

Challenges Associated with Menopause: A Comprehensive Review

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Abstract

Menopause is the end of menstruation in a woman, which normally occurs between the ages of 45 and 55. This article will go through the physiology and forms of menopause, as well as the signs and symptoms and symptomatic therapy. Despite the fact that menopause stops fertility, women can remain healthy, energetic, and sexual. Smokers and women with chronic conditions may experience menopause sooner. Because the body has relied on these hormones for years, fluctuations in hormone levels are obvious and may result in emotional reactions and bodily changes. Physical symptoms such as hot flashes, low energy levels, and sleep disturbance may occur, as well as mood-related symptoms such as anxiety and despair. 3 The ovaries eventually quit generating oestrogen and other hormones. This is not an illness, but rather a natural biological process. These symptoms generally fade away with time.

Keywords: - Women, Menopause, Symptoms, Hormones, Ovaries

INTRODUCTION

Menopause is a normal biological process, not an illness; it is simply the transition stage in a woman's life when the 'ovaries' stop generating eggs, menstrual activity, and begin decreasing female hormone production. Because the body has relied on these hormones for years, fluctuations in hormone levels are obvious and may

result in emotional reactions and bodily changes. Physical symptoms such as hot flashes, low energy, and sleep disturbance may occur, as well as mood-related symptoms such as anxiety and sadness. These symptoms generally fade away with time. The termination of fertility is marked by menopause. Menopause affects 1.5 million women each year, and it

frequently causes symptoms such as reduced libido, insomnia, lethargy, and vasomotor symptoms, vaginal dryness, and joint pain.¹

