



Understanding Calcium: The Best Forms of Calcium Supplements

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We have all heard about how important calcium is for maintaining healthy bones, muscles and nerves. We also may be aware of the role calcium plays in inter-cellular communications. But many are unaware that the common American daily diet is not offering enough calcium. Sadly, this calcium that is lacking from our diet is then slowly leached from the bones, creating a plethora of joint and bone-related diseases such as osteoporosis.

Many people realize that they need more calcium, and make the conscious choice to take calcium supplements, but are still unaware of the different forms of calcium being sold on the market today. Which forms of supplements are being absorbed by the body? Which types of calcium make their way into penetrating the cellular membrane?

Hopefully this will help you understand the different types of calcium currently on the supplemental market.

8 Common Types of Calcium

1. Calcium Carbonate

A common form of calcium supplement, calcium carbonate is an alkaline-based compound found in rocks, limestone, shells of marine animals, pearls, eggshells and snails. It holds one of the highest concentrations of elemental calcium (35-40%), but is not high in bioavailability and requires the production of extra stomach acid to be absorbed.

Bioavailability refers to the amount of calcium in the supplement that can be assimilated by the digestive system, and ultimately used for cellular activity and health benefits. Calcium Carbonate is currently one of the cheapest and most prevalent forms of calcium supplements sold today. **Be sure to avoid this form** and check all of your multivitamin/mineral supplement labels.

2. Calcium Citrate

Differing from the alkaline qualities of calcium carbonate, calcium citrate has an acidic base. This acidity requires less production of natural stomach acids, allowing this type of calcium to be better absorbed than the carbonate form. It does, however, have less elemental calcium concentration (20%), and again, low bioavailability.

3. Oyster Shell Calcium

While it may seem like a more natural form of calcium, and thus higher in absorbable content, oyster shell calcium, as well as dolomite and bone meal, are difficult to quality-control and have been found to show levels of lead toxins. In general, these "natural forms" of calcium should be avoided.

4. Calcium Gluconate

A form of calcium with very low levels of actual calcium concentration. You would need to take very large amounts of the supplement to reach calcium requirements, and the bioavailability is still not certain.

5. Calcium Lactate

The form of calcium found in foods such as aged cheese and baking powder. It has a medium bio-availability in the body because it can be absorbed at various pHs'.

6. Calcium Phosphate

The main form of calcium coming from cow's milk. Tooth enamel and bones are very high in calcium phosphate, although supplemental forms have not shown to be readily bioavailable.

7. Calcium Citrate Malate

A water-soluble form of calcium. It is created through mixing the calcium salt found in citric acid with malic acid. This combination has higher levels of bioavailability than other forms, as it is water-soluble and does show some evidence of being dissolved into cell membranes. More bioavailable than the other forms listed above.

8. Calcium Orotate

The most effective form of calcium supplement, created using the mineral salts of orotic acid. Calcium orotates are found in small amounts in all living beings. It is a primary mineral for the creation of bones and teeth, and fosters cellular communications. In my experience, this is by far the best calcium supplement to use for supporting calcium levels.

Both plants and animals use orotates to create DNA and RNA. Extensive scientific research done by Hans A. Nieper, M.D. has found that orotates can penetrate cell membranes, enabling the effective delivery of the calcium ion to the inner-most layers of the cellular mitochondria and nucleus.

Calcium Orotate supplements have been found to be beneficial in:

- Preventing osteoporosis
- Reduction of muscle cramps
- Reduction in pain associated with spinal problems
- Maintaining bone health
- Maintaining teeth health
- Alleviation of sleep disorders like insomnia
- Increasing the body's ability to metabolize iron
- Overall stress reduction and mental alertness

Calcium orotates contain many properties that can help protect you and your health, while offering your cells the most readily-absorbable form of calcium on the market today.