Mineral Deficiencies / Radiation Resistance
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Cesium-137 – mimics potassium
Strontium-90 – mimics calcium
Iodine-131 – mimics iodine

The most hazardous isotopes normally released in nuclear accidents are known to be cesium-137 (Cs-137), iodine-131 (I-131), and strontium-90 (Sr-90). These isotopes have half-lives sufficiently long to allow them to migrate into the body or, in the case of iodine, have the tendency to accumulate in the thyroid gland. These radioactive particles readily fill the nutritional holes left by deficiencies of potassium, calcium and iodine.

Radiation damages our bodies by breaking the chemical bonds in our cells. The amount of damage done depends not only on how much radiation we are exposed to but also very much on how mineral deficient we are. This is a crucial point our government and doctors hate to address because it undermines the prevailing medical paradigm, a paradigm that puts you and your loved ones in your graves rather than promoting your health and longevity.

Radionuclides are known to accumulate in particular organs. Thousands of Belarusian autopsies already show that cesium settles in heart and optical muscles[1], speeding their degeneration. Strontium-90 likes teeth and snuggles into bone marrow, irradiating the stem cells responsible for our blood and immune systems. Both Sr-90 and I-131 migrate to vital organs in the body where they are almost impossible to remove, serving as a constant source of unnecessary radiation and as a cause of cancer or other diseases.

Radioactive elements are similar in structure to their non-radioactive counterparts, differing only in the number of neutrons the atoms contain. Because of this, nutrition plays an important role in protecting the body from damage caused by radiation. Deficiencies of calcium, potassium and other minerals make the body more likely to absorb radioactive elements.

Mineral Deficiencies

The fact is that minerals are as important to us as they are to plants and without them taking up their correct positions in our cells it is impossible to remain strong and healthy for long. We wilt just like plants wilt, and if we add dehydration to the list, a commonplace medical condition, then we and our children have great difficulty clearing heavy metal and radioactive contamination from our bodies.

Without enough minerals our cells become like Swiss cheese – full of holes that can be filled with heavy metals like mercury that is everywhere, even in our teeth, thanks to dentists, and in some of the vaccines given to our children – an absolute medical abomination.

With today’s pollution of chemicals and heavy metals, the increasing radiation coming from Japan and other nuclear threats – toxic medical and dental treatments – combined with the vastly decreased quality of our foods, it is vitally important that we learn how to confront these threats with some new medical principles and practices.

According to the National Foundation for Cancer Research the value of minerals as part of an anticancer diet is frequently overlooked. Minerals play a vital role in fighting cancer. A prime example is the mineral selenium (Se), an essential micronutrient with important biological and biochemical functions in organisms because of its unique and powerful antioxidant properties and its
ability to regulate thyroid gland metabolism. It is well known that Se is an antagonist that moderates the toxic effects of many heavy metals such as arsenic, cadmium, mercury, and lead in organisms. This same capacity to mitigate heavy metal toxicity crosses over into radioactive particles giving us a measure of increased protection via increases in selenium-dependent glutathione.

It is important to remember that whatever protects us against cancer protects us from radiation exposure. We can make this general statement because there is a direct mathematical relationship between radiation exposures and cancer rates.

Magnessium & Calcium

Dr. Chris Busby is recommending magnesium and calcium supplementation to everyone concerned about the radiation exposure from Fukushima. Nuclear particles do have a strong propensity to bind with DNA and that is why we see cancers develop, even after low exposure, and that is also why we see drops in fertility and the onset of sterility. Busby though is new to the health area and is being confronted for his product line and certainly needs to be for his recommended dosages of 800 mg of calcium and 450 mg of magnesium taken daily. One should be taking much more magnesium!

**Magnesium repletion produced rapid disappearance of the periosteal tumors.[2]**

Magnesium is a vital mineral whose lack leaves us open to not only radioactive damages but also those from heavy metals and thousands of chemicals that we are commonly exposed to. Researchers from Japan’s National Cancer Center in Tokyo have found that an increased intake of magnesium reduces a man’s risk of colon cancer by over 50%. Aleksandrowicz et al in Poland conclude that inadequacy of magnesium and antioxidants are important risk factors in predisposing to leukemias.[3] Other researchers found that 46% of the patients admitted to an ICU in a tertiary cancer center presented with hypomagnesemia. They concluded that the incidence of hypomagnesemia in critically ill cancer patients is high.[4]

Magnesium deficiency is carcinogenic, and in the case of solid tumors, a high level of supplemented magnesium inhibits carcinogenesis.[5] Magnesium ions stabilize structures of proteins, nucleic acids, and cell membranes by binding to the macromolecule’s surface and promote specific structural or catalytic activities of proteins, enzymes, or ribozymes.

