



# The Hormone Glossary

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# How to Use This Book

## Why This Book Exists

You leave the doctor's office with a clearer picture of what is happening in your body, and then it starts. The moment the door closes behind you, you realize there were at least three terms you did not fully understand. Estradiol. FSH. Anovulatory cycle. You nodded at the right moments, but now you are standing in the parking lot with your phone already open, typing words into a search bar and landing on pages that are either too clinical, too vague, or clearly written for someone else entirely.

That experience is exactly why this book exists. Not to replace your doctor, and not to hand you a diagnosis. But to give you something that has been missing from the conversation: a plain-English reference that translates the language of perimenopause into words that actually make sense in the context of your real life. Every term in this glossary was chosen because real women in their forties and fifties encounter it, whether at a medical appointment, in a health book, on a podcast, or during a late-night search session. You deserve to understand what those words mean without having to wade through a medical textbook to get there.

## How Each Entry Is Structured

Every term in this glossary follows the same format, so you always know what to expect. You will find a plain-English definition that gets to the point in two or three sentences, followed by a phonetic pronunciation guide so you can say the word out loud with confidence at your next appointment. Each entry also includes a category label, such as Hormone, Test, Symptom, or Condition, so you can quickly understand what kind of concept you are dealing with.

From there, each entry explains how the term is specifically relevant to perimenopause. Because knowing what cortisol is in a general sense is different from understanding why cortisol matters when you are forty-four, not sleeping well, and gaining weight around your midsection without changing anything about your diet. That context is always included.

You will also find a short section called "You may hear this when," which describes the real-life situations where this term is likely to come up: which symptoms, which tests, which conversations with your provider. And every entry closes with a Practical Note, a concrete suggestion for what you can do with this information, whether that is a question to ask your doctor, something to observe or track, or simply a clarifying thought that helps you feel more prepared.

## **How to Use This Book**

There is no single right way to use this glossary, and that is intentional. If you just left a medical appointment and heard a term you did not recognize, flip directly to that letter and look it up. The entries are arranged alphabetically, and the index at the back of the book will help you find any term in seconds.

If you prefer to read by topic rather than by alphabet, the Quick Reference section in Appendix C organizes all the terms by symptom cluster. Looking for everything connected to sleep? Brain fog? Weight changes? You can start there and work your way through the terms most relevant to what you are experiencing right now.

If you are preparing for a medical appointment, Appendix B is the place to go. It translates the most common things doctors say into what they actually mean, along with follow-up questions worth asking. And if you want to understand the tests your provider is likely to order, Appendix A walks through each one in straightforward terms.

## **A Note on Medical Advice**

This book is for informational and educational purposes only. It does not constitute medical advice, diagnosis, or treatment. The definitions and explanations here are designed to help you understand terminology and feel more informed during conversations with your healthcare provider. They are not a substitute for personalized medical guidance. If you are experiencing symptoms that concern you, please consult a qualified healthcare professional. The goal of this book is to make you a more confident and informed participant in your own care, not to replace the expertise of the people who provide it.

# The Hormone Glossary A–Z

## A

### Adrenal Fatigue

**Pronunciation:** ah-DREE-nal fuh-TEEG | **Category:** Concept / Controversy

Adrenal fatigue is a term used in integrative and functional medicine to describe a state in which the adrenal glands are said to be exhausted after prolonged stress, producing lower-than-optimal levels of cortisol and other stress hormones. It is worth knowing that this term is not recognized as a formal medical diagnosis by mainstream endocrinology or by organizations such as the Endocrine Society.

**In perimenopause:** Many women in perimenopause report symptoms that are often attributed to adrenal fatigue, including persistent tiredness that sleep does not resolve, difficulty coping with stress, salt cravings, and a general feeling of being "wired but tired." These symptoms are real and worth discussing with your provider, even though the underlying explanation may be framed differently depending on who you are speaking with.

**You may hear this when:** A functional medicine practitioner or integrative health provider mentions it during a conversation about chronic fatigue, burnout, or stress-related hormonal patterns.

**Practical note:** If this term comes up in your care, ask your provider which tests they are using to assess adrenal function and what evidence supports their interpretation of the results.

### Adrenal Glands

**Pronunciation:** ah-DREE-nal glanz | **Category:** Anatomy

The adrenal glands are two small, triangular glands that sit on top of each kidney. They produce a range of hormones that are essential to daily functioning, including cortisol, adrenaline (epinephrine), DHEA, and small amounts of estrogen and testosterone. After menopause, the adrenal glands become one of the primary sites of estrogen production, which is why their health matters in the perimenopause transition.

**In perimenopause:** As the ovaries gradually reduce hormone output, the adrenal glands are asked to take on a larger supporting role. High stress loads during perimenopause may reduce the adrenal glands' capacity to produce supportive hormones at the right levels and at the right times.

**You may hear this when:** Your provider discusses cortisol testing, DHEA levels, stress response, or adrenal function as part of a broader hormonal evaluation.

**Practical note:** Supporting adrenal health through consistent sleep, manageable stress, and blood sugar stability is a reasonable lifestyle priority during perimenopause and worth raising with your provider.

## Amenorrhea

**Pronunciation:** ay-men-uh-REE-uh | Category: Cycle Symptom

Amenorrhea refers to the absence of menstruation. Primary amenorrhea describes a situation where a person has never had a period, while secondary amenorrhea refers to the stopping of periods in someone who has previously menstruated. In the context of perimenopause, secondary amenorrhea is the relevant form, and it may appear as cycles that skip entirely for one or more months before eventually stopping altogether.

**In perimenopause:** As ovulation becomes less consistent, periods may disappear for a month, two months, or longer before returning. This is a common feature of the late perimenopause transition, but amenorrhea lasting twelve consecutive months is the clinical marker for menopause.

**You may hear this when:** Discussing irregular cycles, delayed periods, or confirming whether menopause has been reached.

**Practical note:** Pregnancy is still possible during perimenopause even when cycles are irregular. If you miss a period and pregnancy is a consideration, it is worth discussing with your provider.

## Androgen

**Pronunciation:** AN-droh-jen | Category: Hormone

Androgens are a group of hormones traditionally associated with male physiology, but they are present and important in women as well. The primary androgens in women include testosterone, DHEA, and androstenedione. They are produced by the ovaries and adrenal glands and play roles in libido, muscle maintenance, bone strength, energy, and mood.

**In perimenopause:** Androgen levels in women decline gradually with age, and this process continues through perimenopause. Lower androgens can contribute to reduced libido, fatigue, loss of muscle tone, and a general feeling of diminished drive. Some women in perimenopause are evaluated for androgen insufficiency as part of a broader hormonal workup.

**You may hear this when:** Discussing low libido, fatigue, muscle loss, or when your provider reviews a comprehensive hormone panel that includes testosterone or DHEA.

**Practical note:** Ask your provider to include free and total testosterone in your hormone panel if you are experiencing low energy or reduced libido, as these values are sometimes omitted from standard blood work.

## **Anovulation / Anovulatory Cycle**

**Pronunciation:** an-OV-yoo-LAY-shun | Category: Cycle Symptom

Anovulation refers to a menstrual cycle in which ovulation does not occur. The period may still arrive, but no egg is released. Anovulatory cycles become increasingly common during perimenopause as the ovaries become less responsive to the hormonal signals that trigger ovulation. Because progesterone is primarily produced after ovulation, anovulatory cycles result in lower progesterone levels, which affects sleep, mood, and cycle regularity.

**In perimenopause:** Many of the earliest and most disruptive symptoms of perimenopause, including sleep disruption, mood changes, and cycle irregularity, can be traced in part to more frequent anovulatory cycles and the resulting drop in progesterone production.

**You may hear this when:** Discussing cycle irregularity, unexplained mood changes, progesterone levels, or fertility concerns.

**Practical note:** Tracking your cycle and symptoms together over two to three months gives your provider useful information about whether anovulation may be contributing to your experience.

## **Anti-Mullerian Hormone (AMH)**

**Pronunciation:** an-tee myu-LAIR-ee-un HOR-mohn | Category: Test / Hormone

Anti-Mullerian Hormone, or AMH, is a protein produced by cells in the ovarian follicles. It provides a reliable estimate of a woman's remaining ovarian reserve, which is the quantity of eggs still available in the ovaries. Unlike FSH, AMH levels remain relatively stable throughout the menstrual cycle, which makes it a useful and consistent marker for assessing where a woman stands in her reproductive timeline.

**In perimenopause:** AMH levels decline progressively during perimenopause and typically reach very low or undetectable levels as menopause approaches. A low AMH result in a woman in her early to mid-forties can suggest that the menopausal transition is underway, even if cycles are still regular.

**You may hear this when:** Your provider is assessing ovarian reserve, discussing fertility, or building a picture of where you are in the menopausal transition.

**Practical note:** AMH is most useful when interpreted alongside FSH, LH, and estradiol. Ask your provider how your results fit together rather than looking at AMH in isolation.

## Aromatase

**Pronunciation:** uh-ROH-muh-tays | Category: Enzyme / Biochemical Process

Aromatase is an enzyme responsible for converting androgens, such as testosterone and androstenedione, into estrogens, particularly estradiol and estrone. This conversion happens in multiple tissues throughout the body, including fat tissue, the liver, the skin, and the brain. Aromatase activity in fat tissue becomes particularly significant after the ovaries reduce their estrogen output.

**In perimenopause:** As ovarian estrogen production declines, aromatase in body fat becomes a more important source of estrogen. This is one reason why body composition can affect estrogen levels, and why women with higher amounts of body fat may retain higher estrogen levels after menopause than women with less.

**You may hear this when:** Discussing hormone therapy, breast cancer treatment involving aromatase inhibitors, or the relationship between body fat and estrogen levels.

**Practical note:** If your provider mentions aromatase inhibitors, these are medications that block this enzyme. Ask specifically how this applies to your situation and what the expected effects on your estrogen levels will be.

## Atrophic Vaginitis

**Pronunciation:** uh-TROF-ik vaj-ih-NYE-tis | Category: Genitourinary Symptom

Atrophic vaginitis is an older medical term for the thinning, dryness, and inflammation of the vaginal tissues that occurs when estrogen levels decline. The preferred current terminology is Genitourinary Syndrome of Menopause, or GSM, which captures a broader range of symptoms including urinary changes as well. The vaginal lining depends on estrogen to maintain its thickness, elasticity, and natural moisture.

**In perimenopause:** Vaginal dryness and discomfort can begin during perimenopause, often earlier than women expect. Symptoms may include dryness, itching, irritation, and discomfort during intercourse. These symptoms tend to worsen over time without intervention.

**You may hear this when:** Discussing vaginal dryness, painful intercourse, or recurrent urinary tract infections with your gynecologist or primary care provider.

**Practical note:** This is one of the most treatable symptoms of the menopause transition. Localized vaginal estrogen, available as a cream, ring, or tablet, is highly effective and has a different risk profile than systemic hormone therapy. Ask your provider which option is appropriate for your situation.

## **Autoimmune Thyroid Disease**

**Pronunciation:** aw-toh-ih-MYOON THY-roid dih-ZEEZ | Category: Condition

Autoimmune thyroid disease occurs when the immune system mistakenly targets thyroid tissue, leading to inflammation and disrupted thyroid function. The two most common forms are Hashimoto's thyroiditis, which typically causes an underactive thyroid, and Graves' disease, which causes an overactive thyroid. Both conditions are significantly more common in women than in men.

**In perimenopause:** Thyroid symptoms, including fatigue, weight changes, brain fog, mood shifts, and sleep disruption, overlap substantially with perimenopausal symptoms. Autoimmune thyroid disease can develop or worsen during perimenopause, making it an important condition to rule out or address when evaluating hormonal symptoms.

**You may hear this when:** Reviewing thyroid test results, discussing fatigue or weight gain, or when your provider orders a thyroid antibody panel alongside standard thyroid function tests.

**Practical note:** If you have a family history of thyroid disease, ask your provider to include thyroid antibodies (TPO and TgAb) in addition to TSH when testing your thyroid function.

## **B**

### **Bioidentical Hormones**

**Pronunciation:** by-oh-ih-DEN-tih-kul HOR-mohnz | Category: Treatment

Bioidentical hormones are hormones that have a molecular structure identical to the hormones naturally produced by the human body. The term is used to distinguish them from synthetic hormones, which may have a similar but not identical chemical structure. FDA-approved bioidentical hormone preparations include certain forms of estradiol and micronized progesterone (such as Prometrium). Compounded bioidentical hormones are custom-mixed formulations prepared by compounding pharmacies and are not FDA-approved.

**In perimenopause:** Bioidentical progesterone is of particular interest during perimenopause because it more closely mimics the calming, sleep-supporting effects of naturally produced progesterone than synthetic progestins do. Whether to use FDA-approved or compounded preparations is a conversation worth having with your provider based on your specific situation.

**You may hear this when:** Discussing hormone therapy options, particularly if you or your provider want to align therapy with hormones the body recognizes naturally.

**Practical note:** Ask your provider specifically whether they are recommending FDA-approved bioidentical preparations or compounded versions, and ask about the evidence and monitoring associated with each option.

## **BMI (Body Mass Index)**

**Pronunciation:** BEE-em-EYE | Category: Concept / Measurement

Body Mass Index, or BMI, is a numerical value calculated from a person's height and weight. It is commonly used as a screening tool to categorize individuals into weight ranges, but it does not directly measure body fat or body composition. BMI has recognized limitations, particularly for women in midlife, because it does not account for muscle mass, fat distribution, or the metabolic changes associated with aging.

**In perimenopause:** Changes in body composition during perimenopause, including a shift of fat toward the abdomen and a decrease in lean muscle mass, may not be fully captured by BMI. A woman's BMI may remain the same while her metabolic risk profile changes meaningfully.

**You may hear this when:** Discussing weight, metabolic health, or eligibility for certain treatments, including some forms of hormone therapy.

**Practical note:** Ask your provider whether waist circumference or a body composition assessment might provide a more complete picture of your metabolic health alongside BMI.

## **Bone Density / DEXA Scan**

**Pronunciation:** bohn DEN-sih-tee / DEK-suh skan | Category: Test / Concept

Bone density refers to the amount of mineral, primarily calcium and phosphorus, packed into a measured area of bone. It is a key indicator of bone strength and fracture risk. A DEXA scan, or dual-energy X-ray absorptiometry scan, is the standard imaging test used to measure bone density at the hip and spine. Results are reported as T-scores, which compare your bone density to that of a healthy young adult.

**In perimenopause:** Estrogen plays a protective role in bone maintenance. As estrogen levels decline during perimenopause, bone loss can accelerate. The years around menopause are often when bone density losses are most rapid, making this an important time to establish a baseline measurement.

**You may hear this when:** Discussing bone health, fracture risk, or when your provider recommends a DEXA scan, typically beginning around age 50 or earlier if you have risk factors.

**Practical note:** Ask your provider when you should have your first DEXA scan and what your T-score means for your personal fracture risk. Weight-bearing exercise and adequate calcium and vitamin D intake are commonly recommended to support bone health during this transition.

## Brain Fog

**Pronunciation:** brayn fog | Category: Symptom

Brain fog is a commonly used term to describe a cluster of cognitive symptoms including difficulty concentrating, mental cloudiness, forgetfulness, slower processing speed, and a general sense that thinking clearly requires more effort than it used to. It is not a medical diagnosis but rather a subjective experience that many women in perimenopause report as one of their most disruptive and least expected symptoms.

**In perimenopause:** Estrogen plays a significant role in supporting cognitive function, and the fluctuating estrogen levels of perimenopause can directly affect memory, focus, and mental sharpness. Sleep disruption, which is also common in perimenopause, compounds cognitive difficulties. For many women, brain fog improves as hormone levels stabilize after menopause.

**You may hear this when:** Discussing cognitive symptoms with your provider, or when researching whether your forgetfulness or difficulty focusing is related to hormonal changes.

**Practical note:** Keeping a brief daily log of your cognitive symptoms, noting sleep quality, stress levels, and cycle phase, can help your provider identify patterns and determine whether hormonal factors are contributing.

## BSO (Bilateral Salpingo-Oophorectomy)

**Pronunciation:** by-LAT-er-ul sal-PIN-goh oh-of-uh-REK-tuh-mee | Category: Procedure

A bilateral salpingo-oophorectomy, often abbreviated as BSO, is a surgical procedure in which both fallopian tubes and both ovaries are removed. It is frequently performed

alongside a hysterectomy, though it can also be done as a standalone procedure. Because the ovaries are the primary source of estrogen and progesterone in premenopausal women, their removal triggers immediate surgical menopause.

