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“This Silent Thief Can Steal Away Your Independence in a Flash”

It's estimated that nearly half of all Americans over age 50 may be at risk with their bone health. And countless others of all ages are not getting sufficient bone-building nutrients in their diets and the physical activity needed for bones strong enough to last a lifetime. You need to give your bones special care throughout your lifetime, starting early. We're living longer today. We want to enjoy our independence and live an active life much longer than past generations, too. To do that, you need strong bones. And you need them to stay healthy and strong your entire life, not just for pleasure, but also for protection. When you're older, the consequences of weak bones can strip away your independence in the blink of an eye. They can even be deadly. Strong bones protect your heart, lungs, and brain from injury. And your bones become a warehouse for important minerals that you need throughout your life. Your bones also house and protect your bone marrow where white blood cells develop. Taking good care of your bones, starting from an early age, involves three major steps:

1. **Awareness of the “Silent Thief”** – How can so many people be at risk without them realizing it?
2. **Physical activity and the proper exercises** – for increasing or maintaining bone and muscle mass, balance, and coordination.
3. **Dietary changes to improve your bone health**, including clearing up some of the myths surrounding supplements and nutrients.

How the “Silent Thief” Can Escape Detection – Even for Years

Healthy bone structure within the trabeculae of your bones. Bone is a living substance that contains blood vessels, nerves, and cells. Two types of cells control your bone structure: **Osteoblasts** – cells that build your bones and **Osteoclasts** – cells that break down old or damaged bone to make room for new bone. Osteoblasts produce a protein called osteocalcin that strengthens your skeleton. Very simply, as long as the bone-forming activity, called **absorption**, is greater than bone breakdown, called **resorption**, you're pretty much assured of maintaining healthy bones. Ideally, you want to start giving your bones the care they need as early in life as possible. The foundation for strong bones starts at a very young age. Your “bone growth” stage stretches from birth until about age 30. Then you enter the normal age-related bone mineral loss period that continues for the rest of your life. If not given the right kind of care, bones can begin to weaken early in life. It's a quiet, symptom-less process that steals away your bones. You can't feel it happening, at least not in the early stages – hence the name “silent thief”. **And here's something that every woman needs to know:** Your normal bone loss accelerates during and after menopause for about five to seven years before returning to the slightly slower rate that men experience. You can lose as much as 35% of your bone density during those few, short years!

Are These Silent Thief “Helpers” Working Behind Your Back?

Several types of medications can affect your bone health. Many people have weak bones and don't even know it. And too many people may be making mistakes now that can affect their bone health later. Here are some of the most common “silent thief” helpers that you may not be aware of: **Statin Drugs:** One in four Americans 45 and older take cholesterol-lowering statin drugs. But doctors often fail to warn patients that statins interfere with vitamin K2's bone-building functions in your body and increase your risk of deficiency. **Most Antidepressants:** If an antidepressant drug acts by altering your serotonin levels, it may lower your bone density, according to a recent review of current evidence.

Osteoporosis Drugs: Contrary to what you've been told, most osteoporosis drugs actually *weaken* your bones.

Bisphosphonate bone drugs impact your normal bone repair process by killing off your osteoclasts, and do make your bones denser, but because the osteoclasts are killed the bone is actually weaker as it is not remodeled properly. Before starting any type of prescription drug for your bone health, I strongly recommend you consider less risky, more natural approaches first, such as diet, exercise, and safe bone health supplements **Undiagnosed Gluten Intolerance:** Could the grains you're eating be contributing to less-than-optimal bone health? If you have undiagnosed gluten intolerance, you may not be absorbing the nutrients you need for bone health. When study subjects followed a gluten-free diet for one year, their bone density

improved. **Smoking and Drinking:** Smoking increases your rate of bone loss, and consuming more than two drinks a day for men and one drink a day for women can interfere with your body's ability to absorb calcium, slowing new bone formation. **Soft Drinks:** Animal studies show that phosphorus in soda weakens your bones by promoting the loss of calcium. And diet sodas might even be worse. Researchers found that human parathyroid hormone concentrations rose strongly following diet soda consumption, leading to a greater release of calcium from bone. The only way to know for sure if your bone health is at risk is to have your bone density tested regularly. Whatever your test results, you're never too young – or too old – to support your bone health. As you'll see coming up, there's much you can do to help keep your bones strong or help strengthen them if they're not as strong as you'd like them to be.

