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# Menopause and Perimenopause

## Taking charge of the transition

## Contents





*An online guide from*

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**Menopause and Perimenopause: Taking charge of the transition**

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# Embracing the "change of life"

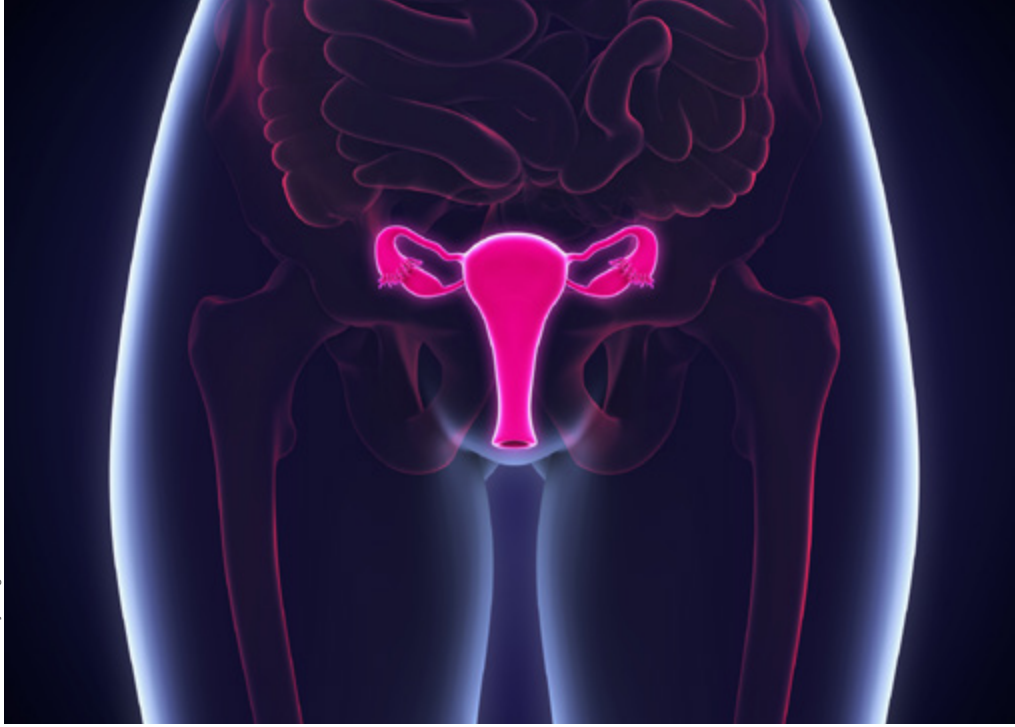
**There's a reason that menopause is sometimes referred to as the "change of life."** Although menopause is defined medically as the point in your life when you've stopped menstruating, you're likely to go through this transition at the same time that many other changes are occurring in your life.

You may be juggling multiple roles, and they all might be in flux. If you have children, perhaps they are about to leave home or have already done so. You may be enjoying more time with your spouse or partner now that the nest has emptied, or you may find yourself looking for new love. You may have elderly parents who need care. Perhaps you are ramping up your career, or winding it down as you prepare for retirement. And of course, menopause occurs as you are growing older, which brings its own age-related changes. It's a stressful time, to say the least.

All of this can factor into how you experience menopause and the long phase that precedes it, perimenopause. Although changes in your periods are caused by fluctuations in hormones, other symptoms, such as hot flashes and sleep disturbances, likely result from a combination of factors, including life stress, anxiety, and aging.

And while you may understandably be focused on how to get through the menopausal transition itself, it's important to think now about the future. The female hormone estrogen exerts many healthy effects in the body; once it subsides, you face increased risks of heart disease, osteoporosis, and other health challenges. Fortunately, there are many things you can do to get through "the change" in the best shape possible.

This guide will help you better understand the biological factors that underlie perimenopause and menopause and the symptoms you may experience. We'll provide options on how to manage this change and offer advice about steps you can take now to ensure your long-term health.





# What are perimenopause and menopause?

**Perimenopause is the long transition that precedes menopause.** During this stage, your periods may become irregular and you may experience hot flashes and other changes. ("What are the symptoms?" on page 7.) Perimenopause may begin in your late 30s or early 40s. It lasts, on average, for about four years, but the duration varies widely, from a few months to more than a decade. It's important to remember that you can still get pregnant while going through perimenopause.

You officially enter menopause once you have gone for 12 consecutive months without a period. At that point, you can no longer become pregnant. Menopause typically occurs between ages 45 and 55; the average age is 51.

Of course, every woman is different. Your family history and other medical conditions may affect the age you begin the transition and how you experience it. Some women enter menopause before age 40 because of a medical condition. (See "Primary ovarian insufficiency," page 5.) Others may experience medical menopause after surgery, chemotherapy, or radiation. (See "Medical menopause," below right.)

## Hormones and menstruation

Menopause is the result of natural, age-related changes in the hormonal cycle that causes menstruation.

Hormones are chemical messengers that help control the activity of cells and organs. Menstruation is regulated by several hormones that communicate with one another.

At the beginning of each menstrual cycle, the pituitary gland (at the base of your brain) produces follicle-stimulating hormone (FSH). As its name implies, this hormone sends a signal to the follicles, fluid-filled sacs in the ovaries that contain eggs, that it's time to prepare an egg for release. The follicles then begin to produce more estrogen. This prompts the uterus to build up its internal lining (endometrium) so that if the egg is fertilized, it can implant and grow.

When estrogen levels reach a certain point, this sends a signal to the brain to release luteinizing hormone (LH). The LH triggers the release of an egg from a follicle, a process known as ovulation. Once you ovulate, your ovaries begin to produce the hormone progesterone in addition to estrogen, as your body prepares for pregnancy. As progesterone and estrogen levels rise, levels of FSH and LH decrease.

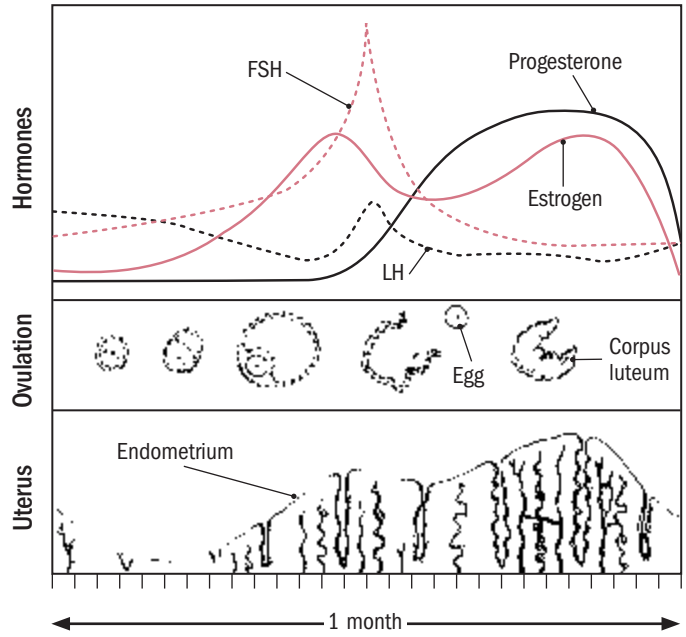
If conception does not take place, both estrogen and progesterone levels fall, and you menstruate, shedding the excess endometrium along with the egg. Then the cycle begins again. (See Figure 1, at right.)

