HORMONE LEVELS



SCIENCE NOTE

Progesterone reduces serotonin synthesis and promotes insulin resistance, impairing muscle glucose uptake. This is not in your head — it is your biochemistry.

Nutrition

✓ CLINICAL EVIDENCE

A landmark RCT found that 1200mg calcium daily resulted in a **48% reduction in total PMS symptom scores**. Magnesium combined with vitamin B6 was significantly more effective than magnesium alone.

MAGNESIUM — PRIORITY #1

Smooth muscle relaxant, cofactor for serotonin and dopamine. Lower in women with PMS vs controls.

Dark chocolate 85%+, pumpkin seeds, avocado

VITAMIN B6

Cofactor in serotonin and dopamine synthesis. Directly counteracts progesterone's mood-suppressing effects.

Chicken, tuna, sweet potato, banana, chickpeas

CALCIUM

48% PMS symptom reduction with 1000–1200mg daily in clinical RCTs.

Greek yogurt, kefir, sardines with bones

COMPLEX CARBOHYDRATES

Progesterone reduces brain serotonin. Carbs raise tryptophan → serotonin. This is why you crave carbs.

Sweet potato, oats, brown rice, banana

PROTEIN AT EVERY MEAL

Progesterone promotes muscle catabolism. Regular protein preserves muscle and stabilises blood sugar.

Eggs, chicken, fish, Greek yogurt

FIBRE

Progesterone slows intestinal motility. Constipation allows estrogen to be reabsorbed — worsening PMS.

Lentils, oats, legumes, warm lentil soup

⚠️ WHAT MAKES PMS WORSE

Caffeine amplifies anxiety and sleep disruption. Alcohol directly worsens premenstrual mood. Excess sodium increases water retention. Refined sugar: glycaemic spike → crash → more cravings → negative cycle.

✅ CRAVING STRATEGY

Prepare your snack *before* cravings hit — not in response to them. Dark chocolate 85% with almonds satisfies both the magnesium requirement and the craving. Banana with almond butter provides B6 and natural sweetness.

Training



EARLY LUTEAL — DAYS 17-23

Moderate Intensity Maintained

Energy is relatively stable. Moderate strength training is fine. Some women train equally well in early luteal.



LATE LUTEAL — DAYS 24-28

Reduced Intensity & Skill Work

Reduce weights by 10-20%. Prioritise form over load. Yoga, pilates, and walks reduce cortisol without stressing the system.

Supplementation

Magnesium Glycinate

400mg from day 15 to menstruation. Best-studied form for PMS.

Combine with B6 for greater effect

Vitamin B6

50-100mg daily in luteal phase. Do not exceed 100mg chronically.

With food

Calcium

1000-1200mg from food + supplement. Spread across the day.

48% PMS reduction in RCT

Omega-3

Anti-inflammatory. Supports mood, reduces water retention.

With meals

Evening Primrose Oil

GLA reduces inflammation and hormonal breast tenderness.

Cyclical use

Vitex (Agnus castus)

Regulates the HPO axis. Requires 3+ months of consistent use.

Consult a doctor first

Cycle Syncing in Practice

"Track first, sync second"

You cannot sync with a cycle you don't know. Track consistently for 2–3 cycles: period start/end, energy (1–5), sleep quality, mood, strength in workouts, and any notable symptoms.

Quick Reference

PHASE	TRAINING	PRIORITY NUTRIENT
● Menstrual	Mobility → light strength	Iron + Vitamin C
● Follicular	Progressive overload, HIIT, PRs	Protein + Cruciferous
● Ovulation	Peak effort, max weights	Antioxidants + Zinc
● Luteal	Moderate → yoga & walks	Magnesium + B6

✓ THE CORE PRINCIPLE

Cycle syncing is not about following a rigid prescription. It is about learning to read your body's language. When you feel strong, push harder. When you feel depleted, nourish intentionally. The goal is a relationship with your body built on **information, not willpower.**

Not everyone tracks, and not everyone has regular cycles. You can use daily energy levels, mood, and physical cues as a proxy. Bloom's morning check-in — energy, sleep, cravings, mood — gives enough information to personalise without formal cycle tracking.

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This guide is for educational purposes only, based on current nutritional science and exercise physiology research. It does not constitute medical advice. If you have concerns about hormonal conditions (PCOS, endometriosis, amenorrhea) or specific deficiencies, please consult a healthcare professional.

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