

Nourishing Your Body Through Perimenopause

K-STATE
Research and Extension
Family and Consumer Sciences

FACT SHEET

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Note:

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Perimenopause is the transitional period before menopause. It usually starts around 40 years of age, but it can happen earlier for some women. Perimenopause can take several months or up to 10 years. Many women notice physical and emotional changes during this time as their bodies adjust to the hormonal fluctuations.

What is Perimenopause?

Perimenopause is the time before menopause when a woman's body starts to change. These physical and emotional changes can occur during this time because hormones like estrogen and progesterone are not produced in the same amounts as before.

Perimenopause is a natural process that occurs as the function of the ovaries starts to decline. Ovulation (the release of an egg) may become less regular and eventually stop. As a result, menstrual cycles could become unpredictable, longer or shorter in duration, and heavier or lighter than before.

Why Are Estrogen and Progesterone Important for the Body?

Estrogen (a sex hormone) helps regulate the heart, blood vessels, bones, breast, skin, hair, and brain. Most estrogen is produced by the ovaries, but other parts of the body can also make small amounts. When estrogen levels start to fall during perimenopause, the person might experience symptoms that include irregular periods, hot flashes, brain fog, and mood swings. Loss of estrogen can also increase the risk of **osteoporosis** and heart disease.

Progesterone (a sex hormone) supports menstruation and pregnancy, and it is produced in different parts of the body, including the ovaries. When progesterone levels fall, the person might experience irregular periods, mood changes, anxiety, depression, trouble sleeping, and hot flashes.

Symptoms of Perimenopause

Here are some of the most common symptoms of perimenopause, though they can vary from person to person as hormones influence the entire body and effects can manifest in different ways.

- Irregular or skipped periods.
- Abnormal periods: Menstrual bleeding that is either very heavy or very light.
- Emotional changes: Mood swings, anxiety, irritability, low energy, or persistent low mood.

- Low libido or sexual drive.
- Flushing and sweating, hot flashes, and night sweats.
- Discomfort due to vaginal dryness during intercourse.
- Urinary incontinence.
- Sleep disturbances.
- Increase forgetfulness and “brain fog.”
- Headaches.
- Joint and muscle pain.

Perimenopause and Other Health-Related Issues

Hormone changes, along with aging, can decrease metabolism, cause a loss of muscle mass and bone density, and increase the risk of other health-related conditions.

Heart health: Lower estrogen can increase the risk of heart disease and stroke. Estrogen helps maintain adequate cholesterol levels and improves blood vessel function. When estrogen is low, this protection weakens. Cholesterol levels may rise, and arteries can become stiffer. Therefore, maintaining a healthy lifestyle becomes crucial for heart health.

Bone health: As estrogen levels drop, bones absorb less calcium and other minerals, which lowers bone density. This can lead to osteoporosis and a higher risk of fractures. Paying attention to bone health is crucial during and after perimenopause.

Brain health: Estrogen supports brain health, cognitive skills, and memory. When this hormone level drops, there is an increased risk of Alzheimer’s and dementia. This could be a contributing factor as to why Alzheimer’s is more prevalent in women than in men. Brain fog is also common during perimenopause. Many women experience issues with memory, focus, and clarity.

Weight health: When estrogen levels drop, the body’s ability to store fat is affected, making weight gain more likely to occur around the abdomen rather than on the hips and thighs. Hormone changes are not the only cause of weight gain. Decreased muscle mass, reduced metabolism, low physical activity, high levels of stress, and poor sleeping habits can also contribute to this issue. Weight gain can also increase the risk of heart disease, type 2 diabetes, and metabolic syndrome, which is why maintaining a healthy lifestyle is so important.

Mental health: Hormonal changes, especially the decline in estrogen levels, may alter neurotransmitters responsible for mood regulation. Women might experience mood swings, irritability, anxiety, and feelings

of depression. Physical and emotional changes in perimenopause may cause stress, which could worsen mental health conditions. Women may be overwhelmed by symptoms or life changes often accompanying midlife. Many women note “brain fog,” or trouble with memory and concentration during perimenopause. This can be frustrating and may cause anxiety about cognitive capabilities. Getting adequate sleep and talking to your healthcare provider about this can be key to addressing the issues.

Sleep health: Many women during the perimenopausal stage complain of disturbed sleep, insomnia, or night sweats. Poor sleep can increase stress and reduce emotional strength. Creating the best environment possible for comfortable sleep and having a sleep hygiene routine can help with sleep health. Be sure to speak with your healthcare provider if this is an issue.

Lifestyle and Perimenopause Nutrition

A balanced diet is important during perimenopause to help manage symptoms and stay healthy. Getting enough calcium, vitamin D, magnesium, and omega-3s can support strong bones, sleep, and help with hormone balance. Eating plenty of fruits, vegetables, lean protein, and whole grains gives the body the necessary nutrients it needs during this phase of life.