**In perimenopause:** A woman who undergoes BSO before natural menopause will experience an abrupt hormonal shift rather than the gradual transition of natural perimenopause. Surgical menopause symptoms can be more intense and sudden than those of natural menopause.

**You may hear this when:** Discussing surgical options for conditions such as ovarian cysts, endometriosis, fibroids, or cancer risk reduction, particularly in women with BRCA gene mutations.

**Practical note:** If BSO is being recommended, ask your provider about the implications for hormone levels and whether hormone therapy will be considered afterward, particularly if you are under the natural age of menopause.

## C

### Cardiovascular Risk

**Pronunciation:** kar-dee-oh-VAS-kyoo-ler risk | Category: Concept

Cardiovascular risk refers to the likelihood of developing heart disease, stroke, or related conditions. Risk factors include high blood pressure, elevated cholesterol, smoking, diabetes, physical inactivity, and a family history of heart disease. Estrogen has a protective effect on the cardiovascular system, and this protection changes during the menopausal transition.

**In perimenopause:** As estrogen levels decline, several cardiovascular risk markers may shift unfavorably, including changes in cholesterol levels, blood pressure, and arterial flexibility. Heart disease risk in women increases after menopause, and perimenopause is an appropriate time to establish a cardiovascular health baseline.

**You may hear this when:** Reviewing cholesterol results, discussing hormone therapy, or talking about your overall health risk profile with your provider.

**Practical note:** Ask your provider to include a full lipid panel and blood pressure assessment as part of your perimenopause health evaluation. Lifestyle factors such as regular physical activity, a whole-food diet, and stress management all support cardiovascular health during this transition.

### Circadian Rhythm

**Pronunciation:** ser-KAY-dee-un RIH-thum | Category: Concept / Physiology

The circadian rhythm is your body's internal 24-hour biological clock that regulates sleep, wakefulness, hormone release, body temperature, metabolism, and many other physiological processes. It is primarily synchronized by light and darkness and influences the timing of cortisol release in the morning, melatonin production in the evening, and core body temperature changes throughout the day.

**In perimenopause:** Hormonal changes during perimenopause, particularly in progesterone, estrogen, and cortisol, can disrupt circadian rhythm regulation, contributing to difficulty falling asleep, waking in the middle of the night, and feeling unrested in the morning. Night sweats further interrupt the temperature-based signals the body uses to regulate sleep cycles.

**You may hear this when:** Discussing sleep problems, light therapy, melatonin use, or the timing of medications and supplements with your provider.

**Practical note:** Consistent sleep and wake times, morning light exposure, and limiting bright light in the evening are practical, evidence-informed strategies for supporting circadian rhythm health during perimenopause.

## Collagen

**Pronunciation:** KOL-uh-jen | Category: Protein / Physiology

Collagen is the most abundant protein in the human body and serves as the primary structural component of skin, tendons, ligaments, cartilage, and bone. It provides strength, elasticity, and support to connective tissues throughout the body. Collagen production is influenced by multiple factors, including age, nutrition, sun exposure, and hormonal status.

**In perimenopause:** Estrogen supports collagen synthesis, and its decline during perimenopause is associated with a measurable reduction in skin thickness, elasticity, and moisture. Joint discomfort, changes in hair texture, and increased wound healing time may also reflect declining collagen levels. Research suggests that collagen loss in the skin accelerates significantly in the first few years after menopause.

**You may hear this when:** Discussing skin changes, joint pain, or when evaluating the broader effects of estrogen decline on connective tissue.

**Practical note:** Adequate protein intake, vitamin C, and sun protection are foundational to supporting collagen health. Discuss any collagen supplement use with your provider before starting.

## Complete Blood Count (CBC)

**Pronunciation:** kum-PLEET blud kownt | Category: Test

A Complete Blood Count, or CBC, is a standard blood test that measures the number and characteristics of red blood cells, white blood cells, and platelets in a sample of blood. It provides a broad picture of overall blood health and can detect conditions such as anemia, infection, clotting problems, and certain blood disorders.

**In perimenopause:** Heavy or irregular periods during perimenopause can lead to iron-deficiency anemia, which may contribute to fatigue, weakness, and brain fog. A CBC is a useful tool for identifying whether anemia is a factor in your symptoms.

**You may hear this when:** Your provider orders routine blood work, investigates the cause of fatigue, or monitors for anemia related to heavy bleeding.

**Practical note:** If you are experiencing heavy periods alongside fatigue, ask your provider to include ferritin in addition to a CBC, as ferritin provides a more sensitive measure of iron stores and can indicate depletion before anemia develops.

## Corpus Luteum

**Pronunciation:** KOR-pus LOO-tee-um | Category: Anatomy / Physiology

The corpus luteum is a temporary endocrine structure that forms in the ovary after ovulation from the follicle that released the egg. Its primary function is to produce progesterone during the second half of the menstrual cycle, which prepares the uterine lining for potential implantation and supports early pregnancy. If pregnancy does not occur, the corpus luteum breaks down, progesterone levels fall, and menstruation begins.

**In perimenopause:** Because anovulatory cycles become more common during perimenopause, the corpus luteum forms less consistently. This means progesterone production becomes more variable, which directly affects cycle regularity, sleep quality, and mood stability in the second half of the cycle.

**You may hear this when:** Discussing progesterone production, luteal phase deficiency, or ovulation tracking.

**Practical note:** A progesterone blood test drawn approximately seven days after suspected ovulation can help determine whether the corpus luteum formed and functioned effectively in that cycle.

## Cortisol

**Pronunciation:** KOR-tih-sol | Category: Hormone

Cortisol is your body's primary stress hormone, produced by the adrenal glands in response to physical or emotional demand. It helps regulate energy, blood sugar,

inflammation, and your sleep-wake cycle. In healthy amounts and at the right times of day, cortisol is essential to daily functioning. Difficulties arise when cortisol is chronically elevated or when its natural daily pattern becomes dysregulated.

**In perimenopause:** During perimenopause, the cortisol response can become more reactive. Smaller stressors may trigger larger cortisol surges, which can disrupt sleep, promote abdominal fat storage, and amplify mood instability. Supporting healthy cortisol patterns is one of the most meaningful lifestyle levers available during this transition.

**You may hear this when:** Your provider discusses adrenal function, stress response, sleep disruption, weight gain around the abdomen, or when ordering a saliva or blood test to assess hormonal patterns throughout the day.

**Practical note:** A single blood cortisol test measures only one point in time and may miss patterns. Ask your provider whether a 24-hour urine test or salivary cortisol panel would provide a more complete picture of your cortisol rhythm throughout the day.

## **CRP (C-Reactive Protein)**

**Pronunciation:** SEE-ar-PEE / SEE-ree-AK-tiv PROH-teen | Category: Test / Biomarker

C-Reactive Protein, or CRP, is a protein produced by the liver in response to inflammation in the body. A high-sensitivity CRP (hs-CRP) test is used to measure low levels of systemic inflammation that may indicate an elevated risk of cardiovascular disease. CRP is a useful marker for understanding the inflammatory load in the body and how it may be contributing to symptoms and long-term health risk.

**In perimenopause:** Estrogen has anti-inflammatory properties, and its decline during perimenopause can contribute to a mild increase in baseline inflammation. Elevated CRP levels have been associated with increased joint pain, fatigue, and a higher risk of cardiovascular and metabolic conditions in midlife women.

**You may hear this when:** Your provider orders an inflammatory panel, discusses cardiovascular risk, or investigates unexplained fatigue and joint pain.

**Practical note:** Ask your provider to include hs-CRP as part of your cardiovascular and metabolic health assessment during perimenopause, particularly if you have symptoms that may relate to inflammation.

## **Cycle Tracking**

**Pronunciation:** SY-kul TRAK-ing | Category: Concept

Cycle tracking refers to the practice of recording information about the menstrual cycle, including start and end dates, flow volume, associated symptoms, and observations about mood, energy, sleep, and physical changes throughout the cycle. Tracking can be done with a paper chart, a dedicated app, or a simple journal. It provides a personal record of patterns and changes over time.

**In perimenopause:** As cycles become more variable during perimenopause, tracking becomes especially useful. It can reveal patterns that connect symptoms to specific cycle phases and provides your provider with concrete data rather than estimates. Tracking is also a useful way to document when cycles become less frequent as menopause approaches.

**You may hear this when:** Your provider asks about your cycle history, when discussing fertility, or when evaluating hormonal symptoms.

**Practical note:** Even three months of consistent tracking can reveal meaningful patterns. Note not just your period dates but also your sleep quality, energy levels, and mood across the full cycle.

## Cytokines

**Pronunciation:** SY-toh-kynz | Category: Biochemical Concept

Cytokines are small signaling proteins released by immune cells that help coordinate the body's immune and inflammatory responses. They act as messengers between cells and can either promote or suppress inflammation depending on the type and context. While they play a necessary role in fighting infection and healing, chronically elevated cytokines are associated with systemic inflammation and a range of health problems.

**In perimenopause:** Fluctuating estrogen levels can affect cytokine activity, contributing to periods of increased inflammation. This may manifest as joint stiffness, fatigue, mood changes, or increased sensitivity to pain. Supporting immune regulation through lifestyle factors may help manage cytokine-related symptoms.

**You may hear this when:** Discussing autoimmune conditions, systemic inflammation, or in the context of research on menopause and inflammation.

**Practical note:** If you notice joint pain or systemic discomfort that seems to fluctuate with your cycle, mention this pattern to your provider as it may suggest an inflammatory component worth evaluating.

## D

### DEXA Scan

**Pronunciation:** DEK-suh skan | Category: Test

A DEXA scan, or dual-energy X-ray absorptiometry scan, is the gold-standard imaging test for measuring bone mineral density. It uses two low-dose X-ray beams of different energy levels to precisely measure the mineral content of bone at the hip and lumbar spine. The results are expressed as a T-score, which compares your bone density to that of a healthy 30-year-old, and a Z-score, which compares your density to others of your same age and sex.

**In perimenopause:** Bone density can decline at an accelerated rate during the years around menopause. A DEXA scan provides a baseline measurement so that any future changes can be tracked accurately. Early identification of bone loss allows for timely intervention.

**You may hear this when:** Your provider recommends bone density screening, typically beginning around age 50 or earlier if you have risk factors such as low body weight, smoking history, or a family history of osteoporosis.

**Practical note:** Ask your provider to explain your T-score and what it means for your fracture risk, and whether any lifestyle or medical interventions are appropriate given your result.

### DHEA (Dehydroepiandrosterone)

**Pronunciation:** dee-HY-droh-ep-ee-an-DROS-tuh-rohn | Category: Hormone

DHEA is a hormone produced primarily by the adrenal glands and, to a lesser extent, the ovaries and brain. It serves as a precursor to both estrogen and testosterone, meaning the body can convert it into these hormones as needed. DHEA levels peak in early adulthood and decline steadily with age, making it one of the most age-sensitive hormones in the body.

**In perimenopause:** Declining DHEA levels during perimenopause may contribute to reduced libido, fatigue, mood changes, and decreased resilience to stress. A prescription form of DHEA called prasterone is FDA-approved for treating painful intercourse due to vaginal atrophy. Other DHEA supplementation should be discussed with a provider before use.

**You may hear this when:** Your provider reviews an adrenal or comprehensive hormone panel, discusses adrenal health, or evaluates symptoms of low libido or fatigue.

**Practical note:** Because DHEA converts to other hormones in the body, supplementing without testing and monitoring can produce unexpected effects. Ask your provider to test your DHEA-S level before considering any form of DHEA supplementation.

## Dopamine

**Pronunciation:** DOH-puh-meen | Category: Neurotransmitter

Dopamine is a neurotransmitter, a chemical messenger in the brain, that plays a central role in motivation, reward, pleasure, and executive function. It supports the drive to pursue goals, the ability to feel satisfaction, sustained focus, and the regulation of movement. Dopamine also interacts with the brain's systems for managing pain, mood, and sleep-wake transitions.

**In perimenopause:** Estrogen supports dopamine receptor sensitivity in the brain, and declining estrogen during perimenopause can affect how effectively dopamine signals are received. This may contribute to reduced motivation, difficulty concentrating, diminished pleasure in previously enjoyable activities, and a general sense of emotional flatness that is distinct from clinical depression.

**You may hear this when:** Discussing mood, motivation, attention difficulties, or the neurological basis of perimenopausal mood changes.

**Practical note:** Regular physical activity, particularly aerobic exercise, is one of the most well-supported ways to support dopamine function. If motivational changes are affecting your daily life significantly, discuss this with your provider.

## dysmenorrhea

**Pronunciation:** dis-men-uh-REE-uh | Category: Symptom

Dysmenorrhea refers to painful menstruation, commonly experienced as cramping in the lower abdomen before or during a period. Primary dysmenorrhea describes cramping without an underlying medical cause, driven by prostaglandins that trigger uterine contractions. Secondary dysmenorrhea refers to painful periods caused by an underlying condition such as endometriosis, fibroids, or adenomyosis.

**In perimenopause:** Some women find that menstrual pain changes during perimenopause. Periods that become heavier due to hormonal fluctuations may also become more painful. New or worsening painful periods in perimenopause are worth

evaluating to rule out conditions such as fibroids or adenomyosis, which can develop or grow during this transition.

**You may hear this when:** Discussing painful periods, heavy bleeding, or when being evaluated for uterine conditions.

**Practical note:** If your period pain has changed notably in character, location, or intensity during perimenopause, raise this with your provider rather than attributing it automatically to hormonal changes.

## Dyspareunia

**Pronunciation:** dis-puh-ROO-nee-uh | Category: Symptom

Dyspareunia is the medical term for persistent or recurrent pain during sexual intercourse. It can occur at the vaginal opening, inside the vagina, or deeper in the pelvis, and may be present before, during, or after intercourse. The causes are varied and include vaginal dryness, vaginal atrophy, pelvic floor tension, infections, and structural changes in reproductive tissue.

**In perimenopause:** Declining estrogen levels during perimenopause are a common cause of dyspareunia, as estrogen depletion leads to thinning of the vaginal walls, reduced lubrication, and increased sensitivity to friction. This is one of the most underreported but highly treatable symptoms of the menopausal transition.

**You may hear this when:** Discussing sexual health, vaginal symptoms, or when your provider asks about changes in intimacy or physical comfort.

**Practical note:** Dyspareunia caused by estrogen-related vaginal changes responds well to localized vaginal estrogen therapy. This is worth discussing with your provider if intercourse has become uncomfortable, as many women live with this symptom unnecessarily without knowing effective options exist.

## E

### Endocrine System

**Pronunciation:** EN-doh-krin SIS-tum | Category: Physiology

The endocrine system is the network of glands and organs that produce, store, and release hormones directly into the bloodstream. Major components include the hypothalamus, pituitary gland, thyroid, parathyroid glands, adrenal glands, pancreas, ovaries, and testes. Hormones are the chemical messengers of this system, traveling through the blood to regulate processes including growth, metabolism, reproduction, mood, and sleep.

**In perimenopause:** Perimenopause is fundamentally an endocrine transition. The interplay between the hypothalamus, pituitary gland, and ovaries shifts as ovarian function changes, creating a cascade that affects multiple other hormone systems, including the thyroid, adrenal glands, and insulin signaling.

**You may hear this when:** Being referred to an endocrinologist, discussing how hormonal changes in one area affect another, or when your provider describes the broader context of your hormone results.

**Practical note:** If your perimenopause symptoms are complex or not responding to standard approaches, a referral to an endocrinologist may provide a more comprehensive picture of how your endocrine systems are interacting.

## **Endometrial Hyperplasia**

**Pronunciation:** en-doh-MEE-tree-ul hy-per-PLAY-zhuh | Category: Condition

Endometrial hyperplasia is a condition in which the lining of the uterus, called the endometrium, becomes abnormally thickened. It occurs when estrogen stimulates the endometrium without the balancing effect of progesterone. Most forms of endometrial hyperplasia are not cancerous, but some types, particularly those involving cellular changes called atypia, carry a higher risk of developing into endometrial cancer if untreated.