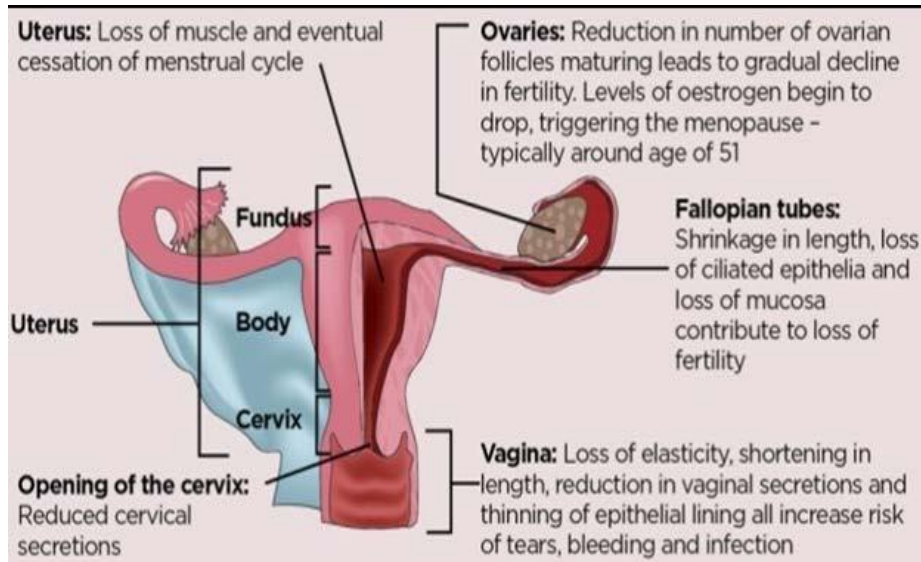


Figure-1

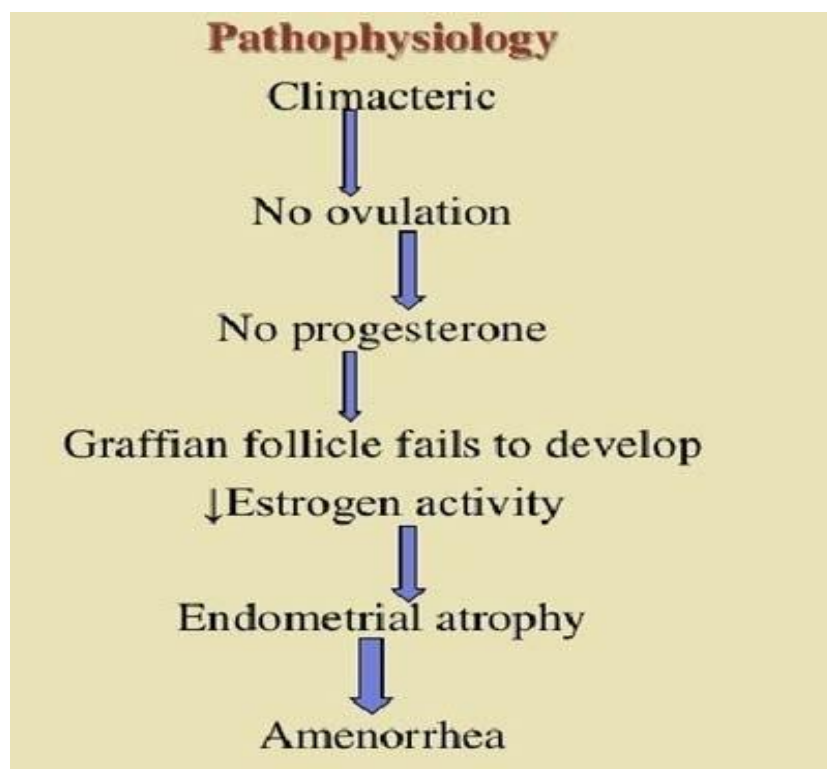


Figure- 2:- Pathophysiology of Menopause.

Definitions

Menopause refers to the end of menstruation in a woman, which normally occurs between the ages of 45 and 55. 1

Pathophysiology

The human ovary has a greater number of gametocytes throughout the fifth month of pregnancy and around one million gametocytes at the time of delivery. As women age, atresia develops in the follicular tube, causing normal body openings to constrict and the amount of gametocytes to decrease. As a result, by the time women reach menopause, they only have a few hundred to thousand gametocytes left. Three hormones are produced by the ovary: oestrogen, progesterone, and androgens. Estrogen is created by the hormones oestrogen (E1), estradiol (E2), and estriol (E3). During the menstrual cycle, estradiol is generated. It is a very strong natural oestrogen. During menopause, oestrogen is the major type of oestrogen, with the ovary and adrenal gland producing modest amounts.

Progesterone prepares the endometrium for implantation of a fertilised egg. However, after menopause, this hormone is not generated, which might result in endometrial thickening caused by oestrogen. Many menopausal symptoms

might be caused by oestrogen deficiency or alterations.

Causes of Menopause

Menopause is a normal stage in every woman's life that happens as a result of ageing, when the ovaries cease egg production, hormone production, and reproductive activity. In rare situations, a woman's health requires her to enter forced menopause early, usually by surgery or medication, in order to cure the illness and associated symptoms.

Natural Causes of Menopause:

The main underlying cause of natural menopause is hormonal imbalance.

1. Loss of Ovarian Follicles: Reducing or stoppage of egg supply
2. Decreased Estrogen Production: Low level estrogen

Induced Causes of Menopause

Menopause can also occur as a result of surgical intervention or medical treatment, in which case it is referred to as induced menopause.

