

# CALCIUM MAGNESIUM LIQUID

These two minerals are known as macro minerals, which means they are used by the body in very large amounts. Modern stressful lifestyles actually increase the demand for these two minerals. Yet at the same time, today's highly processed fast foods make even less of these minerals available from the diet. For these reasons we are witnessing a growing number of problems associated with calcium and magnesium deficiency.

A major problem facing a great many women is the menace of breast cancer as well as osteoporosis, a thinning of the long bones which results in easy fracture of the forearm and the hip. Another problem is osteomalacia, which creates a softening of the bones such as the vertebrae. This results in the "shrinking woman" and the famous "dowager's hump" as the spine literally collapses. With men it is frequently seen as colon and rectal cancer. For both men and women, high blood pressure and strokes are a threat. Also, both men and women suffer from the pain of severe muscle cramps and spasms. Recent medical and scientific research has shown that the major cause of all these problems is a below-normal calcium intake and/or an insufficient intake or production of vitamin D.

For those in high pressure stress-related jobs, excess stomach acid is often a problem which results in the taking of antacids by the handful. Tragically, most of these contain aluminum which several studies indicate may contribute to the development of Alzheimer's disease. Yet calcium in several forms will quickly and safely calm excess stomach acid and provide a useful mineral for normal body chemistry. Vitality's Calcium-Magnesium Liquid offers the best source of bio-available calcium we are aware of. Here calcium is bound to five different carriers of transport mechanisms in an easily-absorbed liquid suspension. They are: calcium-*phosphate, citrate, carbonate, gluconate and lactate*. Why so many? Because recent research has shown that according to the state of the individual's stomach and intestinal chemistry, each type of calcium transporter will be more effective than another at one time and place in the intestines.

For example, the over-stressed young executive may need calcium in the carbonate, gluconate or lactate form to calm down the burning created by the excess acid in his/her stomach. On the other hand, the person past the age of 50 who is making less and less stomach acid will require calcium citrate because it is easier to assimilate. In addition it makes the other forms easier to

assimilate as well. All of these different forms are available in one formula.

However calcium which has been assimilated into the cells of the gut wall must still be bound to a transport carrier if it is going to make it into the blood stream. This binding action is accomplished by vitamin D. If we get enough of the right kinds of rays of sunlight on enough area of our skin which has natural body oils in it, we make enough vitamin D in our own body to do the job. However, recent medical studies indicate that a great many people simply do not do that. Especially those living in smog-covered cities and those living in the upper mid-section of the nation and the upper East coast area. To utilize their calcium these people need a vitamin D supplement. In addition, other studies show that most people don't get enough vitamin D from their diet. For these reasons, Vitality's Calcium-Magnesium Liquid also contains the necessary vitamin D.

Closely associated with calcium and vitamin D is the mineral phosphorus. The average adult body contains about 2 pounds of this important element. A large part of that phosphorus is found in the bones and teeth where it helps hold the calcium in place. In fact, without adequate phosphorus, calcium soon leaves the bones and teeth. There is also a sizable amount of phosphorus spread throughout all the other tissues. A low level of phosphorus in the soft tissues results in a loss of their most important minerals, potassium and magnesium. The brain is extremely rich in phosphorus where it helps maintain the electrolyte balance between calcium, potassium and magnesium. It is also an important structural component of the phospholipids that make up the basic structure of the brain. Thus we see that phosphorus is a key element in helping us to retain the integrity of our tissues. Supplements of calcium without phosphorus have a marginal benefit, which is why phosphorus is included in this product.

Magnesium is one of the most important and vital of all the minerals. Along with phosphorus, it holds calcium in the bones and teeth. Although calcium provides density to bones and teeth, it is magnesium which gives them strength. Studies have shown that the more magnesium, the stronger the bones and teeth are. Magnesium also regulates the sodium-potassium pump that keeps the correct balance of these minerals in the cells. It also keeps calcium out of the cells of the soft tissues and in

the spaces between the cells where it belongs.

