The Menopause and Osteoporosis Connection

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Menopause and Osteoporosis: How Your Bones Are Linked to Your Reproductive System

Osteoporosis affects far more women than men (up to four times as many), and can wreak havoc on health and lifestyle as you get older. It's no coincidence most osteoporosis cases are diagnosed after middle age, when the female reproductive system makes a permanent change.

Bone health is directly tied to estrogen, a hormone responsible for regulating everything from reproductive cycles to mood and pain sensitivity. Likewise, menopause depends on estrogen — or rather, a lack of it.

As a woman transitions out of her fertile years, the fine hormonal balance suffers and the consequences can be seen and felt all over the body, including the bones.

Estrogen Levels and Bone Loss

When menopause comes, your estrogen level plummets. Unless menopause is brought on by a hysterectomy or oophorectomy, it doesn't happen overnight — the years leading up to menopause, with their massive hormonal fluctuations, can set the stage for later health issues (like bone weakening).

Ovary Changes Spark Hormone Decline

Your ovaries are in charge of manufacturing estrogen, and when they begin to lose efficiency (or are removed altogether), your estrogen level will drop.

As your body begins to lose estrogen, your bone density can continue to decline for a long period of time. In general, bone density peaks around age 30; bone loss can become significant during perimenopause (the decade or so leading up to menopause), and will speed up in the first few years of menopause.

The Bones Lose Their Balance

Your estrogen level directly affects what is known as bone remodeling: the constant breakdown and rebuilding of bone in your skeleton. With less estrogen in the body, cells called osteoclasts are able to absorb bone at a faster rate than your osteoblasts (your bone-building cells) are able to regenerate new bone.

The result? The bone remodeling equation is no longer equal, and your bone density consistently decreases.

The Real Risk of Osteoporosis

The osteoporosis risk after menopause is a serious one, yet so many women refuse to pay it much attention. Perhaps it's because bone damage isn't visible, or that bone loss continues so gradually for so many years.

Whatever the reason, thousands of women go through menopause in denial. Unfortunately, the longer you ignore your bone health, the more hazardous and permanent the situation will become.

Although all women will eventually suffer from the effects of declining estrogen, not all women will have the same risk for osteoporosis. Some factors make it more likely for certain women to develop the disease around menopause:

- **Small frame**. Women who are slim or petite are more likely to suffer from unhealthy bone loss, since their bones are already thinner and smaller than others.
- **Asian or Caucasian ethnicity**. Although any woman could develop osteoporosis, there's a higher rate of the condition among women of these ethnicities.
- **Family history**. Like so many diseases, osteoporosis seems to run in families. If there are cases of osteoporosis in the previous generations, or if you know of family members who have broken bones after minor falls, your risk of suffering the same fate is likely higher than average.

How to Prevent Bone Loss

The odds might be stacked against you as the years roll by, but that doesn't mean osteoporosis is inevitable. Whether you're approaching menopause or have already made the transition, there are some crucial lifestyle changes that could promise a long and mobile life over a long and painful recovery.

Bone Density Scans

Before you can take steps to change your bone health, you'll need to know where you stand right now. Luckily, there is an easy and painless test that will accurately evaluate that state of your bones, known as bone mineral density (BMD) test.

If you are menopausal and have any risk factors, it's time to have your doctor conduct this simple X-ray.

Hormone Replacement Therapy (HRT)

If your doctor determines you're in the danger zone for osteoporosis, there are several ways to reduce your risk of fractures. Hormone replacement therapy is one of the most effective ways to reset hormones and trigger your natural bone-building mechanisms, although it's not for everyone.

HRT can be helpful, but it has its fair share of risks, ranging from blood clots to breast cancer. On the other hand, osteoporosis can endanger your health in serious ways, too, so women who go through an early menopause, those with several risk factors, and those with dangerously low BMD test results may be good candidates for hormone therapy.

Regular Weight-Bearing Exercise

It's natural to assume too much stress will cause your bones to break, but some kinds of stress can have the opposite effect. When you work your body against gravity (think jumping, skipping, dancing, or any movement that lifts both feet off the ground at once), you actually encourage your bone to form with each footfall.

High-impact activity can be daunting if you've never tried it before. A run around the block or a tennis match is sure to get your heart pumping — after all, you're pushing your lungs and muscles much harder than when you walk — but it's well worth the effort.

Start slow, and work up to three or four sessions per week.

Calcium-Rich Diet

While calcium alone can't make up for the bone loss during menopause, it does play an important role in your

diet, especially after age 60. Elderly women who take extra calcium, along with vitamin D to promote absorption, experience far fewer fractures than those who don’t load up on calcium.

While there are plenty of dairy and non-dairy food sources of calcium, supplements can be a more efficient way to top up your calcium levels. Most doctors agree they’re completely safe for all women who have no ailments or allergies that would interact with a high dose of calcium, and best of all, these supplements are very affordable.