



# A Guide to Peri-Menopause and Menopause



Finding New Ways to Connect with your  
Changing Body

## What Will You Find in This eBook?

- 🍃 What is Peri-Menopause and Menopause?
  - Symptoms of Peri-Menopause and Menopause
- 🍃 Treatment of Menopausal Symptoms
  - Hormonal Options
  - Non-hormonal Options
  - Herbal Treatments
  - Behavioral Treatments and More...
- 🍃 Osteoporosis and Menopause
- 🍃 Pain with Intercourse After Menopause
  - Treatments for Dryness and Sexual Pain
  - Tips for Continued Sexual Satisfaction
- 🍃 Helpful Resources

## What is Peri-Menopause and Menopause?

As part of the normal aging process, women undergo many biologic changes that affect their reproductive system and well-being. This is a spectrum that starts with puberty transitions through peri-menopause and ends in menopause.

The average age of menopause is around 51 years of age. Menopause is defined as the absence of menses (periods) due to complete stopping of ovulation for 12 months. The transition to menopause, called peri-menopause, can extend up to 3 to 5 years. It is associated with various signs and symptoms that might be experienced differently among women.



It is important that you get familiar with what is considered normal to be able to seek medical care when needed.

## Symptoms of Peri-Menopause and Menopause

### Menstrual cycle

The changes in the cycle are usually the most common complaint prompting women to seek medical care during this time. Estrogen levels decrease because there are fewer eggs in the ovaries. This leads to longer menstrual cycles with shorter bleeding days and less frequent menstruation. Then, when there are no more functioning eggs, periods will stop.

If your periods have stopped for a year or more and then you experience excessive vaginal bleeding or spotting, you should seek medical care. There might be other reasons for this change in bleeding pattern.

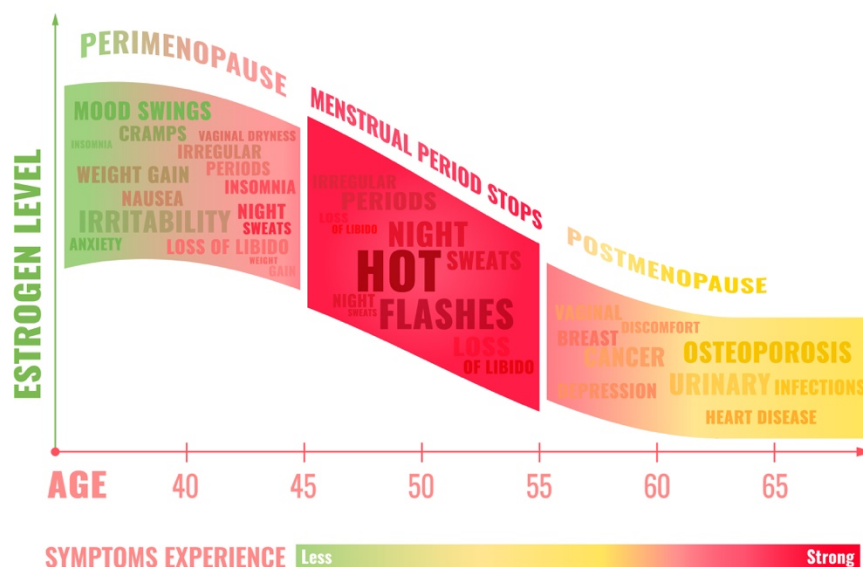
## Hot flashes

These are the most common menopause symptom. As many as 60% - 80% of women experience hot flashes. They often occur spontaneously without warning, with a sudden overwhelming feeling of heat spreading all over your body. This may be followed by a cold or shivering sensation, lasting few seconds at various times during the day. Hot flashes are most common around the time the period stops, but can continue for over a decade after menopause.

If hot flashes affect your quality of life, various options exist to help you as outlined below.

## Vaginal dryness and itching

Estrogen is a key component responsible for the well-being of the vulvar and vaginal areas. As the level of estrogen goes down, you may notice irritation, soreness, and pain. This is because the skin of the vulva and vagina is becoming thinner. It can also make sex painful and cause irritation, burning or small tears during intercourse.





