

## Health And Wellness Depend On The Colloidal Trace Minerals We Consume

Colloidal trace minerals are just as important to our health and well being as vitamins. Practically since birth we have had it pounded into us that we must eat our vitamins if we are to be healthy. The fact is that vitamins are of little use to you without minerals which are as essential for your metabolism as any vitamin is.

The essential minerals are the inorganic equivalents of the essential organic vitamins. They work together to maintain the biochemistry that keeps you alive. Take calcium, for example. That is a mineral needed for healthy teeth and bones, among many other things, but it is no good without vitamin D. Magnesium and potassium are also needed for healthy bones. Take blood clotting: vitamin K is the blood clotting vitamin, but blood will not clot without calcium.

How is energy generated in your body from the carbohydrates and sugars that you eat? They are converted to glucose that is converted to energy in every cell in your body and used in-situ. Your heart gets the energy to beat from cells in the heart – energy does not float around the blood waiting to be used. It is generated by means of the production of a substance known as ATP – adenosine triphosphate of which phosphorus is an essential component. Without the mineral phosphate none of us would be alive – nor would any form of life for that matter. ATP is the universal molecule of life.

So far we have discussed some of the seven major minerals: calcium, magnesium, potassium, phosphorus, sulfur, sodium and chlorine. There are many more that your body needs, and estimates vary from 45 to 70 trace minerals, without which you would find it difficult to function properly. Although your body can make many of the organic substances needed for life from vitamins, amino acids, fatty acids and proteins, it cannot make minerals which have to be taken in as part of your diet. They must be taken in your regular diet or as a supplement.

In the USA a major mineral is one that is needed in amounts greater than 100 mg (0.1g) a day, and trace minerals are required at less than 100 mg a day. So one that is needed at 100.1 is major, and one at 99.9 mg is trace. Is there a difference in the source of trace minerals, or would any source be good enough? The answer lies in the construction of the human body, and the way in which it absorbs minerals.

Your body is not designed to absorb metallic minerals. The way that such minerals are available in your diet is as part of larger organic molecules, and this is the way they must be taken as a supplement. Thus, you can't just drink a soluble metal salt because it will pass straight through you with only around 5% absorption, if it doesn't poison you first. For supplement purpose, metallic minerals are chelated, or combined with larger organic molecules such as proteins and amino acids, and this increases absorption to as high as 50%.

The necessity of trace minerals in the human diet was not discovered, as much as the result of a number of studies on various societies and remedies that appeared to have no basis for their effects. The Hunzas and Azerbaijanis, for example, are known to live very long lives, and investigations into this showed their diet was very rich in colloidal trace minerals from glacial water and food grown in soil enriched by that water.

It was through studies such as this and also investigation into the metabolites obtained from liver extracts that indicated the importance of many trace minerals. Take arsenic, for example. A known poison in larger quantities, trace quantities have been found to be metabolized by the liver, and while no studies have been carried out on the use of arsenic as a trace element in human biochemistry, studies on rats and human liver extracts have indicated that it could have a part to play in normal growth and reproduction.

Trace minerals take part in many enzyme reactions, and physicians now agree that many health conditions could be enzymic in origin. It follows, then, that trace elements are important in maintaining good health. It is certainly true that we cannot live without any of the seven major minerals. And it is just as certain that many of the trace minerals are just as important to human biochemistry as the major ones. It is certainly true of vegetables, which are less complex biological entities than humans, and if tomatoes need at least eight known minerals for good growth then it is certain that we will need a lot more. No studies are needed to convince us of that.

Take zinc, for example. Zinc is essential for proper liver function, wound healing and reproduction: spermatogenesis, the proper development of the primary and secondary male sex organs, and all areas of the female reproduction process. Zinc is classed as a trace element, as is selenium, a deficiency of which can lead to heart disease, mental retardation and impaired function of the thyroid. Selenium deficiency is not common in the West but is in China where many areas are depleted of selenium. However, if zinc and selenium are known to be essential, how many of the other seventy or so trace minerals are also essential to human health?

The trace minerals in general are believed to protect us from some degenerative conditions, the effects of environmental pollution and help to protect us from the effects of an excessive intake of toxic minerals. Although there have been insufficient studies carried out on most trace minerals, it is

known that they should be taken in chelated form, metallic in nature or not.

It is also known that such minerals should be taken as a balanced mixture as found in nature. A bullet approach, using an individual mineral to treat a certain condition, could lead to an imbalance in the body, and severe side effects, some of which might not yet be known. What is known is that certain minerals are tolerated by each other in specific relative concentrations, but if this balance is upset then they can inter-react and produce unpleasant side effects on, for example, the delicate balance of minerals in the blood.

It is becoming increasingly clear that modern farming methods have resulted in mineral depletion of the soil, and that our normal diet now only contains a small number of the minerals that our forefathers were taking. Plants draw up minerals from the soil when they grow, and we take in these when we consume them or the animals that live on them. Saturation of the soil year in year out by chemical fertilizers low in or devoid of trace minerals has resulted in a sterile environment for our feedstock, and has made colloidal trace mineral supplements almost mandatory for good health.

Today's plants can contain fewer than 20 minerals, compared to the 70 plus of our ancestors. Life expectancy is increasing in spite of our increasingly poor diet rather than because of it, and is due more to medical advances than to advances in agriculture. A mineral supplement does seem necessary, but when you take one it should be balanced so that no one mineral is in excess at the expense of another.

This helps to reduce the possibility of overdosing on an individual substance while maintaining a natural balance of minerals in your body to make sure that your normal biochemistry is not interrupted by some deficiency or excess that has yet to be discovered. While this might seem a spurious argument, you can be certain that those in the past that used cadmium and lead as cosmetics would rather have known the effects of these toxic substances that eventually killed them.

So use chelated trace mineral by all means, but make sure that they are balanced and tested so that nothing is present that can upset the normal balance of minerals in your body. If they work for tomatoes they should work for you!

## About the Author

More information on [health and wellness](#) with trace minerals is available at VitaNet &reg;, LLC Health Food Store. <http://vitanetonline.com/>

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