

## Menopause Symptoms

Menopause is described by decreased estrogen production due to age-linked decline in ovarian follicles. It is defined as one whole year without ovulation, and the average age of menopause is 51 years old. Symptoms can be remembered with the HAVOCS mnemonic: Hot flashes, Atrophy of the Vagina, Osteoporosis, Coronary artery disease and Sleep disturbances.



PLAY PICMONIC

### Symptoms

#### HAVOCS Mnemonic

##### Causing HAVOCS

The main symptoms of menopause can be recalled with the **HAVOCS** mnemonic: Hot flashes, Atrophy of the Vagina, Osteoporosis, Coronary artery disease and Sleep disturbances.

#### Hot Flashes

##### Burning Flash

A huge complaint in perimenopausal women is extreme fluctuations in hormone levels, leading to hot flashes. This usually disappear or improve significantly once the perimenopause transition is completely over.

#### Atrophy of Vagina

##### @-trophy at Vagina-violets

Decreased estrogen leads to atrophy of the vagina. This can be described as thinning of the membranes of the vulva, the vagina, the cervix, and also the outer urinary tract, along with considerable shrinking and loss in elasticity of all of the outer and inner genital areas. Itching and dyspareunia can be associated.

#### Osteoporosis

##### Ostrich-with-porous-bones

Estrogen deficiency can lead to excessive bone resorption accompanied by inadequate bone formation, as osteoblasts, osteocytes, and osteoclasts all express estrogen receptors. In the absence of estrogen, T cells promote osteoclast recruitment, differentiation, and prolonged survival via IL-1, IL-6, and tumor necrosis factor (TNF) $\alpha$ . These interleukins also recruit osteoclasts, thus contributing to osteoporosis.

#### Coronary Artery Disease (CAD)

##### Heart with Archery-artery Disease

Studies have shown that post-menopause, women are more likely to develop coronary artery disease. Many physicians prescribe hormone replacement to combat this.

#### Sleep disturbances

##### Disturbed while Sleeping

Women who have undergone menopause often complain of sleep disturbances, though the etiology of this is not completely understood.