During your peak child-bearing years, the hormones you produce rise and fall in a predictable rhythm. During perimenopause, however, this hormonal dance becomes erratic. Most significantly, production of estrogen by your ovaries falls by more than 90% during perimenopause. As the ovaries slow down, levels of FSH increase and remain elevated. (See Figure 2, page 5.)

As a result of these hormonal fluctuations, you'll probably notice changes in your periods. They may occur more frequently, say every three weeks, or less frequently, such as every five or six weeks. You may skip a period and then have it resume the next month. Bleeding during your period may be heavier or lighter than usual. For the most part, this is normal. And all women are different, so your experience may differ from that of your friends.

But there are times when you should contact your gynecologist. (See "When to call your doctor," page 6.) So it's a good idea to keep track of your periods. You can do this many ways, from notes on a paper calendar to apps on your phone or tablet.

**Figure 1: Monthly hormone cycle**

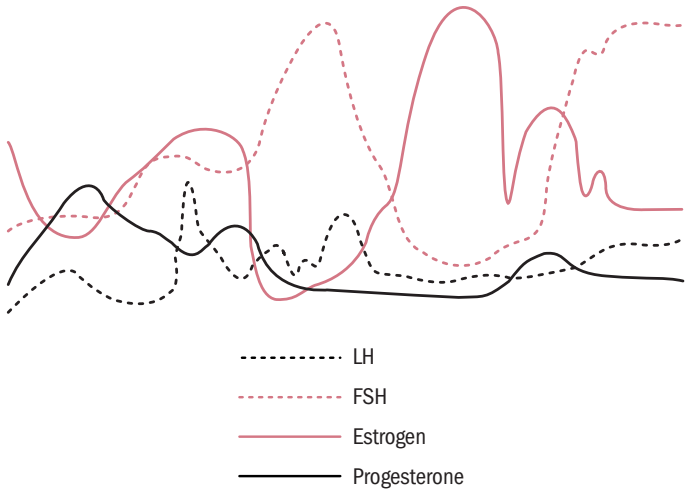



During a woman's reproductive years, her hormones follow a regular monthly pattern. Follicle-stimulating hormone (FSH) stimulates the growth of a fluid-filled follicle containing an egg. Luteinizing hormone (LH) tells the ovary to produce more estrogen to spur the release of an egg. After the egg erupts from the follicle (ovulation), the follicle remnant, known as the corpus luteum, produces progesterone, which stimulates the growth of the endometrium (lining of the uterus) to receive and nourish a fertilized egg. Meanwhile, FSH and LH levels drop and, if no fertilized egg reaches the endometrium, the cycle repeats itself the next month.

## Medical menopause

Treatment for cancer and other medical conditions can cause a sudden transition to menopause.

## Figure 2: The ups and downs of perimenopause




If you've ever wondered why a woman's period becomes irregular or unpredictable during perimenopause, examine this graph, which charts six months of hormone levels for a perimenopausal woman. Instead of a precise monthly pattern (see Figure 1), hormone levels fluctuate unpredictably, producing an early period one month, an unusually heavy period the next, and perhaps none at all the following month.

Surgical menopause occurs when both ovaries are removed. This can cause more sudden and severe symptoms, such as hot flashes, as you are plunged into menopause rather than gradually eased into it.

If only one ovary is removed, the other will continue to produce estrogen and eggs, and your periods will not be interrupted. You need only one ovary to have normal cycles.

Women who have had a hysterectomy, but who still have their ovaries, will not have periods anymore, since they don't have a uterus. However, they will not go through menopause right away. This will happen later, when estrogen levels decrease and the ovaries stop producing eggs. Signs and symptoms such as hot flashes, sleep disturbances, and mood changes may signal the onset of perimenopause.

Cancer treatments such as chemotherapy, pelvic radiation, and some types of hormone therapy may damage the ovaries and induce early menopause. The chances of this happening depend on the type, dose, and duration of treatment. Some women will resume menstruating after they recover from treatment; in others, the damage is permanent.

### Primary ovarian insufficiency

**Primary ovarian insufficiency, also known as premature ovarian failure,** is a condition in which the ovaries don't release eggs regularly. This condition can cause menopause before age 40. It is usually diagnosed in young adulthood, when women notice they don't have regular periods.

Some cases of primary ovarian insufficiency are caused by certain genetic or medical disorders. However, the cause is usually unclear. It is much more difficult to become pregnant if you have primary ovarian insufficiency, but because your ovaries are still functioning, you should talk with your doctor about birth control if you don't want to have children.

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# How are they diagnosed?

**Your gynecologist can usually determine whether you have entered perimenopause or menopause** based on how your periods have changed, whether they have stopped, and other symptoms. It may make sense to keep track of your periods, with a diary of dates and notes, so that you can share the patterns with your doctor.

If there is any doubt about whether you are in menopause, your gynecologist may order a blood test to analyze your levels of the hormone FSH. If you have not menstruated for a year and your FSH level is elevated, you have probably reached menopause. One caveat: hormone levels, and FSH in particular, can ebb and spike erratically during the perimenopausal transition. It may take several consecutive FSH tests to confirm you are in menopause.

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Tracking your periods can help your doctor to determine when you have reached menopause.

## When to call your doctor

**For the most part, the variations in your menstrual cycle are normal and part of the perimenopausal transition.** However, there are times when it's wise to consult with an expert. Contact your doctor if you notice any of the following:

- Your period arrives more frequently than every three weeks.
- Your bleeding is significantly heavier than usual.
- You see blood between periods.
- You see blood after menopause.

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# What are the symptoms?

**The symptoms that women have during perimenopause and menopause vary greatly.** Some of this may be genetic. If your mother had severe hot flashes, you may as well. In addition, symptoms such as hot flashes and vaginal dryness may become more pronounced as you move from late perimenopause into menopause and beyond.

## Hot flashes and night sweats

Hot flashes are the most common symptom during perimenopause and menopause. They affect as many as 60% to 80% of women, but for some women they may be more intense or last longer.

The hot feeling emanates from within and usually begins in the upper chest and face, then spreads throughout the rest of your body. A hot flash may last from two to four minutes and occur anywhere from once a day to once an hour. The heat may be so intense that you sweat, but then feel chilled once the hot flash subsides. Some women feel heart palpitations or anxiety during a hot flash.

