

# Life of women during menopause; Can physical exercise give relief?

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## **Abstract**

Menopause is a natural biological process, but the physical symptoms such as hot flashes and certain emotional symptoms may disturb the sleep, lower down energy and affect the emotional health. The menopause begins with the Perimenopause during which skipping periods is common and expected. The periods may skip for couple of months and start over again or may be absent for a year and start again. Periods often tend to happen in shorter cycles. Despite irregular periods, pregnancy is possible. The physical changes that occur before and during menopause may be bothersome, but they are normal part of the menopause transition however, risk for more serious complications increases after women reach menopause that is post menopause stage. Exercises prove to be helpful in making physiological and psychological adaptations in such women.

**Keywords:** Menopause, physical exercise, life of women

## **Introduction**

In general human life experiences growth through many phases such as infancy, childhood, adulthood, late adulthood, old age.

Especially when it comes to Women, along with stages of growth face various physiological changes that throw challenges at them to cope up or deal with the physiological, mental, socially, emotional difficulties.

As we all know that biologically life stages of typical women are divided into infancy, puberty (adolescence) sexual maturation (reproductive age) climacteric period and post climacteric (elderly) years. From institute Marques, the evaluation of fertile life of women is analyzed in the following ways. This period lasts less than 30 years and this period is earmarked for becoming mothers. From 14 years old, most women start to ovulate (onset of menarche) and 7 years after that, women begin their most fertile stage in which, body is more inclined toward becoming pregnant, and this phase lasts until 28 years after which the fertility begins to decline. At the age of 42, the biological possibilities to conceive naturally fall drastically. This phase leads toward menopause a phase where women experience cessation of menstruations. Menopause is the time that marks the end of women's menstrual cycles, it is diagnosed after a woman goes 12 months without a menstrual period. It can happen at the age ranging from 40 years to 55 years. But average age is 46 years in India.

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**Complications associated with Perimenopause and menopause Studies suggest, depleted estrogen level influences on cholesterol level, blood sugar level, clotting mechanism, vasodilatation and vasoconstriction, and can cause thrombosis, heart disease, stroke, atherosclerosis, cancer. It also affects the heart and brain.**

**Vasomotor:** Hot flushes, dizziness, palpitations, headaches, fainting. These vary individually and may be exacerbated by hot weather, alcohol, stress and temperature changes. Night sweats can lead to fatigue.

**Heart Disease:** up until the menopause heart disease is five times more common in men than it is in women. Following menopause however, there is a sharp increase in the incidents of heart disease amongst women. The mechanism that increase women's risk of heart disease after menopause are still not fully understood and research is ongoing in this areas. Studies suggest however estrogen affects the heart through its ability to influence the blood cholesterol level, the clotting mechanism, the blood vessel walls and the production of insulin. Estrogen reduces the level of cholesterol in the blood in addition a further fat found in the blood (triglycerides) has been found to increase after menopause due to the less secretion of estrogen level.

**Brain:** Estrogen helps in maintenance of healthy tissues in number of areas of the brain, in particular the area responsible for memory and if affected causes Alzheimer's disease. Further some other studies shown positive effects on mood by estrogen and also appears to be protective against strokes.

**Urogenital:** Possible dryness, soreness, increased urinary frequency and urgency, incontinence.

**Connective tissue:** Possible aches and pains, increased risk of bladder prolapsed, skin changes.

**Psychological:** 25 to 50 per cent of women experience altered mood, anxiety, fatigue or loss of drive.

**Body shape:** Body tends to gain weight in these years regardless of hormonal change. Decreased BMR (Basal Metabolic Rate) and altered fat distribution leads to more fat accumulation in the mid-section.

**Musculoskeletal changes:** During post-menopausal period body increases in weight and loses muscle mass; Also bone density decreases and leads to joint pain and fractures. Weak bones and joints increase risk of associated conditions such as Osteoporosis (and associated postural problems), osteoarthritis. Those who gain excess weight may even face increased risk of cardiovascular disease, stroke, non-insulin-dependent diabetes mellitus (NIDDM).

