

## Menopause — Age Range and Signs

[See online here](#)

**Menopause is the process of aging with a gradual decrease in ovarian function over several years. On average, menopause occurs around the age of 50 in a majority of women, although it can occur as early as in the early to mid-forties. It is characterized as a fluctuation of hormone levels and decline of estrogen and progesterone levels. This can cause detrimental effects on cardiovascular, as well as skeletal functioning due to a decline in the beneficial effects of estrogen.**



### Definition

Menopause is defined as the **absence of menses for an entire year from the last menstrual period.**

### Clinical Features of Menopause

Approximately 85% of women experience menopausal symptoms, although these can vary amongst different women with some suffering more than others. Usually, the **symptoms last for about one or two years and then gradually wane.** Vasomotor symptoms (VMS) like night sweats, hot flashes, and flushes along with vaginal dryness

are the most common symptoms. VMS is a form of thermoregulatory dysfunction secondary to gonadal hormonal fluctuation.

**Menses: Irregular menses are often the first and only sign of menopause.** Blood loss may be either lighter or heavier than before. There may be amenorrhea or intermenstrual bleeding.

Hot flashes are characterized by a sudden increase in the blood flow to the head, neck and face with a sensation of intense flushing, feeling of warmth, and perspiration. When these symptoms are nocturnal, they are called night sweats and can be quite severe leading to sleep disturbances.

The duration of hot flashes is anywhere from a minute to five minutes. Studies indicate that these symptoms are worse in African American women and the least in Asian women. The **following symptoms are associated with a higher incidence of vasomotor:**

- Obesity
- Smoking
- Depression
- Anxiety
- Fatigue
- Stress
- Low socioeconomic status

Sleep disturbances are often as a result of night sweats.

**Urogenital symptoms:** Urogenital tissues are sensitive to estrogen and atrophy of these tissues following a decline of estrogen levels which leads to vaginal symptoms like vaginal or vulvar dryness, discharge, itching, and dyspareunia. There is an increased incidence of:

- Urinary tract infections
- Incontinence
- Laxity of vaginal tissues
- Alteration of vaginal flora

There is a **decline in sexual desire and memory.**

**Psychological symptoms are:**

- Emotional lability
- Mood swings
- Irritability
- Difficulty concentrating

Headaches occur more frequently.

**Cardiovascular health:** Estrogen has a cardioprotective effect and therefore a decline in estrogen levels is **associated with arrhythmias and coronary artery disease.**

**Skeletal health:** Estrogen also has a protective influence on calcium metabolism. A decline in estrogen levels **leads to osteoporosis and repeated fractures.**

## Diagnosis of Menopause

Menopause is typically diagnosed based on history and clinical manifestations. Factors

helpful in the diagnosis include:

- Age
- Age of mother at menopause
- Vaginal and vasomotor symptoms
- Follicle-stimulating hormone (FSH) levels
- Patient's perception of being perimenopausal

Other tests include:

- Vaginal ultrasound
- Measuring the number of ovarian follicles
- Ovarian volume
- Inhibin assays

Laboratory tests are rarely required for diagnosis but may be required occasionally to confirm the clinical suspicion, especially in premature menopause.

## Management of Menopause

The American College of Obstetricians and Gynecologists (ACOG) has provided **guidelines for the treatment of menopausal symptoms like vasomotor and vaginal**. The general approach is the clinical assessment through adequate histories: **HPI, GynHx, SexHx**.

**STRAW system is the first accepted system** in assessing reproductive aging. Includes criteria for perimenopause, final menstrual period (FMP), and postmenopause based upon bleeding patterns, endocrine findings, and symptoms.

## Health Screening Tests

Tests	Frequency
Cervical cytology	Up age 65 every 3 years
Diabetes testing	At age 45 every 3 years
Colonoscopy	At age 50 (45 if AA) every 10 years
Mammography	At age 40 annually
Bone mineral density	At age 65 every 2 years if risk factors are present

## Estrogen hormone replacement therapy (HRT)

With or without progestin, either orally or via transdermal patches, HRT is currently **considered the most effective method to treat vasomotor symptoms**. HRT is known to prevent primary cardiovascular disease, although its role in the prevention of secondary cardiovascular disease is still unclear.

Progestin should ideally be added to estrogen in women with a uterus to decrease the incidence of endometrial adenocarcinoma. If progestin cannot be given, women with a uterus should be followed up annually with endometrial biopsy, ultrasonography of the uterus and progesterone challenge. **Transdermal estrogen is useful in treating vasomotor symptoms**, but may not influence cholesterol levels positively.

**Adverse effects of HRT include:**

- Breast tenderness

- Bloating
- Headaches
- Vaginal bleeding
- Thromboembolic episodes
- Breast cancer

Absolute **contraindications to HRT are:**

- Breast cancer responsive to estrogen
- Endometrial malignancy
- Abnormal vaginal bleeding
- Thromboembolic disease
- History of malignant melanoma

**Relative contraindications to HRT are:**

- Chronic liver or gall bladder disease
- Endometriosis
- Severe hypertriglyceridemia
- History of thromboembolic disease

## Selective serotonin reuptake inhibitors (SSRIs)

Also serotonin-nor-epinephrine reuptake inhibitors (SNRIs), clonidine and gabapentin have also been found to be effective to control vasomotor symptoms.

Currently, **paroxetine is FDA approved for the treatment of menopausal symptoms**. Adverse effects with these agents are self-limiting and include:

- Dizziness
- Nausea
- Dry mouth
- Constipation
- Sleepiness
- Sweating
- Sexual dysfunction

## Osteoporosis

**Women at risk for osteoporosis should receive HRT** as it can help reduce the incidence of hip fractures etc. A maximal protective effect of estrogen has been noticed on bone mineral density in patients started on HRT within three years of menopause with effectiveness being observed even when it is started in later years of menopause. Other drugs like Raloxifene and tamoxifen are FDA approved non-estrogen agents for the treatment of osteoporosis, although they **are ineffective in relieving vasomotor symptoms**. Biphosphonates for three years are another option to treat osteoporosis in menopausal women. Intranasal calcitonin can also be prescribed as it inhibits osteoclastic activity.

## Estrogen creams or ospemifene

These are **used to treat vaginal dryness and atrophy** respectively. Ospemifene is associated with:

- Hot flashes

- Vaginal discharge
- Muscular spasms
- Sweating
- Genital discharge

## Lubricants

These need to be silicone-based or water-based and they may help to relieve vaginal dryness.

## Non-pharmacological lifestyle approaches for managing menopausal symptoms

- Exercise, especially weight-bearing and strengthening exercises
- Balanced diet: High fiber, low fat
- Dietary calcium
- Include phytoestrogen sources like soy, tofu in the diet
- Maintain low ambient temperature
- Drink cool liquids
- Wear clothes in layers
- Avoid smoking, alcohol, and caffeine
- Relaxation and reduce stress
- Exposure to sunlight daily to decrease depressive symptoms

## References

[An efficient tool for the primary care management of menopause](#) via cfp.ca

[Practice Guidelines AACE Releases Guidelines for Menopausal Hormone Therapy](#) via aafp.org

[Practice Guidelines ACOG Releases Clinical Guidelines on Management of Menopausal Symptoms](#) via aafp.org

[Managing Menopause](#) via aafp.org

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