Hot flashes that occur while you are asleep are known as night sweats. You may wake up covered in sweat. Typically this can happen at least once a night and sometimes more often. Not only do night sweats interrupt sleep, but the lost sleep can also make it difficult to concentrate the next day. (See "Sleep problems," below.) Night sweats and the resulting sleep disruptions also affect your mood. (See "Depression and other mood problems," below.)

Hot flashes and night sweats continue for a median of seven to 10 years. That means about half of women have them for a longer time and half for a shorter time. Surprisingly, although hot flashes are common, researchers don't know what causes them. The fluctuation of estrogen levels must play a role, but it is not the only trigger.

## Sleep problems

Many women find it harder to fall asleep or stay asleep as they progress through perimenopause. Estimates vary, but one study found that roughly 40% to 45% of women experienced sleep problems during perimenopause as a result of night sweats.

Other research, however, has not been able to pinpoint the cause of sleep problems during perimenopause. It remains unclear whether the sleep difficulties that women have during perimenopause are caused primarily by hormonal changes, symptoms such as night sweats, the normal process of aging, or other stressors that occur during this phase of life.

Women going through perimenopause are also likely to be juggling multiple demands on their time, which can cause stress that affects sleep quality. A step-by-step approach may be necessary to get a good night's sleep. (See "Overcoming sleep problems," page 11.)

## Depression and other mood problems

As many as one in four women experience changes in mood, such as depression or anxiety, during perimenopause and menopause. As with sleep, however, it is not clear whether hormonal changes are the cause. Research suggests that severe hot flashes and night sweats, which disrupt sleep and daily activities, contribute to depression more than a decrease in estrogen does. Women who have had depression in the past, or who have experienced major life stress such as abuse, are also more at risk.

If you are suffering from depression, irritability, or other mood disorders, you have many options for getting help. (See "Managing your mood," page 12.)

## Memory and concentration difficulties

During perimenopause and after menopause, you may feel mentally foggy and find it harder to concentrate. You may have trouble remembering things. Perhaps you walk into a room and forget what you were looking for. Someone asks you what book you've been reading recently and you stumble as you try to recall the title. Memory lapses can be frightening. Some women worry they may be developing dementia.



Some women experience memory lapses and poor concentration during perimenopause and menopause.

It's not clear whether these cognitive changes are due to the hormonal changes of perimenopause and menopause or whether they are caused by sleeping difficulties, life stress, and the process of aging. However, if you are concerned, there are steps you can take to improve your ability to focus and recall information. (See "Improving memory and concentration," page 14.)

## Vaginal dryness

Vaginal dryness is a common symptom of the menopausal transition, although estimates vary on how often it occurs. You may notice changes in your vagina during perimenopause, but dryness tends to become more pronounced after menopause.

Estrogen helps keep the vagina moist. As estrogen levels drop, natural lubrication in the vagina decreases. This can cause itching, burning, and pain—especially during sexual intercourse. At the same time, the muscles lining the vaginal wall weaken. The vaginal lining becomes thinner (known medically as atrophy). The vagina also becomes less acidic, and you may become more prone to yeast or other infections. As a result of these changes, you may find sex is uncomfortable, even painful. Some simple remedies may help. (See "Coping with vaginal dryness," page 15.)

## Urinary control issues

A decrease in estrogen levels during perimenopause also affects the urethra, the tube that empties urine from the bladder. Over time, your urethra can become dry and thinner. In addition, your abdominal and pelvic muscles tend to become weaker as you grow older. All of these changes can lead to incontinence. Stress incontinence is the involuntary leakage of urine when you cough, sneeze, or have intercourse. Urge incontinence means that you have a sudden need to urinate immediately. You may leak before you can get to the bathroom.

Giving birth to children through vaginal delivery also increases risk of urinary leakage. Fortunately, you have several options for countering this problem. (See "Managing urinary incontinence," page 16.)

### Benefits of reaching menopause

**The changes that occur at menopause are not all bad.** Some problems you might have experienced during your child-bearing years will subside. These benefits include the following:

- Premenstrual syndrome ends when your periods do.
- Pain and skin changes experienced with your period will end.
- The symptoms of endometriosis subside.
- Fibroids, benign tumors of the uterus, shrink.

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# Handling hot flashes and night sweats

**Hot flashes and night sweats are among the most bothersome aspects of perimenopause and menopause.** You may feel under siege—never sure when the next one will hit, bathing you in sweat and making you feel like you've turned into an oven. Fortunately, there are steps you can take to alleviate hot flashes and night sweats.

## First steps

Start with your wardrobe. Wear clothing that is lightweight, loosely woven, or designed to "wick away" moisture, such as polyester and nylon sportswear. Dress in layers, so that you can shed a jacket or sweater if you have a hot flash.

Try to keep your home as cool as possible, especially your bedroom at night. Use lightweight sheets and blankets rather than flannel sheets and heavy bedding. If you notice particular triggers, such as hot beverages or spicy foods, avoid consuming them.

It may also be a good time to recommit to healthy habits. If you smoke, here's one more reason to cut back or quit: the more cigarettes you smoke, the more severe your hot flashes are likely to be. In addition, if you are overweight or obese, you may have more frequent hot flashes. And try to find ways to reduce anxiety and stress. One study of white and African-American women found that those with the highest anxiety levels reported five times more hot flashes than those with the lowest anxiety levels.

Several small studies suggest that deep breathing, the type where you breathe from your abdomen rather than from your chest, will help to ease anxiety and reduce the frequency of hot flashes. Exercise is a great way to try to reduce weight and lower your stress levels. It helps not only to reduce severity and frequency of hot flashes, but also has many other benefits as you enter perimenopause. (See "Physical activity," page 17.)

## Hormone therapy

If your hot flashes are severe and persistent and interfere with sleep and your daily life, supplemental estrogen is the most effective treatment. If you have a uterus, estrogen is combined with a progestin to prevent the overgrowth of tissue that can increase risk of uterine cancer.

Work with your gynecologist to determine the best type of hormone therapy for you. Many options exist today. Supplementary estrogen is available as a skin patch, a pill, or a vaginal suppository or ring. (A lower-dose estrogen ring is also available to treat vaginal dryness.) In addition, some products come as creams or sprays that you can apply directly on the skin. (See Table 1, page 10.)

In the past, conjugated estrogen, made from chemicals found in the urine of pregnant horses, was most often used. Nowadays, a form of estrogen known as estradiol is also available. Estradiol is derived from plants and more closely mimics the type of estrogen women produce in their ovaries before menopause. Both formulations are effective at reducing hot flashes.