This combined with the biological changes women goes through during menopause, multiplies on the behavioral changes taking place. As the Menstrual cycles stop, the ovaries stop producing estrogen. After menopause Vaginal infections are more likely to develop. With aging, there is a decrease in the amount of muscle and connective tissue, including that in muscles, ligaments, and other supporting tissues of pelvic floor muscles and as a result, the affected organs may sag or drop down (prolapse). These physical changes that occur with menopause may affect a person's body image and inflict on the moods depending on what level of self-esteem an individual may possess. Several studies have indicated that Asian women experience of menopause is different when compared to the western countries and it affects them differently (Lock 2002). Mood swing, also known as mood disorder, refers to a condition when a woman experiences and expresses a load full of emotions within a span of a few hours. The changes in moods range from happiness to anger, frustration, sadness to depressive psychosis, all within a very short period of time. However mood swings should not be taken to be so severe or long lasting as compared to other depressed and manic states of bipolar disorder or manic depression. A woman with mood swings is like a roller coaster; she is up one minute and down the next and never able to get off the ride that easily. Mood swings are as such very unpredictable and most of the times disproportionate to the situation. The moods feel very uncontrollable most of the time. Periods of intense elevation are suddenly followed by severe depression. Sleep patterns are easily disrupted. The problem of mood swings is common with women in metropolitan cities who have to look after their home along with higher work pressure, speedier life style and lower levels of patience.

The physiological and emotional factors responsible for these mood swings are Hormonal imbalance, chemical imbalances, menopause, pregnancy, hypothyroidism, endocrine abnormality and other such biological/ physiological problems. Menopause is a time when biological changes i.e. changes in hormones such as estrogen, testosterone and progesterone occur. At the time of ovulation some women experience a lot of behavioral, emotional and physical changes, all due to hormonal variations. Perimenopause is the time when the body does not have enough support to maintain its natural balance. This is the time in a women's life where she could experience a resurfacing of old emotional issues that remain unresolved. Mood swings and irritability will usually be a part of the emotional make up at this juncture in life.

Following are the complications associated with menopause though menopause cannot be the sole reason. Normal aging process also increases the risk of developing these problems which can be further classified as medical, emotional, social in nature.

Among the Psychological Changes seen during Perimenopause and Menopause are Irritability, Feeling of Sadness, Lack of Motivation, Anxiety & Aggressiveness, and Fatigue.

Depression, irritability, anxiety and nervousness caused due to hormonal changes may be worsened due to distressing symptoms such as hot flushes, poor sleep and fatigue and weight gain. This is also connected with aging and changes seen in the lifestyle. Other common distressing issues like - morning Joint pain and stiffness of the joints and lower back are also common during this stage.

Depression post menopause is likely due to fluctuating and declining estrogen levels in part. Steroid hormones, such as estrogen, act in the CNS by means of various mechanisms. Regulation of serotonin and norepinephrine may change as estrogen levels fluctuate and thus contribute to depression.

As we all know that estrogen facilitates the working of serotonin and norepinephrine, a decline in the concentration levels of estrogen may, in turn, decrease levels of these hormones. Changes in estrogen levels, perhaps due to mechanisms involving these neurotransmitters, may be related to psychological symptoms in the menopausal transition of some women.

### **Benefits of exercise during menopause**

The Royal College of Obstetricians and Gynecologists in the UK and the North American Menopause Society, 2002 have recommended that women be advised to consider aerobic exercise as a treatment for vasomotor menopausal symptoms suggests that aerobic exercise can improve psychological health and quality of life in vasomotor symptomatic women, in addition, several studies of middle-aged/menopausal-aged women have found that aerobic exercise can invoke significant improvements in several common menopause related symptoms such as mood, health-related quality of life and insomnia.

Regular exercise has been highly promoted and recognized as the best non pharmacological treatment for postmenopausal problems. It may also increase total sleep time and decrease the latency of sleep onset, mixed high-intensity exercise program effectively compensates for negative changes related to the menopausal transition.