Nutrients

Calcium and **vitamin D** can help maintain the strength and thickness of the bone. Sources of calcium include dairy products, fortified orange juice, fortified soy beverages, green vegetables (e.g. kale, broccoli, collard greens), and tofu. Sources of vitamin D include eggs, fish, fortified dairy products, fortified orange juice, fortified soy beverages, and mushrooms.

Vitamin C helps with collagen production in the body and is also necessary for bone formation. Sources of vitamin C include most fruits and vegetables.

Magnesium can help in reducing symptoms related to sleep disturbances and muscle cramps. Sources of magnesium include avocados, beans, peas, dairy products, fruits (e.g. bananas, raisins), green leafy vegetables (e.g. spinach), nuts, pumpkin seeds, potatoes, and whole grains.

Omega-3 fatty acids can support heart health by reducing inflammation. Sources of omega-3 include fish, nuts, seeds, flaxseed oil, soybean oil, canola oil, and fortified foods.

Other nutrients like vitamins D and minerals like boron, have a role in estrogen production. Sources of these include eggs, fortified milk, cod liver oil, avocado, prunes, and raisins.

Fruit, vegetables, lean proteins, and whole grains provide vitamins and minerals essential for maintaining energy and hormonal balance. When part of a nutritionally balanced eating plan, they may support hormone and energy production and reduce mood swings and fatigue.

Plant-based diets

Scientists have found that a low-fat plant-based diet containing whole soybeans can decrease the frequency and severity of hot flashes. A registered dietitian can advise you on the best plant-based diet that adapts to your needs.

Eating smaller, more frequent meals might help reduce the body heat generated by a large heavy meal, helping to decrease hot flash triggers.

Excess consumption of processed foods, saturated fat, sugary snacks, caffeine, and alcohol can increase symptoms like hot flashes or fatigue.

Herbs, spices, and other aids

Popular herbs and spices such as turmeric and flaxseeds may provide anti-inflammatory benefits that may support hormones.

Isoflavones found in soy foods may be effective in alleviating perimenopause symptoms. However, soy might reduce the effectiveness of some medications, so ask your healthcare provider if you think this is your case. Sources of isoflavones include tofu, tempeh, fermented soy products, soy protein, and soy milk.

Foods rich in **phytoestrogens** such as soy products, flaxseeds, sesame seeds, and grains like oats and barley may improve symptoms like hot flashes and mood swings.

Consult a health professional before getting significant amounts of phytoestrogens since high doses could interact with some hormone-sensitive conditions.

Foods containing **melatonin** can improve sleep. Tryptophan, folic acid, vitamin B6, B12, magnesium, and zinc may have a positive effect on sleep by helping with the production of melatonin. Sources of these include sea fish, oats, buckwheat, tofu, beans, pumpkin seeds, almonds, peanuts, chicken, pork, turkey, eggs, cherries, and strawberries.

Many natural products, such as black cohosh, soy isoflavone supplements, and DHEA, have been studied for their effects on menopausal symptoms, but scientists have found little or modest evidence that they are helpful. There is also no conclusive evidence that the herbs red clover, kava, or dong quai reduce hot flashes.

Physical activity

It is important to exercise during perimenopause because of the physical and emotional changes involved with this phase of life. Regular physical activity like weight-bearing exercises, walking, hiking, or strength training can strengthen the heart and bones, reducing the risk of cardiovascular disease and osteoporosis. Physical activity can also prevent weight gain, alleviate anxiety, and improve mood. Moderate-intensity activities, such as walking or swimming, can help lessen hot flashes and enhance sleep quality. Always consult a healthcare provider if you have any contraindications to a particular type of exercise.

Table 1. Daily recommendation of key nutrients for adult women ages 30–51 years.

FOOD ITEMS	DAILY RECOMMENDATIONS	NUTRIENTS	DAILY RECOMMENDATIONS
Fruits	1½ to 2 cups	Calcium	1,000 mg
Vegetables	2 to 3 cups	Vitamin D	15 mcg (600 IU)
Lean proteins	5 to 6 oz equivalents*	Magnesium	310–320 mg
Grains (whole grains)	5 to 7 oz (3 to 3½ oz)	Omega-3	1.1 g (1100 mg)
Dairy	3 cups		

Source: Dietary Guidelines for Americans 2020–2025 & MyPlate.gov

*For examples of protein equivalents, check MyPlate.gov <https://www.myplate.gov/eat-healthy/protein-foods>

Note: While protein is commonly associated with the Protein Foods group, it is also found in other food groups, including grains, dairy, and vegetables. It is recommended to consume 25–30 grams of protein per meal for optimal health. For personalized protein recommendations, consult a registered dietitian.