## Decrease in libido and sexual problems

Multiple hormonal and psychological factors during this time can affect your sex life. You may notice that you have sex less often and/or have more difficulty having an orgasm. You might not enjoy sex as much. Less estrogen in your body can cause vaginal dryness. This dryness can lead to difficulty in arousal, and pain during sex. It is important for you to know that there are many treatments that can help you with these symptoms. Later in this e-book we discuss painful intercourse related to menopause in more depth.

A number of other things can make your vagina dry or sore, making sex uncomfortable and painful. Other than the natural drop in estrogen that happens at menopause, the following situations could also cause pain with sex:

- ✦ If you just had a baby, particularly if you are breastfeeding
- ✦ If you are taking medications known to block the estrogen that our bodies make (medical menopause)
- ✦ If you had your ovaries removed (surgical menopause)
- ✦ If you had chemotherapy or radiation therapy of the pelvis for cancer
- ✦ If you have other non-hormonal conditions of the vulva and vagina that can cause pain

## Problems sleeping

32% - 40% of menopausal women complain of sleep problems. You may experience an inability to sleep or interrupted sleep cycles. We don't know for sure why this happens. It may be related to hot flashes, which are common at night. Or, you may feel mood changes that can affect your sleep. While temporary disruption of sleep may be normal, if the problem persists, you should mention it to your doctor.

## Memory problems

Some people experience temporary memory problems before, during and after menopause. This may be caused by the decrease in estrogen. Estrogen is associated with cognition and brain function. Try to train yourself by reading and by writing down important information and appointments in order to avoid missing anything. If you feel that despite all your efforts your memory problems are getting worse, make sure you talk to your doctor about it.

## Mood changes

It is normal to feel mood changes before, during, and after menopause. These may be caused by hormonal changes. There is also stigma that comes along with menopause that can be difficult. You might feel irritable or have crying spells. It is important to note that mood changes are not the same as depression. Talking to your doctor is crucial.

## Depression and anxiety

Some feelings of depression or moodiness are relatively common during menopause. The intensity of symptoms can change throughout the day. They may get worse during the night and affect your sleep quality. In fact, menopause doubles the risk of depression in women even with no history of mental illness. Certain people are at higher risk for menopausal depression. These people include:

- those who have previously suffered from depression, such as postpartum depression
- those who have had severe premenstrual syndrome (PMS)
- those who have had their ovaries removed (surgically-induced menopause)

If you are experiencing sleep or concentration problems, changes in your appetite or loss of interest in life, do not hesitate to contact your doctor. Your mental wellbeing is essential for your physical health.

## Urinary symptoms

It is common for menopausal women to lose a little control over their bladder and start experiencing a constant need or urge to urinate. They may feel a decrease in sensation of the bladder fullness, incontinence and painful urination. These symptoms are due to the decrease in estrogen and its effect on the bladder and urethra. The changes also create an environment favorable for bacterial overgrowth that can lead to more common urinary tract infections. If you are experiencing any of these symptoms, it is important to seek help. You might be having a urinary tract infection or other problems that require evaluation and treatment.

## Treatment of Menopausal Symptoms

As we get older, certain hormone levels in our bodies start decreasing. Women usually enter menopause between 45 to 55 years old when our ovaries stop making eggs. At this point, we stop having menstrual periods and the level of estrogen in our bodies drops. Because of this drop, some of us experience symptoms of menopause, as noted above. If the symptoms don't bother you, then you don't need to treat them. If you are bothered by your symptoms, then you should speak with your doctor about what treatments are best for you. Make sure you talk with your doctor about all your options and the risks and benefits involved with each option.



### What Kind of Options are Available?

We have many options for treating symptoms of menopause. Treatments include both medications and hormone therapies. You may want to try a combination of the different treatments depending on your types of symptoms and how bothersome your symptoms are. These

medications can have side effects, so you should talk to your doctor about your options and the risks of each medication. Also, if you have certain medical problems, your health care provider might recommend certain treatments over others.

