

Supporting energy and balance through the menstrual cycle

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April 2026

Your menstrual cycle is a monthly window into your metabolic health. Each phase creates a distinct hormonal environment that shapes how your body handles food and responds to movement. Understanding these shifts gives you practical tools to support yourself at every stage.

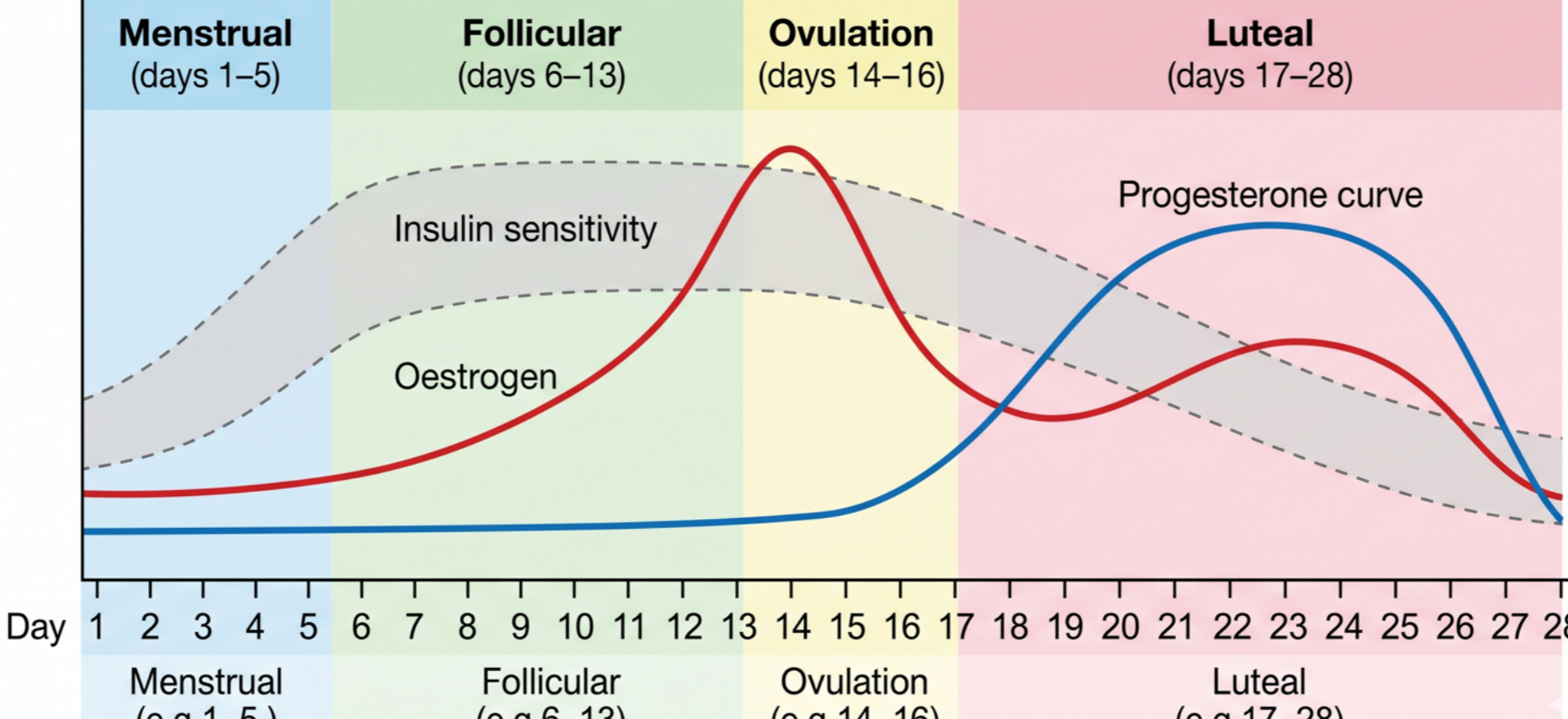
A typical cycle is 21–35 days; the day ranges below are based on a 28-day example. Adjust to your own cycle length.

Your cycle and metabolic health

Five underlying factors have a great influence on both metabolic health and menstrual cycle quality. When these are well-supported, cycles tend to be more regular, PMS less severe, and energy more stable throughout the month.

