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Health Hunters

Newsletter

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Foreword to the Death by Calcium Foreword:

By Ron Hunninghake, MD

If you are taking supplemental calcium, it may be hurting your long term health!

Foreword (as previously published in Death by Calcium with permission from Dr. Thomas Levy.)

The Personal Dimension of My Concern

“Dr. Ron, we’ve got to figure out this family osteoporosis curse!”

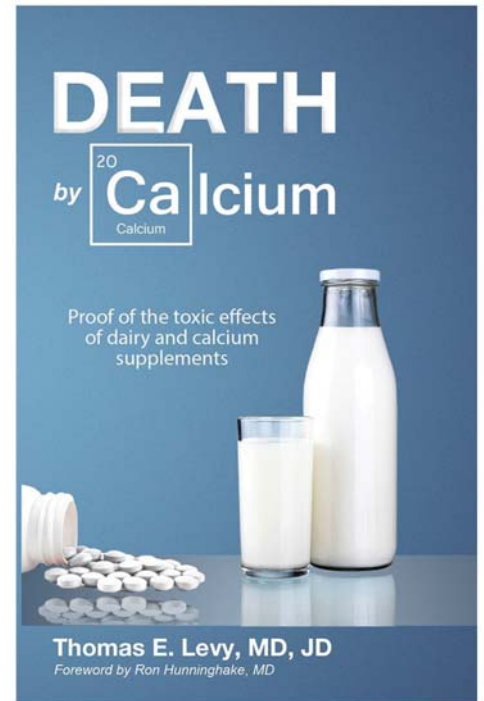
My cousin’s pleading words stopped me in my tracks outside the church where we had just attended her mother’s funeral service. Aunt Lucile was the fifth of nine beautiful sisters to die a horrible death of intractable pain and prolonged disability from a series of severe spinal compression fractures.

As a family physician, I was perplexed. My deceased aunts had grown up on the farm in a close-knit family. Except for one sister, they had not smoked. They ate well and were active. Except for hypertension and one instance of coronary artery disease, they were all relatively healthy. Despite this, they had each died with profound osteoporosis.

My mother attended Lucile’s funeral. She was second to the youngest of the nine and still alive in her early eighties. She too had lost several inches of height and complained of back pain. She was taking her bisphosphonate medication, her calcium supplement, and walking fairly regularly. Her DEXA scans were nevertheless dismal. I kept asking myself: what was missing?

Then it struck me: were they getting too much of something?

Foreword to the Death by Calcium Foreword continues on page 2...



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Please send any comments or suggestions to newseditor@riordanclinic.org.

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Editor

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Foreword to the Death by Calcium Foreword continued from page 1...

Since people in the United States consume more supplemental calcium than anywhere else on the planet, why does the U.S. have a higher incidence of osteoporosis than any other country?

Could the entire modern paradigm of osteoporosis prevention and care be based upon a false assumption? Were my aunts victims of a calcium mythology born of the aggressive marketing of dairy and the overly simplistic viewpoint that weak bones are just a calcium deficiency.

Originally, the government's Recommended Daily Allowances (RDAs) were advanced in wartime to assure the bare minimums of human nutrition. Over time, the RDAs came to ignore circumstances surrounding their original formulation in the admittedly complex issues that surround nutritional science. RDA committees often "sold out" to the marketing interests of the U.S.D.A. over the actual nutritional needs of the American consumer. This collusion evolved into a complex web of nutritional mythology and marketplace salesmanship that has left the United States ranked 33rd in overall life expectancy, and #1 in cost of health care.

Broadening My View of Clinical Nutrition

In 1989 my medical career took a surprising turn. I became the medical director of the esteemed Riordan Clinic in Wichita, Kansas. Its founder, the late Dr. Hugh Riordan, was a medical maverick who believed that the complex importance of human nutrition could not be reduced to such Madison Avenue platitudes as "Got milk?" or "Eat bananas for potassium!"

Under Dr. Riordan's mentorship I learned to question this mass marketing of nutritional assumptions. Instead, I sent thousands of seriously ill and frustrated patients for testing at one of the first truly nutritional labs, the Bio-Center Laboratory, an arm of the Riordan Clinic. I wanted to objectively assess their nutrient reserves, hormonal imbalances, digestive disorders, food intolerances, undiagnosed infections, and environmental toxicities in a medically disciplined way. My goal was to discern correctable underlying causes of their sustained illness. Dr. Riordan's dream was for a new medical paradigm of solid clinical nutrition.

