



THE CALCIUM CONCEPT

Most of us grew up thinking that we are more deficient in calcium than in any other minerals and that milk product are the only reliable source of calcium: hence our obsession to get huge doses of this mineral through large quantities of dairy as well as supplements.

However, while it is true that calcium is essential for many functions in our body, our understanding of the whole concept is based on what has become a cultural myth, supported for obvious reasons by the dairy industry.

1. What do we need calcium for?

The most well-known benefit of calcium in the body is to build strong bones and teeth.

But it is also essential for muscle contraction, better sleep and relaxation (hence the folk wisdom which recommends a cup of warm milk at bedtime).

And calcium, together with other alkaline minerals, neutralises the acids created by eating too much animal proteins.

2. How much calcium do we really need?

It is very difficult to calculate exactly how much calcium is really needed, despite the much publicised Recommended Daily Allowances (RDA): daily calcium intakes vary from 200 mg in Ceylon, Africa, Mysore, Japan or Peru mostly from vegetable sources to 900 mg in Europe, North America and Oceania from dairy sources exclusively!

The current RDAs for 1,000 mg a day of calcium and more are calculated after the average American diet which includes up to four times more proteins than needed and create an unnatural demand for calcium.



3. Should we supplement our diet with calcium tablets?

Minerals in the body are in a delicate, dynamic interdependent equilibrium: it is well documented that calcium needs magnesium, phosphorus, vitamins A, C, D and many more in order to be absorbed.

In fact vitamins and minerals all need each other but how they should be balanced internally is subject to constant reinterpretation: supplements usually don't take into account the complex interaction between all the nutrients and are poorly absorbed (especially in tablet forms), sometimes passing through the digestive system almost untouched, other times upsetting our internal ecology.

As always, Nature knows best, and it is wise to rely on organic whole foods which contain an ideal mix of all known nutrients, such as seaweeds (the highest plant sources of minerals), sprouts (easily absorbed vitamins, minerals, enzymes and amino-acids) or fresh fruits and vegetables.

4. How can we enhance calcium absorption?

Instead of worrying about how much calcium we get from our food, we should focus on how to make the most of it.

For example, a cup of coffee with a cigarette after a meal robs you of most of the minerals and vitamins you just absorbed with your food!

The main calcium inhibitors to be avoided are:

- coffee, soft drinks, diuretics
- too much animal protein, especially meat which contains sulphur and limits calcium absorption.
- refined sugar and too much of any concentrated sweetener
- alcohol, marijuana, cigarettes, other intoxicants, the pill...
- too little or too much exercise
- too much salt



Also get sufficient vitamin D from sunshine, and for those who spend their time indoors chlorophyll foods (especially green vegetables) act as a form of stored sunshine, regulating calcium like vitamin D.

5. Dairy: friend or foe?

We all grew up hearing how milk is our best source of calcium. Yet, “it is well nigh time that the evidence on the adverse health effects of dairy be presented to the public”, says Professor T. Colin Campbell, Professor of Nutritional Biochemistry, Cornell University.

Like all mammals we produce milk for our babies but no other animal species drinks milk beyond infancy, and certainly not from a species outside their own.

Cow’s milk is designed with a hormone called IGF-1 to make calves grow fast: the more dairy we eat, the higher our levels of IGF-1.

Small increases in IGF-1 in people have been shown to raise the risk of several cancers.

Childhood ailments such as allergies, acne, asthma, eczema, ear infections and even diabetes type 1 are all linked to dairy to one degree or another. And if that isn’t enough, there’s still more with links to dairy - arthritis, Crohn’s disease, migraine, multiple sclerosis...

While it is true that a balanced diet according to Ayurveda (a system of traditional medicine native to India) included dairy products, this depended on high quality milk freshly drawn from cows treated well and raised naturally.

Today’s milk is produced by cows who are so overworked that one in 3 has mastitis: according to the Vegetarian and Vegan foundation Charity, “painful, swollen udders issue copious amounts of pus and some of it is allowed in our milk, up to 400 million pus cells in every litre”.



And that does not include the many growth factors and hormones contained in every sip of milk, due to the fact that two thirds of all milk comes from pregnant animals, when their estrogen and hormone levels are at their highest.

If dairy is to be used at all, organic raw milk (brought to a quick boil and then cooled), the organic, fermented kinds (such as yogurt, cottage cheese, buttermilk or kefir) or goat's milk products are greatly preferred.

6. *So where can we get our calcium?*

If half the planet walks without crutches while staying away from dairy, why shouldn't we?

Where do other mammals, including cows, get their calcium?

From the vegetable kingdom, of course!

All leafy, green vegetables, and grasses (such as watercress, spinach, kale, parsley...) are high in calcium (as well as iron, magnesium, vitamin C, and many of the B vitamins), as are celery, broccoli, cauliflower, okra, onion, green beans, avocado, chickpea, tofu, almond, hazelnut, quinoa, oats, sesame and poppy seeds, and of course seaweeds.

In fact a dairy-free diet based on organic, wholesome foods more than covers our calcium needs.

Calcium content per 100gr of food:

Broccoli	103mg
Cow's milk	120mg
Chickpea	150mg
Watercress	180mg
Almond	250mg



Broccoli	103mg
Sesame seeds	780mg
Poppy seeds	1200mg
Seaweeds	up to 3g

5. Osteoporosis and the calcium paradox

It is interesting to note that although Americans and Europeans lap milk up (250 kg milk per year per person) they still hold the world record for osteoporosis while Asians who barely touch it (10 kg milk per year per person) are some of the healthiest, longest-living people on earth and have hardly heard of calcium disorders (there are 5 to 6 times less femur fractures than in the US).

When we eat such acidic foods as dairy or animal proteins, the body will do its best to return to its alkaline state by withdrawing calcium from the bones if there isn't enough in the food itself to do the job (which is why it is best to combine animal proteins with greens or other alkalising vegetables).

It seems that the epidemic of osteoporosis in the Western World is a calcium-robbing problem due to a protein overdose and too much acid foods, and not a calcium deficiency as we are made to believe.

Conclusion

Although calcium in the Western diet is perceived as synonymous with the consumption of dairy products, it is important to realise that not only does the health of our bones not depend on it but that dairy has been wrongly described as a cure-all for so-called calcium disorders and may even contribute to many degenerative diseases, including osteoporosis.

Bibliography

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