1. Surgical Menopause: e.g. Oophorectomy.
2. Medical Menopause: e.g. chemotherapy and radiation therapy.⁷

Stages of Menopause

The 4 stages of menopause and estrogen levels

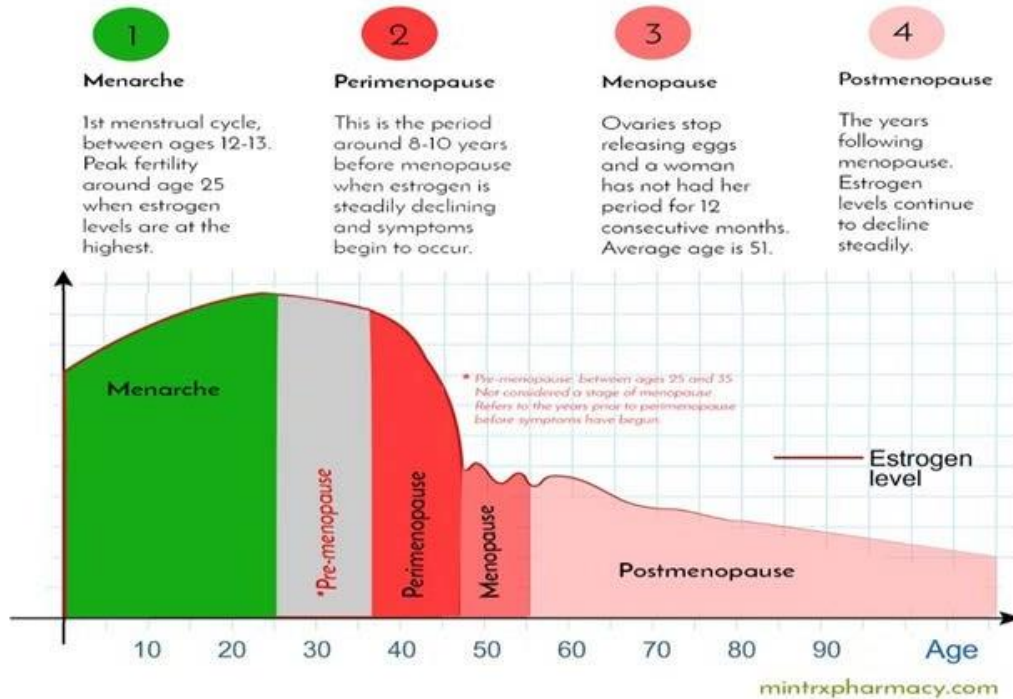


Figure-3:- Stages of Menopause.

Signs and Symptoms

Many tissues in the female body are densely packed with oestrogen receptors. A variety of organs can be directly impacted when oestrogen levels fall. Menopause symptoms and indicators can appear early, middle, or late in life.

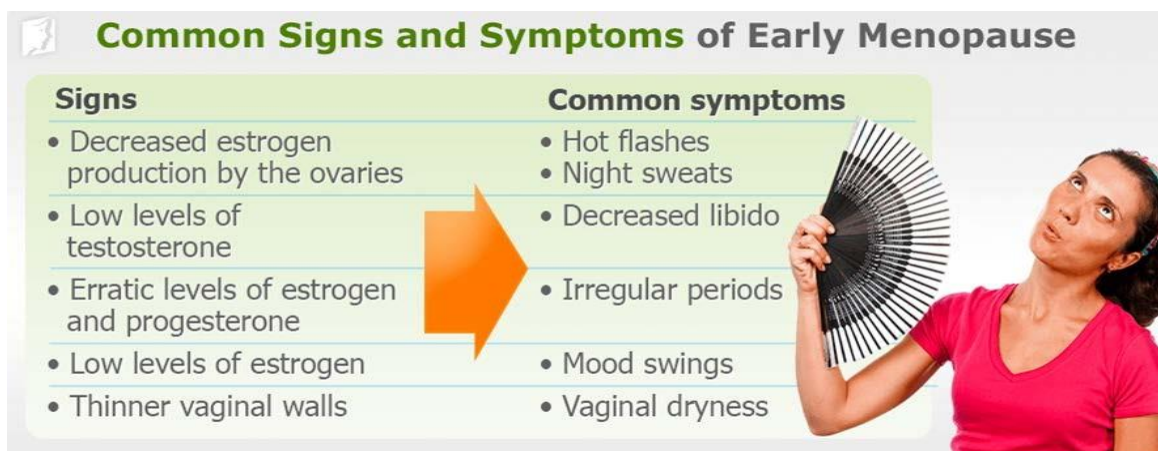


Figure: 4:- Common Signs and Symptoms of Early Menopause.

Uncommon Signs and Symptoms of Early Menopause	
Signs	Uncommon symptoms
• Generalized joint pain	• Aching, sore joints, muscles, and tendons
• Water retention due to increased progesterone levels	• Bloating
• Loss of interest in activities or hobbies	• Depression
• Fluctuating levels of estrogen and progesterone	• Hair loss
• Changing levels of estrogen	• Dizziness
• Unusually low levels of estrogen	• Burning tongue
• Dryness, nails break or split easily	• Brittle fingernails
• Hypothyroidism, a condition that affects hormonal levels	• Tinnitus




Figure 5:- Uncommon Signs and Symptoms of Early Menopause

Daily Life Challenges /Complications:



Figure 6:- Body changes due to Menopause Symptoms11

After menopause, your risk of certain medical conditions increases. Examples include:

- Brittle Nails
- Heart and blood vessel (cardiovascular) disease.
- Osteoporosis
- Urinary incontinence
- Sexual function

- Weight gain
- Hair Loss
- Vaginal Dryness
- Body Odor7

Treatment

Menopause does not necessitate medical intervention. Instead, therapies focus on alleviating your symptoms and preventing

or managing chronic illnesses that may arise as you age.

