

July 2020 Newsletter



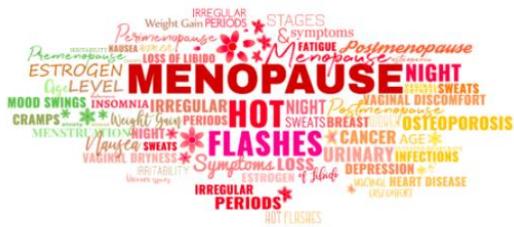
Is Menopause a Turning Point for Women with MS?

Menopause is a natural part of aging that occurs when the ovaries stop producing hormones called estrogens. As estrogen levels drop, monthly menstrual periods stop. Menopause is a slow process that usually occurs in stages.

[Perimenopause](#) typically begins several years before menopause when there is a gradual reduction in the production of estrogen. Toward the end of perimenopause estrogen reduction accelerates, causing menopausal symptoms. A woman is said to be menopausal when she has not had a period for 12 consecutive months. This typically occurs between the ages of 45 and 60, however it can occur earlier, due to surgical removal of the ovaries or other medical reasons. A [2018 study](#) found that women with MS start menopause at the same age as healthy women. [Post-menopause](#) refers to the years after menopause, when a woman's estrogen levels remain at a constant low level. Menopausal symptoms ease for most women at this time, however the [health risks](#) related to estrogen loss increase.



While going through the change brings a welcome respite from monthly periods, it can also usher in a host of new symptoms which may include hot flashes, vaginal dryness, excessive sweating, insomnia, mood swings, depression, fatigue, irritability, heart palpitations, headaches, joint and muscle aches, change in sex drive and bladder control issues. As with MS, every woman's experience with menopause is different. In addition, MS symptoms and those of menopause may overlap. Identifying which symptoms are due to MS and which are due to menopause can be challenging. This is an important distinction when deciding on treatment. A new MS symptom might call for a change in a woman's MS treatment plan, while a symptom of menopause might call for lifestyle changes, hormone therapy, or some other type of treatment. A new symptom may also be related to something else, such as aging or lack of fitness, and not caused by MS or menopause at all.



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Researchers at Brigham and Women's Hospital (BWH) in Boston investigated the effects of menopause on MS symptoms in cohorts of women living with the disease and published a number of research papers in this regard. One [study](#) looked at 724 female participants in the [CLIMB study](#), over half of whom were post-menopausal. Menopause marked a significant worsening of MS disability for 124 subjects. These findings were not explained by vitamin D levels, changes in treatment, or smoking status. In a second [study](#), postmenopausal women also reported worse MS disease severity. Interestingly, those who'd had surgically induced menopause (removal of the ovaries) reported having more severe MS symptoms than the premenopausal women or the women who'd gone through menopause naturally. Finally, the study team at BWH published a [paper](#) in 2016 that explored the experiences of menopause in a group of 127 women with MS. Subjects completed a survey which allowed free-text responses, enabling them to provide more detailed accounts of their experiences. Many women reported that hot flashes caused their MS symptoms to flare. Subjects also described an overlap between their menopausal symptoms and MS symptoms (for example, sleep problems, mood changes, cognitive issues and bladder problems) and an increase in fatigue and cognitive issues after menopause.

MS is three times more common in women than in men and is more prevalent in women of childbearing age than in any other age group. Although significantly more women than men have MS, men progress at a faster rate than women until about age 45 or 50 (the average age of menopause for most women). A [2013 study](#) shows the rates of disease progression between the sexes are parallel after the age of 50. This suggests that menopause in women with MS may contribute to disease progression.

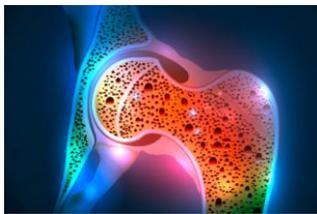


Several other studies have looked at the effect of menopause on MS disease progression in women. Italian researchers recently published results from an [observational study](#) suggesting menopause may be a turning point to a more progressive phase of MS. They found relapse rate to be reduced after menopause, however also state this effect could reflect the shift to the progressive phase in subjects with long-standing disease. Results also suggest cigarette smoking may speed up disability progression in women with MS after menopause. [Researchers](#) in Portugal followed 37 women with MS before and after they went through the change. Results showed relapse rates were reduced within five years following menopause and disability progression continued at a similar rate, compared to the premenopausal period.



Women are born with a defined number of eggs in their ovaries which decreases over time. Each egg lives inside a follicle (a fluid-filled sac) that contains cells to support egg maturation and produce hormones, for example [anti-Mullerian hormone](#) (AMH). AMH levels typically lower over the course of an adult woman's lifetime and are a direct indicator of the number of follicles (or eggs) in her ovaries, or her fertility. [Researchers](#) at UCSF analyzed AMH levels in plasma samples from 412 women with MS and 180 healthy controls collected over a period of 10 years. They found lower AMH levels (ovarian decline) to be associated with greater disability and gray matter loss in women with MS after adjusting for chronological age, disease duration, and BMI.

A [recent study](#) presented at the [ACTRIMS Forum 2020](#) (Americas Committee for Treatment and Research in Multiple Sclerosis) found that women with MS who have never given birth and those who began menopause prematurely (before age 45) tend to develop progressive forms of the disease earlier. The study team analyzed data from 134 women and 68 men with progressive MS, with a group of postmenopausal women without MS serving as controls. Results showed the higher the number of viable pregnancies (those that ended with a birth), the older the age at onset of progressive MS. The transition from relapsing remitting MS (RRMS) to secondary progressive MS (SPMS) was faster in women with early menopause than in subjects who began menopause at what's considered a normal age. Among women who developed SPMS after going through menopause, progression from RRMS was faster in those with premature menopause than in those who did not go into early menopause. It's important to note that more research involving larger numbers of subjects is needed to confirm and better understand the factors contributing to these results.



[Hormone replacement therapy](#) (HRT) involves taking small doses of estrogen and progesterone to relieve menopausal symptoms. HRT has the added benefit of helping to maintain bone density and reduce the risk of osteoporosis and bone fractures. There is evidence HRT also helps to improve MS

symptoms. One [small study](#) from 1992 surveyed 19 postmenopausal women about changes in their MS symptoms during their menstrual cycle, menopause, and while using HRT. Results showed 54 percent experienced a worsening of MS symptoms with menopause and 75 percent of those taking HRT felt it improved their symptoms. More recently, a [2016 study](#) found postmenopausal women with MS who went on HRT reported better physical function than those that didn't. However, it's important to keep in mind that HRT increases the risk of certain serious conditions, including heart disease, stroke, blood clots, and breast cancer. Women should discuss these risks and other treatment options with their doctors.

Every woman experiences menopause, and MS, differently. There is evidence that the hormone changes caused by menopause may increase symptom severity and disability progression in MS. They also suggest that HRT may improve symptoms that worsen

during the menopause. More research is needed to provide clarity on how menopause affects the course of MS, as well as into the benefits of hormone-based therapies for women living with the disease before any determination can be made as to whether their benefits outweigh the risks. The fundamental tenet of the Accelerated Cure Project's mission is to facilitate research efforts such as these. It is our hope that, through research, diagnosis, treatment outcomes and quality of life will be improved for all people living with MS until a cure is found.

