

Early Menopause and Weak Heart Function May Accelerate Brain Changes

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STORY AT-A-GLANCE

- › Menopause, which typically occurs between age 44 and 55, marks the natural end of menstruation and fertility, and is confirmed after 12 consecutive months without menstruation
- › A 2025 study presented at The Menopause Society Annual Meeting found that women who experienced earlier menopause and had weaker heart function showed more signs of brain aging
- › Cardiovascular disease is the leading cause of death in women, and Alzheimer's affects women nearly twice as often as men
- › Falling estrogen and progesterone levels affect every system – blood vessels stiffen, sleep and mood fluctuate, and metabolism slows
- › Menopause is not the end of vitality – it's a biological reset. Incorporating a nutrient-rich diet and a healthy lifestyle can restore balance and boost energy

For many women, something shifts when they reach their late 30s or early 40s. The daily juggle of work, family, and expectations continues, but subtle changes begin to surface. Names don't come as easily. Favorite articles feel harder to follow. It's tempting to blame stress or exhaustion – but what if there's more to it?

Science is starting to ask that question, and the answers are pointing to something many women aren't aware of: that the brain, the heart, and hormones are more connected than we've been told.

Earlier Menopause and Heart Health May Influence Brain Aging

A new study presented at the 2025 Annual Meeting of The Menopause Society explores how the timing of menopause and heart function may work together to affect brain health later in life. Researchers wanted to know: Do women who go through menopause earlier — and have weaker heart pumping ability — show more signs of brain aging and a higher risk of cognitive problems?¹

- **The study analyzed data from 708 postmenopausal women** — The participants came from two large Canadian health studies: the Canadian Alliance for Healthy Hearts and Minds Study and the Ontario Health Study. Each participant underwent three types of tests:²
 - **Cardiac Magnetic Resonance Imaging (MRI)** — It measures left ventricular ejection fraction (LVEF), which shows how well the heart pumps blood with each beat. A higher LVEF means more vigorous pumping, while a lower LVEF means weaker pumping.³
 - **Brain MRI** — The researchers looked at gray matter volume (GMV), which is important for memory and decision-making, as well as white matter hyperintensity (WMH) burden, which signals small areas of brain damage linked to stroke and dementia.⁴
 - **Cognitive tests** — These include the Montreal Cognitive Assessment (MoCA), which evaluates memory and attention, and the Digit Symbol Substitution Test (DSST), which measures speed and focus.⁵

According to a press release from the Menopause Society, the results were adjusted for various factors, including age, ethnicity, cause of menopause (spontaneous vs. surgical), and blood pressure, to name a few.⁶

- **Key findings revealed a compounding effect** – Women who had earlier menopause and lower LVEF showed more signs of brain aging on MRI scans. They had less gray matter and more white matter damage, which are both linked to dementia risk. These changes were visible on brain scans but did not always appear in thinking test scores, meaning brain changes can happen silently before symptoms start.⁷
- **Experts call for more targeted prevention** – According to the researchers, their findings highlight "a critical gap in women's health," showing the link between early menopause and cardiovascular health, as well as their combined impact on brain aging trajectories. Tallinn Splinter, lead author and investigator at the University of Toronto and the Sunnybrook Research Institute, said:

"By integrating cardiac imaging with neurocognitive assessments, our research provides novel insights that could pave the way for targeted interventions aimed at mitigating dementia risk in women who experience early menopause."⁸

Why This Study Matters for Women's Health

Women's health risks often intersect in ways that aren't fully understood. This study explores how menopause timing and heart function may influence brain aging, offering a fresh perspective on why these two factors are essential for long-term cognitive health.

- **Women bear a heavier burden of heart and brain diseases** – Compared to men, women face a greater risk for both heart disease and Alzheimer's.⁹ Cardiovascular disease is the leading cause of death among women, and Alzheimer's affects them nearly twice as often as men. These overlapping risks underscore the importance of understanding the heart-brain connection.