**In perimenopause:** Anovulatory cycles, which produce estrogen without the progesterone that normally follows ovulation, can lead to an imbalance that promotes endometrial hyperplasia over time. Irregular or unusually heavy bleeding during perimenopause may sometimes be related to this condition.

**You may hear this when:** Investigating unexplained heavy bleeding, undergoing an endometrial biopsy, or discussing the results of a transvaginal ultrasound showing a thickened uterine lining.

**Practical note:** Unexplained heavy or irregular bleeding during perimenopause warrants evaluation. Do not assume it is simply a hormonal fluctuation without discussing it with your provider.

## **Endometriosis**

**Pronunciation:** en-doh-mee-tree-OH-sis | Category: Condition

Endometriosis is a chronic condition in which tissue similar to the endometrium, the lining of the uterus, grows outside the uterus, often on the ovaries, fallopian tubes, or other pelvic structures. This misplaced tissue responds to hormonal signals and can

cause significant pain, inflammation, and adhesions. It affects an estimated one in ten women of reproductive age and is frequently underdiagnosed.

**In perimenopause:** Endometriosis symptoms often fluctuate with estrogen levels. While some women find that symptoms ease as estrogen declines in perimenopause, others continue to experience symptoms or find they worsen during periods of high estrogen fluctuation. Women with endometriosis may require specific considerations when evaluating hormone therapy options.

**You may hear this when:** Discussing chronic pelvic pain, painful periods, infertility, or when reviewing surgical or imaging findings.

**Practical note:** If you have a known history of endometriosis, inform any new provider, as it is relevant to how hormone therapy and other treatments are approached during and after perimenopause.

## **Estradiol (E2)**

**Pronunciation:** es-truh-DY-ol | Category: Hormone

Estradiol, also known as E2, is the most potent and predominant form of estrogen during a woman's reproductive years. It is produced primarily by the ovarian follicles and plays a central role in regulating the menstrual cycle, maintaining bone density, supporting cardiovascular health, preserving cognitive function, and sustaining vaginal and urinary tissue health. Estradiol levels fluctuate throughout the cycle and decline progressively during perimenopause.

**In perimenopause:** Estradiol levels during perimenopause are characterized by unpredictability. They can spike to unusually high levels and then fall sharply, creating a pattern of hormonal fluctuation that drives many of the most disruptive symptoms of the transition, including hot flashes, mood instability, and sleep disruption.

**You may hear this when:** Reviewing hormone test results, discussing the stage of the menopausal transition, or evaluating estradiol as a component of hormone therapy.

**Practical note:** A single estradiol measurement can be misleading because levels change significantly across the cycle and from cycle to cycle. Ask your provider to interpret your result in the context of where you are in your cycle and alongside other hormone markers.

## **Estriol (E3)**

**Pronunciation:** ES-tree-ol | Category: Hormone

Estriol, or E3, is the weakest of the three main forms of estrogen. During pregnancy, it is produced in large amounts by the placenta and fetal liver, making it a useful marker of fetal health. Outside of pregnancy, estriol is present in very small quantities. It is sometimes used in compounded topical preparations for vaginal dryness, though its use in this context is not FDA-approved.

**In perimenopause:** Estriol is not a primary hormone of concern during perimenopause, but it may come up in the context of compounded hormone preparations that advertise an "estriol-based" formula. Its clinical significance compared to estradiol in managing perimenopause symptoms is limited.

**You may hear this when:** Discussing compounded hormone therapy options or when reviewing a comprehensive hormone panel.

**Practical note:** If estriol is suggested as part of a hormone therapy protocol, ask your provider about the evidence supporting its use compared to FDA-approved estradiol preparations.

## Estrogen

**Pronunciation:** ES-truh-jen | Category: Hormone (Umbrella Term)

Estrogen is the collective name for a group of hormones that play a central role in the development and function of the female reproductive system, as well as in the health of the bones, brain, cardiovascular system, skin, and urinary tract. The three main forms are estradiol (E2), estrone (E1), and estriol (E3). Estrogen is produced primarily by the ovaries, with smaller contributions from the adrenal glands and fat tissue, and it acts on receptors throughout virtually every system in the body.

**In perimenopause:** During perimenopause, estrogen production becomes increasingly irregular. Levels may surge, plunge, or fluctuate unpredictably from cycle to cycle. This volatility, rather than simply a decline in estrogen, is responsible for many of the most characteristic symptoms of perimenopause, including hot flashes, night sweats, mood swings, and sleep disruption.

**You may hear this when:** Discussing hormone test results, the cause of perimenopausal symptoms, or when evaluating hormone therapy options.

**Practical note:** When your provider mentions estrogen levels, ask specifically which form of estrogen is being measured, as estradiol, estrone, and total estrogen provide different and sometimes conflicting pictures of your hormonal status.

## Estrogen Dominance

**Pronunciation:** ES-truh-jen DOM-ih-nuns | **Category:** Concept / Controversy

Estrogen dominance is a term used in functional and integrative medicine to describe a state in which estrogen is high relative to progesterone, regardless of whether absolute estrogen levels are elevated or within range. It is not a recognized diagnosis in conventional endocrinology, but the underlying concept, that an imbalance in the estrogen-to-progesterone ratio can contribute to symptoms, reflects a real physiological dynamic.

**In perimenopause:** In early perimenopause, progesterone typically declines before estrogen does, creating a period where estrogen may be relatively dominant even if levels are not abnormally high. This relative imbalance can contribute to breast tenderness, heavier periods, bloating, mood changes, and sleep disruption.

**You may hear this when:** Speaking with an integrative or functional medicine provider, or when researching hormonal imbalance in the context of early perimenopause symptoms.

**Practical note:** If this term is used in your care, ask your provider what specific lab values they are using to support this assessment and how they plan to address the imbalance.

## Estrone (E1)

**Pronunciation:** ES-trohn | **Category:** Hormone

Estrone, or E1, is a weaker form of estrogen that becomes the dominant circulating estrogen after menopause. During the reproductive years, it is produced in smaller amounts than estradiol. After menopause, estrone is primarily produced through the conversion of androgens by aromatase enzyme activity in fat tissue. Its potency is lower than estradiol, but it continues to play a role in bone, cardiovascular, and tissue health after the ovaries reduce output.

**In perimenopause:** As estradiol production becomes less consistent during perimenopause, estrone becomes a proportionally larger contributor to overall estrogen activity. Women with higher amounts of body fat may produce more estrone postmenopausally due to greater aromatase activity in adipose tissue.

**You may hear this when:** Reviewing a comprehensive hormone panel that distinguishes between different forms of estrogen, particularly in a postmenopausal evaluation.

**Practical note:** Estrone is not routinely measured in standard hormone panels. Ask your provider whether distinguishing between estrogen forms is relevant to your assessment.

## F

### Ferritin

**Pronunciation:** FAIR-ih-tin | Category: Test / Biomarker

Ferritin is a protein that stores iron in the body and releases it in a controlled way when needed. Blood ferritin levels reflect the total iron stores in the body and are a more sensitive indicator of iron depletion than hemoglobin or a standard red blood cell count. Low ferritin can indicate iron deficiency even before anemia develops, and it can contribute to fatigue, hair loss, poor concentration, and reduced exercise tolerance.

**In perimenopause:** Heavy or irregular periods during perimenopause are a common cause of iron loss. Women experiencing heavier cycles may develop low ferritin well before a standard blood count shows anemia. Low ferritin is one of the most frequently overlooked causes of persistent fatigue in perimenopausal women.

**You may hear this when:** Your provider investigates fatigue, hair thinning, or discusses iron stores in the context of heavy menstrual bleeding.

**Practical note:** Request a ferritin test specifically if you are experiencing fatigue or hair changes, even if your complete blood count appears normal. A ferritin level below 30 ng/mL is associated with symptoms in many women, even when technically within laboratory reference ranges.

### Fibroids (Uterine Fibroids)

**Pronunciation:** FY-broydz | Category: Condition

Uterine fibroids are noncancerous growths that develop in the muscle wall of the uterus. They range in size from microscopic to several centimeters and may grow as a single fibroid or in clusters. Many women have fibroids without any symptoms, while others experience heavy periods, pelvic pressure, frequent urination, and lower back pain depending on the size and location of the fibroids.

**In perimenopause:** Fibroids are estrogen-sensitive, meaning they tend to grow during reproductive years when estrogen is higher and typically shrink after menopause when estrogen declines. During perimenopause, fluctuating and sometimes elevated estrogen levels may cause existing fibroids to grow, potentially worsening heavy bleeding.

**You may hear this when:** Investigating heavy or prolonged periods, undergoing a pelvic ultrasound, or discussing options for managing abnormal uterine bleeding.

**Practical note:** If heavy bleeding is affecting your quality of life during perimenopause, ask your provider whether fibroids are a contributing factor and what treatment options are available.

## Follicle

**Pronunciation:** FOL-ih-kul | Category: Anatomy

An ovarian follicle is a fluid-filled sac in the ovary that contains an immature egg, or oocyte. Each month during the reproductive years, a group of follicles begins to develop, and typically one becomes the dominant follicle that matures and releases its egg at ovulation. Follicles also produce estradiol and, after ovulation, give rise to the corpus luteum that produces progesterone.

**In perimenopause:** The number and quality of remaining follicles declines with age, and this decline is the underlying driver of the entire perimenopause transition. As fewer healthy follicles remain, ovarian estrogen output becomes less consistent, FSH rises, and ovulation becomes less predictable.

**You may hear this when:** Discussing ovarian reserve, fertility, or when reviewing antral follicle count results from an ultrasound.

**Practical note:** An antral follicle count, measured via transvaginal ultrasound, provides a direct look at the number of follicles currently available and is a useful companion to AMH testing when assessing ovarian reserve.

## FSH (Follicle-Stimulating Hormone)

**Pronunciation:** FOL-ih-kul STIM-yoo-lay-ting HOR-mohn | Category: Hormone / Test

FSH is a hormone produced by the pituitary gland that signals the ovaries to develop follicles and, through that process, stimulate estrogen production. It rises significantly during perimenopause as the ovaries become less responsive to its signals. Elevated FSH levels are one of the laboratory markers used to assess where a woman is in the menopausal transition, though they must be interpreted carefully because they fluctuate considerably from cycle to cycle.

**In perimenopause:** As ovarian function declines, the pituitary gland increases FSH output in an attempt to stimulate the ovaries more strongly. A single high FSH reading does not confirm perimenopause. Repeated elevated readings over time, combined with clinical symptoms and other hormone values, provide a more meaningful picture.

**You may hear this when:** Asking whether perimenopause has begun, investigating irregular cycles, or discussing fertility. An FSH above 10 IU/L on Day 3 of the cycle may suggest reduced ovarian reserve.

**Practical note:** Ask your provider to interpret your FSH result alongside LH, estradiol, and AMH. FSH alone provides an incomplete and sometimes misleading picture of where you are in the transition.

## G

### **GABA (Gamma-Aminobutyric Acid)**

**Pronunciation:** GAB-uh / GAM-uh ah-MEE-noh-byoo-TIR-ik AS-id | Category: Neurotransmitter

GABA is the brain's primary inhibitory neurotransmitter, meaning its job is to calm neural activity and reduce the likelihood of nerve cells firing. It promotes relaxation, reduces anxiety, and supports sleep onset by quieting an overactive nervous system. GABA activity is closely connected to the actions of progesterone through a metabolite called allopregnanolone, which enhances GABA receptor sensitivity.

**In perimenopause:** As progesterone production becomes less consistent during perimenopause, allopregnanolone levels also fluctuate. This can reduce GABA activity, making the nervous system more reactive and contributing to anxiety, difficulty unwinding, and trouble falling or staying asleep. This is one of the neurological mechanisms behind the mood and sleep changes many women experience early in perimenopause.

**You may hear this when:** Discussing anxiety, sleep difficulties, or the neurological effects of progesterone decline.

**Practical note:** If anxiety and sleep onset difficulties are prominent symptoms for you, discuss the potential role of progesterone fluctuation with your provider, as this mechanism may be relevant to your treatment options.

### **Genitourinary Syndrome of Menopause (GSM)**

**Pronunciation:** jen-ih-toh-YOOR-ih-nair-ee SIN-droh-m | Category: Symptom Cluster

Genitourinary Syndrome of Menopause, or GSM, is the current medical term that replaces older terms like vaginal atrophy and atrophic vaginitis. GSM describes a collection of symptoms that arise when declining estrogen levels affect the vaginal, vulvar, and urinary tissues. Symptoms can include vaginal dryness, burning, irritation, painful intercourse, increased urinary frequency, urgency, recurrent urinary tract infections, and reduced vaginal elasticity.

**In perimenopause:** GSM symptoms can begin during perimenopause, often earlier than expected, and tend to worsen progressively without treatment. Unlike vasomotor symptoms such as hot flashes, GSM does not resolve on its own after menopause and typically requires treatment to improve.

**You may hear this when:** Discussing vaginal or urinary symptoms with your gynecologist, primary care provider, or urogynecologist.

**Practical note:** GSM responds well to localized estrogen therapy, which has a different risk profile than systemic hormone therapy. Non-hormonal options are also available. Ask your provider which approach is appropriate for your specific symptoms and health history.

## Ghrelin

**Pronunciation:** GREL-in | Category: Hormone

Ghrelin is a hormone produced primarily in the stomach that signals hunger to the brain. It rises before meals, falls after eating, and is often called the "hunger hormone." Ghrelin also plays a role in growth hormone release, energy metabolism, and sleep regulation. Its levels are influenced by sleep quality, stress, blood sugar stability, and body weight.

**In perimenopause:** Sleep disruption, which is common during perimenopause, is associated with elevated ghrelin levels, which can increase appetite and cravings, particularly for high-carbohydrate and high-fat foods. This is one physiological reason why poor sleep during perimenopause may contribute to weight gain that feels disconnected from dietary habits.

**You may hear this when:** Discussing appetite regulation, weight management, the hormonal mechanisms behind cravings, or the relationship between sleep and metabolism.

**Practical note:** Prioritizing consistent, adequate sleep is a meaningful strategy for supporting ghrelin regulation and managing appetite during perimenopause. If sleep disruption is a significant problem, addressing it directly may help with weight management as well.

## Gut Microbiome

**Pronunciation:** gut MY-kroh-byohm | Category: Concept / Physiology

The gut microbiome is the vast community of microorganisms, including bacteria, fungi, and viruses, that live in the digestive tract. A healthy and diverse microbiome supports digestion, immune function, nutrient absorption, mood regulation through

the gut-brain axis, and inflammation management. Diet, stress, antibiotic use, sleep, and age all influence microbiome composition.

**In perimenopause:** Research suggests that the gut microbiome and estrogen levels influence each other in meaningful ways. A subset of gut bacteria called the estrobolome produces enzymes that help regulate how estrogen is metabolized and recirculated in the body. Changes in the microbiome during perimenopause may affect estrogen availability and metabolism, contributing to hormonal symptoms.

**You may hear this when:** Discussing digestive health, bloating, immune function, or the growing research on connections between the gut and hormonal health.

**Practical note:** A diet rich in fiber, fermented foods, and plant diversity supports a healthy microbiome. If bloating or digestive changes are part of your perimenopause experience, discuss this with your provider.

## H

### HbA1c

**Pronunciation:** AY-one-SEE / HEE-moh-GLOH-bin A-one-SEE | Category: Test

HbA1c, also called glycated hemoglobin or A1c, is a blood test that reflects the average blood sugar level over the past two to three months. Unlike a fasting glucose test, which measures blood sugar at a single point in time, HbA1c provides a broader picture of how blood sugar has been managed over an extended period. It is the primary test used to diagnose and monitor diabetes and prediabetes.

**In perimenopause:** Insulin sensitivity can decline during perimenopause, making blood sugar regulation less efficient. Monitoring HbA1c during this transition helps identify whether metabolic changes are occurring that warrant attention, even in women who have not previously had blood sugar concerns.

**You may hear this when:** Your provider orders routine metabolic screening, discusses weight changes or fatigue, or evaluates whether insulin resistance may be contributing to your symptoms.

**Practical note:** Ask for your HbA1c as part of your annual blood work during perimenopause, particularly if you have a family history of diabetes, are experiencing unexplained weight gain, or notice increased cravings for carbohydrates.