Factor	Why it matters
Insulin sensitivity	The fluctuations in oestrogen and progesterone create measurably different blood sugar environments across the month.
Inflammation	Chronic low-grade inflammation worsens cycle symptoms and disrupts hormonal signalling.
Gut health	The gut microbiome plays a direct role in oestrogen metabolism and clearance.
Nutrient status	Iron, magnesium, B vitamins, zinc, and omega-3s are particularly relevant to cycle health.
Nervous system regulation	Chronic stress raises cortisol, which disrupts both hormonal balance and blood sugar regulation.

Hormone and metabolic overview



Phase 1 · Days 1–5 · Oestrogen and progesterone at their lowest

Menstrual phase

What to expect: Energy and mood are at their lowest. Fatigue, cramping, bloating, and emotional sensitivity are common as the uterine lining sheds. The body is working hard.

Metabolic context: With both hormones low, blood sugar is relatively stable and easier to regulate. However, iron lost through bleeding directly affects the cells' ability to produce energy. Low iron is one of the most common drivers of cycle-related fatigue. The body needs adequate fuel at this phase; now is not the time to cut back.

NUTRITION	MOVEMENT	SELF-CARE
Iron-rich foods to replace blood losses: red meat, fish, poultry, lentils, dark leafy greens	Rest is productive. Honour low energy rather than pushing through	Heat therapy (hot water bottle on lower abdomen) is well-evidenced for cramp relief
Pair plant-based iron sources with vitamin C to improve absorption: citrus, peppers, kiwi	Gentle yoga, stretching, or walking supports circulation	Prioritise sleep. The body is working hard
Anti-inflammatory omega-3s to ease cramping: oily fish	Avoid intense HIIT on very heavy days	Reduce social and cognitive demands where possible
Magnesium to reduce cramps and support sleep: dark chocolate, pumpkin seeds, avocado	Follow body cues: Movement can always be helpful if energy permits	Track symptoms to build awareness of your personal patterns
Adequate protein at each meal helps stabilise blood sugar and maintain energy		
Reduce caffeine and alcohol. Both worsen inflammation and disrupt blood sugar balance		

Phase 2 · Days 6–13 · Rising oestrogen, FSH active

Follicular phase

What to expect: Oestrogen rises as follicles develop in the ovaries. Energy, mood, and motivation build steadily. Creativity, sociability, and mental clarity improve. This is often the most positive phase of the cycle.

Metabolic context: Oestrogen acts as a natural insulin sensitiser. As it rises, your cells become more responsive to insulin, making blood sugar easier to manage and carbohydrate foods such as fruit and root vegetables easier to process. This is a particularly good window for strength training and building muscle.

NUTRITION	MOVEMENT	SELF-CARE
Lighter, fresher foods work well: salads with protein, fermented foods for gut health	Excellent phase for strength training. Oestrogen supports muscle adaptation	Tackle mentally demanding work and creative projects
Carbohydrates are processed more efficiently in this phase: use the type and amount of carbohydrates which work for you alongside proteins and natural fats	Good time to try new workouts or increase training intensity	Natural social energy is high. Good for collaboration and networking
B vitamins (eggs, fish, seafood, beef, liver, poultry, leafy greens) support oestrogen metabolism and mood	HIIT, cardio, and group fitness all suit this phase well	Ideal time to start new habits or goals
Fibre-rich foods support gut health and help the body clear oestrogen efficiently: vegetables, berries, apples, pears, beans, pulses	Higher pain tolerance means you can push a little harder	Motivation is genuinely elevated. Capitalise on it
Hydrate well. Energy demands are increasing		

Phase 3 · Days 14–16 · Oestrogen peaks; LH surge triggers ovulation

Ovulation phase

What to expect: Peak energy, confidence, and sociability. Verbal fluency and empathy are measurably higher. Some women experience mid-cycle discomfort as the follicle releases. Libido is often elevated.

Metabolic context: Peak oestrogen means peak insulin sensitivity. Blood sugar regulation is at its most efficient and the body handles intense activity well. Ovulation is also a sign of metabolic health: when the body is under significant metabolic stress, it can suppress ovulation as a protective response.