- **A weaker heart function can quietly damage the brain** – When the heart pumps less blood, the brain gets less oxygen and nutrients. This can lead to tissue damage, silent strokes, and higher dementia risk. The study reinforces that heart health and brain health are inseparable.¹⁰
- **Earlier menopause adds a second hit** – Menopause raises the risk of cognitive decline and Alzheimer's later in life. Combined with reduced heart function, this creates a "double hit" that may accelerate brain aging and structural changes long before symptoms appear.¹¹

Understanding Menopause

Menopause marks the end of menstruation and is confirmed after 12 consecutive months without a period. It typically begins between ages 45 and 55, lasting an average of seven years, though it can extend over a decade.

While it's a natural phase in every woman's life, menopause is still surrounded by myths that lead to confusion and unnecessary treatments. The hormonal changes during this time affect many body systems, which is why symptoms often overlap and evolve over time.

- **Early menopause and perimenopause differ in timing** – Perimenopause is the transition phase before menopause, and is marked by irregular cycles, hot flashes, and mood changes. On the other hand, early menopause occurs before age 45, often triggered by genetics, surgery, or medical conditions.¹²
- **Key hormones that shape the transition** – Most people think that menopause is largely estrogen-driven, but it's so much more than that.
 - **Estrogen** helps keep blood vessels flexible, cools inflammation, and supports brain and mitochondrial energy use; its decline removes a vascular and neural "buffer," which can affect blood pressure, lipid balance, and cognition.¹³

- **Progesterone** falls as ovulation becomes infrequent; this shift is tied to sleep changes, mood variability, and cycle irregularity across the transition.¹⁴
- **The symptoms are multifaceted** – Every woman's experience with perimenopause and menopause is different. While usual symptoms include hot flashes and night sweats, it can also trigger sleep issues, mood shifts, and more.¹⁵
- **Breast tenderness**
- **Joint pain**
- **Poor word retrieval**
- **Fatigue**
- **Weight gain**
- **Anxiety**
- **Dry skin**
- **Low libido**
- **Impatience**
- **Hair loss/change in texture**
- **Urinary leaks and urgency**
- **Feeling not like yourself**
- **Headaches and migraines**
- **Brain fog and inability to focus**
- **Irritability**
- **Low motivation or energy**

- Tearfulness

5 Myths about Menopause

Menopause affects every part of health, yet outdated ideas still get in the way. Clearing them up helps shift focus to what truly matters – the steps that support long-term well-being.

- 1. Only women who get their periods after 40 face menopause-related diseases –** Women who stop menstruating before 40 due to premature ovarian insufficiency (POI) face even greater health risks. POI occurs when the ovaries stop working properly, causing irregular periods and early menopause symptoms.

Separate research shows women with POI are two to three times more likely to develop severe autoimmune conditions such as Type 1 diabetes, lupus, overactive thyroid, and inflammatory bowel disease compared with the general population.¹⁶

- 2. Menopause is manageable and can be treated with medications –** The sad reality is that most women don't receive adequate support during menopause, not because they don't need it, but because they aren't offered enough options.

According to Dr. Mary Claire Haver, a board-certified ob-gyn and certified menopause specialist from Tulane University:¹⁷

"The painful reality for many patients is that clinicians repeatedly fail to recognize their symptoms of menopause that extend beyond the classic vasomotor symptom of hot flashes ...

Women frequently find themselves referred to numerous specialists to address the multitude of symptoms associated with menopause, with each symptom being tackled individually; clinicians unable to connect the dots, akin to playing a game of whack-a-mole with symptoms. How is this reality not the ultimate in over-medicalization?

... And in the series, alternative pharmaceuticals, such as anticholinergics, SSRIs, statin therapy, pain medications, osteoporosis drugs, neurokinin receptor agonists are painted as all benefit and little risk. Patients then are left with a cabinet full of prescription medications, costly medical bills and negligible relief."