**Magnesium plays a critical role in vital DNA repair proteins.**

**Magnesium ions’ synergetic effects on the active site geometry may affect the polymerase closing/opening trends.**

Distinct structural features of DNA, such as the curvature of dA tracts, are important in the recognition, packaging, and regulation of DNA. Physiologically relevant concentrations of magnesium have been found to enhance the curvature of dA tract DNAs. Magnesium, an essential metal that is important in the normal functioning of DNA, alters the tumorigenic [tumor-causing] process when it interacts with heavy metals, which are damaging DNA molecules.[6]

The anti-colon-cancer effects of calcium are linked to magnesium levels, reports a 2008 study. Researchers from Vanderbilt University found that low ratios of the minerals were associated with reduced risk of colorectal cancer, according to findings presented at the Seventh Annual American Association for Cancer Research International Conference on Frontiers in Cancer Prevention Research.[7]
Several studies have shown an increased cancer rate in regions with low magnesium levels in soil and drinking water, and the same for selenium. In Egypt the cancer rate was only about 10% of that in Europe and America. In the rural fellah it was practically non-existent. The main difference was an extremely high magnesium intake of 2.5 to 3g in these cancer-free populations, ten times more than in most western countries.[8]

**Special Note on Calcium & Cancer**

Dr. Carmen Rodriguez, senior epidemiologist in the epidemiology and surveillance research department of the American Cancer Society, says that a 1998 Harvard School of Public Health study of 47,781 men found those consuming between 1,500 and 1,999 mg of calcium per day had about double the risk of being diagnosed with metastatic (cancer that has spread to other parts of the body) prostate cancer as those getting 500 mg per day or less. And those taking in 2,000 mg or more had over four times the risk of developing metastatic prostate cancer as those taking in less than 500 mg.

Later in 1998, Harvard researchers published a study of dairy product intake among 526 men diagnosed with prostate cancer and 536 similar men not diagnosed with the disease. That study found a 50% increase in prostate cancer risk and a near doubling of risk of metastatic prostate cancer among men consuming high amounts of dairy products, likely due, say the researchers, to the high total amount of calcium in such a diet. The most recent Harvard study on the topic, published in October 2001, looked at dairy product intake among 20,885 men and found men consuming the most dairy products had about 32% higher risk of developing prostate cancer than those consuming the least. [Editorial note: This study makes no distinction between raw “live” milk from grass-fed cows and the commercial pasteurized, homogenized and “ultra-pasteurized” (UHT) “dead” milks.]

**Iodine**

A decrease in iodine intake coupled with an increased consumption of competing halogens, fluoride and bromide, has created an epidemic of iodine deficiency in America.

Dr. David Brownstein and I have made a universal call for heavy iodine supplementation because the nutritive type of iodine protects the thyroid from the radioactive type of iodine. One has to be a fool not to be taking iodine because approximately 95% of us are deficient in iodine, thus making our thyroids sitting ducks (sponges) for the radioactive type of iodine. Talking about mineral holes, a thyroid deficient in iodine becomes like an intense vacuum cleaner hungry for anything even looking like a halogen (fluoride, bromide, chlorine, or rocket fuel). Because so much blood goes through the thyroid it has a fantastic capacity to concentrate radioactive iodine and these halogens no matter how low the concentration of them is in the blood.

**Sulfur**

The National Cancer Institute found that individuals who ate the most allium vegetables (red onions, scallions, garlic, chives and leeks) had a nearly 50% lower cancer risk than those who ate the least. A large-scale epidemiological Iowa Women’s Health Study looked at the garlic consumption in 41,000 middle-aged women. Results showed that women who regularly consumed garlic had 35% lower risk of developing colon cancer.[9] In another study greater intake of allium vegetables (more than 10 g per day vs. less than 2.2 g per day) was associated with an approximately 50% reduction in prostate cancer risk.

A Japanese study showed that even low concentrations of sulfur had radio-protective effects through the facilitation of DNA double-strand break repair, providing protection against radiation damage at all
cellular levels in the whole body. Boosting your body’s antioxidant levels is a key to survive cancer. In my Natural Allopathic protocol I suggest men, women and children supplement heavily with organic sulfur.