### HDL / LDL Cholesterol

**Pronunciation:** AY-ch-dee-EL / EL-dee-EL kuh-LES-tuh-rol | Category: Test / Biomarker

Cholesterol is a fatty substance in the blood that is essential to cell function, hormone production, and digestion. HDL (high-density lipoprotein) is often called "good" cholesterol because it helps transport excess cholesterol away from arteries toward the liver for elimination. LDL (low-density lipoprotein) is referred to as "bad" cholesterol because elevated levels are associated with plaque buildup in arterial walls and cardiovascular risk.

**In perimenopause:** Estrogen has a favorable effect on cholesterol balance, tending to raise HDL and lower LDL. As estrogen declines during perimenopause, cholesterol ratios may shift unfavorably, increasing cardiovascular risk during this period.

**You may hear this when:** Reviewing a lipid panel, discussing cardiovascular health, or evaluating whether hormone therapy may affect your cholesterol profile.

**Practical note:** Request a full fasting lipid panel during your perimenopause health evaluation and ask your provider to explain your specific numbers in the context of your overall cardiovascular risk.

## Hot Flash / Hot Flush

**Pronunciation:** hot flash / hot flush | Category: Symptom

A hot flash is a sudden sensation of intense heat, most often felt in the chest, neck, and face, frequently accompanied by flushing of the skin, sweating, and a rapid heartbeat. The episode typically lasts one to five minutes and may be followed by chills. Hot flashes that occur during sleep are called night sweats. They are among the most recognized and commonly reported symptoms of perimenopause and menopause.

**In perimenopause:** Hot flashes are caused by estrogen fluctuation affecting the hypothalamus, the brain region that regulates body temperature. The hypothalamus becomes overly sensitive to small changes in core body temperature, triggering an exaggerated cooling response. Frequency and intensity vary widely, ranging from occasional and mild to multiple times per hour and severe enough to disrupt daily life.

**You may hear this when:** Describing your symptoms to any provider during perimenopause, or when discussing treatment options for vasomotor symptoms.

**Practical note:** Keeping a brief log of hot flash frequency, timing, and potential triggers such as caffeine, alcohol, stress, or spicy food gives your provider useful clinical information and helps identify patterns you may be able to modify.

## HPA Axis (Hypothalamic-Pituitary-Adrenal)

**Pronunciation:** HY-poh-thal-AM-ik pih-TOO-ih-tair-ee AD-ree-nal | Category: Physiology

The HPA axis is a central regulatory system that connects the hypothalamus, the pituitary gland, and the adrenal glands in a feedback loop that governs the body's stress response. When the brain perceives stress, the hypothalamus signals the pituitary, which then signals the adrenal glands to release cortisol. Once cortisol levels rise sufficiently, a feedback signal tells the hypothalamus to reduce stimulation, creating a self-regulating loop.

**In perimenopause:** During perimenopause, the HPA axis can become more reactive and less precisely regulated. The stress response may activate more easily, take longer to turn off, and produce higher cortisol outputs than before. The result is an amplified stress experience that can worsen sleep, mood, and weight regulation.

**You may hear this when:** Discussing chronic stress, cortisol testing, adrenal health, or the interaction between stress and hormonal symptoms during perimenopause.

**Practical note:** Consistent sleep timing, regular gentle movement, mindfulness, and limiting sustained high-intensity stressors are practical ways to support HPA axis regulation. These are worth discussing with your provider as part of a broader perimenopause support plan.

## **HRT / MHT (Hormone Replacement Therapy / Menopausal Hormone Therapy)**

**Pronunciation:** AY-ch-ar-TEE / EM-AY-ch-TEE | Category: Treatment

Hormone Replacement Therapy, or HRT, is the older term for the medical treatment that supplements declining estrogen and, when a uterus is present, progesterone during the menopausal transition. The current preferred term is Menopausal Hormone Therapy, or MHT. MHT is available in multiple forms including pills, patches, gels, creams, rings, and sprays, and it can contain estrogen alone or estrogen combined with a progestogen.

**In perimenopause:** MHT is among the most effective treatments for vasomotor symptoms, sleep disruption, and mood instability during perimenopause. It also supports bone density and may have cardiovascular benefits when initiated early in the transition. The appropriate form, dose, and route of administration depend on individual health history and symptoms.

**You may hear this when:** Discussing options for managing perimenopausal symptoms, or when your provider evaluates whether hormone therapy is appropriate for your situation.

**Practical note:** If your provider mentions MHT, ask specifically about the type of estrogen and progestogen being recommended, the route of delivery, and how the

benefits and risks apply to your personal health history. Current evidence supports that MHT is appropriate and beneficial for many women when started during or shortly after the menopausal transition.

## Hypothalamus

**Pronunciation:** hy-poh-THAL-uh-mus | Category: Anatomy / Physiology

The hypothalamus is a small but critically important region of the brain that serves as the master regulator of hormonal activity, body temperature, appetite, sleep, mood, and the stress response. It communicates with the pituitary gland through chemical signals called releasing hormones, which in turn control the output of the thyroid, adrenal glands, and ovaries. The hypothalamus is sometimes described as the body's internal thermostat and control center.

**In perimenopause:** The hypothalamus is directly involved in generating hot flashes. As estrogen fluctuates during perimenopause, the hypothalamus becomes more sensitive to small changes in body temperature, triggering an exaggerated heat-release response. The same region also coordinates mood, appetite, and sleep, which explains why all of these can shift simultaneously during perimenopause.

**You may hear this when:** Discussing the mechanism of hot flashes, the brain-hormone connection, or the hypothalamic-pituitary-ovarian axis.

**Practical note:** Understanding that the hypothalamus sits at the center of many perimenopausal symptoms can help frame why lifestyle factors such as sleep, stress management, and body temperature regulation matter so much during this time.

## Hypothyroidism / Hyperthyroidism

**Pronunciation:** hy-poh-THY-royd-iz-um / hy-per-THY-royd-iz-um | Category: Condition

Hypothyroidism is a condition in which the thyroid gland produces too little thyroid hormone, slowing metabolism and causing symptoms such as fatigue, weight gain, cold sensitivity, constipation, dry skin, and brain fog. Hyperthyroidism is the opposite, involving excessive thyroid hormone production, which can cause anxiety, heart palpitations, weight loss, and heat sensitivity. Both conditions are significantly more common in women than in men.

**In perimenopause:** Thyroid symptoms overlap substantially with perimenopausal symptoms, making thyroid dysfunction a critical condition to evaluate during this transition. Undiagnosed hypothyroidism, in particular, can mimic or compound perimenopause, and treating it may significantly improve overall symptoms.

**You may hear this when:** Reviewing thyroid test results, investigating fatigue, weight changes, or mood disturbances, or when a provider wants to rule out thyroid dysfunction as a contributing factor.

**Practical note:** Request thyroid function testing that includes TSH, Free T3, Free T4, and thyroid antibodies if thyroid disease has not been recently evaluated, particularly if fatigue, cold intolerance, or hair thinning are present.

## I

### **IGF-1 (Insulin-Like Growth Factor 1)**

**Pronunciation:** EYE-jee-ef-WUN | Category: Hormone / Biomarker

IGF-1 is a hormone primarily produced by the liver in response to signals from growth hormone released by the pituitary gland. It supports cell growth, tissue repair, muscle maintenance, and bone health. IGF-1 levels decline with age, and this decline is associated with changes in body composition, reduced muscle mass, and slower recovery from physical exertion.

**In perimenopause:** Declining IGF-1 during perimenopause contributes to the gradual loss of lean muscle mass and bone density that becomes more pronounced during this transition. Supporting growth hormone secretion through adequate sleep, resistance exercise, and sufficient protein intake can help maintain healthier IGF-1 levels.

**You may hear this when:** Discussing growth hormone, muscle loss, bone health, or comprehensive anti-aging or functional medicine evaluations.

**Practical note:** Resistance training and adequate dietary protein are among the most practical ways to support IGF-1 activity and preserve muscle mass during perimenopause. Discuss the role of these factors with your provider as part of your long-term bone and metabolic health plan.

### **Inflammation (Systemic)**

**Pronunciation:** in-fluh-MAY-shun | Category: Concept

Systemic inflammation refers to a state of low-grade, chronic activation of the immune system throughout the body, as distinct from the acute, localized inflammation that occurs in response to an injury or infection. It is measured by biomarkers such as C-reactive protein (CRP) and interleukins. Chronic systemic inflammation is associated with an increased risk of cardiovascular disease, metabolic conditions, joint pain, cognitive decline, and mood disorders.

**In perimenopause:** Estrogen has anti-inflammatory properties, and its decline during perimenopause can contribute to a gradual increase in systemic inflammation. This may express itself as worsening joint stiffness, increased fatigue, longer recovery after illness or exertion, and a general sense of physical vulnerability.

**You may hear this when:** Discussing CRP results, joint pain, fatigue, or metabolic and cardiovascular risk.

**Practical note:** Diet quality, sleep, stress management, and regular moderate physical activity all meaningfully support healthy inflammation levels. Ask your provider about including an hs-CRP test in your annual evaluation to track your inflammatory status over time.

## Insulin

**Pronunciation:** IN-suh-lin | Category: Hormone

Insulin is a hormone produced by the pancreas that allows cells to absorb glucose from the bloodstream and use it for energy. It acts as a key that unlocks cells to receive glucose, keeping blood sugar levels within a healthy range after eating. Insulin also plays a role in fat storage, protein synthesis, and inflammatory regulation. Its function is deeply connected to overall metabolic health.

**In perimenopause:** Estrogen supports healthy insulin sensitivity, meaning cells respond efficiently to insulin's signals. As estrogen declines during perimenopause, insulin sensitivity can decrease, requiring more insulin to manage the same amount of blood sugar. This shift can contribute to increased appetite, carbohydrate cravings, abdominal fat accumulation, and a higher risk of developing insulin resistance.

**You may hear this when:** Discussing blood sugar management, weight gain, metabolic health, or when your provider orders fasting insulin or HbA1c testing.

**Practical note:** Eating patterns that minimize blood sugar spikes, such as including protein and fiber with meals and reducing processed carbohydrates, can meaningfully support insulin sensitivity during perimenopause. Ask your provider whether fasting insulin testing makes sense for your situation.

## Insulin Resistance

**Pronunciation:** IN-suh-lin rih-ZIS-tuns | Category: Condition / Concept

Insulin resistance is a condition in which the body's cells become less responsive to insulin's signals, requiring the pancreas to produce increasingly larger amounts of insulin to maintain normal blood sugar levels. Over time, if the pancreas cannot keep up with the demand, blood sugar levels rise, potentially leading to prediabetes or type

2 diabetes. Insulin resistance is also associated with abdominal fat accumulation, high triglycerides, low HDL cholesterol, and elevated blood pressure.

**In perimenopause:** The decline in estrogen during perimenopause is associated with a reduction in insulin sensitivity. This is one reason why women who have maintained stable weight for years may notice abdominal fat accumulation during perimenopause without obvious changes in diet or activity.

**You may hear this when:** Discussing metabolic syndrome, blood sugar concerns, weight gain around the midsection, or cardiovascular risk.

**Practical note:** Fasting insulin levels alongside blood glucose provide a more complete picture of insulin sensitivity than glucose alone. Resistance training, consistent sleep, and blood sugar-stabilizing eating patterns are among the lifestyle strategies most supported by evidence for improving insulin sensitivity.

## Irregular Bleeding

**Pronunciation:** ih-REG-yoo-ler BLEE-ding | Category: Symptom

Irregular bleeding refers to any change in menstrual pattern, including periods that come more or less frequently than usual, cycles that vary significantly in length from month to month, bleeding that is heavier or lighter than previous cycles, spotting between periods, or periods that last longer than seven days. Irregular bleeding is one of the earliest and most consistent signs of perimenopause.

**In perimenopause:** Hormonal fluctuations, anovulatory cycles, and changes in the uterine lining all contribute to irregular bleeding patterns during perimenopause. While most irregular bleeding during this time is hormonally driven, new or significantly changed bleeding patterns should always be evaluated to rule out conditions such as fibroids, polyps, or endometrial changes.

**You may hear this when:** Describing cycle changes to your provider, or when your provider is deciding whether further investigation such as a pelvic ultrasound or endometrial biopsy is warranted.

**Practical note:** Keep a record of your bleeding pattern, including the timing, duration, and flow volume. Any soaking through a pad or tampon more than once per hour for several hours, or bleeding after 12 months of no periods, warrants prompt medical evaluation.

# L

## Leptin

**Pronunciation:** LEP-tin | **Category:** Hormone

Leptin is a hormone produced primarily by fat cells that signals to the brain when the body has sufficient energy stores, suppressing appetite and increasing energy expenditure. When leptin signaling works well, it helps maintain a stable body weight by communicating the body's energy status to the hypothalamus. Leptin resistance, in which the brain stops responding to leptin's signals despite high levels, disrupts this regulatory function.

**In perimenopause:** Sleep disruption, which is common during perimenopause, significantly impairs leptin signaling, reducing the sense of fullness after eating and increasing appetite. Estrogen also influences leptin sensitivity, and hormonal changes during perimenopause may contribute to a reduced ability to regulate appetite through this pathway.

**You may hear this when:** Discussing appetite regulation, weight management, metabolic health, or the hormonal contributors to increased hunger during perimenopause.

**Practical note:** Prioritizing consistent sleep quality, limiting late-night eating, and maintaining regular meal timing are practical ways to support leptin signaling. These strategies may have a more meaningful impact on appetite and weight management than caloric restriction alone during perimenopause.

## LH (Luteinizing Hormone)

**Pronunciation:** LOO-tee-ih-ny-zing HOR-mohn | **Category:** Hormone / Test

LH is a hormone produced by the pituitary gland that triggers ovulation, the release of a mature egg from the dominant follicle, and stimulates the corpus luteum to produce progesterone after ovulation. LH surges sharply in the middle of the menstrual cycle to signal the ovaries that it is time to release an egg. LH levels are measured in blood tests to assess ovarian function and confirm ovulation.

**In perimenopause:** As ovarian responsiveness declines during perimenopause, the pituitary gland increases LH output alongside FSH in an attempt to stimulate the ovaries more effectively. Elevated LH levels are consistent with the menopausal transition, but like FSH, they fluctuate and should be interpreted alongside other hormone values and clinical symptoms.

**You may hear this when:** Discussing ovulation, fertility, or when reviewing the results of a hormone panel that includes pituitary hormones alongside ovarian hormones.

**Practical note:** At-home LH surge tests, designed for fertility tracking, can be used to identify whether ovulation is occurring in a given cycle. Discuss the utility of this approach with your provider based on your specific goals.

## Libido

**Pronunciation:** lih-BEE-doh | Category: Concept / Symptom

Libido refers to sexual desire or drive. It is influenced by multiple overlapping factors including hormone levels, emotional well-being, relationship quality, physical comfort, sleep quality, stress, self-image, and medication side effects. In women, testosterone, estrogen, and DHEA all contribute to sexual desire, as does the brain's dopamine system. Libido is not fixed and can change significantly in response to physical and psychological conditions.

**In perimenopause:** Many women notice a change in libido during perimenopause. Declining testosterone and DHEA can reduce sexual interest, while vaginal dryness and discomfort may reduce the motivation to pursue intimacy. Fatigue, poor sleep, and mood changes further compound the picture. For most women, low libido during perimenopause has multiple contributing factors, not a single cause.

**You may hear this when:** Discussing changes in sexual desire with your provider, or when reviewing testosterone levels as part of a comprehensive hormone panel.

**Practical note:** This is a topic worth raising directly with your provider if libido changes are affecting your quality of life or relationship satisfaction. Effective options exist, and many women do not bring it up because they assume it is simply expected and unavoidable.

## Local Hormone Therapy (Vaginal Estrogen)

**Pronunciation:** LOH-kul HOR-mohn THAIR-uh-pee | Category: Treatment

Local hormone therapy refers to estrogen preparations applied directly to vaginal and vulvar tissue rather than taken systemically. It is available in several forms including creams, suppositories, vaginal tablets, and rings. Because local vaginal estrogen acts primarily in the tissue where it is applied and is absorbed into the bloodstream at very low levels, it has a significantly different risk profile than systemic hormone therapy.

**In perimenopause:** Local hormone therapy is highly effective for treating vaginal dryness, discomfort during intercourse, recurrent urinary tract infections, and urinary urgency associated with estrogen decline. It can often be used by women who are not

candidates for systemic hormone therapy, including many breast cancer survivors, though this should always be discussed with a provider.