Exercise: An Essential Key to Healthy, Strong Bones

Weight-bearing physical activity and strength training are ideal for bone health. Healthy bones are porous and soft, and as you age, they can easily become less dense and more brittle. Especially if you don't get the right kinds of exercise. Because bone is living tissue, it requires regular physical activity to renew and rebuild itself. Whenever you jump, run, or lift a weight, the stress of your muscles on your bones signals to your body to add new cells to strengthen your bones. According to the US Department of Health and Human Services report, "Physical Activity and Health: A Surgeon General's Report," healthy individuals should do: A minimum of 30 minutes of **weight bearing physical activity** of moderate intensity on most days of the week (if not daily) and **Strength training** at least two times a week. Weight bearing exercises – activities that force you to work against gravity – strengthen bone by stimulating the bone-building cells, osteoblasts. A good exercise to include in your routine is a walking lunge. This helps build bone density in your hips, even without additional weights. Lifting weights, using resistance bands, and yoga all help build bone density and strength. Other weight-bearing activities include brisk walking, tennis, kickboxing, jogging, climbing stairs, hiking, and dancing. The stronger your muscles, the better your balance and coordination. That's vitally important, especially as you age.

The Intricate Dance Between Bone-Building Nutrients

The functions of bone-building nutrients are much like a grapevine. In addition to the right kinds of physical activity, healthy bones and bone building require balancing four major nutrients: **Calcium, Vitamin D, Vitamin K2, and Magnesium**. The functions of these four nutrients are entwined and depend on each other for strength– much like a twisting grapevine. Just as you can't untangle a grapevine without wrecking its strength, you can't separate out one nutrient without affecting the actions of the others. For example: **Vitamin D** maintains skeletal **calcium** balance by promoting **calcium** absorption in your intestines. **Calcium** and phosphate depend upon **Vitamin D** for bone formation. **Vitamin K2** helps to cement the calcium you absorb into the bone matrix rather than depositing it on the inside of your blood vessels leading to atherosclerosis. **Magnesium** is an important mineral that your body needs to build a strong bone matrix. Imagine the effects on your bones if one of these nutrients is missing – or not present in the right amount! And that's the thing... this *can* be happening in your bones for years without you even knowing it's going on.

Calcium: Your Bone's Best Friend (Most of the Time)

Load up on dark leafy greens at your local farmer's market. As we just discussed, healthy bones require plenty of bone-building nutrients. And ideally your bones get many of these nutrients from the foods you eat. Our diets have changed over the years to ones that are heavy in meat and grains, which are naturally low in calcium. And they can have an acidic effect on your body if eaten in excess. Your body will always do what it must to maintain a balanced pH. When your body becomes too acidic, it releases minerals – including calcium from your bones and teeth. However, eating *too little* protein can be just as bad. Protein deficiency interferes with calcium absorption in your intestines. On the other hand, dark, green leafy vegetables are rich in calcium. And they have an alkalizing effect on your body – two important reasons to eat plenty of fresh leafy green vegetables! Remember, **the balance of bone-building nutrients is key**. I recommend you get your calcium from healthy sources such as these. Some high calcium foods also contain naturally high amounts of vitamin K2, such as fermented cheeses and butter from pastured cows. When choosing dairy, look for products made from raw, hormone-free, unpasteurized milk:

Sesame seeds (1/4 cup)	351 mg
Sardines, canned in oil with bones (3 ounces)	324 mg
Yogurt (unsweetened) (1 cup)	300 mg
Goat's milk (1 cup)	326 mg
Swiss cheese (1 ounce)	270 mg

