Countdown to Zero

How Modern Agricultural Practices Are Jeopardizing Our Health

By Dr. Richard Drucker

When you hear the phrase *health and wellness*, what images come to mind? Exercise, nutrition, fruits and vegetables, supplements? What about dirt? Does that come to mind?

That's right, dirt. Soil is the primary factor in nutrition because much of our food comes from the earth. The human body is composed literally of earth, if you think about it. The minerals that are essential to how the body functions are connected directly to the state of our soil. If an element is missing from our soil, it will be missing from the foods we eat; hence, from our bodies. Unfortunately, that is the reality these days. Much of the Earth's soil is depleted, and depleted soil doesn't produce healthy, nutrient- and mineral-rich plants. Moreover, crops produced in depleted soil are more prone to invasion by insects, viruses, fungi, etc. Insects and infectious organisms get rid of unhealthy vegetation and don't typically attack truly healthy plants.

The Perils of Modern, Inorganic Farming

<u>image - Copyright â Stock Photo / Register Mark</u> Much of the modern world is now aware that our industrialized methods of farming have not only depleted the soil, but also have created a cycle that requires pesticides to protect the unhealthy crops grown on depleted soil. The commercial applications of agriculture have depleted the soil of precious, organically complexed trace minerals and hindered the ability of plants to utilize those elements. That means our food is nutritionally deficient right from the source. Our food is then refined and processed, which further degrades its nutritional value!

Who suffers? We all do. More than 30 organically complexed trace minerals are necessary to produce healthy, nutrient-rich crops, yet most current farming methods routinely put back only three to five of them. And that's only a part of the problem. Inorganic (synthetic/dead/toxic), ammonium-based fertilizers, along with herbicides and pesticides, kill precious microorganisms in the soil that are essential to the creation of organic mineral complexes. We have used up the available trace minerals in our soil *and* destroyed the means of replenishing these soil-based microorganisms.

Is there a consensus among health care professionals that depleted soil is a nutritional concern? While some diehards believe you can avoid supplements if you eat a "balanced diet," it's a verified fact that most of our livestock feeds contain nutritional supplements. Without supplemental nutrients being added to the feed, far too many animals were getting ill. What does that tell you? Grain doesn't possess enough nutrients to keep the livestock healthy. If our livestock can't stay healthy eating our modern crops, how can we?

Prior to the 1930s, farmers fertilized their crops with organic substances. Unfortunately, modern, economic-based agriculture has virtually replaced all the critical organic complexes with inorganic (synthetic/toxic) fertilizers, which cause toxicity in water runoff and further imbalance the delicate nature of our soil. In the 1930s, when farmers began to add inorganic fertilizers to the soil, it was presumed that biological organisms could assimilate minerals in any form. Unfortunately, this is not the case. We are now discovering inorganic minerals can't be assimilated easily by plants; they must first be combined with organically complex matter before they can be used. No wonder our food is less and less nutritious. No wonder it lacks taste, and no wonder modern farmers have to apply more and more toxic pesticides, herbicides and chemicals every year just to get their crops to market.

Organic vs. Inorganic Trace Minerals

Let's look at a similar dilemma. The human body is intended to derive minerals from organic complexes supplied in the foods we eat. Unfortunately, these critical, disease-preventing, organic nutrients aren't present when our food is grown in depleted soil. And, just like the farmer who has attempted to alter the soil with inorganic toxic chemicals and fertilizers, we have tried to add inorganic trace minerals to our diet in the form of colloidal supplements, with even worse potential consequences. It's important to reiterate that most trace minerals are not recognized, absorbed or utilized by living tissue unless they're carried in organic complexes.

<u>image - Copyright â Stock Photo / Register Mark</u> Even the best inorganic trace minerals (e.g., coral, colloidal and/or ionic) are extremely large and insoluble, with high atomic weights and large sizes ranging from 1-100 nm. These molecules are giant compared to organically complexed minerals, and might be rejected at the cellular level due to their synthetic composition, size or weight. Moreover, they eventually might accumulate in the body, as they are stored in extracellular spaces, outside the cell's interstitial fluid and fatty tissue. Over the course of time, this can lead to severe toxicity and disease.