She also included in her critique of Lancet's "empowerment model" that a staggering 90% of women were never educated about menopause,¹⁸ over 73% aren't aware they have the ability to treat their symptoms,¹⁹ and that in the U.S., only 7% of ob-gyns, internists and family medicine doctors feel prepared to treat a menopausal woman.²⁰

3. Only severe symptoms should be treated – The saying goes: "Menopause is inevitable, but suffering is not." Even mild or moderate symptoms can disrupt daily life. If something feels off, it may be worth exploring treatment options with a trusted health provider.

Some changes, like bone loss or early signs of heart disease, may only show up in preventive screenings. There's no need to wait for symptoms to become severe. And menopause isn't just physical. Hormonal shifts can affect mood, memory, and focus.²¹

4. Once menopause starts, the fun stops – Menopause may be the end of one chapter in a woman's life, but it can also be a new beginning. While these hormone changes alter the body, many women find this stage brings freedom, clarity, and renewed energy.²²

5. Everyone needs estrogen therapy – Menopausal hormone therapy is not a one-size-fits-all strategy. Some women do better with nonhormonal options. The right choice depends on age, timing, symptoms, and personal risk factors.²³

Looking at Menopause Through a Different Lens

For decades, estrogen has been hailed as a protective hormone for women's brains, especially after menopause. This belief has shaped widespread use of hormone replacement therapy (HRT), despite mounting evidence that challenges its safety and effectiveness. A closer look at recent studies and expert insights reveals a different story – one that suggests estrogen may not be the hero it's made out to be.

- **Estrogen may increase dementia risk, not reduce it** – A 2024 study published in *JAMA Neurology*²⁴ found that women treated with estrogen receptor antagonists or aromatase inhibitors had a significantly lower risk of developing dementia. This contradicts the long-standing assumption that estrogen protects brain health.
- **Estrogen isn't always what it's made out to be** – It's often described as the hormone women lose during menopause – something to be replaced to restore youthfulness and protect the brain. But that narrative doesn't hold up under closer scrutiny. According to bioenergetic researcher Georgi Dinkov, estrogen's primary role is to aid in tissue repair by reverting cells to a stem-like state.

While this is useful in the short term, it becomes problematic when the signal isn't turned off. In young women, progesterone helps regulate estrogen's effects. In men, androgens do the same. However, both progesterone and androgens decline with age, while estrogen synthesis continues.

"Every cell in the body expresses the enzyme aromatase and contains the machinery to synthesize its own estrogen from circulating precursors like cholesterol, which rises with age ... So if we test tissues, even in menopausal women, we often see increased estrogen – especially in those with health issues – not less," Dinkov explains.

- **Low estrogen in the blood doesn't always mean the body is deficient** – Many cells can produce estrogen locally, and this form doesn't circulate back into the bloodstream. The genuine concern is the age-related decline in other hormones that

regulate or balance estrogen, including progesterone, androgens, and thyroid hormones. Without those counterbalancing forces, estrogen's growth-promoting effects can become excessive if left unchecked.

- **Hot flashes may stem from low progesterone, not low estrogen** – Night sweats and hot flashes are more likely linked to low progesterone. Supporting progesterone, not estrogen, may be the key to easing these symptoms and improving sleep.

While mainstream institutions continue to recommend FDA-approved hormone therapy for menopause, alternative research is beginning to challenge that approach. One example is a 2023 Canada-wide randomized, placebo-controlled study published in Scientific Reports that showed promising results for progesterone. As the researchers noted:²⁵

"Participants on progesterone perceived significantly greater decreases in overall night sweats and improved sleep quality versus those on placebo. Perimenopausal interference with daily activities also significantly decreased on daily progesterone therapy. Progesterone is biologically identical to the lower progesterone levels occurring in perimenopause."