### What are the Different Types of Hormone Therapy?

There are two hormones that are used to treat symptoms of menopause – estrogen and progestin. Estrogen is available in many different forms, and it is the best medication to relieve bothersome symptoms of menopause such as hot flashes, sleep problems, mood changes, and vaginal dryness. If you still have your uterus, that is, if you have not had a surgery such as a hysterectomy to remove your uterus, you will need to take a combination of estrogen and

progestin. The second hormone progestin helps to keep the estrogen from stimulating the lining of the uterus, which can cause cancer.

## Estrogen

Doctors can treat hot flashes using estrogen. You can get estrogen from a patch worn on the skin, an oral pill, or a “ring” or tablet that you put in your vagina. There are also creams and sprays that you can put on your skin.

- 🌱 **Patch:** If you have hot flashes, you might want to try an estrogen patch. Experts think that the risk of getting a blood clot with the patch is lower than taking estrogen pills.
- 🌱 **Pills:** If you are bothered by your menopausal symptoms, you can take oral tablets. There are many different kinds of estrogen tablets, and they all can help treat symptoms of menopause.
- 🌱 **Very low-dose birth control pills:** If you are in your 40s and have hot flashes and irregular bleeding, your doctor might start you on a very low-dose birth control pill. **Note:** If you are obese, you are at higher risk for developing blood clots while taking low-dose birth control pills than an average weight woman, so please discuss this with your doctor. If you are already in menopause, then you should not take these kinds of pills because you are at high risk of developing blood clots and other problems from this pill.

## Vaginal Estrogen

If your vagina is dry, then you can try using estrogen cream to treat your symptoms. You can put the cream directly on your vaginal tissue. Since the amount of estrogen in the cream is very low, the cream will not help with hot flashes, but this is very good at treating vaginal dryness from menopause and pain with sex caused by vaginal dryness. You can choose from a number of different vaginal estrogen products:

- 🌱 You can put estrogen cream (**Premarin or Estrace cream**) into the vagina using an applicator or using your finger. Women usually use the cream every day for two to three weeks, and then two times a week at bedtime.
- 🌱 You can use **Vagifem**, which is a small tablet that you can put inside the vagina. Like the vaginal cream, you can use it every day for two weeks and then twice a week.
- 🌱 You can use **Estring**, which is a flexible plastic ring that you place in your vagina. The ring slowly releases estrogen, and you replace the ring every three months. You can replace the ring yourself or you can see your



healthcare provider. The ring does not need to be removed during sex or bathing.

### Progestin

As mentioned, if you are postmenopausal and still have your uterus, then you also need to take progestin with the estrogen to **prevent** changes in the lining of your uterus. Your doctor might prescribe you a pill or may place something inside your uterus, called an intrauterine device, which slowly releases progestin over time. These devices also prevent pregnancy, which is important for women who are not yet in menopause.

### “Natural” or “Bioidentical” Products

You can find “natural” or “bioidentical” estrogen products in many different forms including pills, creams and vaginal suppositories. We don’t know how good or how much estrogen are in each of these products since the U.S. Food and Drug Administration (FDA) does not control the quality of these products. We don’t know if these bio-identical hormones are safer or better than other hormone products, but the benefits and risks are likely to be similar.

### What are the Different Kinds of Non-Hormonal Therapy?

Even though estrogen is the best treatment for menopausal symptoms, some women can’t or don’t want to take hormones. If you have had breast cancer, a blood clot, a heart attack or a stroke, then you should not take hormone therapy. You should also not take hormone therapy if you have heart disease, liver disease, or abnormal vaginal bleeding, or if you are at high risk for any of these medical problems. If there is a chance that you could be pregnant, then you should not use hormone therapy.

You can try non-hormonal medications to treat your menopausal symptoms.

### Low-dose Antidepressants

Your hot flashes might improve if you take certain antidepressants. The only antidepressant that the FDA has approved for the treatment of hot flashes is Paroxetine, but there are other antidepressants that some women use to treat hot flashes (Venlafaxine, Desvenlafaxine, Citalopram and Escitalopram). You should not take Paroxetine if you have breast cancer and are taking tamoxifen.

### **Gabapentin**

This medication was originally made to treat seizures, but some women find that it helps hot flashes. This medication can be particularly helpful if you mainly have hot flashes in the middle of the night.