How different are organically complexed minerals compared to colloidal minerals? Organically complexed trace minerals are definitively different in that they are naturally chelated - ultra tiny - and they have ultra-low molecular weight. They are approximately 50 to 100 times smaller and much lighter in weight. They are physically small enough that they easily can be carried into the cells of our bodies. They are bound by carbon (living matter) and have innumerous health benefits, aiding in both intracellular and extracellular detoxification. Thus, when trace minerals are combined with organic matter, they become an enriching meal of living minerals rather than a toxic plate of inert, dead rocks.

The function of organic trace minerals is to be systemic catalysts. They are activators - intracellular "spark plugs." They either "kick off" or "speed up" much of the chemistry that goes on in our bodies. Without trace minerals, there is no life. They specifically are responsible for carrying much of our nutrition, glycogens, glucose, etc., to our cells.

Most scientists would agree we need three basic ingredients to sustain life: water, oxygen and organically complexed (carbon-based/living) trace minerals. Not even vitamins or enzymes can perform without trace minerals. When trace minerals are insufficient, numerous processes either slow down or come to a halt until the mineral banks can be replenished. Knowing this, it's easy to see why both plants and humans are becoming increasingly susceptible to disease. It's also easy to understand what Linus Pauling, (twice awarded the Nobel Prize in medicine) meant when he categorically explained to the 74th Congress of the United States, "Every ailment, every sickness and every disease can be traced back to an organic trace-mineral deficiency." It has become alarmingly evident that we are severely deficient in one of the most basic components necessary to sustain health - organically complexed trace minerals.

<u>image - Copyright â Stock Photo / Register Mark</u> In a way, the problem with depleted soil is similar to the problems of using antibiotics. Antibiotics kill the harmful bacteria that are making us sick, but they kill the friendly flora in the intestinal tract at the same time. Antibiotics appear to cure the infection, but in reality, long-term use might weaken the immune system, making us more likely to suffer from future illnesses. Similarly, as the "good" microorganisms in the soil are wiped out, the vegetation loses its ability to gain the proper balance of minerals from the soil. The end result: Our bodies take on these deficient foods and become impaired and imbalanced.

Potential Solutions

If our soil and crops lack essential minerals, we need to supplement our diets to achieve true wellness. All biological organisms (including humans) require organically complexed trace minerals in order to maintain health and prevent disease. Decades ago, if we had only protected and nourished our soil from hazardous and toxic chemicals, these critical organic complexes would naturally be in the foods we eat today. Unfortunately, they are not.

But will any old multivitamin off the shelves of our grocery or drug store do the trick? The short answer is no. Much like our soil, most supplements available on the market today are full of synthetic chemical nutrients instead of the organic nutrients our bodies need.

How do we get these complexes back into the soil, and what can we do in the meantime to replenish the organic trace minerals in our bodies? A piece of the answer to both questions lies in a substance called *fulvic acid*. Fulvic acid (not to be confused with folic acid) is the end result of repetitive plant decomposition, and is the first biological step in changing inorganic trace minerals into organically complexed, soluble trace minerals that can be used by both plants and animals.

Fulvic acid is produced as plant matter decays over long periods of time and utilized in trace amounts by microorganisms in the soil. The process takes hundreds of years and can't be duplicated in the laboratory. Fulvic acid has an extremely small (ultra-chelated), low molecular weight that might beneficially modify many essential biochemical, electrochemical and metabolic processes, and yet, the greater scientific community still is largely unaware of its role.

Further research might show that fulvic acid can be used to resuscitate some of our soil and possibly our food sources and bodies. Until this can be accomplished, high-quality supplements remain our best defense against food devoid of life-sustaining, organically complexed minerals and nutrients.

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