

All of the ingredients in *DYNAMITE*® products are the purest we can find, often using organically grown, human grade materials even in animal products. Our formulas are carefully devised to make the whole work better than the apparent sum of their parts and are chemical and cruelty-free. The key to our product success is their mineral base. Without optimum levels of minerals, the body cannot utilize dietary protein, fats, vitamins and carbohydrates effectively. Minerals are vital. They function directly and indirectly in supplying energy and regulating body processes. They are also imperative for growth and maintenance.

WHY CHELATE MINERALS?

The importance of minerals has finally gained international recognition and acceptance. To meet this vital demand for minerals in nutrition, many companies have emerged. The problem is that most companies provide their minerals as inorganic mineral salts, which cannot be easily absorbed. The movement of most minerals across the intestinal mucosa requires chelation with carrier proteins and most minerals exert their biological effects while in the chelated state.

It is not just a concern that inorganic minerals are difficult to absorb, your body also has to find a way to flush out the metal salts once you've consumed them. Under the best circumstances, your body can only chelate about 10% of inorganic minerals in the stomach, but what happens to the rest of the supplement? It acts as a toxin because your body does not know what to do with it. Depending on the mineral, excesses might gather in the kidneys as kidney stones, or in the bladder and even in the liver.

A WORD ABOUT CHELATION

The word chelation is derived from the Greek word 'chele', meaning claw. Pronounced "KEY-LAY-SHUN", the chemical definition is: To firmly bind a metal ion with an organic molecule (ligand) to form a ring structure. The resulting ring protects the mineral from entering into unwanted chemical reactions.

A chelated mineral that can be used by the body is one that has been bonded to two or more amino acids from hydrolyzed protein. A mineral in this chelated state allows easy passage through the intestinal wall into the blood stream, which results in the metabolism of that mineral.

RESEARCH DEVELOPS THE ANSWER

The research role of *DYNAMITE*® has been to develop natural chelated minerals which are biologically available through chemically suspending an essential mineral between two or more amino acids. Our researchers have uncovered nature's complex way of chelation that works.

THE FORMULATION OF A TRUE CHELATE

The concept of chelation is simple, but making a chelate that is biologically available is not. The criteria that *DYNAMITE*® adheres to was established by nature and includes the following:

1. A true chelate that is stable requires at least five bonds which form a ring.
2. The mineral must be bonded in the chelate ring by two of the elements in the ligand.
3. In order to have a true chelate, one of the bonds between the metal and ligand must be covalent while the other is ionic.
4. The chelate must have a molecular weight that is less than 1500 daltons in order to penetrate the body cell membranes as an intact chelate. Larger chelates must be broken down prior to absorption, thus defeating the purpose of the chelate. *DYNAMITE*® chelates all have a molecular weight of less than 1000 daltons.

When it comes to research, *DYNAMITE*® stands alone and we have the patents to prove it!