NUTRITION	MOVEMENT	SELF-CARE
Nutrient dense whole foods support egg health: berries, peppers, avocado, oily fish, meat, eggs	Strength and stamina tend to be at their highest around ovulation. A good window for personal bests or competitive events	Best time for important conversations, presentations, or negotiations
Zinc from pumpkin seeds and shellfish supports ovulation	High-intensity training, long runs, and circuits well-tolerated	Verbal fluency and empathy are measurably higher around ovulation
Fibre helps the body clear excess oestrogen after the peak: legumes, vegetables	Be mindful of joint laxity. Oestrogen relaxes ligaments, raising injury risk	Make the most of social and creative energy
Light, varied meals. Digestion is efficient now, a great time to try new dishes	Warm up thoroughly before intense sessions	Schedule demanding interpersonal tasks to coincide with this window
Reduce alcohol, which can disrupt the LH surge and impair oestrogen clearance		

Phase 4 · Days 17–28 · Progesterone rises, then both hormones fall

Luteal phase

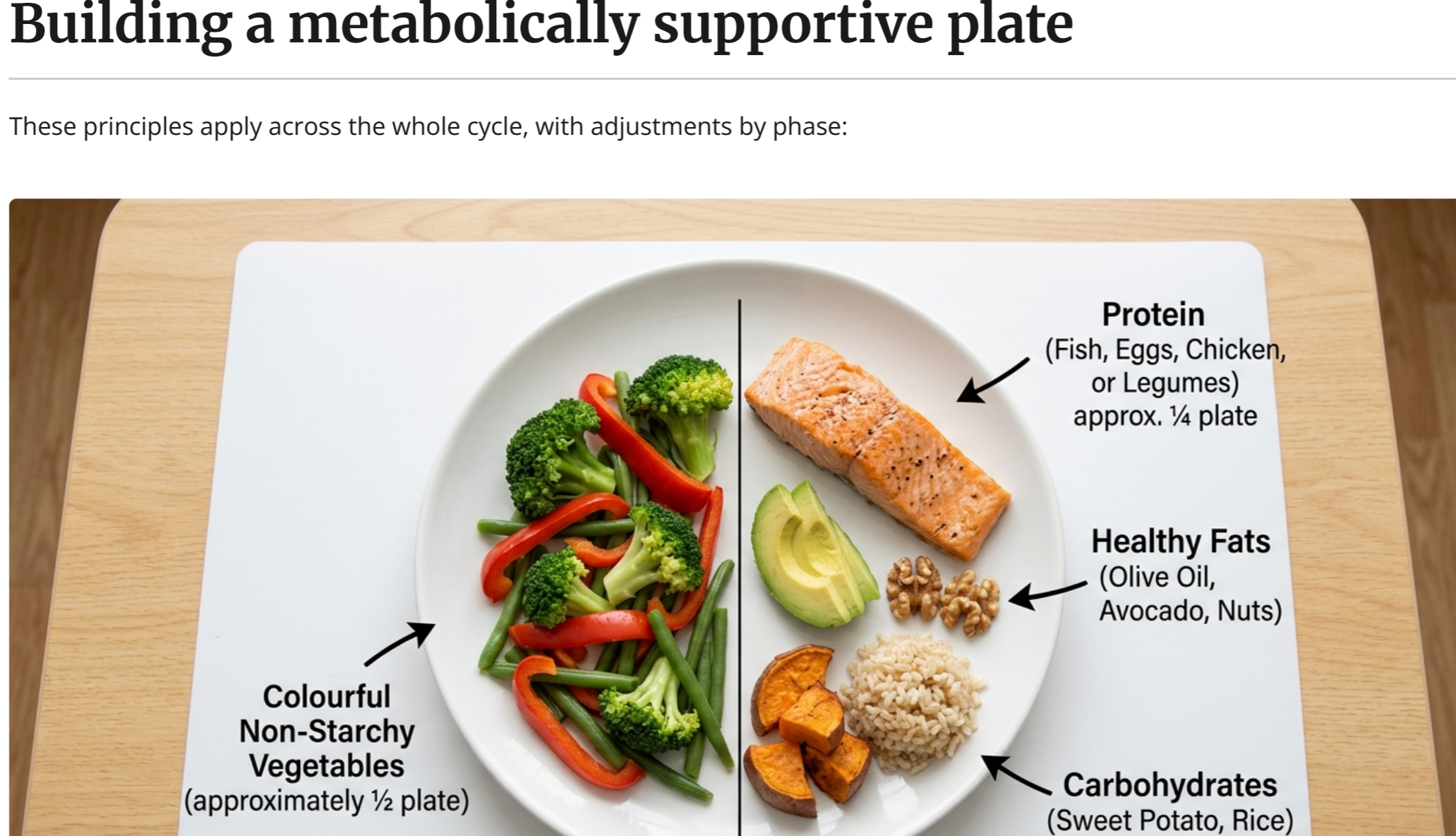
What to expect: Progesterone peaks then drops, often triggering PMS in the final days. Common symptoms include bloating, breast tenderness, fatigue, cravings, irritability, and anxiety. The late luteal phase (days 24–28) is when symptoms are most pronounced. Note: PMDD is a more severe form. See your GP if symptoms significantly impair daily life.