Physical exercise can be a boon during menopause by maintaining fitness, assisting with weight management, decreasing musculoskeletal complications and boosting self- confidence, morale and mood. The main symptoms of menopause are a consequence of decreasing levels of estrogens, which is no longer produced by the ovaries. An understanding of menopause and the exercise implications is important for fitness professionals for designing programs or classes for women at this stage of their lives. Depleted estrogen level can cause changes in skin, body shape, facial hair and increased predisposition to various conditions.

Physical activity and fitness exercise are vital for women at every stage of their lives, and is arguably even more so when they are undergoing the menopause,

Exercise can help to

- Improve/maintain cardiovascular fitness.
- Assist weight control and metabolism.
- Preserve or improve muscle mass.
- Stabilize or improve bone density.
- Decrease risk of associated conditions.
- Decrease physical problems; Assist psychological health and self-esteem.
- Improve reaction time and balance.

### **Exercise considerations during menopause**

Further physically active women are encouraged to continue exercising, with modifications to suit any specific symptoms or limitations. Women can enjoy a range of individual and general group fitness programs. Choosing right type of exercise and participating in a variety of exercise styles with regular intervals decreases the risk of overuse injuries and helps maintain interest in fitness.

There is no one type of exercise that is more effective than another. Aerobic activity, strength or flexibility training all proves effective in treating depression; because the focus is not on the cardiovascular exercise and the physiological effects but more on the physical activity itself and the effects it produces on the mind.

**Cardiovascular training:** At least 30 minutes of weight bearing cardio activity, three to four times per week, is beneficial for better circulation and strong heart. Aerobic dance and other dance fitness regime help to increase bone density. The style and intensity of the activity will be determined by pre-existing fitness and physical ability.

**Strength conditioning:** Resistance training and body toning exercise regime are beneficial during menopause which may assist in maintenance of both strength and bone density. Women can continue or commence strength training/resistance classes, but may require modification to accommodate for musculoskeletal complaints.

Attention should be paid towards proper exercise technique and form. Better to start with low load and high reps. Load can be increased as appropriate but care must be taken to avoid heavy loads that encourage breath holding or Valsalva maneuver (forcibly exhaling against a closed airway).

**Instructions for fitness trainers:** When programming for women going through menopause it is important to include specific exercises that will help them combat some of the possible problems.

**Pelvic floor:** Encourage women to do three good sets of pelvic floor exercises every day. Women tend to lose strength of pelvic floor muscles. Kegels and core strengthening exercises are most beneficial along with other sitting, standing, kneeling, lying abdominal exercises. Kegels help in urinary incontinence, (involuntary and sudden urination while laughing, coughing, sneezing etc.)

**Core stability:** With altered body shape and postural vulnerability, it is certainly a time to encourage core awareness and recruitment. Include core control in all cues and exercises. More of balancing exercise should be included in the programme or a day or two can be earmarked for yoga and Pilates.

**Posture:** Musculoskeletal changes and increased risk of osteoporosis make posture an important focus. Back strengthening exercise must be included for posterior muscle strengthening, especially upper and lower back training

**Balance and agility:** Balance training is valuable for enhancing proprioception, enhancing reaction time to avoid sudden falls and injuries.

**Flexibility:** Mobility and flexibility within comfort is important to maintain muscle length and range of movement. Flexible joints and muscles are vital for proper locomotion. Increased flexibility reduces joint pain and gives freedom of movement.

**Fun:** women during menopause go through series of mood changes. Exercise must be triggering endorphin release in the body which along with weight management, strength and fitness, gives worth remembering the psychological benefits of exercise. Creating a fun, interactive, social situation will certainly enhance the experience and success. The awareness of complicated conditions of menopause is needed while designing a exercise programme. Special care must be taken Working with women at this stage of their life. With appropriate information, nutrition, exercise and attitude menopause can be turned around to be seen as a fresh time of freedom and independence. It is very rewarding when women can feel empowered and energized.

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