Hormone therapy has various risks, so be sure to talk with your gynecologist and take into consideration your complete medical history. The Women's Health Initiative, a large study, first raised concerns about hormone replacement therapy after researchers found that estrogen-progestin hormone therapy in women 60 and older increased their risks of breast cancer, blood clots, heart attacks, and strokes. Younger women did not face these risks while




### Table 1: Hormone therapy for hot flashes

| TYPE AND DELIVERY METHOD | FORMULATION | BRAND NAMES |
|---|---|---|
| Estrogen pills | conjugated equine estrogen | Premarin |
| | synthetic conjugated estrogen | Cenestin, Enjuvia |
| | esterified estrogen | Menest |
| | estradiol | Generics |
| | estradiol acetate | Femtrace |
| | estropipate | Ogen, Ortho-Est, generics |
| | Ospemifene | Osphena |
| Estrogen patches | estradiol | Alora, Climara, Esclim, Minivelle, Vivelle, Vivelle-Dot, generics (Menostar: used for osteoporosis prevention only) |
| Estrogen ring | estradiol | Femring |
| Estrogen gels | estradiol | Divigel, Elestrin, EstroGel |
| Estrogen skin cream or spray | estradiol | Cream: Estrasorb<br>Spray: Evamist |
| Progesterone or progestin pills | micronized progesterone | Prometrium |
| | medroxyprogesterone acetate | Provera, generics |
| Combination estrogen-progestin pills | conjugated estrogen with medroxyprogesterone acetate | Premphase, Prempro |
| | estradiol with norethindrone acetate | Activella |
| | estradiol with drospirenone | Angeliq |
| | estradiol with norgestimate | Prefest |
| | ethinyl estradiol with norethindrone acetate | FemHRT |
| Combination estrogen-progestin patches | estradiol with levonorgestrel | Climara Pro |
| | estradiol with norethindrone acetate | CombiPatch |

taking combined hormone therapy. A separate study, of women taking only estrogen, found that it increased their risk of blood clots and stroke, but not of breast cancer or heart attacks.

Other studies have since clarified these results and suggest that combined estrogen and progestin produces a small increase in breast cancers after five to six years of hormone therapy. For that reason, most doctors recommend that combined hormone therapy be used as a bridge therapy for a limited time (four or five years) to avoid this increased risk. Estrogen alone can also increase risk of breast cancer, but after about 10 years. Regardless of which type of hormone therapy you are using, tapering the dose rather than stopping cold turkey will help ease your body into the change.

### Hormone therapy is not for everyone

**Women with certain medical conditions,** or at high risk for them, should avoid estrogen-based therapy. This includes women who have had or are at risk for

- breast cancer
- heart disease
- blood clots
- heart attack
- stroke.

## Other medications

If you can't take hormone therapy, or don't want to, there are other medications that will help ease hot flashes. None are as effective as hormone therapy, but these might provide relief for mild hot flashes or make those that are severe a bit more tolerable.

The group of antidepressants known as selective serotonin reuptake inhibitors (SSRIs) are recommended as first-choice alternatives to hormone therapy for alleviating hot flashes. The doses used are typically lower than those used for treatment of depression. Only one SSRI, paroxetine (Brisdelle, Paxil), is FDA-approved for this purpose, but several others are also effective. Options include venlafaxine (Effexor), desvenlafaxine (Pristiq), citalopram (Celexa), and escitalopram (Lexapro).

Keep two caveats in mind. First, do not take paroxetine if you are taking tamoxifen for breast cancer. Paroxetine can interfere with tamoxifen and make it less effective. Second, two SSRIs, fluoxetine (Prozac) and sertraline (Zoloft), are not as effective at alleviating hot flashes as the others.

In addition, a drug developed to treat seizures, gabapentin (Neurontin), also relieves hot flashes for some women.

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# Overcoming sleep problems

**There is no magic bullet for sleep problems that occur in perimenopause or menopause.** In many cases, successful treatment of hot flashes may help. Otherwise, the advice is similar to that offered to anyone who is having trouble sleeping.

## Practice good sleep hygiene

Start with simple steps you can take at home to ensure basic sleep hygiene, the term for practices that will help you sleep better. The following habits will help ensure a good night's sleep:

- Go to bed and wake up at the same time every day (even on weekends), so your body gets used to a regular sleep-and-wake rhythm.
- Stop drinking coffee, tea, and other caffeinated beverages after lunch; these stimulants linger in the body long after you drink them.
- Avoid alcohol right before you go to sleep. Although alcohol initially acts as a sedative, the body's metabolism of alcohol produces a stimulant that can disrupt sleep.
- Put down your smart phone or other electrical devices at least half an hour before bedtime; blue light can interfere with your body's natural sleep/wake cycle.
- Build physical activity into your day, as this can help you sleep at night. However, stop exercising several hours before bedtime to avoid being too energized to sleep.
- Keep your bedroom at the temperature that most facilitates sleep; for women dealing with hot flashes, this means keeping it cool.

## Behavioral therapies

If these first steps don't work, ask your doctor about behavioral therapies that may help. Although these approaches may take some time, once you master them they will likely be more effective than sleep medications.

***Relaxation therapy.*** This approach involves a focus on progressively relaxing muscles from your head to your feet. It may help you to settle down before getting into bed.

***Sleep restriction.*** This strategy may sound counterintuitive at first. As the name implies, you restrict your time in bed. Initially this involves staying up later than you normally would. This sleep deprivation will feel awful at first, and you may struggle to stay awake and avoid naps during the day. But once you sleep through the night on a regular basis, you can slowly move toward an earlier bedtime and increase the time you spend in bed.

***Stimulus control therapy.*** This approach is aimed at conditioning your mind to associate your bedroom with sleep. Use your bedroom only for sex or sleep, not for catching up on bills or answering emails on your laptop. And if you are unable to fall asleep after 20 minutes or so, get up and sit in another room until you feel sleepy, then go back to bed.

## Sleep medications

If poor sleep remains a problem, medications may be worth considering as a short-term solution. This is especially true if your lack of sleep is interfering with your ability to drive safely, work productively, and enjoy time with your family. These medications are best used for a limited time only. Be sure to discuss duration of treatment and side effects with your doctor, as these medications can cause other problems.

### Sedative-hypnotic medications

These drugs include benzodiazepines and non-benzodiazepines. These medications help you sleep because they cause sedation, relax muscles, and lower anxiety. Benzodiazepines used for insomnia include lorazepam (Ativan), temazepam (Restoril), and triazolam (Halcion). Non-benzodiazepines are more targeted in the brain and cause fewer side effects. These include eszopiclone (Lunesta), zolpidem (Ambien), and zaleplon (Sonata).

It's wise to start with the lowest dose possible, to determine if you'll have side effects. These medications should not be used by people who

- drink alcohol on a regular basis
- have liver, lung, or kidney problems
- have sleep-disordered breathing (sleep apnea).

Serious side effects of sedative-hypnotic medications include unusual behavior while asleep—such as driving, eating, or having sex—without any memory of it in the morning. In addition, women and older adults are at increased risk of driving impairment the next morning.