**You may hear this when:** Discussing vaginal symptoms, GSM, painful intercourse, or urinary changes with your gynecologist or primary care provider.

**Practical note:** Many women use an over-the-counter lubricant when they actually need a prescription local estrogen treatment. If vaginal symptoms are present, ask your provider specifically about local estrogen options and whether they are appropriate for your health history.

## M

### Melatonin

**Pronunciation:** mel-uh-TOH-nin | Category: Hormone

Melatonin is a hormone produced by the pineal gland in the brain in response to darkness. It signals to the body that it is time to prepare for sleep and helps regulate the circadian rhythm, the internal biological clock that governs sleep-wake cycles. Melatonin production is suppressed by light, particularly blue wavelength light, and its natural secretion declines with age.

**In perimenopause:** Declining melatonin production with age, combined with the temperature disruptions caused by night sweats, can significantly impair sleep quality during perimenopause. Estrogen and progesterone also influence melatonin secretion, so hormonal fluctuations can directly affect the timing and amount of melatonin the body produces.

**You may hear this when:** Discussing sleep difficulties, circadian rhythm disruption, or when evaluating whether melatonin supplementation might support sleep onset.

**Practical note:** If you consider melatonin supplementation, lower doses in the 0.5 to 1 mg range are often sufficient for sleep onset support. Discuss timing, dose, and appropriateness with your provider before starting.

### Menopause

**Pronunciation:** MEN-oh-pawz | Category: Concept / Definition

Menopause is defined clinically as the point in time twelve months after a woman's last menstrual period, occurring without any other medical explanation for the absence of periods. It is not a process but a milestone, a single date that can only be identified retrospectively. The average age of natural menopause in the United States is

approximately 51 years. Everything before that milestone, from the first signs of hormonal change, is perimenopause.

**In perimenopause:** Women often use "menopause" loosely to describe the entire transition, but clinically, the years of hormonal fluctuation leading up to the final period are perimenopause. Understanding this distinction is helpful because the symptom profile, treatment considerations, and physiological mechanisms of perimenopause are distinct from those of postmenopause.

**You may hear this when:** Your provider determines that 12 consecutive months have passed without a period, confirming that menopause has occurred.

**Practical note:** If you are in the midst of irregular cycles and wondering where you are in the transition, know that menopause itself cannot be confirmed until 12 full months after your last period. Until then, you are in perimenopause.

## Menorrhagia

**Pronunciation:** men-oh-RAY-jee-uh | Category: Symptom

Menorrhagia is the medical term for abnormally heavy or prolonged menstrual bleeding. It is typically defined as blood loss greater than 80 milliliters per cycle, or periods lasting longer than seven days. Practically, this often translates to soaking through a pad or tampon every hour for several consecutive hours, passing large clots, or bleeding that significantly disrupts daily activities.

**In perimenopause:** Heavy bleeding is a common feature of perimenopause, driven by hormonal imbalance, anovulatory cycles, and estrogen-related changes in the uterine lining. However, menorrhagia during perimenopause should not be dismissed as simply hormonal without evaluation, as conditions such as fibroids, polyps, and endometrial hyperplasia can also contribute.

**You may hear this when:** Describing heavy periods to your provider, when an ultrasound or endometrial biopsy is being considered, or when discussing treatment options for heavy bleeding.

**Practical note:** Track your bleeding with specific detail, including number of pads or tampons used per hour and any clots, and share this information with your provider. Heavy bleeding that is interfering with your daily life has effective treatment options and does not need to be endured without intervention.

## Metabolic Syndrome

**Pronunciation:** met-uh-BOL-ik SIN-droh-m | Category: Condition

Metabolic syndrome is a cluster of conditions that occur together and significantly increase the risk of heart disease, stroke, and type 2 diabetes. The five components are elevated waist circumference, high blood pressure, high fasting blood sugar, high triglycerides, and low HDL cholesterol. Metabolic syndrome is diagnosed when three or more of these five criteria are present simultaneously.

**In perimenopause:** The hormonal changes of perimenopause, particularly declining estrogen and increasing insulin resistance, can shift several of these metabolic markers unfavorably. Abdominal fat accumulation is especially relevant, as visceral fat around the organs is more metabolically active and contributes more significantly to metabolic syndrome risk than fat stored elsewhere.

**You may hear this when:** Reviewing multiple lab results together, discussing cardiovascular or diabetes risk, or when your provider screens for insulin resistance and metabolic health changes.

**Practical note:** Ask your provider to assess all five metabolic syndrome criteria at your perimenopause health evaluation and to discuss your risk trajectory as well as lifestyle and medical strategies to support a favorable outcome.

## Metabolism (Basal Metabolic Rate)

**Pronunciation:** muh-TAB-uh-liz-um | Category: Concept

Metabolism refers to all the chemical processes the body uses to convert food and stored energy into fuel for daily functioning. Basal metabolic rate, or BMR, is the number of calories the body burns at rest simply to maintain basic physiological functions such as breathing, circulation, and cell repair. BMR accounts for the largest portion of daily energy expenditure and is influenced by muscle mass, age, thyroid function, and hormonal status.

**In perimenopause:** BMR tends to decline with age, and the loss of lean muscle mass that can accelerate during perimenopause further reduces resting calorie burning. This means maintaining the same weight may require eating less or moving more than it did previously, even without any obvious change in lifestyle habits.

**You may hear this when:** Discussing unexplained weight gain, dietary strategies, or the role of muscle mass in weight management during perimenopause.

**Practical note:** Building and maintaining lean muscle through resistance training is the most effective way to support a healthy basal metabolic rate during perimenopause.

Discuss realistic goals for body composition with your provider or a registered dietitian.

## **Microbiome (Estrobolome)**

**Pronunciation:** MY-kroh-byohm / ES-troh-byohm | Category: Concept

The estrobolome is a specific subset of gut bacteria that produce an enzyme called beta-glucuronidase, which plays a role in estrogen metabolism and recycling. After the liver processes estrogen and packages it for elimination, these gut bacteria can reactivate it, allowing some estrogen to be reabsorbed into circulation. The health and diversity of the estrobolome can therefore influence circulating estrogen levels and the balance between different forms of estrogen.

**In perimenopause:** Changes in gut microbiome composition during perimenopause may affect estrobolome activity and, in turn, how effectively the body manages estrogen metabolism. A disrupted microbiome may contribute to estrogen imbalance at a time when hormonal stability is already challenged.

**You may hear this when:** Discussing the gut-hormone connection, microbiome health, or in research and functional medicine contexts.

**Practical note:** Supporting a diverse gut microbiome through a fiber-rich, plant-forward diet, minimizing unnecessary antibiotic use, and managing stress supports estrobolome health. Discuss any probiotic supplementation with your provider.

## **Mitochondria**

**Pronunciation:** my-toh-KON-dree-uh | Category: Cell Biology / Concept

Mitochondria are the energy-producing structures inside cells, often called the powerhouses of the cell. They convert nutrients from food into ATP, the molecule that powers virtually all cellular activity. Mitochondrial function affects energy levels, metabolism, muscle function, brain performance, and how efficiently the body responds to exercise and stress. Mitochondrial health declines with age and is influenced by sleep, nutrition, physical activity, and oxidative stress.

**In perimenopause:** Estrogen supports mitochondrial function, and declining estrogen levels during perimenopause may contribute to reduced cellular energy production. This is one proposed mechanism behind the deep, persistent fatigue that some women experience during perimenopause, which does not resolve with rest in the way ordinary tiredness does.

**You may hear this when:** Discussing energy levels, fatigue that is disproportionate to activity, or the cellular basis of exercise and aging.

**Practical note:** Regular aerobic exercise, adequate sleep, and a nutrient-dense diet that includes antioxidants support mitochondrial health. If fatigue is a primary concern for you, discuss it thoroughly with your provider to rule out other contributing conditions.

## N

### **NAMS (North American Menopause Society)**

**Pronunciation:** namz | **Category:** Reference Organization

The North American Menopause Society, or NAMS, is the leading nonprofit professional organization in North America dedicated to the health and quality of life of women during and after the menopausal transition. It comprises healthcare professionals, researchers, and educators who develop and publish clinical guidelines on menopause management, hormone therapy, and related health concerns. NAMS is widely regarded as a primary authority on evidence-based menopause care.

**In perimenopause:** NAMS guidelines inform many clinical decisions around hormone therapy, symptom management, and screening recommendations during perimenopause. Their position statements are updated regularly as new evidence emerges and are used by providers across a range of specialties.

**You may hear this when:** A provider references current guidelines, or when research on hormone therapy or menopause management cites NAMS as a source.

**Practical note:** The NAMS website ([menopause.org](https://menopause.org)) offers patient-facing resources, a provider locator for certified menopause practitioners, and evidence-based information that can supplement your conversations with your healthcare team.

### **Neurotransmitter**

**Pronunciation:** NYOOR-oh-tranz-MIT-er | **Category:** Concept

Neurotransmitters are chemical messengers in the brain and nervous system that transmit signals between nerve cells. They regulate mood, motivation, sleep, appetite, attention, and the perception of pain and pleasure. Major neurotransmitters include serotonin, dopamine, norepinephrine, GABA, and acetylcholine. The balance and availability of these chemicals are influenced by hormones, sleep quality, physical activity, nutrition, and stress.

**In perimenopause:** Estrogen and progesterone both influence neurotransmitter function. Estrogen supports serotonin and dopamine activity, while progesterone enhances GABA receptor sensitivity. As these hormones fluctuate during

perimenopause, neurotransmitter balance can shift, contributing to mood instability, anxiety, low motivation, and sleep disturbances.

**You may hear this when:** Discussing mood, depression, anxiety, medication options, or the neurological basis of perimenopausal symptoms.

**Practical note:** If mood or anxiety symptoms are a significant part of your perimenopause experience, discuss whether they may have a hormonal component with your provider, as this can influence the most appropriate treatment approach.

## Night Sweats

**Pronunciation:** nyt swets | Category: Symptom

Night sweats are episodes of intense sweating during sleep, often severe enough to soak through clothing and bedding. They are the nocturnal equivalent of hot flashes and occur by the same mechanism: estrogen fluctuation affects the hypothalamus's temperature regulation, triggering an exaggerated heat-release response during sleep. Night sweats frequently cause waking and can make it difficult to return to sleep, leading to cumulative sleep deprivation over time.

**In perimenopause:** Night sweats are among the most disruptive symptoms of perimenopause because of their direct impact on sleep quality, and through sleep deprivation, on mood, cognitive function, appetite, and immune resilience. Frequency and severity vary widely, from rare and mild to nightly and severe.

**You may hear this when:** Describing sleep disruption to your provider, or when discussing treatment options for vasomotor symptoms that are affecting your sleep.

**Practical note:** Keeping the bedroom cool, using moisture-wicking bedding, and avoiding known triggers such as alcohol and heavy meals before bedtime are commonly recommended strategies. Discuss more targeted options with your provider if night sweats are significantly affecting your sleep quality.

## Norepinephrine

**Pronunciation:** nor-ep-ih-NEF-rin | Category: Neurotransmitter

Norepinephrine, also called noradrenaline, is both a neurotransmitter and a hormone that plays a central role in the stress response, alertness, attention, and mood regulation. It is released by the adrenal glands during stress and acts throughout the brain to increase heart rate, elevate blood pressure, enhance alertness, and focus attention on perceived threats. Together with serotonin and dopamine, it is one of the key neurochemicals targeted by antidepressant medications.

**In perimenopause:** Estrogen modulates norepinephrine activity, and its fluctuation during perimenopause can contribute to increased anxiety, heightened stress reactivity, and the amplified emotional responses that many women notice during this transition. Norepinephrine is also involved in the triggering of hot flashes through its action on the hypothalamus.

**You may hear this when:** Discussing anxiety, stress reactivity, hot flash mechanisms, or when a provider considers medications that affect norepinephrine, such as SNRIs, for perimenopausal symptom management.

**Practical note:** SNRI antidepressants, which affect both serotonin and norepinephrine, are sometimes used as a non-hormonal option for hot flashes and mood symptoms in perimenopause. Ask your provider whether this approach might be relevant for you.

## O

### Osteopenia / Osteoporosis

**Pronunciation:** os-tee-oh-PEE-nee-uh / os-tee-oh-puh-ROH-sis | Category: Condition

Osteopenia describes bone density that is lower than normal for a person's age but not low enough to meet the threshold for osteoporosis. Osteoporosis is a more advanced condition characterized by significantly reduced bone density and deterioration of bone structure, resulting in fragile bones that fracture more easily. Both are diagnosed using DEXA scan T-scores. Osteopenia is a T-score between -1.0 and -2.5; osteoporosis is a T-score below -2.5.

**In perimenopause:** Bone loss can accelerate substantially during the perimenopausal transition due to declining estrogen, which normally limits bone resorption. The years around the final menstrual period are often when bone density decreases most rapidly, making this an important time to assess bone health and consider protective measures.

**You may hear this when:** Reviewing DEXA scan results, discussing fracture risk, or evaluating whether hormone therapy, medication, or specific lifestyle changes are appropriate for your bone health.

**Practical note:** Weight-bearing exercise, adequate calcium and vitamin D intake, avoiding smoking, and limiting alcohol are foundational to bone health. Ask your provider whether a DEXA scan and bone-protective strategies are appropriate for you now.

## Ovarian Reserve

**Pronunciation:** oh-VAIR-ee-un rih-ZERV | Category: Concept / Test

Ovarian reserve refers to the quantity and quality of the remaining eggs in the ovaries. A woman is born with her lifetime supply of eggs, and that supply diminishes with age through natural processes. Ovarian reserve is assessed through a combination of blood tests, primarily AMH and Day 3 FSH and estradiol, and transvaginal ultrasound to count antral follicles. It is an important indicator of both fertility potential and proximity to the menopausal transition.

**In perimenopause:** Declining ovarian reserve is the underlying driver of the entire perimenopause transition. As fewer follicles remain, the ovaries become less responsive to pituitary signals, estrogen production becomes more erratic, and ovulation becomes less reliable. Measuring ovarian reserve provides useful context for understanding where a woman is in the menopausal timeline.

**You may hear this when:** Discussing fertility, the onset of perimenopause, or when your provider orders AMH or antral follicle count testing.

**Practical note:** Low ovarian reserve does not necessarily mean imminent menopause, but it does suggest a shorter reproductive window. If timing considerations are relevant to you, discuss what your reserve results mean for your specific situation with your provider.

## Ovaries

**Pronunciation:** OH-vuh-reez | Category: Anatomy

The ovaries are two small, almond-shaped reproductive organs located on either side of the uterus. They serve two primary functions: producing and releasing eggs during ovulation, and manufacturing reproductive hormones including estradiol, progesterone, testosterone, and DHEA. The ovaries work in close communication with the pituitary gland and hypothalamus through a system of hormonal feedback signals that regulate the menstrual cycle.

**In perimenopause:** The ovaries are the central players in the perimenopause transition. As their egg supply diminishes and their hormone production becomes less consistent, the entire hormonal cascade that regulates mood, sleep, metabolism, and reproductive function shifts. The gradual decline in ovarian output is what drives the full spectrum of perimenopausal symptoms.

**You may hear this when:** Discussing reproductive anatomy, ovarian function, hormone levels, or surgical options that involve the ovaries.

**Practical note:** If you are considering any procedure that involves the ovaries, ask your provider clearly what the expected impact on your hormone levels will be and how that will be managed.

## Ovulation

**Pronunciation:** ov-yoo-LAY-shun | Category: Physiology

Ovulation is the process in which a mature egg is released from an ovarian follicle and enters the fallopian tube, where it may be fertilized. It occurs approximately midway through the menstrual cycle in response to a surge of LH from the pituitary gland. Ovulation triggers the formation of the corpus luteum, which produces progesterone during the second half of the cycle. A cycle in which ovulation does not occur is called an anovulatory cycle.

**In perimenopause:** Ovulation becomes progressively less consistent during perimenopause as the ovaries become less responsive to LH signals. The direct consequence is reduced and irregular progesterone production, which is responsible for many of the earliest and most disruptive symptoms of the transition, including sleep changes, mood shifts, and cycle irregularity.

**You may hear this when:** Discussing cycle changes, progesterone levels, fertility, or when tracking whether ovulation is occurring in a given cycle.