Recent research has shown that the trace mineral Boron is essential for menopausal women to be able to utilize calcium in their bones. The female hormone estrogen has a profound influence on keeping calcium in the bone. When women go into menopause their production of estrogen drops dramatically. For a rather large number, it drops so low they cannot keep adequate amounts of calcium in their bones. Thus they develop osteoporosis with all of its attendant fractures as well as osteomalacia and the shrinking spine. It has now been found that when adequate boron is present it increases the body's ability to produce estrogen in the older women by as much as four times. This elevated hormone level not only causes calcium to stay in the bone, and lay down new calcium in the bone when needed, but it also promotes a more youthful and feminine body. For all of these reasons boron has been included in this formula.

Although men are not as severely affected women, nevertheless when men enter their fifties, they experience what is called the male climactic, which is simply a nice way of saying that their male hormone production starts dropping off rapidly. Their musculature starts wasting away and their sex drive wanes. Like the woman, they also start losing some calcium from the bones. Well good news men, boron does as much for you as it does for the ladies. Only in your case it helps raise your testosterone level to normal without disturbing your estrogen. So the boron in this formula is just as important to you as it is to the ladies.

Some individuals have a marked tendency toward the creation of kidney stones, a most painful condition. These stones generally consist of calcium oxalate. Studies over a 4-year period have shown that daily supplements of 200 to 300 mg. of magnesium reduced subsequent kidney stone formation by 92% in patients with a history of chronic kidney stone formation.

Because of these marvelous regulatory functions, recent studies have shown that magnesium is the key element in: preventing and lowering high blood pressure, normalizing irregular heart beat, correcting congestive heart failure, eliminating sudden death heart attack and mitral valve abnormalities. Some authorities cite evidence that magnesium protects against blood clots and plaque formation in the arteries. Magnesium had been shown to lower cholesterol and eliminate both gall stones and kidney stones.

Magnesium is vital to the nervous system. When magnesium is deficient, individuals become emotionally irritable, and they suffer from depression, anxiety, confusion, nervousness, and even crying spells.

Magnesium along with vitamin B-6 is critical for the utilization of all amino acids and proteins, many hormones, energy development, and the prevention of epilepsy, asthma and prostate enlargement.

Several studies indicate magnesium enhances the strength and activity of the immune system and enhances its ability to destroy both bacteria and virus.

The female hormone cycle and pregnancy are generally effected in a negative way by a deficiency of magnesium and vitamin B-6. PMS problems are a common symptom, along with menstrual cramps, toxemia of pregnancy, difficult labor, uterine cramps after delivery, and what are known as the post-partum blues.

There is even some evidence that some forms of cancer are associated with a deficiency of magnesium. Clearly, magnesium is a vitally important mineral in the human physiology. Thus magnesium is included in this formula in a significant amount along with calcium, phosphorus and vitamin D in the correct ratio for maximum assimilation and utilization. They are combined in a pleasant-tasting, easy-to-take liquid.

The presence of microcrystalline calcium in five different forms along with the correct ratio of phosphorus, vitamin D, magnesium and boron in a pleasant tasting liquid makes this formula, in the opinion of the Institute, the finest source of these minerals on the market today. It is the preferred form for women and men who have reached middle age and must guard against bone calcium loss.

## INGREDIENTS

One teaspoonful of Calcium-Magnesium Liquid contains the following nutrient values:

Calcium .....	600 mg.
Magnesium .....	400 mg.
Phosphorus .....	600 mg.
Vitamin D .....	300 mg.
Boron .....	2 mg.

## SUGGESTED USE

The Institute offers the following suggestion in the use of this product. As a maintenance supplement, one tablespoon after one meal per day. For those seeking to replace an existing deficiency in these minerals, one tablespoonful after meals, two to three times per day, or take as directed by your physician.

Validity Prod. Code 2018 (16 oz.)