### **Clonidine**

This medication is available in both a pill and a patch form and was originally made to treat high blood pressure, but it can help hot flashes for some women.

## **What about Herbal Treatments for Menopausal Symptoms?**

Some women say their symptoms get better with taking herbs. Researchers have done some studies on these herbs but we don't know how well they really do in treating various menopausal symptoms. These herbs may be prepared in tea, capsules, pills or extracts.

You might find the following herbs helpful in treating hot flashes: black cohosh, red clover, dong quai, and evening primrose oil.

You might find the following herbs helpful in treating mood symptoms and sleep disturbances: ginseng and kava.

Before starting any of these herbal treatments, speak to your doctor. If you have liver problems, fibroids, bleeding problems, cancer or seizures, then you might have problems if you take an herbal treatment. You also should stop using the herbs if you have to have a surgery.

## **What About Behavioral and Other Such Treatments for Menopausal Symptoms?**

If you do not want to try medications or medications haven't helped your symptoms, then you can try therapies such as aerobic exercise, yoga, tai chi and acupuncture. These therapies can help sleep and mood problems and muscle and joint pain. Your symptoms might get better if you manage your stress with strategies such as relaxation and deep breathing, but not all people will improve with these therapies.

## Osteoporosis and Menopause

As we get older, the levels of certain hormones in our bodies decrease. Estrogen is a hormone that protects our bones from bone loss. After we hit menopause at approximately 50 years old, our ovaries produce very little estrogen, which leads to more rapid bone loss. This is why older women are at higher risk for having bone health problems.



### Are There Symptoms of Osteoporosis?

Symptoms of osteoporosis include fractured vertebrae, which can cause loss of height or a slight curve of the spine. These kind of spine fractures are not painful, but other kinds of fractures can cause pain. Most often, however, women with osteoporosis have no symptoms.

### If there are no Symptoms Associated With Weak Bones, Then How Do I Know If I Have Weak Bones?

If you are over 65 years old, you should get a bone density test. If you are younger than 65 years old, your doctor may order a bone density test if you are at risk for bone loss. A bone density test tells us how strong your bones are and whether you are at risk for fracture. If you are over 65 and have normal bone health or bones that are only a little weak, then you can get a bone scan every 15 years. You might need to have testing more often if you are in this age group with weaker than average bones.

The bone density scan, also known as a DXA scan, is the best test to check your bone health. The test is painless and safe. You lie down for 3 to 10 minutes while a machine scans your body. You are exposed to a small amount of radiation during this test – less than in a chest X-ray. Using the results of your hip and spine bone strength, your medical provider can tell if you have normal or weak bones.

If you're younger than 65 years old, your provider might use a tool called FRAX to estimate your fracture risk and decide whether you should have a bone scan test. The FRAX tool uses information such as age, sex, weight, height, smoking, alcohol intake, and other risk factors to guess your risk of having a fracture within

the next 10 years. Your medical provider will recommend starting a medication for bone health if your FRAX shows that you have a 3% risk of hip fracture or a 20% risk of a fracture of the forearm, shoulder, or spine.

## **What Kind of Medications Do Providers Prescribe To Treat Osteoporosis?**

If you are at high risk for getting a fracture, your doctor may recommend that you start a medication to improve your bone health. In addition to making sure you are living a healthy lifestyle and getting enough calcium and vitamin D, it is important for you to prevent falls. If you can prevent falls, you will decrease your risk of fracturing a bone.

The most common medication prescribed to treat osteoporosis is a pill called bisphosphonate, but there are other types of medications that your medical provider may prescribe for you. If you are prescribed a medication, it is important to take your medication as instructed and follow up with your medical provider regularly. If your health changes and you start a medication that weakens your bones, you should tell your medical provider. If you fracture a bone, you should tell your medical provider since a fracture might mean that you have a serious bone health problem such as osteoporosis and may need to have some tests done and even start a new medication.