**Practical note:** At-home LH surge tests can help identify whether ovulation is occurring. A midluteal progesterone blood test drawn approximately seven days after ovulation can confirm that ovulation resulted in corpus luteum formation and progesterone production.

## Oxytocin

**Pronunciation:** ok-sih-TOH-sin | Category: Hormone

Oxytocin is a hormone and neurotransmitter produced by the hypothalamus and released by the pituitary gland. It is often called the "bonding hormone" because it is released in response to physical touch, social connection, and intimacy. It plays important roles in childbirth, breastfeeding, and the development of trust and emotional attachment. Oxytocin also has calming and stress-reducing effects, promoting a sense of safety and relaxation.

**In perimenopause:** The oxytocin system remains functional during perimenopause, and activities that promote oxytocin release, including social connection, physical touch, and moments of genuine warmth, continue to support emotional resilience and stress regulation. Some research suggests oxytocin's role in regulating temperature responses may also be relevant to hot flash management.

**You may hear this when:** Discussing the neurobiology of stress, connection, and wellbeing, or in emerging research on its role in menopause symptom regulation.

**Practical note:** Meaningful social connection, regular physical affection, and activities that generate genuine positive emotion are practical ways to support oxytocin activity, which in turn supports mood and stress resilience during perimenopause.

## P

### Pelvic Floor

**Pronunciation:** PEL-vik flor | Category: Anatomy

The pelvic floor is a group of muscles, ligaments, and connective tissues that form a hammock-like base at the bottom of the pelvis, supporting the bladder, uterus, and rectum. These muscles control urinary and bowel function, support core stability, and play a central role in sexual function and comfort. Pelvic floor health is influenced by childbirth history, hormonal status, physical activity, and aging.

**In perimenopause:** Declining estrogen during perimenopause affects the elasticity and strength of pelvic floor tissues. This can contribute to urinary urgency, leakage, pelvic heaviness, and reduced vaginal tone. Pelvic floor changes may also affect sexual comfort. These changes are common, treatable, and often improved significantly with targeted pelvic floor physical therapy.

**You may hear this when:** Discussing urinary symptoms, prolapse, sexual discomfort, or when a provider recommends pelvic floor physical therapy.

**Practical note:** Pelvic floor physical therapy performed by a trained specialist is among the most effective interventions for pelvic floor changes during perimenopause. A referral is worth requesting if you are experiencing any urinary, sexual, or pelvic discomfort.

### Perimenopause

**Pronunciation:** pair-ee-MEN-oh-pawz | Category: Definition / Concept

Perimenopause is the transitional phase leading up to menopause, during which the ovaries gradually reduce and eventually cease regular hormone production. It is not a single event but a process that typically lasts four to eight years, though it can be shorter or longer. It begins when hormonal fluctuations first produce noticeable symptoms and ends twelve months after the final menstrual period, at which point menopause is confirmed. Perimenopause can begin as early as the late thirties and most commonly starts in the mid-to-late forties.

**In perimenopause:** This entire book is written in the context of perimenopause. The term describes the full range of hormonal, physical, cognitive, emotional, and reproductive changes that occur as the body transitions away from its reproductive years. It is the most accurate term for what most women are experiencing when they first begin noticing that something has shifted.

**You may hear this when:** Discussing menstrual changes, hormonal symptoms, or when a provider is identifying the stage of the menopausal transition you are in.

**Practical note:** Perimenopause is often underdiagnosed because many of its symptoms are attributed to stress, aging, or other causes. If you recognize yourself in these descriptions, it is worth initiating a direct conversation with your provider about where you are in the menopausal transition.

## Pituitary Gland

**Pronunciation:** pih-TOO-ih-tair-ee gland | Category: Anatomy

The pituitary gland is a pea-sized gland located at the base of the brain, directly below the hypothalamus, with which it communicates constantly through a system of chemical signals. Often called the "master gland," the pituitary produces and releases hormones that regulate the thyroid, adrenal glands, ovaries, testes, and growth. Key pituitary hormones relevant to perimenopause include FSH, LH, TSH, and prolactin.

**In perimenopause:** As ovarian hormone output declines, the pituitary gland increases FSH and LH production in an attempt to stimulate the ovaries more strongly. This is why elevated FSH and LH are markers of the menopausal transition. The pituitary is essentially working harder to get the same or less response from aging ovaries.

**You may hear this when:** Discussing FSH, LH, prolactin, or TSH levels, or when a provider evaluates the hypothalamic-pituitary-ovarian axis.

**Practical note:** Pituitary tumors, though uncommon, can affect hormone levels and mimic some perimenopausal symptoms. If your hormone levels are unusual or your symptoms are atypical, your provider may order imaging of the pituitary as part of the workup.

## Polycystic Ovary Syndrome (PCOS)

**Pronunciation:** pol-ee-SIS-tik OH-vuh-ree SIN-droh-m | Category: Condition

Polycystic ovary syndrome, or PCOS, is a hormonal condition characterized by irregular or absent ovulation, elevated androgen levels, and often the presence of multiple small follicular cysts on the ovaries. It is one of the most common hormonal conditions in

women of reproductive age and is associated with insulin resistance, metabolic changes, and fertility challenges.

**In perimenopause:** Women with a history of PCOS entering perimenopause may find that some symptoms shift. Because PCOS is associated with higher androgen levels and the later natural decline of ovarian function, women with PCOS may experience a different trajectory through the menopausal transition. Metabolic monitoring remains especially important for this group.

**You may hear this when:** Discussing a pre-existing PCOS diagnosis in the context of perimenopause, or when a provider evaluates androgen levels and cycle irregularity together.

**Practical note:** If you have a history of PCOS, inform your provider so that the intersection of PCOS and perimenopause can be thoughtfully managed, particularly regarding metabolic health, androgen levels, and hormone therapy considerations.

## Postmenopause

**Pronunciation:** pohst-MEN-oh-pawz | Category: Definition

Postmenopause refers to the phase of life that follows menopause, confirmed after twelve consecutive months without a menstrual period. There is no defined endpoint to postmenopause; it continues for the rest of a woman's life. Hormone levels in postmenopause are generally lower and more stable than during perimenopause, though the long-term effects of estrogen decline on bone density, cardiovascular health, and cognitive function become increasingly relevant during this phase.

**In perimenopause:** Understanding postmenopause while in perimenopause can help set realistic expectations for what comes next. Many vasomotor symptoms improve or resolve after menopause, while other effects of estrogen decline, such as those affecting the vaginal and urinary tract, tend to persist or worsen without treatment.

**You may hear this when:** Discussing long-term health planning, hormone therapy duration, or the ongoing health considerations that follow the menopausal transition.

**Practical note:** Postmenopause brings its own health priorities, including bone density monitoring, cardiovascular risk management, and continued attention to urogenital health. Discuss long-term care planning with your provider as you approach the end of the perimenopause transition.

## Progesterone

**Pronunciation:** proh-JES-ter-ohn | Category: Hormone

Progesterone is a steroid hormone produced primarily after ovulation by the corpus luteum, the temporary structure that forms from a released egg follicle. It prepares the uterine lining for potential pregnancy and plays a calming, stabilizing role in the nervous system, sleep architecture, mood regulation, and fluid balance. Progesterone acts on receptors throughout the brain and body, making it a hormone with effects far broader than its reproductive role alone.

**In perimenopause:** Progesterone tends to decline earlier and more consistently than estrogen during perimenopause, often beginning to drop before significant estrogen changes are apparent. This early decline is responsible for many of the first symptoms women notice: sleep disruption, increased anxiety, heavier periods, and mood instability in the second half of the cycle. Progesterone's calming effect on the nervous system is one of the most meaningful hormonal losses of the transition.

**You may hear this when:** Discussing irregular cycles, sleep disruption, anxiety, or when hormone therapy that includes progesterone or a progestin is being considered. A progesterone test drawn seven days after suspected ovulation can confirm whether ovulation and corpus luteum formation occurred.

**Practical note:** If hormone therapy is recommended, ask your provider whether bioidentical progesterone (identical to what the body produces) or a synthetic progestin is being proposed. The two have different effects and different side effect profiles, and the distinction matters.

## Progestins

**Pronunciation:** proh-JES-tinz | Category: Synthetic Hormone

Progestins are synthetic compounds designed to mimic progesterone's action on the uterine lining, primarily used in hormone therapy and contraceptives to prevent the endometrial overgrowth that can occur with estrogen alone. They are not chemically identical to naturally produced progesterone. Different progestins have different activity profiles: some also bind to androgen or cortisol receptors, producing a range of additional effects.

**In perimenopause:** Progestins are commonly included in combined hormone therapy for women with a uterus. The choice of progestin matters, as different formulations carry different risk profiles and side effects. Micronized progesterone (Prometrium) is a bioidentical option with a different profile than synthetic progestins such as medroxyprogesterone acetate.

**You may hear this when:** Discussing combined hormone therapy, contraceptive options, or when your provider explains the difference between progesterone and progestins.

**Practical note:** Ask your provider which specific progestin is being recommended in any combined hormone therapy and what its side effect and risk profile looks like compared to bioidentical progesterone.

## **Prolactin**

**Pronunciation:** proh-LAK-tin | **Category:** Hormone

Prolactin is a hormone produced by the pituitary gland that plays a primary role in stimulating breast milk production. Outside of pregnancy and breastfeeding, it is present in smaller amounts and has regulatory effects on reproductive function, including suppressing ovulation at high levels. Abnormally elevated prolactin, a condition called hyperprolactinemia, can cause irregular periods, reduced libido, and occasionally breast discharge.

**In perimenopause:** While prolactin is not a central hormone of the perimenopause transition, elevated levels can mimic or compound perimenopausal symptoms, particularly by disrupting cycle regularity and libido. If irregular periods and libido changes are accompanied by breast discharge, prolactin levels are worth checking.

**You may hear this when:** Investigating irregular periods, libido changes, or unexplained breast discharge, or when your provider orders a pituitary hormone panel.

**Practical note:** Certain medications, including some antidepressants and antipsychotics, can raise prolactin levels. If you are on medications and experiencing cycle changes, ask your provider whether prolactin elevation could be a contributing factor.

## **Puberty**

**Pronunciation:** PYOO-ber-tee | **Category:** Concept (Comparison)

Puberty is the developmental process during which the body transitions from childhood to reproductive maturity, driven by the activation of the hypothalamic-pituitary-ovarian axis and the onset of sex hormone production. It is characterized by rapid hormonal changes, physical development, mood variability, cycle irregularity in early years, and significant shifts in how the body feels and functions.

**In perimenopause:** Perimenopause is sometimes described as puberty in reverse. Both involve a period of hormonal fluctuation and recalibration of the reproductive system. Both can produce mood swings, sleep disruption, irregular cycles, and a sense that the body is behaving differently. Framing perimenopause this way can help normalize the experience as a biological transition rather than a failure or decline.

**You may hear this when:** A provider or health educator uses this comparison to help explain the nature of perimenopausal hormonal variability.

**Practical note:** Just as the body eventually found its equilibrium after puberty, most women find that symptoms moderate and stabilize as they move through the menopausal transition and into postmenopause.

## R

### Reproductive Aging

**Pronunciation:** re-pruh-DUK-tiv AY-jing | Category: Concept

Reproductive aging refers to the gradual, age-related decline in ovarian function and fertility that begins in the late twenties or early thirties and progresses through the menopausal transition. It is characterized by a decreasing number and quality of available eggs, rising FSH levels, changes in cycle length and regularity, and eventual cessation of ovulation and menstruation. Reproductive aging is a universal biological process, though the timing varies considerably among individuals.

**In perimenopause:** Perimenopause represents the final, most symptomatic phase of reproductive aging. The hormonal and physiological changes that have been occurring gradually for years become more pronounced and noticeable during this window, producing the symptoms that define the perimenopausal experience.

**You may hear this when:** Discussing fertility, ovarian reserve, the staging of the menopausal transition, or when a provider uses the STRAW staging system to classify where you are in the transition.

**Practical note:** Understanding that reproductive aging is a continuum, not a sudden event, can help contextualize why symptoms may have begun subtly years before perimenopause became apparent.

### Resistance Training

**Pronunciation:** rih-ZIS-tuns TRAY-ning | Category: Concept / Intervention

Resistance training, also called strength training or weight training, refers to exercise that challenges the muscles by working against an external force, such as free weights, resistance bands, weight machines, or bodyweight exercises. It builds and maintains lean muscle mass, supports bone density, improves insulin sensitivity, enhances metabolic rate, and reduces the risk of falls and fractures. It is distinct from aerobic exercise, though both offer complementary benefits.

**In perimenopause:** Resistance training is one of the most evidence-supported interventions for women in perimenopause. It directly counters sarcopenia, supports bone density, improves insulin sensitivity, helps manage body weight, and enhances mood and cognitive function. Many of the physical changes associated with perimenopause can be meaningfully mitigated through consistent resistance training.

**You may hear this when:** Discussing exercise recommendations during perimenopause, bone health, metabolic health, or when a provider recommends specific physical activity to support hormonal transitions.

**Practical note:** Two to three sessions of resistance training per week targeting major muscle groups is a commonly recommended starting point. If you are new to resistance training, working with a qualified trainer initially can help establish safe and effective technique.

## **Rheumatoid Arthritis vs. Joint Pain in Perimenopause**

**Pronunciation:** ROO-muh-toyd ar-THRY-tis | Category: Distinction

Rheumatoid arthritis is an autoimmune condition in which the immune system attacks the joint lining, causing chronic inflammation, pain, swelling, stiffness, and potential joint damage. It is a distinct medical diagnosis with specific diagnostic criteria and treatment protocols. Joint pain and stiffness in perimenopause, by contrast, are typically driven by declining estrogen's effects on collagen, inflammation, and joint lubrication rather than by autoimmune activity.

**In perimenopause:** Joint stiffness and discomfort are among the more commonly overlooked symptoms of perimenopause. Because rheumatoid arthritis is also more common in women and can emerge during the same life stage, it is important to distinguish between the two rather than assuming all joint changes are hormonally driven.

**You may hear this when:** Discussing joint pain with your provider, when rheumatoid factor or anti-CCP antibody testing is ordered, or when evaluating the cause of new or worsening joint symptoms.

**Practical note:** If joint pain is accompanied by significant swelling, warmth, redness, morning stiffness lasting more than thirty minutes, or affects joints symmetrically on both sides of the body, request rheumatoid arthritis evaluation rather than assuming it is purely hormonal.

# S

## Sarcopenia

**Pronunciation:** sar-koh-PEE-nee-uh | Category: Concept / Condition

Sarcopenia is the progressive, age-related loss of skeletal muscle mass, strength, and function. It begins gradually in the thirties and accelerates with aging, inactivity, and hormonal changes. Sarcopenia contributes to physical weakness, reduced balance and coordination, increased fracture risk, lower metabolic rate, and reduced physical independence over time. It is distinct from general weight loss and can occur even when body weight is stable.

**In perimenopause:** Declining estrogen and testosterone during perimenopause can accelerate muscle loss. This is one reason women may notice a loss of muscle tone, increased fatigue with physical activity, and difficulty maintaining weight during this transition even without obvious dietary changes. Sarcopenia is largely preventable and reversible with targeted intervention.

**You may hear this when:** Discussing age-related muscle loss, physical performance, fall prevention, or when your provider discusses the importance of resistance training and protein intake during perimenopause.

**Practical note:** Adequate dietary protein combined with regular resistance training is the most effective strategy to prevent and reduce sarcopenia. A registered dietitian can help you assess whether your protein intake is sufficient for muscle maintenance.

## Serotonin

**Pronunciation:** ser-uh-TOH-nin | Category: Neurotransmitter

Serotonin is a neurotransmitter produced primarily in the gut and the brain that plays a central role in mood regulation, emotional stability, appetite, digestion, sleep, and pain perception. It is often associated with feelings of contentment and calm. Serotonin is the primary target of SSRI antidepressants. Its production and receptor sensitivity are influenced by light exposure, exercise, gut health, and hormonal status, particularly estrogen.

**In perimenopause:** Estrogen supports serotonin synthesis and receptor sensitivity, which is one reason mood instability, irritability, and low mood are common during perimenopause. The unpredictable fluctuations of estrogen during this transition can cause serotonin activity to shift accordingly. For some women, the mood changes of perimenopause respond well to strategies that support serotonin function.