### Other medications

If you can't take a sedative-hypnotic medication, or find it doesn't work, there are other options. These include ramelteon (Rozerem), which affects levels of melatonin, a hormone that helps induce sleepiness. Side effects include headache, sore throat, and daytime sleepiness. Do not take this medication if you take fluvoxamine (Luvox), a medication for obsessive-compulsive disorder, anxiety, and other problems.

A low-dose formulation of the antidepressant doxepin (Silenor) may help if you have trouble staying asleep. Another medication, suvorexant (Belsomra), targets a brain chemical that helps keep you awake. Side effects include morning drowsiness.

Over-the-counter antihistamines are often touted as sleep aids—and some women swear by them—but the research finds they are not that effective. These medicines include Nytol and Unisom. Others, such as Advil PM and Tylenol PM, contain a pain reliever in addition to an antihistamine. Even over-the-counter medications have risks if used night after night. Talk with your doctor to see if there are better alternatives.



# Managing your mood

**If you are struggling with anxiety, depression, or some other mood problem,** talk with your doctor about options for treatment. Generally speaking, two broad approaches exist: medication and therapy. Sometimes a combination of the two is best.

## Medications

Medications may take some time to work, and all have side effects. Even so, they tend to offer faster relief than psychotherapy. And if you find the medication that's right for you, the relief can be enormous. You may also notice that other problems—such as sleep difficulties, irritability, and problems with concentration—also ease up.

The most common antidepressants used today include SSRIs, serotonin-norepinephrine reuptake inhibitors (SNRIs), and atypical antidepressants, a catch-all term for those that don't fit into a particular category. (See Table 2, page 13.) All are about equally effective, although individuals may respond

better to one than another. It may take some trial and error to find the medication that is best for you.

Antidepressants tend to take four to six weeks to have an effect. Usually medication use continues for six to 12 months. At that point, if you and your doctor decide it's time to stop the antidepressants, ease off gradually. If you stop cold turkey, you'll not only experience withdrawal symptoms, but your depression may come back.

For anxiety, the most common medications prescribed are benzodiazepines. They tend to work faster than antidepressants, but you may also develop a tolerance for them if you take them for too long. For anxiety, the most common medications prescribed are benzadiazepines. (See Table 3, left.) For this reason, most doctors recommend that you take them only for a limited period of time. When you stop taking them, taper off slowly to avoid suffering withdrawal symptoms.

### Table 2: Antidepressants

| CATEGORY | GENERIC NAME | BRAND NAME | POSSIBLE SIDE EFFECTS |
|---|---|---|---|
| Selective serotonin reuptake inhibitors (SSRIs) | citalopram | Celexa | Drowsiness, reduced libido, difficulty achieving orgasm, nausea, vomiting, weight gain, diarrhea |
| | escitalopram | Lexapro | |
| | fluoxetine | Prozac | |
| | paroxetine | Paxil | |
| | sertraline | Zoloft | |
| Seritonin-norepinephrine reuptake inhibitors (SNRIs) | desvenlafaxine | Pristiq | Nausea, dizziness, dry mouth, sweating, anxiety, headache |
| | duloxetine * | Cymbalta | |
| | levomilnacipran | Fetzima | |
| | venlafaxine * | Effexor | |
| Atypical antidepressants | bupropion | Wellbutrin | Dry mouth, dizziness, lightheadedness; other side effects vary by medication, so check with your doctor |
| | mirtazapine | Remeron | |
| | vilazodone | Viibryd | |
| | vortioxetine | Trintellix | |

* Also approved for treating anxiety

### Table 3: Anti-anxiety medications

| CATEGORY | GENERIC NAME | BRAND NAME | COMMON SIDE EFFECTS |
|---|---|---|---|
| Benzodiazepines (short-term use) | alprazolam | Xanax | Drowsiness, dizziness |
| | clonazepam | Klonopin | |
| | lorazepam | Ativan | |
| Other (for chronic anxiety) | buspirone | Buspar | Nausea, headache, dizziness, difficulty concentrating |

## Psychotherapy

Psychotherapy is useful for treating anxiety and depression. Although this approach may take longer than medication, it will help you acquire skills and insights that may prove more beneficial in the long term. Options for both anxiety and depression include the following:

***Cognitive behavioral therapy.*** This approach helps you recognize negative thinking and then find ways to reframe a situation in a more positive way so that you can cope better.

***Interpersonal therapy.*** This type of therapy provides skills for mending your personal relationships and helps you find better ways to interact with other people.

***Psychodynamic therapy.*** Participating in this form of therapy helps you to recognize how your past relationships and experiences may be affecting the way you interact with people today. Then you learn ways to confront unresolved emotions and heal from past hurts so that you can be happier in the present.

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If you are having problems with anxiety or depression, psychotherapy may be helpful.

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# Improving memory and concentration

**Although perimenopause and menopause often seem to bring on problems with memory and concentration,** the more likely culprits are night sweats that wake you up, other sleep problems, stress, and trying to juggle too many things at once. After all, if you're fatigued or your mind is buzzing with competing priorities, it will be difficult to concentrate on anything or retrieve a memory. The first steps to improve your ability to concentrate and remember things include addressing menopause symptoms and stress. (See treatment options in previous chapters; also see "Physical activity," page 17, which covers a good strategy for handling stress.)

Once you take care of these basics, there are other options. Many books, smartphone apps, and online programs promise to help boost memory and concentration. Typically these involve solving puzzles and taking quizzes in which you exercise your brain. Such products may help in the short term, but there's little evidence that they boost your capacity to remember things or pay attention in the long term.

Another strategy, which may help over time, is to develop practices that can make it easier to remember something. For example, use mnemonic associations—visual or verbal clues—to remember names and other items. Let's say you meet a new neighbor, Dahlia, and associate her with the flower. It may sound odd, but it works.

For complicated ideas or material, try explaining the concept to someone else in your own words—or say it out loud to yourself. The process of storing new information in the brain, known as encoding, is a key part of memory, and the act of repetition helps make it happen.

Finally, the real key to improving memory is to understand how we encode information. It requires quiet and concentration. Whenever possible, take some quiet time after encountering someone or something new, and give your brain time to process and save the information.



# Coping with vaginal dryness

**Most women are able to use a few home remedies or prescription medicines** to alleviate vaginal dryness that may develop during menopause. If these first steps don't work, you have other options.

## Vaginal moisturizers

These products, available over the counter, contain ingredients that help the vagina retain moisture. Typical brand names include Replens and K-Y vaginal moisturizer. Depending on the product, you may insert these into the vagina using an applicator several times a week, or you may rub the moisturizer into your vaginal lining as you would apply lotion to the rest of your skin. Check the instructions for details.