Dr. Roger Williams, a famous nutritional pioneer, taught that quality nutrition is not simply more or less. Quality in this context means the right amount of the correct nutrients and whole foods geared appropriately to the individual's needs.

What is right and correct for the individual has to be informed by standards of scientific evidence gathered from both large population studies and measurements of each individual's unique genetic and epigenetic requirements and tempered with a lot of common sense.

Even as billions upon billions are spent on medical research and treatments, millions of victims go on suffering and dying from cancer, heart disease, extreme osteoporosis, chronic fatigue syndrome, diabetes, obesity, mental illness, and autoimmune disorders. When questions arise as to why, the answer is all too often, "We just don't know why these diseases occur."

Foreword to the Death by Calcium Foreword continues on page 3...

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VITAMIN K2

Most people do not receive enough vitamin K2 from diet alone. A growing body of literature supports the concept that increased intake of vitamin K both from food as well as supplements can have a beneficial impact on bone health. Additional studies also indicate that vitamin K2 may play important roles in supporting cardiovascular health and normal arterial elasticity. MK-7, a natural form of vitamin K2, in particular has shown to have rapid bioavailability in the body and can be effective for supporting bone health.

VITAMIN D3

Vitamin D is well known for the role it plays in helping to regulate calcium and bone metabolism. As we age, vitamin D status declines. If given the same amount of light, a younger person can produce more vitamin D compared with an older individual. When advancing age is combined with decreased sunlight exposure one can quickly become deficient in vitamin D. Vitamin D can increase the expression of osteocalcin and other important compounds from osteoblasts to help support bone formation. It can help to breakdown bone and mobilize calcium when it is needed elsewhere in the body. Numerous scientists now feel that supplementation with vitamin D at levels greater than previously thought is critical to helping maintain healthy bone remodeling as we age.

Foreword to the Death by Calcium Foreword continued from page 3...

illnesses for which the treatment options are either exorbitantly expensive or fraught with serious side effects...or they are simply not working. This is especially true for many of the new osteoporosis medications.

Victory against any and all diseases will not be won until we begin to think correctly about health. Dr. Levy is a master at gathering pertinent data from the medical literature and distilling that data into comprehensive protocols that address the real sources of sickness and disease. Rather than promoting a magic bullet, he offers the truth along with a sound and practical way of using it to achieve real and lasting health.

Death by Calcium provides a powerful reorientation that I believe will help the reader find his or her way back to healthier bones, cleaner arteries, less inflamed joints, better immunity, higher energy levels, and a lowered risk of diabetes and cancer.



Although written with the layman in mind, the information, science, and substantiation that Dr. Levy has interwoven throughout the book are hefty enough to convince the critical medical professional who is willing to lay aside prejudice long enough to evaluate the evidence.

If the general direction of medicine in America is going to ever move away from a business-model to a nutrition-based healing paradigm, it is going to take people like Dr. Levy and books like this one to keep clearing the path.

And it can be done. I have seen it work in over 10,000 “co-learners” who have showed me IT CAN WORK for the past 24 years of my medical practice at the Riordan Clinic. This book scientifically validates what I and these patients have worked so hard to create: a rational approach to better nutrition, less infection and toxicity, resulting in a more hardy constitution in those who are willing to do the hard detective work of learning how to take better care of themselves.

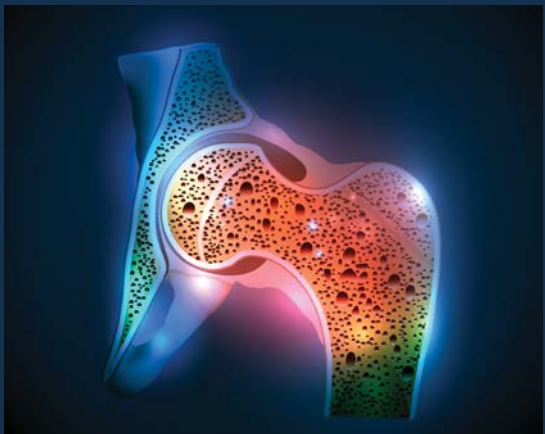


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Calcium Factoids from BioCenter Laboratory