Since sulfur bonds are required for proteins to maintain their shape, and these bonds determine the biological activity of the proteins, it is critical for health and life itself. There is no doubt that sulfur helps us battle cancer so it’s a good time to become more familiar with this basic element.

Medicine does not get any more basic than treating the body with sulfur. Sulfur is also required for the proper structure and biological activity of enzymes. If you don’t have sufficient amounts of sulfur in your body, the enzymes cannot function properly. This can cascade into a number of health problems since, without biologically active enzymes, your metabolic processes cannot function properly.

Sulfur enables the transport of oxygen across cell membranes.

Because sulfur is directly below oxygen in the periodic table, these elements have similar electron configurations. Sulfur forms many compounds that are analogs of oxygen compounds and has a unique action on body tissues. It decreases the pressure inside the cell. In removing fluids and toxins, sulfur affects the cell membrane. Sulfur is present in all cells and forms sulfate compounds with sodium, potassium, magnesium, and selenium. Organic sulfur, in addition to eliminating heavy metals, regenerates, repairs and rebuilds all the cells in the body.

Selenium

Data suggests that a diet rich in selenium protects against cancers of the stomach, breast, esophagus, lung, prostate, colon, and rectum. According to Dr. Harold Foster, death rates in the USA for cancer are lower when blood selenium levels are high.[10] One important study found that a high blood level of selenium is associated with a 4-5-fold decrease in the risk of prostate cancer. Scientists at Stanford University studied 52 men who had prostate cancer and compared them to 96 men who didn’t. One surprising finding was that blood levels of selenium generally decreased with age. It is well known that the risk of prostate cancer increases dramatically as one ages.

Those who have studied geographical differences have seen that in low-selenium regions, higher death rates occurred from malignant lymphomas and cancers of the tongue, esophagus, stomach, colon, rectum, liver, pancreas, larynx, lung, kidneys and bladder. In addition, cancer patients with low selenium levels tend to have a wider spread of the disease, more recurrences and die sooner.[11]

In a China study Dr. Shu-Yu Yu classified the regions as high-selenium, medium-selenium, and low-selenium. They then compared death rates from cancer to the selenium rates and found there was an exact correlation. In the low-selenium classification, three times as many people died from cancer as in the high-selenium classification.

Selenium, especially when used in conjunction with vitamin C, vitamin E and beta-carotene, works to block chemical reactions that create free radicals in the body (which can damage DNA and cause degenerative change in cells, leading to cancer). Selenium also binds strongly with mercury, protecting us from its damaging effects.

Selenium helps stop damaged DNA molecules from reproducing, meaning it acts to prevent tumors from developing. “It contributes towards the death of cancerous and pre-cancer cells. Their death appears to occur before they replicate, thus helping stop cancer before it gets started,” says Dr. James Howenstine in A Physician’s Guide to Natural Health Products That Work.
Zinc

Epidemiologic studies suggest that zinc deficiency may be associated with increased risk of cancer.[12] Zinc supplementation is associated with decreased oxidative stress and improved immune function, which may be among the possible mechanisms for its cancer preventive activity.

Zinc is essential for health. It’s needed for the enzymes that regulate cell division, growth, wound healing, and proper functioning of the immune system. Zinc is an essential co-factor in a variety of cellular processes including DNA synthesis, behavioral responses, reproduction, bone formation, growth and wound healing. Zinc is a component of insulin and it plays a major role in the efficiency of most of the functions of the body. Zinc is necessary for the free-radical quenching activity of superoxide dismutase (SOD), a powerful antioxidant enzyme that breaks down the free-radical superoxide to form hydrogen peroxide. Zinc is required for the proper function of T-lymphocytes. The mineral also plays a role in acuity of taste and smell. And zinc is required for proper functioning of genetics, immunity, formation of red blood cells, organ, muscle and bone function, cell membrane stability, cell growth, division, differentiation and genetics. Importantly, zinc is vital for the metabolism of vitamin A.

Conclusion

The best medicines are all concentrated nutritional mineral medicinals, not pharmaceuticals. What is going to keep you alive and well nutritionally in difficult times are the basic elements that strengthen us from the foundational level of physiology. Pharmaceuticals pretty much just gum up the works leading to outright destruction of healthy cells and tissues and thus a decline in health.

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