## Vaginal lubricants

Lubricants don't moisturize the vagina but temporarily make it more slippery, which reduces friction and makes intercourse easier and less painful. Look for over-the-counter products containing water or silicone that are marketed as vaginal lubricants. Typical brand names include K-Y lubricant and Astroglide. Natural lubricants such as coconut oil, olive oil, and peanut oil can also work, as can petroleum jelly, baby oil, and mineral oil. However, these natural and oil-based lubricants can damage condoms and increase your risk of pregnancy (if you still menstruate) and sexually transmitted diseases.

## Vaginal estrogen

The most effective treatment for vaginal dryness is low-dose estrogen delivered directly to the vagina, available by prescription in different formulations. Estrogen creams are inserted into the vagina with an applicator. Brand names include Estrace, Ogen, and Premarin. Instructions vary, so follow the schedule for the product you use.

Another option is Estring, a flexible ring inserted into the vagina every three months. The ring gradually releases estrogen into the vagina. (This is not the same as Femring, which releases much higher doses of estrogen for treatment of hot flashes.) A small tablet, Vagifem, is inserted into the vagina and absorbed gradually. This is done every night for two weeks, and then twice a week afterwards.

All of these products contain a small amount of estrogen that is absorbed through the skin of the vagina. However, they do not contain as much estrogen as that in hormone replacement therapy, so you don't have to worry about an increased risk of blood clots, breast cancer, and heart attacks. Even so, there are risks you should be aware of.

In theory, the use of vaginal estrogen can increase risk of endometrial cancer in a woman who has a uterus. (Estrogen stimulates growth of cells in the uterine lining.) However, because little of the estrogen is absorbed into the bloodstream, the risk is very small. However, if you spot blood while taking vaginal estrogen, contact your doctor immediately, as this may be a sign that cancer has developed. And if you have had breast cancer, ask your gynecologist if vaginal estrogen is safe for you, as even a small amount of estrogen that enters your bloodstream may increase the risk that the cancer will come back.

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# Managing urinary incontinence

**Several at-home remedies are effective if you are dealing with leakage and other forms of urinary incontinence.** One mainstay is pelvic floor exercises, also known as Kegel exercises (named for the physician who popularized them). These exercises strengthen and activate muscles that lie under the bladder. (See "Kegel exercises," at right.)

Fluid management—not drinking more than about 64 ounces of liquids a day—may help you reduce leakage. You may need more fluids if you're very active. It may help to go to the bathroom at regular intervals, every three to four hours, instead of waiting until you have a strong urge to go. Weight loss, if you are overweight, also can improve bladder control.

If you have urinary frequency, in which you visit the bathroom more than every two hours, you can also practice bladder training. Instead of going to the bathroom every time you feel an urge, wait until you really have to go. Try to build up the time gradually between visits during the day until you reach three to four hours. If symptoms persist, check with your doctor to be sure you do not have a urinary tract infection.

If these initial strategies don't help, ask your doctor about whether medication or surgery is an option. Finding a treatment that works depends on getting the correct diagnosis. Medication options for urge incontinence are anticholinergics such as oxybutynin (Ditropan XL), tolterodine (Detrol), and darifenacin (Enablex). Another option is taking low-dose vaginal estrogen, which can help the urethra open and close more effectively, so you are better able to prevent urine from leaking. (See "Vaginal estrogen," page 15.)

You can also ask your doctor about a pessary, a plastic or silicone device inserted into the vagina to support the pelvic organs, which may help prevent urine leakage for some women. You will have to be fitted for a pessary (much like a diaphragm) to make sure it fits well. Most pessaries need to be removed and cleaned regularly.

Surgical options also exist if your symptoms are severe and nothing else has worked. These include various sling procedures and bladder neck suspension procedures. Talk with your gynecologist about these to understand the risks as well as benefits of these options.

## Kegel exercises

**Once you get the hang of these exercises, you can do them anywhere.** The easiest way to describe how to do them correctly is to mimic the action you take while trying to avoid passing gas. When activated, the pelvic floor muscles not only close off the rectal muscle, but also squeeze the urethra shut so that no urine can escape.

It may be easiest to learn these exercises while lying down, with your feet flat on the floor and your knees bent slightly. Once you get used to doing them, you can do these exercises while standing or sitting.

- Lie down and place one hand on your abdomen.
- Gently contract your pelvic muscles by tightening them upward and inward—as if you are trying to grip a tampon in your vagina.
- Your abdominal muscles should remain relaxed; if they tighten under your hand, try to relax them while still pulling upward and inward in your vaginal area.
- Don't push or bear down; breathe through your mouth to prevent this from happening.
- Begin by holding each pelvic muscle contraction for a few seconds. As your muscles grow stronger, hold them for 10 seconds.
- Relax for 10 seconds between contractions.
- Repeat about 10 times per session, three times a day.

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# Complementary therapies

**The current options for treating symptoms of perimenopause and menopause often leave women wanting more.** Small wonder, then, that many women turn to complementary therapies. Any of the following might be worth trying. Just keep in mind that herbal remedies are not regulated by the FDA in the way that drugs are. This means that an herbal remedy could contain unlisted ingredients, including phytoestrogens and other hormones. Also, be sure to tell your doctor if you are using bioidentical hormones or taking any type of supplement.

## Physical activity

It's easy to overlook this simple strategy to keeping healthy as you enter menopause. Weight-bearing exercise, such as walking, stimulates the bones and helps to keep them strong. Strength training, such as working with an exercise band, doing leg lifts, or lifting weights, not only makes your muscles stronger but also makes bones less fragile. And don't forget balance exercises, such as yoga and tai chi, that can reduce stress and improve fitness and mood.

## Acupuncture

Acupuncture is a form of Chinese medicine that involves inserting thin needles into specific points on your body, with the aim of increasing the flow of energy or "chi." There's some evidence that acupuncture may temporarily reduce symptoms of menopause such as hot flashes. For example, one recent study in *The BMJ* found that acupuncture significantly reduced symptoms such as hot flashes, night sweats, sleep disturbances, and mood problems after only three weeks.

However, research so far hasn't shown long-term improvement or consistent results. Still, acupuncture may be worth a try, because temporary relief is better than no relief at all. And there appears to be no risk associated with acupuncture.

## Bioidentical hormones

Bioidentical hormones are made from chemicals extracted from plants. In your body, they behave in a similar way to hormones such as estrogen that you produce naturally. Although bioidenticals are touted as being safer than natural hormones, there is no scientific evidence supporting this claim. The FDA has approved some preparations, but many are compounded (mixed in a pharmacy), so the quality of preparations varies. In addition, some preparations are sold over the counter or as herbal remedies, which are not regulated by the FDA.

## Black cohosh

Black cohosh is an herb that was originally used as a medical treatment by Native Americans. Some women use it to treat hot flashes and other symptoms of menopause. Research has not shown this herb to be effective, but many of the studies were poorly designed. In clinical trials, women who took black cohosh for up to 12 months had only minor side effects, such as upset stomach or rashes.