By Charles Hinshaw, MD, Director, BioCenter Laboratory

- Calcium is the most abundant mineral in the human body
- 99% of the total calcium in the body is in the teeth and bones, 1% in the blood and soft tissues
- Current recommendations for calcium intake for adults are 1,000 mg to 1,200 mg per day
- Absorption of calcium from supplements is variable, ranging from 10% to 30 % per day. Best absorption is generally from chelated forms of calcium such as calcium citrate
- Daily loss of calcium is 300mg to 400mg per day, which helps explain the high dose recommendations (due to poor absorption)
- Calcium has two broad functions in the body, structural and cell signaling
- Structural functions of calcium are illustrated by bones and teeth
- Cell signaling functions are illustrated by the roles calcium plays in nerve conduction, muscle contraction, hormone and enzyme activity
- Initial testing for calcium levels is done by analyzing blood for total calcium which is normally maintained in a narrow range by feedback loops between vitamin D and parathyroid hormone (PTH)
- When your Doctor suspects osteopenia or osteoporosis, tests for bone mineral density may be ordered. These are x-ray and ultrasound type tests.



Calcium—Elemental for Health!

By Laurie Roth—Master Herbalist and Holistic Health Practitioner

Calcium is a natural chemical element identified on the periodic chart as Ca with an atomic number of 20. Calcium is a soft gray alkaline metal from the earth, and is the fifth-most-abundant element by mass in the Earth's crust. This mineral is an essential component for the development and maintenance of healthy teeth and bones as well as enhancing the function of your heart, nerves, and your blood-clotting system.



Calcium is prescribed for treatment and prevention of low calcium levels which trigger bone conditions such as osteoporosis (weak bones due to low bone density), rickets (a condition in children involving softening of the bones), and osteomalacia (a softening of bones involving pain). Calcium is also used for premenstrual syndrome (PMS), leg cramps in pregnancy, high blood pressure in pregnancy (pre-eclampsia), and may reduce the risk of colon and rectal cancers. Some use calcium for complications after intestinal bypass surgery, high blood pressure, high cholesterol, Lyme disease, to reduce high fluoride levels in children, and to reduce high lead levels.

Calcium carbonate is used as an antacid for “heartburn.” Calcium carbonate and calcium acetate are also used for reducing phosphate levels in people with kidney disease. Calcium-rich foods include milk and dairy products, kale and broccoli, as well as the calcium-enriched citrus juices, mineral water and canned fish with bones such as sardines.

HOW DOES IT WORK?

Your teeth and bones account for over 99% of the calcium in the human body. Your bones are always breaking down and rebuilding, and calcium is needed for this process. Taking extra calcium helps the bones rebuild properly and stay strong. Calcium is also found in the blood, muscles, and other tissue. Calcium in the bones can be used as a reserve that can be released into the body as needed. The concentration of calcium in the body tends to decline as we age, because it is released from the body through sweat, skin cells, and waste. In addition, as women age, absorption of calcium tends to decline due to reduced estrogen levels. Calcium absorption can vary depending on race, gender, and age.

Not all calcium consumed is actually absorbed in the gut. Humans absorb about 30% of the calcium in foods, but this varies depending upon the type of food consumed.

Other factors also affect calcium absorption including the following:

- **Age and life stage:** net calcium absorption is as high as 60% in infants and young children, who need substantial amounts of the mineral to build bones. Absorption decreases to 15%–20% in adulthood (though it is increased during pregnancy) and continues to decrease as people age; compared with younger adults, recommended calcium intakes are higher for females older than 50 years and for both males and females older than 70 years.

Calcium—Elemental for Health continues on page 6...

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WEEKLY HEALTHY BITES

Calcium—Elemental for Health continued from page 5...

- **Vitamin D intake:** this nutrient, obtained from food and produced by skin when exposed to sunlight of sufficient intensity, improves calcium absorption.

Two major components found naturally in some foods effect calcium absorption, they are phytic acid and oxalic acid.

These two acids are found naturally in some plants and

bind to calcium which limits absorption. Foods with high levels of oxalic acid include spinach, collard greens, sweet potatoes, rhubarb, and beans. Foods high in phytic acid are fiber-containing whole-grain products as well as wheat bran, beans, seeds, nuts, and soy isolates. The extent to which these compounds affect calcium absorption varies. Research shows, for example, that eating spinach and milk at the same time reduces absorption of the calcium in milk. In contrast, wheat products (with the exception of wheat bran) do not appear to lower calcium absorption. For people who eat a variety of foods, these interactions probably have little or no nutritional consequence.



LIKELY EFFECTIVE FOR:

- **Parathyroid gland disorder** (hyperparathyroidism)—calcium by mouth reduces parathyroid hormone levels in people with kidney failure and parathyroid hormone levels that are too high.

