



Osteoporosis – stop the dairy hysteria



Osteoporosis (literally, 'porous bones') is a serious disease where the bones slowly become dematerialized and therefore brittle and fragile. It is often a quiet disease, unknown until a fall causes multiple fractures and healing becomes long and difficult. Let me make one thing clear right away. This is a serious and debilitating illness. It is also far too common in our society, especially amongst post-menopausal and elderly women.

A lot is written about how eating dairy can prevent this illness, almost to the point of hysteria. I believe a more holistic approach has to be taken in attempting to prevent osteoporosis. So brainwashed have we become that dairy calcium equals good bones, and we no longer stop to consider the facts. We have no time for that, while we are dashing to gulp down three more glasses of half fat milk instead.

Let me however present a couple of challenging questions. If osteoporosis is all about not having sufficient dairy calcium in our diet, how come the **rate of osteoporosis in**

China, a non-dairy consuming society, is significantly lower than in the West?! And if osteoporosis is indeed a calcium deficiency disease, how come it is so prevalent in our high dairy consumption society?!

Epidemiological studies from around the world provide the most eye opening answers. The conclusions are the same no matter the study. **Non-urbanized societies with rural dietary and lifestyle patterns suffer from significantly lower rates of degenerative diseases** (of which osteoporosis is one). The greater the exposure to Western values - diet and lifestyle (i.e. more meat and saturated fat, less vegetables, grains and physical activity) - the greater the increase in degenerative diseases. Put simply, if we suffer from osteoporosis, heart disease, strokes and Alzheimer's, put it down not merely to the deficiency in one nutrient or another; **look at the whole picture instead.**

And that is one of the two main points I'd like to put forward in this article. The first is that the West, with its exaggerated leaning towards scientific measurement and dissection, tends by and large to have a **myopic view of illness**: the bones are mainly made of calcium; therefore if they become brittle, calcium supplementation is required. Full stop. **Calcium hysteria is created.** Many billions of dollars of scientific research later, some clever mind comes up with the notion that Vitamin D, crucial for the absorption of calcium in our body, may also have something to do with

bone health. Thousands of volumes of studies later, we are told that magnesium, the second most important mineral in the bone, could also ('possibly', 'potentially', 'subject to further research') be linked to bone health. With every new 'discovery', supplements, tests and advice change, and the confused patients are left even more fearful than before. What is missing, and badly so, is a holistic, rather than myopic understanding of degenerative diseases.

The other related point is that this myopic view of illness, by necessity, dictates **limited, narrow-minded solutions**: if calcium is what's missing then we should stock up on it. And if calcium is what's needed, look no further than the cow. And so, the "**dairy calcium myth**" is propagated. Confused, fearful patients act on these suggested solutions with zeal (by far the most common supplement question I am asked as a nutritionist relates to calcium), unaware that, in the case of osteoporosis at least, some of these solutions may actually put them at an increased risk of the disease.

Since the issue of calcium, in general, and dairy calcium in particular, has become such a holy cow, I'd like to summarize some lesser known health facts for you in the following list. Read them, find out more and make up your own mind. You will find some of my own conclusions at the end.

Some facts to consider:

1. Calcium is **one** of over 70 minerals in our body, some present in larger quantities than others, but **all** required, **in balance**, for the optimal functioning of body and mind.
2. Bone tissue is made up from calcium, phosphorus, magnesium, boron, sulphur and strontium. We have every reason to believe that the **other minerals play an equally important role in bone health** as calcium; they just haven't been researched as much.
3. Vitamins B, D and K are essential for good calcium absorption. The typical high protein, high fat, high salt Western diet is low in these vitamins.
4. **Calcium is released** from bones **to counter excess acidity** in the blood. A diet high in animal protein, including dairy, causes increased acidity in the body, counteracted only by calcium release from the bone. Read this sentence again. It means, **dairy food could be robbing you of** rather than supplying you with **calcium**.
5. Studies from around the world have found again and again **a direct link** between high levels of protein consumption (especially meat, but also dairy) and osteoporosis.
6. In addition to animal protein, fizzy drinks, salt, sugary foods, alcohol and smoking have a detrimental effect on bone health. Supplementing with calcium without limiting these other factors is useless.
7. **Calcium release** from and absorption into the bone is **governed by hormones** secreted by two different glands, which form part of the endocrine (hormonal) system. The **malfunctioning of the endocrine system**, especially amongst women, has been on the increase for decades now, quite possibly due to the increase in hormone use in the food chain and the use of the birth pill.
8. **We are not what we eat, we are what we absorb**. Dairy milk is poorly absorbed by up to 25% of adults, making the perceived benefits of milk and dairy irrelevant for those individuals.
9. Despite the hype regarding the importance of milk in the prevention of osteoporosis, it remains a fact that **non-dairy eating societies suffer much lower rates of osteoporosis than Western countries**.
10. Bone strength is dependent on **exposure to sun** no less than on a good diet.

11. Physical **exercise** and **activity are crucial** for bone health. Calcium supplements are no substitute to an active lifestyle, and this is particularly true in old age. Even the lowest levels of physical exercise have proven to be helpful in strengthening the bones.
12. Avoiding degenerative diseases - including osteoporosis - is a life-long work of prevention. Health is something to work on daily. It is not achieved merely by popping in a magic pill.

So what does all this say to me?

As you might imagine by now, I do not share the belief that we need to consume any quantity of milk and dairy products to protect ourselves from osteoporosis. In fact, I believe that two fundamental mistakes regarding bone health are (a) focusing on calcium as the single most important element to bone health, and (b) automatically associating calcium with milk and dairy products.

I accept that most of us in the West are far too used to it to give it up completely in one go. I also accept that dairy has been part of our food chain for millennia, therefore we have probably adapted to an extent to absorb some of its benefits. However, I also strongly believe that

- there is **much more than calcium alone** to bone health;
- dairy can be high in fat and salt and generally difficult to absorb and utilize;
- due to its acidic effect in the body, **dairy food leaches calcium** out of the bones, thus greatly minimizing any beneficial effect it may have;
- calcium can be obtained, and more efficiently so, from sources other than dairy;
- an improved diet and lifestyle pattern will achieve what no calcium supplementation ever will.

If you want to protect yourself against osteoporosis, then the best foods to eat are those that contribute calcium or help to preserve its levels in the body, without leaching any. These are typically the low fat, low animal protein, low salt, **plant-based foods** - you guessed it; the vegetables, fruit and whole grains of this world. If this sounds familiar it's because this is the type of diet we know helps the body function better and prevent disease **overall**, not just for this particular complaint or that specific ailment. Programmed by Nature to do the best it can, a well nourished, well taken care of body should serve us nicely for a great many years without deteriorating into long term, chronic illness.