- **Estrogen excess may drive chronic disease** – While menopause is often described as a state of estrogen deficiency, emerging research suggests the opposite may be true. In Dinkov's blog, "To Extract Knowledge From Matter," which was inspired by the work of the late Dr. Ray Peat, he explains that menopause is a condition of estrogen excess and highlights the benefits of dehydroepiandrosterone (DHEA) supplementation:

"All in all, based on this study, one can/should conclude that: 1) menopause is NOT a condition of estrogen deficiency, but rather an excess; 2) an antiestrogen is thus likely beneficial for most/all symptoms of menopause; 3) osteoporosis, obesity, insulin resistance and diabetes, even in absence

of menopause, are likely driven by excess estrogen and opposing estrogen can be beneficial; 4) DHEA mimics the effects of an antiestrogen when used in proper doses and is synergistic when used with an antiestrogen."²⁶

Lifestyle Strategies That Support Hormone Health

Synthetic hormones and prescription antidepressants aren't the only options for supporting the brain and body during aging. Many conventional approaches to menopause carry potential downsides. That's why it's worth exploring simple steps that can help boost overall health.

- **Stay active** — Exercise regularly and include weight-bearing activities that engage the feet. Even walking, dancing, or running can make a difference.²⁷
- **Implement a bioenergetic diet** — Choose foods that help the body burn glucose as its primary fuel without backing up electrons in the mitochondria. This supports ATP production, lowers stress hormones, and helps shift away from estrogen dominance. My book, "[Your Guide to Cellular Health: Unlocking the Science of Longevity and Joy](#)," explains this in detail.
- **Cook with stable, saturated fats, not seed oils** — Processed foods often contain vegetable oils like soybean, canola, corn, sunflower, and safflower, which are high in [linoleic acid \(LA\)](#), a polyunsaturated fat (PUF) that disrupts hormonal balance and mitochondrial function. To reduce your intake, opt for heat-stable, nutrient-rich fats like ghee and beef tallow. Keep LA below 5 grams daily, ideally under 2 grams, and use a nutrition tracker to monitor your intake.
- **Rethink your exposure to hidden hormone disruptors** — Nearly 1,000 everyday items contain [estrogen-mimicking compounds](#) like [xenoestrogens](#). These endocrine-disrupting chemicals (EDCs) are found in microplastics, personal care products, and household cleaners.

To minimize exposure, opt for natural and organic personal care products, and carefully review labels for the presence of parabens and phthalates. Swap conventional cleaners for nontoxic alternatives, such as vinegar, baking soda, and essential oils.

Reduce plastic, especially for food and drinks, by switching to glass or stainless steel, and avoid heating food in plastic. Filter your tap water to remove microplastics, and boil hard water for five minutes to lower microplastic content.²⁸

- **Take progesterone to counteract excess estrogen** – Take [transmucosal progesterone](#) (applied to the gums), which acts as a natural estrogen antagonist. I've outlined a detailed guide on this in the next section.

How to Use Progesterone

Before you consider using progesterone, it is important to understand that it is not a magic bullet, and that you get the most benefit by implementing a Bioenergetic diet approach that allows you to effectively burn glucose as your primary fuel without backing up electrons in your mitochondria that reduces your energy production. My new book, "Your Guide to Cellular Health: Unlocking the Science of Longevity and Joy," covers this process in great detail.

Once you have dialed in your diet, an effective strategy that can help counteract estrogen excess is to take transmucosal progesterone (i.e., applied to your gums, not oral or transdermal), which is a natural estrogen antagonist. Progesterone is one of only three hormones I believe many adults can benefit from. (The other two are DHEA and pregnenolone.)

I do not recommend transdermal progesterone, as your skin expresses high levels of 5-alpha reductase enzyme, which causes a significant portion of the progesterone you're taking to be irreversibly converted primarily into allopregnanolone and cannot be converted back into progesterone.

Ideal Way to Administer Progesterone

Please note that when progesterone is used transmucosally on your gums as I advise, the FDA believes that somehow converts it into a drug and prohibits any company from advising that on its label. This is why companies promote their progesterone products as "topical."