In rare cases, the supplement has been linked to liver damage, so if you have a liver disorder, speak with your doctor before trying this herb. (Once again, the problem may be lack of regulation of herbal remedies; it is not clear if black cohosh caused liver damage or some other ingredient did.)

## Phytoestrogens

Phytoestrogens occur naturally in legumes, flaxseed, whole grains, and some other foods. It is not clear whether phytoestrogens alleviate hot flashes and other symptoms of menopause. The research has been mixed, with most studies finding phytoestrogens ineffective.

One thing to keep in mind is that isoflavones, a type of phytoestrogen found in legumes such as soybeans, lentils, and chickpeas, have effects in the body similar to estrogen. For this reason, if you've had estrogen-positive breast cancer, talk with your doctor about whether you should limit consumption of isoflavone-containing foods.

## Sage

This herb is probably best known for its use in cooking, but it also may be helpful for treating hot flashes. One small study, for example, suggested that sage reduced the frequency of hot flashes. Unfortunately, there is not a lot of research on this herb. And keep in mind there are some risks. Sage is available as a tea, in capsules, and as an oil. But taken in excess, it can be toxic, causing vomiting, dizziness, a rapid heartbeat, and other problems. It's best to talk with your doctor before using sage.




# Steps to protect your future health

**The decline of estrogen that leads to menopause has consequences for more than your uterus.** This powerful hormone also affects the health of your bones, heart, and blood vessels. Estrogen also has a role in how you metabolize sugar (glucose) and how you deposit fat. That's why it's so important to take steps once you enter perimenopause to improve your health and ensure you remain healthy for as long as possible. And if you've already reached menopause, it's not too late to start.

## Maintain a healthy weight

Many women complain of gaining weight during perimenopause and menopause. The research confirms this, but finds that it's not as dramatic as you may think. The average weight gain during menopause ranges from 4.5 to 11 pounds. But if it feels as though your body is ballooning, there may be

another explanation: as women age and as estrogen subsides, the pattern of fat distribution changes.

Between adolescence and menopause, fat tends to deposit around the hips; after menopause, it accumulates around your waist. You may find that your previously "pear-shaped" body resembles an apple, with excess pounds making your abdomen bigger.

It's not clear why menopause causes these changes. One theory is that the decline of estrogen results in a relative increase of androgen levels in women. (Although androgens are sometimes called "male" hormones, both women and men produce them—albeit in different amounts.) This may explain why women past menopause start accumulating weight around their waists, as men tend to do.

However, some studies have found that menopause itself is not the cause of weight gain. Rather, it may be attributed to increased consumption of alcohol, stress eating because of depression, and lack of exercise. The normal effects of aging may also play a role. As both men and women grow older, muscle mass tends to decrease. Muscle burns energy faster than other tissue, so your metabolism tends to slow down. As a result, you can eat the same amount and still gain weight.

It's important to do everything you can to maintain a healthy weight. For starters, becoming overweight or having a large waist circumference increases your risk of diabetes. (See "Reduce your risk of diabetes," below.) In addition, being overweight increases your risk of heart and blood vessel disease. (See "Keep your heart healthy," at right.)

So what can you do? The sad reality is that you need to eat less and exercise more to maintain your current weight or lose weight. Eat poultry and fish rather than red meat. Consume healthy carbohydrates such as whole grains, fruits, and vegetables. Limit consumption of sugar, found not only in candy but in sweetened sodas and other beverages. And consume healthy unsaturated fats, such as olive oil, nuts, and salmon or other fatty fish.

## Reduce your risk of diabetes

Insulin is a hormone produced in the pancreas that helps the cells in your body absorb blood sugar to use as energy, while storing extra supplies in the liver. Unfortunately, menopause changes the amount of insulin your pancreas secretes and how sensitive you are to this hormone. You also may gain weight, which further increases the risk of insulin resistance.

These changes can increase your risk of developing diabetes, which in turn dramatically elevates your risk of heart and blood vessel disease. (See "Keep your heart healthy," below.) The best way to reduce your risk of diabetes is to avoid packing on the pounds. (See "Maintain a healthy weight," page 18.)

## Keep your heart healthy

Heart disease creeps up on women, in part because estrogen exerts a protective effect on your blood vessels and levels of total, LDL (bad), and HDL (good) cholesterol. That changes once you reach menopause.

First of all, both weight gain and diabetes (see previous sections) increase your risk of heart disease. In addition, as estrogen declines during perimenopause and into menopause, your total blood cholesterol tends to increase steadily, along with unhealthy LDL and triglycerides. Meanwhile, healthy HDL levels may drop. Your blood pressure also tends to rise as you age.

All of these factors combine to quadruple a woman's risk of heart and blood vessel disease in the decade after menopause. This helps explain why heart attacks, strokes, and other forms of blood vessel disease are the leading causes of death in women after menopause.

Fortunately, heart disease is both preventable and treatable. To reduce your risk, the first step is to maintain a healthy diet and exercise regularly. In particular, beware of these foods, which increase blood cholesterol:

- Restrict red meat and saturated fats, mostly found in meat and dairy products.
- Avoid trans fats (also known as partially or fully hydrogenated fats), which are found in some processed foods, bakery goods, and fried foods.

Focus instead on unsaturated fats (such as olive oil) or other healthy fats (such as those found in fish and nuts.)



Eating healthy fats from sources such as fish, olive oil, and nuts instead of saturated fat (in red meat) and trans fats can help decrease heart disease risk.

In addition, work with your doctor to reduce your risk of heart disease. The advice about how to do so depends on your personal health profile and level of risk for heart disease or stroke. A good place to start is by using the American Heart Association's free online risk calculator to estimate your own risk: www.heart.org/ccccalculator.

Blood pressure guidelines were updated in 2018. (See Table 4.) The new guidelines did away with recommendations by age and also lowered the blood pressure level considered ideal. As a result, it's a good idea to get your blood pressure measured at least annually. If your blood pressure is high, talk with your doctor about strategies for lowering it. The basic strategies involve a healthy diet and regular physical activity. If these don't work, consider a blood pressure medication. Many options exist.

Guidelines for cholesterol were also updated in 2018. (See Table 5.) A simple blood test can reveal your blood cholesterol. How low your cholesterol levels should be depends on your overall health status, such as whether you have diabetes or other conditions that increase your risk of heart attack and stroke. Work with your doctor to determine your ideal cholesterol levels. If diet and exercise don't achieve the optimal levels, another option is medication. Statins are the drugs most often prescribed for lowering cholesterol.

Whatever you do, don't get discouraged. Keeping your heart healthy is an ongoing process. It's hard to eat right and get enough exercise all the time. If you have an "off" day, try again tomorrow. Your heart will thank you for it.

