

## **RESEARCH ARTICLE**

#### COMPREHENSIVE REVIEW- MENOPAUSAL CHALLENGES

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## Manuscript Info

#### Abstract

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..... Menopause is the cessation of menstruation in a woman, typically occurring between the ages of 45 and 55 years. This article will briefly review the physiology and types of menopause, signs and symptoms, and symptomatic treatment. Although menopause ends fertility, women can stav healthy, vital, and sexual. Smokers and women with chronic diseases may experience earlier menopause. Since the body has depended on these hormones for years, when hormone levels decrease, the changes are noticeable and may result in emotional reactions and bodily changes. These may include physical symptoms, such as hot flashes, decreased energy levels, and sleep disruption, as well as mood-related symptoms, such as anxiety and depression.<sup>3</sup> Eventually, ovaries stop producing estrogen and other hormones. This is a natural biological process, not a disease. Over time, these symptoms gradually disappear.

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#### **Introduction:-**

Menopause is a natural biological process, not a disease, simply it is the conversion period in a woman's life when the 'ovaries' stop producing eggs, menstrual activity and start decreases the production of the female hormones. Since the body has depended on these hormones for years, when hormone levels decrease, the changes are noticeable and may result in emotional reactions and bodily changes. These may include physical symptoms, such as hot flashes, decreased energy levels, and sleep disruption, as well as mood-related symptoms, such as anxiety and depression. Over time, these symptoms gradually disappear. Menopause is the end of fertility. The menopause is experienced by 1.5 million women each year and it often involves some symptoms, including vasomotor symptoms, vaginal dryness, decreased libido, insomnia, fatigue, and joint pain.<sup>1</sup>

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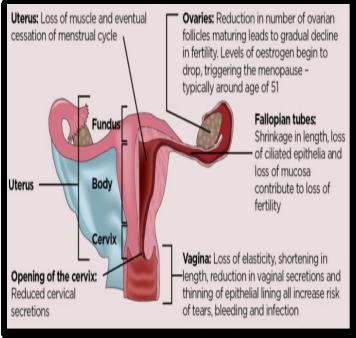


Figure-1:-

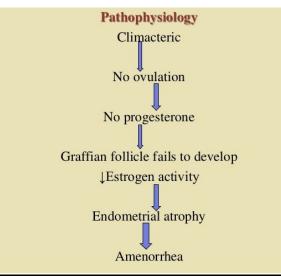


Figure- 2:- Pathophysiology of Menopause.

#### **Definitions:**

Menopause is the cessation of menstruation in a woman, typically occurring between the ages of 45 and 55 years.<sup>1</sup>

#### **Pathophysiology:**

Human ovary is having more number of gametocyte at 5<sup>th</sup>month of gestation and around 1 million of gametocyte at the time of birth. As the women get older atresia occur in follicular tube due to which normal body opening get closed and the number of gametocyte get reduced. As a result the women are having only few hundred to thousand gametocytes left at the time of menopause. The ovary produces three hormones: estrogen, progesterone and androgens. Estrogen is produced by estrogen (E1), estradiol (E2), and estrol (E3). Estradiol is produced during menstrual cycle. It is a most potent natural estrogen. During menopause the estrogenis the dominant form of estrogen, it is produced in small quantities by ovary and adrenal gland.

Progesterone prepares the endometrium for fertilized ovum. But in menopausal state this hormone is not produced which can lead to buildup of endometrium induced by estrogen. Deficiency and changes in estrogen can lead to many of menopausal symptoms.

#### **Causes Of Menopause:**

Menopause is a natural phase in every woman's life, which occurs due to aging as the ovaries stop the egg supply, hormonal production and disrupt the reproductive function. In some cases, woman's health forces her to enter induced menopause early, most commonly through surgery or medications, in order to treat the disease and sign 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.<sup>7</sup>

#### Stages Of Menopause

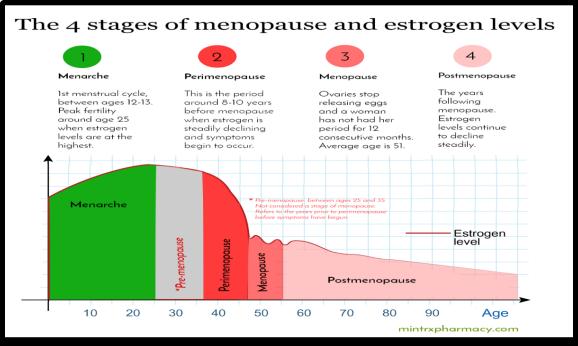
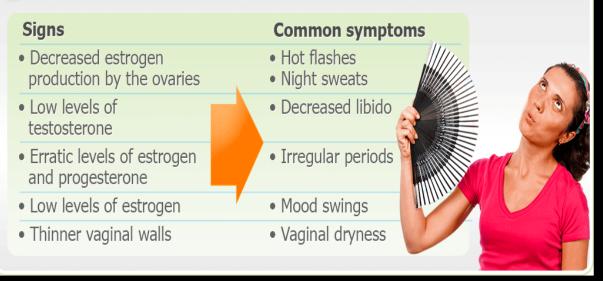


Figure-3:- Stages of Menopause.

#### Signs And Symptoms:-

In female body many tissues are rich in estrogen receptors. When estrogen levels decrease, a number of organs can be directly affected. Menopause signs and symptoms may be of early, intermediate, or late onset.

# **Common Signs and Symptoms of Early Menopause**



#### 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 Bloating increased progesterone levels Loss of interest in activities or Depression hobbies Fluctuating levels of estrogen Hair loss and progesterone Changing levels of estrogen Dizziness Burning tongue Unusually low levels of estrogen Dryness, nails break or split Brittle fingernails easily • Hypothyroidism, a condition Tinnitus that affects hormonal levels

Figure 5:- Uncommon Signs and Symptoms of Early Menopause.

#### Daily Life Challenges /Complications:

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

- 1. Brittle Nails
- 2. Heart and blood vessel (cardiovascular) disease.
- 3. Osteoporosis
- 4. Urinary incontinence
- 5. Sexual function
- 6. Weight gain
- 7. Hair Loss
- 8. Vaginal Dryness
- 9. Body Odor<sup>7</sup>



**Figure 6:-** Body changes due to Menopause Symptoms<sup>11</sup>

#### Treatment:

Menopause requires no medical treatment. Instead, treatments focus on relieving your signs and symptoms and preventing or managing chronic conditions that may occur with aging. 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 progestin 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 changes.

#### 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 approaches have been promoted as aids in managing the symptoms of menopause, but few of them have scientific evidence to back up the claims. Some complementary and alternative treatments that have been or are being studied include:

- 1. Yoga
- 2. Acupuncture
- 3. Hypnosis<sup>10</sup>

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