## Pain with Intercourse After Menopause

### What causes sex to hurt?

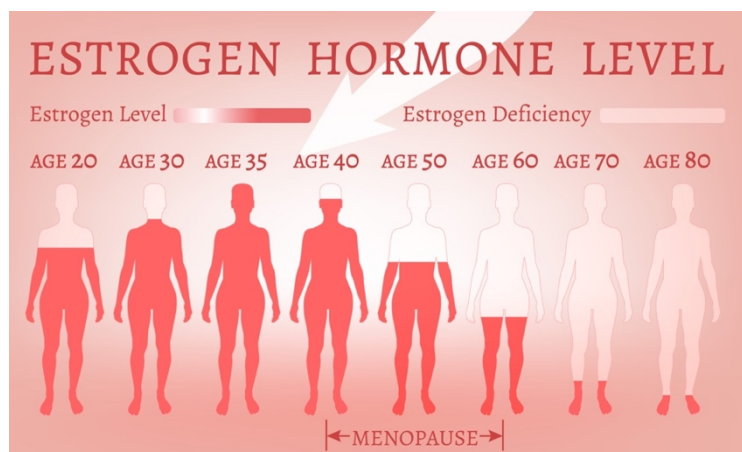
Pain during sex can be experienced at any age, but it may be more common around and after the age of 50 years. Any time there is a significant drop in estrogen in your body, you are at risk of experiencing pain with intercourse. Menopause is the most common reason for pain during sex, but there may be other factors at work in your life. It's important to talk to a health care professional about any pain felt during intercourse, as there are many things you could do to make intercourse more pleasurable and enjoyable.

### What are the different kinds of pain during sex?

Pain with sex can happen just before, during or after intercourse. The pain or discomfort can be superficial, deep, or both. Superficial pain means pain is present upon entry or penetration, and deep pain means pain is felt on deep thrusting. As such, pain can be felt in a number of places: in the vagina, the vulva (external genitalia including the labia and vaginal opening), and deep in the pelvis. Your pelvis and belly may feel sore after having sex.

### What does menopause have to do with it?

As discussed earlier, between 48 to 55 years of age, the ovaries stop making eggs and women's menstrual periods stop. During the transition to menopause, the ovaries make less amounts of estrogen. Estrogen works by keeping the vagina healthy, moist and flexible. After menopause, when the estrogen levels fall, the vagina loses flexibility and lubrication. As a result, your vagina can become thin and dry, and you may experience pain with sex. A



common term used to describe these symptoms is *vulvovaginal atrophy*. These symptoms are experienced by 45% of all women who enter menopause.

## What is “Genitourinary Syndrome of Menopause”?

This is a fancy term used to describe the vaginal symptoms some people experience during menopause. The vulva and the vagina become thin and dry, causing burning, irritation, vaginal discharge, and pain or soreness with sex. Because your bladder and urethra also respond to low estrogen, you may also experience symptoms like pain with urination, frequency of urination, or more frequent urinary infections. Because all of these symptoms may go hand-in-hand, “genitourinary syndrome of menopause” or “GSM” seems to be a more inclusive term.

## Treatments for Dryness and Sexual Pain

There are a number of therapies that can help treat your vaginal dryness and reduce pain with sex. Lubricants and moisturizers do a good job at treating minor symptoms. These products do not contain medication or hormones. They do not require a prescription and are easily obtained. If your symptoms are mild, we encourage you to try these options first. If your symptoms are more serious, or if lubricants and moisturizers have not provided relief, you should talk to your health care provider. Your provider could prescribe vaginal estrogen or a non-hormone treatment option. Options range from therapies made to be placed directly in your vagina, to a pill that can be taken by mouth.

### Lubricants & Moisturizers

#### Lubricants

A number of different lubricants may help you. These come in both liquid and gel forms and are either water-based or silicone-based. Water-based lubricants may cause less irritation and may be better tolerated. Silicone-based options may be more slippery and may last longer. You can apply the lubricant of your choice inside and around the opening of your vagina right before sex. They work by reducing friction, making sex more comfortable. You may need to try a

few products in order to find the one that works best for you. Here are some examples:

<b>Water-based</b>	<b>Silicone-based</b>	<b>Oil-based**</b>
Astroglide® liquid	Astroglide®	Olive oil
Astroglide® Gel liquid	K-Y Intrigue®	Coconut oil
K-Y® Jelly	ID Millennium®	Vitamin E
Pre-Seed™	Pjur® Eros	Ele'gance Women's Lubricants
Slippery Stuff®	Wet® Platinum®	

\*\*Oil-based lubricants should never be used in conjunction with latex or polyisoprene condoms as they can damage the condom and cause it to break during intercourse.