**You may hear this when:** Discussing mood, depression, anxiety, SSRI medications, or the neurological basis of perimenopausal mood changes.

**Practical note:** Regular aerobic exercise, morning light exposure, and gut-supportive dietary habits are among the lifestyle strategies most consistently associated with supporting serotonin function. If mood changes are significant, discuss all options including hormonal and non-hormonal approaches with your provider.

## **Sex Hormone Binding Globulin (SHBG)**

**Pronunciation:** seks HOR-mohn BY-ding GLOB-yoo-lin | Category: Protein / Test

Sex Hormone Binding Globulin, or SHBG, is a protein produced by the liver that binds to sex hormones, primarily testosterone and estrogen, and carries them through the bloodstream. Hormones bound to SHBG are inactive; only the unbound or "free" fraction is biologically available to exert effects on cells and tissues. SHBG levels are influenced by thyroid function, insulin levels, liver health, and estrogen and androgen status.

**In perimenopause:** SHBG levels affect how much estrogen and testosterone are biologically active at any given time. High SHBG can reduce the availability of free testosterone, contributing to low libido and fatigue, even when total testosterone levels appear normal. Insulin resistance can lower SHBG, altering the balance of active hormones.

**You may hear this when:** Reviewing a comprehensive hormone panel, discussing libido or energy, or when your provider is assessing free versus total testosterone or estrogen.

**Practical note:** Ask your provider to calculate your free testosterone and free estradiol values in addition to total levels, as SHBG can significantly affect the clinical picture.

## **Sleep Architecture**

**Pronunciation:** sleep AR-kih-tek-cher | Category: Concept

Sleep architecture refers to the internal structure and staging of a full night of sleep, including the cycling pattern between light sleep, deep sleep, and REM (rapid eye movement) sleep. A typical sleep cycle lasts approximately 90 minutes, and a full night of healthy sleep involves four to six complete cycles. Each stage serves distinct physiological functions: deep sleep supports physical repair and hormone release, while REM sleep supports emotional regulation and cognitive processing.

**In perimenopause:** Perimenopausal sleep disruption affects sleep architecture as well as sleep quantity. Night sweats, anxiety, and altered hormone levels reduce time spent

in deep and REM sleep, reducing the restorative quality of sleep even when total hours appear adequate. This is why women often report feeling unrefreshed after a full night in bed.

**You may hear this when:** Discussing sleep quality, sleep study results, or when a provider explains why improving total sleep hours may not be sufficient without also addressing sleep depth and cycling.

**Practical note:** If you have access to a wearable device that tracks sleep stages, this information can be useful to share with your provider. Sleep studies are available if more precise assessment is needed.

## Spotting

**Pronunciation:** SPOT-ing | Category: Symptom

Spotting refers to very light vaginal bleeding that occurs outside of the regular menstrual period. It may appear as a small amount of pink, brown, or red discharge and does not typically require more than a panty liner. Spotting can occur for a variety of reasons including ovulation, hormonal fluctuations, hormonal contraceptive use, or as an early sign of uterine changes.

**In perimenopause:** Spotting between periods is common during perimenopause and is most often caused by hormonal fluctuations affecting the uterine lining. However, not all intermenstrual spotting during perimenopause is benign. New, persistent, or postcoital spotting warrants evaluation to rule out cervical or uterine conditions.

**You may hear this when:** Describing your bleeding pattern to your provider, or when your provider is deciding whether further investigation is warranted.

**Practical note:** Any spotting that occurs after twelve consecutive months without a period should always be evaluated by a healthcare provider, as postmenopausal bleeding requires prompt investigation.

## Stress Response

**Pronunciation:** stres rih-SPONS | Category: Physiology / Concept

The stress response is the body's physiological reaction to perceived threats or demands, coordinated by the HPA axis and the sympathetic nervous system. In the acute stress response, also called the fight-or-flight response, the adrenal glands release cortisol and adrenaline to rapidly mobilize energy, sharpen attention, and prepare the body for immediate action. This response is adaptive in genuine emergencies but becomes problematic when activated chronically.

**In perimenopause:** The stress response is amplified during perimenopause for several reasons. Declining progesterone reduces the calming influence of GABA, and fluctuating estrogen affects the HPA axis's sensitivity and recovery time. This means ordinary stressors may trigger a more intense physiological response and take longer to resolve, contributing to the feeling of being easily overwhelmed or unable to recover from stress as effectively as before.

**You may hear this when:** Discussing cortisol, HPA axis function, anxiety, burnout, or the interaction between chronic stress and perimenopausal symptoms.

**Practical note:** Building recovery practices into daily life, even ten to fifteen minutes of intentional calm, is a meaningful way to support stress response regulation during perimenopause. Discuss your stress load openly with your provider as it is a legitimate part of your hormonal health picture.

## Subcutaneous Fat vs. Visceral Fat

**Pronunciation:** sub-KYOO-tay-nee-us fat / VIS-er-ul fat | Category: Distinction / Concept

Subcutaneous fat is the fat stored directly beneath the skin and is the type you can pinch. It is distributed throughout the body, including the hips, thighs, and arms, and is generally considered metabolically less harmful than visceral fat. Visceral fat is stored deeper inside the abdominal cavity, surrounding internal organs such as the liver, pancreas, and intestines. It is metabolically active, releasing inflammatory compounds and hormones that affect insulin sensitivity, cardiovascular risk, and inflammation.

**In perimenopause:** The hormonal changes of perimenopause tend to shift fat distribution from the hips and thighs toward the abdomen, and specifically toward visceral fat accumulation. This shift occurs independently of total body weight and contributes to an increase in metabolic and cardiovascular risk during and after the menopausal transition.

**You may hear this when:** Discussing abdominal weight gain, metabolic syndrome, cardiovascular risk, or when waist circumference is measured as part of a metabolic health assessment.

**Practical note:** Waist circumference is a more meaningful indicator of visceral fat than scale weight or BMI. A waist circumference above 35 inches in women is associated with higher metabolic and cardiovascular risk. Discuss this measurement with your provider as part of your perimenopause health evaluation.

## Surgical Menopause

**Pronunciation:** SER-jih-kul MEN-oh-pawz | Category: Definition

Surgical menopause refers to menopause that is induced by the surgical removal of both ovaries, called a bilateral oophorectomy or BSO. Unlike natural menopause, which occurs gradually over several years, surgical menopause causes an immediate and abrupt cessation of ovarian hormone production. This sudden hormonal shift typically produces more intense and rapidly onset symptoms than natural perimenopause.

**In perimenopause:** A woman who undergoes surgical removal of both ovaries before natural menopause will experience surgical menopause regardless of her age. The absence of the gradual perimenopausal transition means the body has no time to adapt incrementally to lower hormone levels. Hormone therapy is generally recommended for women who undergo surgical menopause before the natural age of menopause.

**You may hear this when:** Discussing surgical options for gynecological conditions, particularly oophorectomy in a premenopausal woman, or when reviewing the long-term hormonal implications of surgical procedures.

**Practical note:** If you are facing surgery that involves removal of the ovaries, ask your provider specifically about the hormonal implications and what plans are in place to support you through the transition afterward.

## T

### Telogen Effluvium

**Pronunciation:** TEL-oh-jen ef-LOO-vee-um | Category: Hair Loss Symptom

Telogen effluvium is a form of temporary hair shedding that occurs when a significant stressor triggers a large number of hair follicles to shift prematurely from the active growth phase into the resting (telogen) phase, leading to noticeable shedding two to three months after the triggering event. Common triggers include physical stress, major illness, surgery, significant weight loss, nutritional deficiency, and hormonal shifts.

**In perimenopause:** Hormonal fluctuations during perimenopause, particularly changes in estrogen, progesterone, thyroid hormones, and ferritin levels, can trigger telogen effluvium. Hair shedding during perimenopause is relatively common and is often temporary, though it can be distressing. Addressing the underlying hormonal or nutritional contributors is the most effective approach.

**You may hear this when:** Discussing hair thinning or shedding with your dermatologist or primary care provider, or when investigating hormonal contributors to hair loss.

**Practical note:** Request testing for thyroid function, ferritin, and hormone levels if you are experiencing noticeable hair shedding during perimenopause. Ferritin levels below 30 ng/mL and thyroid imbalance are among the most commonly overlooked contributors to hair loss in this age group.

## Testosterone

**Pronunciation:** tes-TOS-tuh-rohn | Category: Hormone

Testosterone is often thought of as exclusively a male hormone, though women produce it in smaller amounts throughout their reproductive years. In women, testosterone is produced by the ovaries and adrenal glands and plays important roles in libido, energy, muscle maintenance, mood, cognitive sharpness, and bone density. Both free testosterone (biologically active) and total testosterone should be measured for a meaningful assessment.

**In perimenopause:** Testosterone levels in women decline gradually with age and continue to decline during perimenopause. Low testosterone may contribute to reduced libido, fatigue, difficulty maintaining muscle mass, low motivation, and reduced sense of vitality. Testosterone therapy for women is used in some clinical settings for libido and energy support, though FDA-approved formulations specific to women are limited.

**You may hear this when:** Discussing low libido, fatigue, or when a comprehensive hormone panel includes androgen testing.

**Practical note:** Ask your provider to include both free and total testosterone in your hormone panel. If testosterone therapy is discussed, ask specifically about the form, dose, monitoring plan, and expected effects.

## Thermoregulation

**Pronunciation:** ther-moh-reg-yoo-LAY-shun | Category: Physiology

Thermoregulation is the body's ability to maintain a stable internal core temperature, typically around 98.6 degrees Fahrenheit, despite changes in the external environment or physical activity level. It is managed primarily by the hypothalamus, which acts as the body's thermostat and coordinates responses such as sweating, shivering, and blood vessel dilation to keep temperature stable.

**In perimenopause:** Estrogen fluctuation during perimenopause disrupts the hypothalamus's thermoregulation function. The thermoneutral zone, the temperature range within which the body makes no corrective response, narrows significantly. Minor fluctuations in body temperature that would previously have been absorbed

without a noticeable response now trigger an exaggerated heat-release event: a hot flash or night sweat.

**You may hear this when:** Discussing the mechanism behind hot flashes and night sweats, or when a provider explains why temperature sensitivity increases during perimenopause.

**Practical note:** Keeping the environment consistently cool, using layered clothing and breathable fabrics, and avoiding known triggers can support more stable thermoregulation. Discuss evidence-based treatment options with your provider if temperature dysregulation is significantly affecting daily life.

## Thyroid (TSH, T3, T4)

**Pronunciation:** THY-royd / tee-ess-AY-ch / tee-three / tee-four | Category: Hormones / Test

The thyroid gland produces hormones that regulate metabolism, energy production, heart rate, digestion, mood, and body temperature. The primary thyroid hormones are T4 (thyroxine) and T3 (triiodothyronine), with T4 being converted to the more active T3 in peripheral tissues. TSH, produced by the pituitary gland, signals the thyroid to produce more or less hormone. TSH is the most common screening test for thyroid function.

**In perimenopause:** Thyroid disease, particularly hypothyroidism and Hashimoto's thyroiditis, is significantly more common in women and may emerge or worsen during perimenopause. Because thyroid symptoms closely overlap with perimenopausal symptoms, thyroid function should be evaluated as part of any comprehensive hormonal assessment during this transition.

**You may hear this when:** Reviewing thyroid test results, discussing fatigue, weight changes, cold intolerance, or brain fog, or when your provider wants to rule out thyroid dysfunction.

**Practical note:** Request a full thyroid panel including TSH, Free T3, Free T4, and thyroid antibodies (TPO and TgAb) if thyroid function has not been recently evaluated and you are experiencing perimenopausal symptoms that overlap with thyroid conditions.

## Triglycerides

**Pronunciation:** try-GLIS-er-ydz | Category: Test / Biomarker

Triglycerides are a type of fat found in the blood that comes from calories the body does not immediately need and stores as fat for later energy use. They are a component

of the standard lipid panel and are assessed as part of cardiovascular risk evaluation. Elevated triglycerides are associated with insulin resistance, metabolic syndrome, and increased cardiovascular risk, particularly when combined with low HDL and high LDL cholesterol.

**In perimenopause:** Declining estrogen can contribute to rising triglyceride levels, and insulin resistance, which becomes more common during this transition, further raises them. Elevated triglycerides in midlife are an early metabolic warning sign worth monitoring and addressing proactively.

**You may hear this when:** Reviewing a lipid panel, discussing cardiovascular or metabolic risk, or when your provider recommends dietary changes or physical activity to support lipid health.

**Practical note:** Fasting triglycerides are typically included in a standard lipid panel. Reducing refined carbohydrates and sugar, limiting alcohol, and increasing physical activity are the most effective lifestyle interventions for lowering elevated triglycerides.

## U / V

### Uterine Polyps

**Pronunciation:** YOO-ter-in POL-ips | Category: Condition

Uterine polyps are small, soft growths that develop on the inner lining of the uterus, called the endometrium. They range in size from a few millimeters to several centimeters and may be single or multiple. Most uterine polyps are noncancerous, but a small percentage may contain precancerous or cancerous cells. They can cause irregular bleeding, heavy periods, spotting between periods, or they may produce no symptoms at all.

**In perimenopause:** Uterine polyps are more common during the perimenopause years and can contribute to the irregular and heavy bleeding that characterizes this transition. They are often discovered incidentally during a pelvic ultrasound ordered to investigate abnormal bleeding.

**You may hear this when:** Reviewing ultrasound results, discussing abnormal bleeding, or when your provider recommends a hysteroscopy for further evaluation.

**Practical note:** If a uterine polyp is found, ask your provider whether removal is recommended. The decision depends on the size, your symptoms, and any histological concerns. Most benign polyps are removed via a simple outpatient procedure.

## Vaginal Atrophy

**Pronunciation:** VAJ-ih-nul AT-ruh-fee | **Category:** Symptom

Vaginal atrophy is the older medical term for the thinning, dryness, and reduced elasticity of vaginal tissue that occurs when estrogen levels decline. The current preferred term is Genitourinary Syndrome of Menopause (GSM), which encompasses a broader range of symptoms affecting both the vaginal and urinary tract tissues. The vaginal lining requires estrogen to maintain its thickness, moisture, and pH balance.

**In perimenopause:** Vaginal atrophy can begin during perimenopause, sometimes well before the final period, and is driven by declining estrogen affecting the tissues of the vagina, vulva, and urethra. Unlike hot flashes, which often improve after menopause, vaginal atrophy tends to worsen progressively without treatment.

**You may hear this when:** Discussing vaginal symptoms, painful intercourse, or recurrent urinary tract infections with your gynecologist or primary care provider.

**Practical note:** Effective treatments exist, including localized vaginal estrogen and non-hormonal alternatives. This symptom responds well to early intervention. If vaginal dryness or discomfort is present, raise it with your provider rather than waiting to see if it resolves on its own.

## Vasomotor Symptoms

**Pronunciation:** VAY-zoh-MOH-tor SIM-tumz | **Category:** Symptom Cluster

Vasomotor symptoms is the clinical term for hot flashes and night sweats, the sudden episodes of intense heat, flushing, perspiration, and sometimes heart palpitations that are among the most recognized features of the menopausal transition. The term refers to the involvement of the blood vessels (vaso) and their regulation by the nervous system (motor). Episodes may last one to five minutes and are often followed by chills or sweating.

**In perimenopause:** Vasomotor symptoms occur during perimenopause because estrogen fluctuation affects the hypothalamus, the brain's thermostat. The thermoneutral zone, the temperature range within which the body takes no corrective action, narrows significantly. Small temperature triggers that would previously have been absorbed now produce a full thermoregulatory response. Vasomotor symptoms are among the most common reasons women seek medical care during this transition.

**You may hear this when:** Your provider uses this clinical term when discussing hot flashes or night sweats, evaluating treatment options, or reviewing study results about hormone therapy and its effects on this symptom cluster.

**Practical note:** Tracking the frequency, timing, and severity of vasomotor symptoms for two to four weeks before an appointment gives your provider the most useful clinical picture. Note any patterns connected to alcohol, stress, caffeine, or sleep quality.

## Visceral Adiposity

**Pronunciation:** VIS-er-ul ad-ih-POS-ih-tee | Category: Concept

Visceral adiposity refers to the accumulation of fat within the abdominal cavity, surrounding internal organs such as the liver, intestines, and pancreas. Unlike subcutaneous fat stored just beneath the skin, visceral fat is metabolically active and releases hormones, cytokines, and fatty acids that contribute to systemic inflammation, insulin resistance, and increased cardiovascular risk. Waist circumference and imaging studies are used to assess visceral adiposity.