Treatments may include:

1. Hormone therapy. Estrogen therapy is the most effective treatment option for relieving menopausal hot flashes. Depending on your personal and family medical history, your doctor may recommend estrogen in the lowest dose and the shortest time frame needed to provide symptom relief for you. If you still have your uterus, you'll need progesterin in addition to estrogen. Estrogen also helps prevent bone loss. Long-term use of hormone therapy may have some cardiovascular and breast cancer risks, but starting hormones around the time of menopause has shown benefits for some women. You and your doctor will discuss the benefits and risks of hormone therapy and whether it's a safe choice for you.
2. Vaginal estrogen. To relieve vaginal dryness, estrogen can be administered directly to the vagina using a vaginal cream, tablet or ring. This treatment releases just a small amount of estrogen, which is absorbed by the vaginal tissues. It can help relieve vaginal dryness, discomfort with

intercourse and some urinary symptoms.

3. Low-dose antidepressants. Certain antidepressants related to the class of drugs called selective serotonin reuptake inhibitors (SSRIs) may decrease menopausal hot flashes. A low-dose antidepressant for management of hot flashes may be useful for women who can't take estrogen for health reasons or for women who need an antidepressant for a mood disorder.
4. Gabapentin (Neurontin, Gralise, others). Gabapentin is approved to treat seizures, but it has also been shown to help reduce hot flashes. This drug is useful in women who can't use estrogen therapy and in those who also have nighttime hot flashes.
5. Clonidine (Catapres, Kapvay, others). Clonidine, a pill or patch typically used to treat high blood pressure, might provide some relief from hot flashes.
6. Medications to prevent or treat osteoporosis. Depending on individual needs, doctors may recommend medication to prevent or treat

osteoporosis. Several medications are available that help reduce bone loss and risk of fractures. Your doctor might prescribe vitamin D supplements to help strengthen bones.

Before deciding on any form of treatment, talk with your doctor about your options and the risks and benefits involved with each. Review your options yearly, as your needs and treatment options may change.

Lifestyle and Home Remedies:

1. **Cool hot flashes.** Dress in layers, have a cold glass of water or go somewhere cooler. Try to pinpoint what triggers your hot flashes. For many women, triggers may include hot beverages, caffeine, spicy foods, alcohol, stress, hot weather and even a warm room.
2. **Decrease vaginal discomfort.** Use over-the-counter, water-based vaginal lubricants (Astroglide, K-Y jelly, others), silicone-based lubricants or moisturizers (Replens, others). Choose products that don't contain glycerin, which can cause burning or irritation in women who are sensitive to that chemical. Staying sexually active also helps by increasing blood flow to the vagina.
3. **Get enough sleep.** Avoid caffeine, which can make it hard to get to sleep, and avoid drinking too much alcohol, which can interrupt sleep. Exercise during the day, although not right before bedtime. If hot flashes disturb your sleep, you may need to find a way to manage them before you can get adequate rest.
4. **Practice relaxation techniques.** Techniques such as deep breathing, paced breathing, guided imagery, massage and progressive muscle relaxation may help with menopausal symptoms. You can find a number of books, CDs and online offerings on different relaxation exercises.
5. **Strengthen your pelvic floor.** Pelvic floor muscle exercises, called Kegel exercises, can improve some forms of urinary incontinence.
6. **Eat a balanced diet.** Include a variety of fruits, vegetables and whole grains. Limit saturated fats, oils and sugars. Ask your provider if you need calcium or vitamin D supplements to help meet daily requirements.
7. **Don't smoke.** Smoking increases your risk of heart disease, stroke,

osteoporosis, cancer and a range of other health problems. It may also increase hot flashes and bring on earlier menopause.

8. **Exercise regularly.** Get regular physical activity or exercise on most days to help protect against heart disease, diabetes, osteoporosis and other conditions associated with aging.

ALTERNATIVE MEDICINE

Many treatments have been advocated as aids in controlling menopausal symptoms, but few have scientific proof to back up their claims. The following complementary and alternative therapies have been or are being studied:

1. Yoga
2. Acupuncture
3. Hypnosis¹⁰

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