Metabolic context: This is the most metabolically demanding phase. Progesterone raises your resting metabolic rate, meaning the body burns more calories at rest, but it also reduces insulin sensitivity. Blood sugar becomes harder to regulate, which is a key driver of cravings, energy crashes, and mood changes. Blood sugar stability is the most important nutritional priority in this phase.

NUTRITION	MOVEMENT	SELF-CARE
Prioritise protein at every meal to slow glucose absorption and reduce cravings: eggs, fish, meat, tofu, yoghurt	Regular moderate exercise genuinely reduces PMS. The evidence is consistent	Reflective, detail-oriented phase. Good for editing, planning, and organising
Be mindful of amount of carbohydrate eaten and pair with protein and fat to buffer blood sugar swings	Yoga and Pilates are especially well-suited to this phase	Reduce social commitments in the final days if energy is low
Reduce refined sugar and ultra-processed foods. Blood sugar fluctuations are amplified in this phase	Walking outdoors supports mood regulation and reduces anxiety	Prioritise sleep. Progesterone is calming but sleep quality can dip
Magnesium reduces bloating, anxiety, and cravings: dark chocolate, leafy greens, nuts	Reduce training intensity in the final days	Heat therapy remains helpful for cramp management
Calcium has RCT evidence for reducing PMS symptoms: dairy, sardines, fortified plant milks*	Recovery is slower in the late luteal phase. Avoid over-training	Track symptoms to identify patterns and validate your experience
Vitamin B6 (chicken, chickpeas) may support progesterone metabolism and, in some women, reduce irritability		
Reduce salt to ease water retention and bloating		
Reduce caffeine and alcohol. Both worsen PMS symptoms and disrupt blood sugar balance		
Restricting calories in the luteal phase works against the body; metabolic rate is measurably higher. Increasing protein and fat slightly can help reduce cravings.		
Saffron (30 mg/day) has RCT evidence for reducing PMS and PMDD mood symptoms*		
*Always discuss with a medical professional		

Building a metabolically supportive plate

These principles apply across the whole cycle, with adjustments by phase:



- **Prioritise protein at every meal.** Protein is the most satiating macronutrient and your strongest tool for stabilising blood sugar.
- **Fill half your plate with vegetables.** Non-starchy vegetables at most meals support gut health, provide fibre for oestrogen clearance, and reduce the glycaemic impact of the meal.
- **Adjust carbohydrates to your phase.** In the luteal phase, being more mindful of your personal carbohydrate tolerance and pairing with protein and fat matters more.
- **Include healthy fats.** Olive oil, butter, avocado, nuts, and oily fish support hormone production, reduce inflammation, and support satiety.
- **Focus on meals likely to satisfy and sustain rather than grazing.** Closing your eating window at least 3 hours before bed can support restorative sleep. A 12-hour gap between your last meal and the next morning is achievable for most people and gives the body time to recover metabolically. You may want to extend this eating window at some points during your cycle.

Important notes

- **Hormonal contraception:** The pill, hormonal IUD, patch, and implant substantially alter the hormonal cycle. The four-phase model described here applies primarily to naturally cycling women and may not map directly onto contraceptive cycles.
- **Individual variation:** Most research findings represent population-level averages. Cycle length, symptom intensity, and phase duration vary considerably between individuals and across cycles in the same individual. Symptom tracking over several months provides far more useful personal data than any average.
- **Severe symptoms:** If symptoms significantly disrupt daily life, conditions such as PMDD, endometriosis, adenomyosis, or thyroid imbalances may be contributing factors and warrant assessment by a GP or gynaecologist. Lifestyle measures can help but may be insufficient on their own.
- **Not medical advice:** This document summarises research findings for informational purposes. It does not constitute medical advice. Consult a qualified healthcare professional before making significant changes to supplementation or if you have health concerns.

Key references

All studies listed are peer-reviewed publications. Where sample sizes are small or methodological quality is limited, this is noted.

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