## Moisturizers

A number of different moisturizers may also help you. Unlike lubricants, moisturizers are intended to be applied to the vagina several times per week as needed, not just before sex. Some may be used everyday, depending on the severity of your dryness. Always follow instructions provided by the manufacturer and, when in doubt, consult your healthcare provider. Moisturizers work by trapping moisture and by hydrating your vagina. As such, you may find relief of other symptoms such as dryness, burning and itchiness in your vagina. Compared to lubricants, the effect of a moisturizer is intended to last longer. You may also need to try a few products in order to find the one that works best for you. Some examples are: Replens™, RepHresh™, Vagisil®, K-Y® Silk-E®, Me Again™, FeminEase®

## Vaginal Hormone Therapy

### Vaginal estrogen

If you do not get sufficient relief from lubricants and moisturizers, your healthcare provider could prescribe you low-dose vaginal estrogen. These products do a very good job at treating the vaginal dryness and irritation that causes sex to hurt. Vaginal estrogen will make the tissue in your vagina moister and thicker. The tissue will be less pale, as more blood will flow to your vagina.

It's very important to consult your healthcare provider before using estrogen. For some people, estrogen use can increase your risk for stroke, blood clots high blood pressure, and heart attack.

You can choose from a number of different vaginal estrogen products. You may notice relief after a few weeks of use, but depending on how bad your symptoms are, it may take several months.

- **Vaginal cream-** You can put a pea-size amount of estrogen cream into the vagina using your finger or an applicator. If the vaginal opening is also affected, you may apply a very small amount to this area as well. You will put estrogen cream in your vagina one time, each day for two weeks, and then one time, two days per week.
- **Vaginal tablet-** If you find the cream to be messy, you can put a small tablet into the vagina using your finger or an applicator. You will put this tablet in your vagina one time, each day for two weeks, and then one time, two days per week.
- **Vaginal ring-** You can put a small flexible plastic ring in your vagina for 3 months and then remove and replace with a new one every 3 months. You do not need to remove the ring to have sex or bathe. If you choose to remove it to have sex, make sure to put it back inside the vagina afterwards.

<b>Vaginal Cream</b>	<b>Vaginal Tablet</b>	<b>Vaginal Ring</b>
Estrace® 1mg per 1gm cream	Vagifem® 10mcg	Estring® 7.5mcg
Premarin® cream 0.625 mg per 1g cream	Imvexxy™ 4mcg or 10 mcg	

### **Which vaginal estrogen form is better? The cream, the tablet or the ring?**

All three forms do a very good job at treating vaginal dryness and pain with sex. Choose the estrogen form you are more comfortable with or the one that is more convenient to you. Talk to your insurance company and explore the costs of all your options. Cost and affordability may also be a factor to take into consideration. Note that estrogen is only available with a prescription and you should only take it after carefully discussing and learning the risks and benefits of estrogen for you.



## Non-Estrogen Treatments

**DHEA-** This is a hormone which works like estrogen on the vagina. It is a suppository that is placed in the vagina at bedtime. It usually needs to be prescribed by a medical caregiver and prepared by a compound pharmacy.

**Ospemifene-** Ospemifene is the only oral non-hormone treatment available to treat vaginal dryness and pain with sex during menopause. You can take the pill by mouth one time, each day. This medication is not estrogen, but it works like estrogen to help improve the tissue in your vagina. It also helps with your bones. If you don't want to use any vaginal product, or have a hard time putting products inside your vagina, ospemifene may be a good option for you. Relief may be noticed after using the medication for 12 weeks.

**Vaginal prasterone-** Prasterone is a man-made form of a hormone called DHEA (dehydroepiandrosterone). It is sold under several different brand names and is over-the-counter as a dietary supplement. You can put a DHEA suppository inside your vagina using an applicator one time, each day, at bedtime. The vaginal suppository contains DHEA, an ingredient that is changed in your body to estrogen. If you do not want to use estrogen, this may be a good option for you. However, keep in mind that vaginal prasterone was recently approved by the FDA and we know less about this therapy option as compared to vaginal estrogen.