However, please understand that it is perfectly legal for any physician to recommend an off-label indication for a drug to their patient. In this case, progesterone is a natural hormone and not a drug and is very safe even in high doses. This is unlike synthetic progesterone called progestins that are used by drug companies, but frequently, and incorrectly, referred.

Dr. Ray Peat has done the seminal work in progesterone and probably was the world's greatest expert on progesterone. He wrote his Ph.D. on estrogen in 1982 and spent most of his professional career documenting the need to counteract the dangers of excess estrogen with low-LA diets and transmucosal progesterone supplementation.

He determined that most solvents do not dissolve progesterone well and discovered that vitamin E is the best solvent to optimally provide progesterone in your tissue. Vitamin E also protects you against damage from LA. You just need to be very careful about which vitamin E you use as most supplemental vitamin E on the market is worse than worthless and will cause you harm not benefit.

It is imperative to avoid using any synthetic vitamin E (alpha tocopherol acetate – the acetate indicates that it's synthetic). Natural vitamin E will be labeled "d alpha tocopherol." This is the pure D isomer, which is what your body can use.

There are also other vitamin E isomers, and you want the complete spectrum of tocopherols and tocotrienols, specifically the beta, gamma, and delta types, in the effective D isomer. As an example of an ideal vitamin E, you can look at the label on our vitamin E in our store. You can use any brand that has a similar label.

You can purchase pharmaceutical grade bioidentical progesterone as Progesterone Powder, Bioidentical Micronized Powder, 10 grams for about \$40 on many online stores like Amazon. That is nearly a year's supply, depending on the dose you choose.

However, you will need to purchase some small stainless steel measuring spoons as you will need a 1/64 tsp, which is 25 mg and a 1/32 tsp, which is 50 mg. A normal dose is typically 25 to 50 mg and is taken 30 to 60 minutes before bed, as it has an anti-cortisol function and will increase GABA levels for a good night's sleep.

If you are a menstruating woman, you should take the progesterone during the luteal phase or the last half of your cycle, which can be determined by starting 10 days after the first day of your period and stopping the progesterone when your period starts.

If you are a male or non-menstruating woman, you can take the progesterone every day for four to six months and then cycle off for one week. The best time of day to take progesterone is 30 to 60 minutes before bed as it has an anti-cortisol function and will increase GABA levels for a good night's sleep.

This is what I have been personally doing for over a year with very good results. I am a physician so do not have any problems doing this. If you aren't a physician, you should consult one before using this therapy, as transmucosal progesterone therapy requires a doctor's prescription.

Frequently Asked Questions (FAQs) About Early Menopause and Women's Health

Q: What's the difference between perimenopause and menopause?

A: Perimenopause is the transition phase when estrogen and progesterone begin to fluctuate, causing irregular cycles, hot flashes, and mood changes. Menopause is confirmed after 12 straight months without a period, marking the end of ovulation and fertility.

Q: What is the study about?

A: The featured study examined 708 postmenopausal women using cardiac and brain MRI. It found that earlier menopause and lower heart pumping strength were linked to measurable brain changes associated with aging and dementia risk – even before symptoms appeared.

Q: What are the typical symptoms of menopause?

A: Beyond hot flashes, women may experience sleep disturbance, fatigue, mood swings, brain fog, heart palpitations, joint pain, weight gain, and urinary or sexual changes. These symptoms vary in intensity and can last for several years.

Q: What should be known about estrogen?

A: Estrogen is a multitasking hormone that protects blood vessels, reduces inflammation, and supports brain metabolism. Its decline affects circulation, cognition, and mood. However, more estrogen isn't always better – balance with progesterone and thyroid function is key for long-term health.

Q: What lifestyle strategies support brain and hormone health?

A: Combine daily movement with a bioenergetic diet rich in quality protein and healthy fats. Avoid seed oils, choose natural products, and limit exposure to microplastics by avoiding plastic containers and filtering your tap water. Transmucosal progesterone may help balance excess estrogen.

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