Mental health

Hormonal changes and their effect on the body can influence mood, confidence, and stress. Lifestyle changes that can help improve your mental health include:

- limiting caffeine and alcohol,
- eating a well-balanced diet,
- exercising regularly,
- scheduling time to relax or do enjoyable activities,
- practicing relaxation techniques such as box breathing, and
- trying massage therapy.

When to Consult a Healthcare Provider

If perimenopausal symptoms are uncomfortable or are affecting your quality of life, consult a healthcare provider. They can suggest treatments that can help minimize symptoms and improve quality of life. If the following occurs, seek medical attention:

- Heavy bleeding (soaking more than one tampon or pad every hour or two for two consecutive hours in a row).
- Bleeding continues for longer than seven days.
- Any bleeding between periods.
- Periods that come regularly less than 21 days apart.
- Bleeding after sex.

Medical Treatments for Managing Symptoms

Hormone therapy: estrogen and/or progesterone therapy to increase hormones. It has been proven to prevent bone loss and reduce fractures in postmenopausal women. However, the type of hormones, the dose, and individual factors can affect side effects. To learn more, please visit [mayoclinic.org/diseases-conditions/menopause/in-depth/hormone-therapy/art-20046372](https://www.mayoclinic.org/diseases-conditions/menopause/in-depth/hormone-therapy/art-20046372)

Testosterone: a sex hormone that on a case-by-case basis might be added to hormonal therapy to improve sexual function and general wellbeing.

Vaginal creams: your healthcare provider can tell you about prescription and over-the-counter options. Vaginal creams and lubricants can decrease pain during sex and relieve vaginal dryness.

Birth control pills: prescribed to help stabilize hormone levels and relieve symptoms.

Antidepressants: your provider might prescribe this to help decrease hot flashes, particularly in patients who cannot receive estrogen or in cases where treatment for mood disorders is also necessary.

Gabapentin (Neurontin®): this drug has been helpful in decreasing hot flashes.

Fezolinetant (Veozah™): this is a hormone-free alternative to alleviate hot flashes.

Note: Talk to your healthcare provider if you have questions or concerns about any of these treatments.

Note: The Women's Health Initiative (WHI) study linking hormone therapy to breast cancer was misinterpreted. Risks and benefits of menopausal hormone therapy (MHT) vary by age, health, and hormone type. MHT includes bioidentical hormones (identical to natural hormones) and synthetic hormones (chemically slightly different). Consult a healthcare provider for guidance.

Over-the-counter menopause tests measure hormone levels in urine, but they aren't definitive as hormone levels can vary. It's best to discuss results with a healthcare provider for a complete assessment.

Conclusion

Perimenopause is a natural stage as the body prepares to stop menstruating. Hormonal changes can cause symptoms like hot flashes, mood swings, sleep issues, and weight gain, among others, which may affect self-esteem. Healthy habits like a balanced diet, exercise, good mental health care, and overall well-being can help manage these challenges. You are your best advocate, and you know your body best. If symptoms are affecting your quality of life, consult a healthcare provider who listens to your concerns and talk about treatment options. Understanding perimenopause and focusing on self-care can make this transition easier, boost confidence, and improve overall well-being.



Glossary of Terms

Blood vessels: channels that carry blood throughout your body. They form a closed loop, like a circuit, that begins and ends at your heart.

Bone density: the amount of mineral matter per square centimeter of bones.

Cardiovascular disease: a disease that affects the heart or blood vessels.

Estrogen: a natural steroid hormone produced primarily by the ovaries that promotes the development and maintenance of female secondary sex characteristics and has a number of other important physiological functions.

Isoflavones: plant compounds possessing antioxidant and estrogenic activity in the body.

Melatonin: hormone linked to regulation of sleep cycles.

Neurotransmitters: chemicals that allow neurons to communicate with each other throughout the body.

Osteoporosis: a condition that especially affects older women and is characterized by a decrease in bone mass with decreased density and enlargement of bone spaces, producing porous and fragile bones.

Phytoestrogens: plant compounds with a structure similar to estrogen.

Progesterone: a steroid hormone that is released by the corpus luteum and that stimulates the uterus to prepare for pregnancy.

Tryptophan: an essential amino acid that is widely distributed in proteins.



SMART Goals Worksheet

This worksheet is intended to help you to take action for your health.

Initial Goal:

Specific: (What exactly do you want to achieve?)

Measurable: (How will you track progress?)

Achievable: (Is this goal realistic for you?):

Relevant: (Why does this goal matter to you?)

Time-bound: (What is your deadline?)

Finalized S.M.A.R.T Goal:

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