## Other Treatments

### Vaginal Laser

Laser therapy appears to be a safe and potentially good option to treat vaginal dryness and pain with sex during and after menopause. During this procedure, a numbing cream is applied to the vulva and vagina, and a probe is carefully inserted into the vagina by your healthcare provider. This probe delivers laser energy to all your vaginal walls, and to your vulvar area or vaginal opening, if necessary. Multiple sessions may be needed. The laser works by creating many small punctures in your vagina which help stimulate the growth of new, healthy vaginal tissue. Currently, there are not enough data to recommend this

treatment over other therapies, such as vaginal estrogen. More research needs to be done. However, vaginal laser treatment holds promise for women who cannot use estrogen, cannot tolerate hormone treatment, cannot afford long-term hormone treatment, or are not willing to use products with hormone.

### Physical therapy

Many women who experience pain with sex have tight muscles in the pelvis. With the help of a physical therapist, you can be taught how to identify and relax the muscles of your pelvic floor (pelvis). This treatment occurs over a number of sessions. Learning how to relax the muscles of your pelvis may help you have easier, less painful sex.

### Vaginal dilators

If your vagina narrows and shortens, or you have been contracting your pelvic muscles in such a way that you are unable to have sex (such as in anticipation of the pain that is usually felt), a set of vaginal dilators could help you. You will gently stretch your vagina with well-lubricated dilators starting with the smallest one, and gradually increasing the size of the dilator until you are able to have sex. Your health care provider or therapist can guide you during this process.

### Behavior Changes

There are some things you can do to potentially reduce pain during sex. The most common recommendations are:

- ✦ Empty your bladder before having sex
- ✦ Increase the amount of time spent in foreplay as this may improve natural lubrication
- ✦ Change positions during sex- don't be afraid to speak about what feels right or wrong
- ✦ Choose positions that allow you to have control of the depth of penetration
- ✦ Place ice packs around a towel and apply to your vulva if you feel discomfort after sex

- Try using a vibrator during sex. This can be useful in directing attention to areas that feel good and away from areas that don't. This can give you more control during sex.
- Remember that as your body changes you and your partner can change. Play and discover new ways of finding sexual satisfaction.
- As long as there is no major pain, try staying sexually active- sex itself keeps the vaginal tissue healthy and maintains the vagina soft and stretchable.
- Practice yoga- Yoga has many benefits! Some yoga poses work by strengthening and relaxing the muscles of your belly and pelvis. Connecting with your body in a non-sexual way may help increase sensation during sex, and may even help ease pain during penetration. Practicing yoga can help you improve your sexual satisfaction.

## Common Questions about Treatment Options

### I have a history of breast cancer, Am I able to use any treatments?

If you have had breast cancer, you should talk to your healthcare provider. It is safe to use lubricant and moisturizers. If these don't work, there is a possibility you could use other treatments, but this should only be done in consultation with your oncologist.

### How about herbal remedies and soy products to treat my vaginal symptoms and pain with sex?

We do not have enough data or information to support the use of herbal remedies or soy products to treat vaginal symptoms or pain with sex during menopause. Therefore, we cannot recommend these options.

## Resources

- **Alternative Treatments for Menopause:**  
<https://www.healthline.com/health/menopause/alternative-treatment>
- **Mayo Clinic Health Information about Vaginal Atrophy:**  
<https://www.mayoclinic.org/diseases-conditions/vaginal-atrophy/symptoms-causes/syc-20352288>
- **North American Menopause Society, information about pain with penetration:** <http://www.menopause.org/for-women/sexual-health-menopause-online/sexual-problems-at-midlife/pain-with-penetration>
- **North American Menopause Society, Effective Treatments for Sexual Problems:** <http://www.menopause.org/for-women/sexual-health-menopause-online/effective-treatments-for-sexual-problems>
- **American College of Obstetricians and Gynecologists, “When Sex is Painful”:** <https://www.acog.org/Patients/FAQs/When-Sex-Is-Painful>