## Maintain bone strength

Bone is a dynamic organ; throughout your life, old bone is broken down and new bone replaces it. For the first three decades of your life, you build more than you lose. However, that changes around age 30, and from then on the balance shifts towards bone loss. As a result, bones tend to become more porous or brittle as women age.

Doctors can assess your bone strength through a bone density test. This is a painless screening test that can assess your bone mineral density, compared with the average for young women. If your test confirms you have osteoporosis, you have an increased risk of fracture after a fall or other impact.

The best way to prevent osteoporosis is to start taking steps to keep your bones as strong as possible even before you enter perimenopause. You can't make your bones stronger than they were at age 30, but you can slow the loss of bone and try to avoid falls. Weight-bearing exercise, such as walking, climbing stairs, or playing tennis, helps slow bone loss and encourages bone building. Exercises that increase your strength and balance will also help to prevent falls.

Pay attention to diet. Consume foods high in calcium, which helps build bone. Federal guidelines suggest that women aim for 1,000 milligrams (mg) of calcium a day if age 50 or younger, and 1,200 mg a day if over 50. You can take a calcium supplement or consume foods such as fat-free milk, yogurt, and other dairy products, as well as dark leafy greens and beans.

In addition, make sure you are getting enough vitamin D, which helps the body absorb calcium. You can make vitamin D naturally by going outside in the sun, which stimulates production of this vitamin in your body. If you live in the Northern Hemisphere, you may need to consume foods that contain vitamin D, such as egg yolks, liver, or fortified milk. Aim for 600 international units (IU) of vitamin D per day until age 70 and 800 IU per day from age 71 on.

### Table 4: Current blood pressure guidelines

| BLOOD PRESSURE CATEGORIES | SYSTOLIC (UPPER NUMBER) | DIASTOLIC (LOWER NUMBER) |
|---|---|---|
| Normal | Less than 120 | Less than 80 |
| Elevated | 120 – 129 | Less than 80 |
| High blood pressure (Stage 1) | 130 – 139 | 80 – 89 |
| High blood pressure (Stage 2) | 140 or higher | 90 or higher |
| High blood pressure (Stage 3) | Higher than 180 | Higher than 120 |

*Source: American Heart Association and American Stroke Association.*

### Table 5: Quick guide to cholesterol and triglyceride levels in adults

The following guide can help you determine if your cholesterol is on the high side.

| TOTAL CHOLESTEROL LEVEL | TOTAL CHOLESTEROL CATEGORY |
|---|---|
| Less than 200 mg/dL | Desirable |
| 200–239 mg/dL | Borderline high |
| 240 mg/dL and above | High |
| **LDL CHOLESTEROL LEVEL** | **LDL CHOLESTEROL CATEGORY** |
| Less than 100 mg/dL | Optimal |
| 100–129 mg/dL | Near optimal/above optimal |
| 130–159 mg/dL | Borderline high |
| 160–189 mg/dL | High |
| 190 mg/dL and above | Very high |
| **HDL CHOLESTEROL LEVEL** | **HDL CHOLESTEROL CATEGORY** |
| Less than 40 mg/dL | Low (representing risk) |
| 60 mg/dL and above | High (heart-protective) |
| **TRIGLYCERIDE LEVEL** | **TRIGLYCERIDE CATEGORY** |
| Less than 150 mg/dL | Normal |
| 150–199 mg/dL | Borderline high |
| 200–499 mg/dL | High |
| 500 mg/dL and above | Very high |

*Source: Adapted from the National Cholesterol Education Program.*

To reduce your risk of falls, you can take other steps as well. First, take an inventory of your home and remove loose rugs and clutter that can become tripping hazards. In addition, get regular eye exams (poor vision can increase your chance of falling). And ask your doctor about your medications. Some can cause dizziness or drowsiness, both of which increase your risk of falling.

Medications are also available for treatment of osteoporosis. Of the drugs that also help to prevent osteoporosis, those most often prescribed are bisphosphonates, which slow the loss of bone. These drugs include alendronate (Fosamax), ibandronate (Boniva), risedronate (Actonel, Atelvia), and zoledronic acid (Reclast, Zometa). Typical side effects include nausea and heartburn. In rare cases, for reasons that are unclear, these medications may cause jaw deterioration or fractures of the upper thigh.

Other drugs that help prevent osteoporosis include estrogen, which is prescribed only for a few years to avoid increasing cancer risk. (See "Hormone therapy," page 9.) Raloxifene (Evista) and bazedoxifene (Duavee), have similar bone-building effects but don't elevate cancer risk. These drugs are known as selective estrogen receptor modulators (SERMs). Duavee, which contains both bazedoxifene and estrogen, also treats hot flashes. Raloxifene is used to treat as well as prevent osteoporosis. SERMs can increase the risk of blood clots.

Several drugs are approved for osteoporosis treatment only. They include denosumab (Prolia), a monoclonal antibody that is injected every six months. It reduces fracture risk by blocking the body's normal breakdown of bone. The FDA in 2019 approved romosozumab (Evenity), the first drug that can build bone, for women past menopause who are at high risk of breaking a bone. One study in the *New England Journal of Medicine* found that the drug reduced the risk of spinal fracture by almost 50% compared with an older drug. However, romosozumab also increases risk of heart attack or stroke. Romosozumab is a monoclonal antibody but works in a different way than denosumab.

Another option is teriparatide (Forteo). This is a synthetic version of parathyroid hormone, which helps regulate the way calcium is absorbed in your body. Teriparatide is given by self-injection and helps build bone. However it is FDA-approved only for 24 months, because of concerns about long-term safety.



# A new chapter in life

**As difficult as perimenopause and menopause can be,** with persistence you are likely to find a way to deal with the challenges. Work with your gynecologist to manage symptoms as they arise. And pay attention to what else is going on in your life, as stress and life changes can also contribute to what you are experiencing. It may not seem so at times, but the transition into menopause offers you a chance to begin a new chapter in your life.

## Resources

**American College of Obstetricians and Gynecologists**
www.acog.org/patients

This nonprofit professional organization has more than 58,000 members and is considered the premier medical society for obstetricians and gynecologists. It publishes helpful fact sheets on perimenopause and menopause.

**National Heart, Lung, and Blood Institute**
www.nhlbi.nih.gov

This is the division of the National Institutes of Health devoted to research in cardiovascular and pulmonary disease. The website offers the latest information on prevention and treatment.

**National Osteoporosis Foundation**
www.nof.org

This nonprofit organization supports research on osteoporosis and develops educational programs and materials. Much of its material is also available in Spanish.

**U.S. Department of Health and Human Services Office on Women's Health**
www.womenshealth.gov

The center is the federal government's clearinghouse for women's health information. The website is a gateway to a trove of reliable, free information on scores of topics.

**North American Menopause Society**
www.menopause.org

This nonprofit organization is dedicated to promoting the understanding of menopause and improving the health of women at perimenopause and beyond.

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