**In perimenopause:** The shift toward visceral fat accumulation during perimenopause is one of the most common and metabolically meaningful body composition changes of this transition. It occurs even in women who are not gaining significant weight overall. Managing visceral adiposity through diet quality, regular exercise, sleep, and stress management reduces downstream health risks.

**You may hear this when:** Discussing abdominal fat, metabolic syndrome, cardiovascular risk, or when waist circumference is measured as part of a metabolic health assessment.

**Practical note:** A waist circumference above 35 inches is associated with elevated metabolic and cardiovascular risk in women. This is a more clinically meaningful measure than scale weight alone and is worth tracking over time.

## W / Z

### Weight-Neutral Approach

**Pronunciation:** wayt NOO-trul uh-PROHCH | Category: Concept

A weight-neutral approach to health care focuses on supporting overall physical and mental health, sustainable behaviors, and improved biomarkers rather than centering success on weight loss or a specific number on the scale. It recognizes that health is influenced by a broad range of factors and that behavioral changes can improve health outcomes independent of whether weight changes occur. It is associated with reduced disordered eating patterns and improved long-term adherence to health behaviors.

**In perimenopause:** A weight-neutral approach can be particularly valuable during perimenopause, when body composition changes are driven by hormonal shifts that

are not always responsive to caloric restriction. Focusing on sleep quality, stress management, movement, and nourishment as goals in their own right, rather than as tools for weight loss, often produces more sustainable and less harmful outcomes.

**You may hear this when:** Discussing body image, disordered eating history, metabolic health, or when a provider or registered dietitian uses this framework as an alternative to traditional weight-focused goals.

**Practical note:** If you have a history of disordered eating or if weight-focused approaches have historically increased your distress, discuss a weight-neutral framework explicitly with your provider. It is a valid and evidence-supported lens for managing health during perimenopause.

## Withdrawal Bleeding

**Pronunciation:** with-DRAW-ul BLEE-ding | Category: Concept / Symptom

Withdrawal bleeding refers to uterine bleeding that occurs in response to the withdrawal or reduction of a hormone, typically progesterone or a progestin. It is the mechanism behind the scheduled "period" in combined oral contraceptive pills during the pill-free interval, and it occurs in hormone therapy protocols that include cyclical progestogen. Withdrawal bleeding is not the same as a spontaneous ovulatory period; it is a pharmacological response rather than a physiological one.

**In perimenopause:** Women using cyclical hormone therapy during perimenopause may experience withdrawal bleeding at the end of each progestogen phase. This bleeding is expected and does not indicate that natural menstruation has resumed. Understanding this distinction helps avoid confusion about where a woman is in the menopausal transition.

**You may hear this when:** Discussing hormone therapy protocols, contraceptive pill mechanics, or when your provider explains what bleeding to expect during a cyclical hormone therapy regimen.

**Practical note:** If withdrawal bleeding during hormone therapy becomes irregular, heavier than expected, or occurs at unexpected times, report this to your provider, as it may warrant evaluation of the uterine lining.

## Zona Glomerulosa

**Pronunciation:** ZOH-nuh gloh-mer-yoo-LOH-suh | Category: Anatomy (Adrenal)

The zona glomerulosa is the outermost layer of the adrenal cortex, responsible for producing aldosterone, a hormone that regulates sodium and potassium balance and influences blood pressure and fluid retention. The adrenal cortex also has two inner

layers: the zona fasciculata, which produces cortisol, and the zona reticularis, which produces androgens including DHEA.

**In perimenopause:** While the zona glomerulosa itself is not a primary focus of perimenopause management, the adrenal glands as a whole take on a more significant role in hormone production as ovarian output declines. The zona reticularis is the adrenal layer most relevant to perimenopause, as it produces DHEA and androstenedione, which serve as precursors to estrogen and testosterone in peripheral tissues.

**You may hear this when:** Reviewing detailed adrenal function testing, or when a provider explains the structure and functional zones of the adrenal glands in the context of adrenal health.

**Practical note:** This is primarily anatomical context that may be useful if your provider discusses adrenal function in detail. If adrenal health is a focus of your care, ask which specific hormone outputs are being assessed and why.

# Appendix A: The Most Common Tests Explained

The following tests are among those your healthcare provider is most likely to order during a perimenopause evaluation. Each entry explains what the test measures, what a result outside the normal range may suggest, and what follow-up questions are worth asking. This appendix is intended to help you walk into your appointment prepared, not to replace the clinical interpretation your provider offers based on your full history.

## Hormone Blood Tests

**FSH (Follicle-Stimulating Hormone):** Measures the pituitary gland's output of FSH, which rises as ovarian responsiveness declines. A single elevated result is not diagnostic of perimenopause, as FSH fluctuates significantly. Ask your provider at which cycle day the sample was drawn, and whether repeat testing makes sense.

**LH (Luteinizing Hormone):** Assessed alongside FSH to evaluate pituitary-ovarian communication. Elevated LH is consistent with the menopausal transition but should be interpreted in context with other markers.

**Estradiol (E2):** Measures the predominant form of estrogen. Levels fluctuate widely during perimenopause, so a single result provides limited information. Most useful when drawn on Day 3 of the cycle or when combined with FSH.

**Progesterone:** A midluteal level, typically drawn approximately seven days after ovulation, can confirm whether ovulation occurred and whether the corpus luteum is producing adequate progesterone.

**AMH (Anti-Mullerian Hormone):** Reflects ovarian reserve. Unlike FSH and estradiol, AMH is relatively stable throughout the cycle and declines predictably with age. Useful for understanding proximity to menopause.

**TSH, Free T3, Free T4, Thyroid Antibodies:** A full thyroid panel distinguishes between normal thyroid function and hypo- or hyperthyroidism, including autoimmune thyroid disease. Thyroid symptoms overlap significantly with perimenopausal symptoms and should be routinely evaluated.

**Testosterone (Free and Total):** Assesses androgen status relevant to libido, energy, and muscle maintenance. Both free and total testosterone should be measured, as SHBG affects how much testosterone is biologically active.

**SHBG (Sex Hormone Binding Globulin):** Helps interpret testosterone and estradiol results by identifying how much hormone is biologically active versus bound.

DHEA-S: Reflects adrenal androgen production. Declines with age and may contribute to fatigue and low libido when significantly below optimal range.

CBC (Complete Blood Count): Screens for anemia from heavy perimenopausal bleeding. Ask for ferritin to be included alongside the CBC for a more complete picture of iron stores.

HbA1c: Reflects average blood sugar over the past two to three months. Useful for identifying insulin resistance or early metabolic changes during perimenopause.

Lipid Panel (HDL, LDL, Triglycerides): Assesses cardiovascular risk markers that can shift unfavorably as estrogen declines.

CRP (High-Sensitivity): Measures systemic inflammation. An elevated hs-CRP may explain fatigue, joint discomfort, and increased cardiovascular risk during perimenopause.

Ferritin: The most sensitive measure of iron stores. Low ferritin can cause fatigue and hair loss even when the CBC appears normal.

Vitamin D: Often deficient in midlife women and relevant to bone health, immune function, and mood. Include in routine screening.

## **Imaging and Other Procedures**

DEXA Scan: The standard test for bone mineral density. Results are expressed as T-scores and Z-scores. Ask your provider what your score means for your personal fracture risk and whether any intervention is recommended.

Transvaginal Ultrasound: Used to evaluate the uterine lining, ovaries, and identify fibroids or polyps. Often ordered to investigate abnormal bleeding or a thickened endometrium.

Mammography: Routine breast cancer screening. Discuss recommended frequency with your provider based on your personal risk profile.

Endometrial Biopsy: A tissue sample from the uterine lining, used when abnormal bleeding warrants investigation for endometrial changes. Typically performed in the office.

Pap Smear (Cervical Screening): Screens for cervical cell changes. Frequency depends on your age, prior results, and whether HPV co-testing is used.

# Appendix B: What Your Doctor Says vs. What They Mean

Medical appointments move quickly, and the language providers use is not always immediately clear. The following translations are meant to help you decode common phrases you may hear during perimenopause-related conversations. Each entry includes what the statement typically means in plain terms and a question worth asking before you leave the room.

**Your doctor says:** "Your hormone levels are within normal range."

**What it means:** The result falls within the general reference range used for all women, which is broad by design. Normal does not mean optimal, and it does not rule out perimenopause-related hormonal fluctuation. Reference ranges are averages, not personalized benchmarks.

**Worth asking:** "Can you tell me where exactly within the normal range my result falls, and how that compares to where it was previously?"

**Your doctor says:** "This is just part of aging."

**What it means:** The provider is attributing your symptoms to the aging process without ordering specific investigation. While some changes are age-related, perimenopause is a distinct hormonal transition that deserves its own evaluation.

**Worth asking:** "Could perimenopause be contributing to what I'm experiencing? Would any testing help clarify this?"

**Your doctor says:** "We'll monitor this."

**What it means:** Something has been identified that requires attention but not immediate action. This is appropriate in some situations and less so in others. It is reasonable to ask how long monitoring is expected to continue before a decision is made.

**Worth asking:** "What would we be looking for over time, and at what point would you recommend we move from monitoring to acting?"

**Your doctor says:** "Your estrogen is low."

**What it means:** Estrogen levels at that particular point in time, on that cycle day, were below a certain threshold. Given how much estrogen fluctuates during perimenopause, a single low reading can reflect one moment in a highly variable pattern.

**Worth asking:** "Was this drawn at a specific cycle day? Would it be helpful to retest at a different point in the cycle, or to check other hormone levels alongside estrogen?"

**Your doctor says:** "*Consider HRT.*"

**What it means:** Hormone therapy is being offered as an option worth exploring. This phrasing is open, not a directive. There are multiple types, formulations, routes of delivery, and dosing approaches.

**Worth asking:** "What specifically are you recommending, in terms of which hormones, which form, and which route? And how do the benefits and risks apply to my particular history?"

**Your doctor says:** "Everything looks normal on the ultrasound."

**What it means:** The structures visible on the scan, typically the uterus, uterine lining, and ovaries, appear within expected parameters. This does not rule out hormonal causes of symptoms or conditions that are not visible on ultrasound.

**Worth asking:** "What specifically was assessed on the scan, and are there any causes of my symptoms that an ultrasound would not detect?"

**Your doctor says:** "Your symptoms are likely stress-related."

**What it means:** The provider is suggesting stress as a contributing or primary factor. While stress does amplify perimenopausal symptoms, symptoms attributed entirely to stress may have an underlying hormonal component that has not been evaluated.

**Worth asking:** "Is it possible that hormonal changes are also playing a role? Would any further testing help distinguish between stress and hormonal contributors?"

**Your doctor says:** "Your thyroid is fine."

**What it means:** The TSH level is within the standard reference range. A normal TSH does not always rule out thyroid dysfunction, particularly if Free T3, Free T4, or thyroid antibodies have not been checked.

**Worth asking:** "Was Free T3, Free T4, or thyroid antibody testing included, or only TSH?"

**Your doctor says:** "You're too young for menopause."

**What it means:** The provider may be dismissing perimenopause because of age. Perimenopause can begin in the early to mid-forties, and in some cases earlier. Symptoms that fit the pattern deserve investigation regardless of age.

**Worth asking:** "Could I be in perimenopause even at my current age? What testing would help determine this?"

**Your doctor says:** "Let's try antidepressants first."

**What it means:** The provider is offering antidepressants to address mood or anxiety symptoms. While these can be appropriate in some situations, mood changes driven primarily by hormonal fluctuation may respond differently than mood changes driven by depression.

**Worth asking:** "Do you think my symptoms are primarily hormonal or primarily mood-related? Could we explore a hormonal evaluation before or alongside this approach?"

# Appendix C: Quick Reference by Symptom

This appendix works in reverse. Instead of looking up a term you have heard, you start with what you are feeling and find the glossary entries most relevant to that experience. Each symptom cluster includes the terms that are most directly connected to that area. Use this as a starting point before an appointment, or to identify which sections of the glossary are most useful for your situation right now.

## Sleep Problems

If you are struggling with difficulty falling asleep, waking in the night, unrefreshing sleep, or night sweats, the following terms are most relevant to your experience.

Melatonin, Cortisol, Progesterone, Sleep Architecture, Night Sweats, Circadian Rhythm, HPA Axis, GABA, Vasomotor Symptoms

## Weight Changes and Abdominal Fat

If you have noticed unexplained weight gain, increasing belly fat, cravings, or difficulty managing your weight despite consistent habits, start with these entries.

Visceral Adiposity, Insulin Resistance, Insulin, Cortisol, Estrogen, Metabolic Syndrome, Sarcopenia, Subcutaneous Fat vs. Visceral Fat, Leptin, Ghrelin, Metabolism (Basal Metabolic Rate), Resistance Training

## Mood Changes and Anxiety

If you are experiencing irritability, mood swings, low mood, anxiety, or a shorter fuse than usual, these entries explain the hormonal and neurological mechanisms most commonly involved.

Serotonin, Dopamine, GABA, Norepinephrine, Cortisol, HPA Axis, Progesterone, Estrogen, Neurotransmitter, Stress Response

## Brain Fog and Memory

If concentration, memory, mental clarity, or cognitive sharpness feel different than they used to, these are the terms most relevant to understanding why.

Brain Fog, Estradiol, Cortisol, Sleep Architecture, Neurotransmitter, Dopamine, Serotonin, Mitochondria, Thyroid (TSH, T3, T4)

## **Cycle Changes**

If your periods have become irregular, heavier, lighter, more frequent, less frequent, or have stopped for a period of time, these entries address the underlying mechanisms.

Amenorrhea, Anovulation / Anovulatory Cycle, Menorrhagia, Spotting, Irregular Bleeding, FSH, LH, Ovulation, Corpus Luteum, Withdrawal Bleeding

## **Joint and Muscle Pain**

If you have noticed new or worsening joint stiffness, achiness, muscle soreness, or a general feeling of physical fragility, these entries are most relevant.

Sarcopenia, Inflammation (Systemic), Collagen, Rheumatoid Arthritis vs. Joint Pain in Perimenopause, Estrogen, CRP, Cytokines, Resistance Training, IGF-1

## **Skin and Hair Changes**

If your skin feels drier or thinner, or if you have noticed changes in hair texture, density, or shedding, start with these entries.

Collagen, Telogen Effluvium, Estrogen, Thyroid (TSH, T3, T4), Ferritin, Androgen, DHEA, Testosterone

## **Sexual Function and Intimacy**

If sexual desire, comfort, or function has changed, these entries address the most common contributing factors from both hormonal and anatomical perspectives.

Libido, Testosterone, Dyspareunia, Vaginal Atrophy, Genitourinary Syndrome of Menopause (GSM), Local Hormone Therapy (Vaginal Estrogen), DHEA, Pelvic Floor, Oxytocin

## **Cardiovascular and Metabolic Health**

If you are focused on heart health, cholesterol, blood pressure, or metabolic risk, these entries cover the markers and concepts most relevant to perimenopause.

Cardiovascular Risk, HDL / LDL Cholesterol, Triglycerides, Inflammation (Systemic), CRP, Estrogen, Insulin Resistance, Metabolic Syndrome, Visceral Adiposity

## **Hot Flashes and Temperature Sensitivity**

If sudden heat, flushing, sweating, or temperature instability are among your most pressing symptoms, these entries explain what is happening and what options exist.

Vasomotor Symptoms, Hot Flash / Hot Flush, Thermoregulation, Hypothalamus, Estrogen, Norepinephrine, HRT / MHT, Night Sweats

## **Bone Health**

If bone density, fracture risk, or long-term skeletal strength are a concern, these entries provide the foundational context.

Osteopenia / Osteoporosis, Bone Density / DEXA Scan, DEXA Scan, Estrogen, Collagen, IGF-1, Resistance Training, Sarcopenia

## **Urinary Symptoms**

If urinary urgency, frequency, leakage, or recurrent infections have become part of your experience, these entries address the most common perimenopause-related causes.

Genitourinary Syndrome of Menopause (GSM), Vaginal Atrophy, Atrophic Vaginitis, Pelvic Floor, Local Hormone Therapy (Vaginal Estrogen), Estrogen