

BONE HEALTH

As a clinical nutritionist you must understand a few little-known facts about bone health. The truth is, typical nutritionists are not helping their osteoporosis patients at all --- even while throwing tons of calcium at their bones. The sad reality is that millions of patients are swallowing billions of calcium tablets, the calcium from which largely ends up being flushed down the toilet. Precious little of this calcium ever finds its way into osteoporotic bone.

If you want to really help your patients maintain bone health (instead of asking them to throw their money away on useless calcium pills), then you must rid yourself of the misconceptions held by virtually all nutritionists, and learn these facts:

- 1) Osteoporosis has almost nothing to do with a deficiency of calcium.
- 2) There are several other minerals and trace minerals that are far more important than calcium in reversing osteoporosis.
- 3) Osteoporosis has very little to do with menopause and has virtually nothing to do with low estrogen.
- 4) There are two common components of a typical diet that greatly accelerate bone loss.
- 5) Exercise is crucial to maintaining bone mass, but the exercises typically prescribed for osteoporosis can make the problem worse.
- 6) Natural light is as important as any nutrient to maintain bone mass.

You need to get a clear mental picture of what osteoporosis is -- and what it is not. Osteoporosis is **not** a deficiency of calcium in the bone. (There **is** a condition in which the bone structure is intact but there is just a deficiency of calcium --- this condition is called osteomalacia.) Osteoporosis is a breakdown in the matrix of the bone. The matrix is the fibrous protein backbone upon which mineralization occurs in osseous tissue.

Have you ever been on a construction site when they were pouring a concrete slab for a floor or a sidewalk? Do you remember seeing the metal rods or mesh onto which they poured the concrete? If we make an analogy between a sidewalk and bone, you can think of the concrete as the minerals of the bone and the reinforcing rods as the bone matrix. What would happen to that sidewalk if they poured the concrete without reinforcing rods? In no time the concrete would crumble and fall apart.

What happens to an osteoporotic bone? With the deterioration of the fibrous protein matrix, the minerals cannot be held. The bone gradually loses mineral density over time.

What happens when your osteoporosis patients take the calcium supplement you sell them? Mostly nothing. If the fibrous tissue of the bone could not hold the calcium it already had, neither can it hold the calcium supplement.

The truth is that osteoporosis does involve calcium, but no more than it involves any of the other minerals and trace minerals required for bone formation --- including silica, magnesium, manganese, copper, selenium, iodine, and phosphorus, and perhaps strontium and boron. Each of these minerals is, qualitatively speaking, every bit as important as calcium in bone formation. One very interesting study showed that supplementing with trace minerals **with no additional calcium** cut the amount of bone loss in half in osteoporosis patients.

Another important point relating to calcium and bone mineralization is that when an osteoporotic patient takes excess calcium it actually inhibits osteoblastic activity! The adverse effect on bone mineralization of calcium supplements is particularly evident in patients deficient in magnesium.

Are you beginning to realize that you need a little more than a calcium supplement to help your patients maintain bone density? What you need is NUTRI-SPEC. With NUTRI-SPEC you can supply exactly what trace minerals and minerals a particular osteoporosis patient needs to restore bone matrix. In particular, you can supply just the amount of calcium each person needs, and the form or forms of calcium that is ideal (avoiding the forms of calcium supplementation that are actually harmful) for each of your patients.

And if you are worried about menopause causing osteoporosis --- think again. One important study shows that 50% of the total bone a woman will lose during her lifetime will be lost **before** the onset of menopause. For the average woman today, bone loss actually begins at age 23! This proves that the **metabolic causes of osteoporosis** are at work throughout a person's lifetime and are not just related to the loss of ovarian hormones. NUTRI-SPEC gives you the means to help your patients maintain healthy hormone balance and healthy mineral metabolism throughout life.

Oh --- those two dietary components that contribute to bone loss. The amount of **caffeine** in two cups of coffee doubles a person's calcium loss each day. The **polyunsaturated vegetable oils** have an extreme catabolic effect in breaking down bone matrix. NUTRI-SPEC gives you the means to minimize and even reverse the damage done by caffeine and polyunsaturate ingestion.

There are several cases of NUTRI-SPEC patients with bone studies documenting not only that NUTRI-SPEC slows the progression of osteoporosis, but actually increases bone density. And interestingly --- not one of these patients took megadoses of calcium.

[See The NUTRI-SPEC Letters, Volume 20, Numbers 7-11, for complete explanations of both osteoporosis and calcium supplementation.]

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4. (from NUTRI-SPEC Letter V. 20 #7) p 5.
5. (from NUTRI-SPEC Letter V. 20 #10) p 2.
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10. (from NUTRI-SPEC Letter V. 20 #11) p 6.