- **Osteoporosis**—calcium supplements taken by mouth is found effective for preventing and treating bone loss and osteoporosis. Osteoporosis can be caused by corticosteroid drugs. Taking calcium along with vitamin D and C seems to reduce the loss of bone mineral in people using corticosteroid drugs long-term. Most bone growth occurs in the teenage years, and then bone strength in women remains about the same until age 30–40. After age 40, bone loss typically occurs at rates of 0.5% to 1% per year. In men, this bone loss occurs several decades later.

There is more bone loss if less than the recommended amount of calcium is obtained from the diet and common among Americans. Bone loss in women over 40 can be reduced by taking calcium supplements and researchers estimate that taking calcium for 30 years after menopause might result in a 10% improvement in bone strength and a 50% overall reduction in the rate of bone break.

- **Reducing symptoms of premenstrual syndrome (PMS)**—there seems to be a link between low dietary calcium intake and symptoms of PMS. Consuming calcium daily seems to significantly reduce mood swings, bloating, food cravings, and pain. Also, increasing the amount of calcium in one's diet seems to prevent PMS. Women consuming an average of 1283 mg/day of calcium from foods seem to have about a 30% lower risk of developing PMS than women who consume an average of 529 mg/day of calcium. Taking calcium supplements, however, does not seem to prevent PMS.



POSSIBLY EFFECTIVE FOR:

- **Colorectal cancer**—research shows that high intake of dietary or supplemental calcium reduces the risk of colorectal cancer as well as keeping colorectal cancer from returning. However, people with low levels of vitamin D do not seem to benefit from calcium supplements.

Calcium—Elemental for Health continues on page 7...

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CALCIUM AND TESTING

By Nichole Kunkel RN

Many people believe calcium to be a required daily supplement to prevent bone break down and to maintain efficient, healthy muscle contraction. Calcium Carbonate is the most common form of calcium that is used in supplements and can easily change back to its hard rock-like form when proper hydration is not maintained in the body. This can lead to undesirable deposits of calcium in the muscle and arteries rather than in the bones where most people believe is the only place calcium can be deposited. Appropriate calcium intake from a healthy even balanced diet is the safe way to bring in the calcium you need and will aid in maintaining appropriate calcium levels within the body.

Western medicine has developed many techniques to determine bone density and bone health, DEXA-bone density scans being the most common test. Riordan Clinic performs a simple urine test, Deoxypyridinoline or Dpd, which will show if an individual is actively breaking down bone. These results can then be evaluated with current medications or lifestyles that an individual has to determine the cause of the break down.

Staying on top of you nutrients and nutrition is key. A young woman in her early menopausal stage of life was diagnosed with osteoporosis early on before she had even started menopause. She had noticed her stature changing and came to the Riordan clinic. With proper supplementation, follow up DpD testing and nutrient testing; she has practically halted her osteoporosis. Follow up and maintenance is key in staying healthy.

Aging is inevitable but does not have to be painful. Individuals who are on multiple prescriptions may need to monitor bone health on a more routine basis. Appropriate supplementation and simple and safe testing can help you live a strong healthy life.



- **Fluoride poisoning**—calcium taken orally in conjunction with vitamin C and vitamin D supplements, seems to reduce fluoride levels in children and improve symptoms of fluoride poisoning.
- **High cholesterol**—calcium supplements along with a low-fat or low-calorie diet seems to modestly reduce cholesterol. Taking calcium alone, without the restricted diet, does not seem to lower cholesterol.
- **High blood pressure**—calcium supplements seems to reduce blood pressure slightly (usually around 1–2 mmhg) in people with or without high blood pressure. Calcium seems more effective in salt-sensitive people and people who typically get very little calcium. Taking calcium by mouth also seems to be helpful for reducing blood pressure in people with serious kidney disease.
- **Stroke**—there is some evidence that increasing calcium intake in the diet might decrease the risk of stroke.



- **High blood pressure during pregnancy (pre-eclampsia)**—1 to 2 grams of calcium taken orally seems to reduce pregnancy-related high blood pressure. Calcium appears to reduce the risk of high blood pressure in pregnancy by about 50%.
- **Tooth loss**—taking calcium and vitamin D by mouth appears to help prevent tooth loss in older people.
- **Weight loss**—adults and children with low calcium intake are more likely to gain weight, have a higher body mass index (BMI), and be overweight or obese compared to people with high calcium intake. Researchers have studied whether increasing calcium intake might help with weight loss. Some clinical research shows that increasing calcium consumption from dairy products, such as yogurt, increases weight loss, lean body mass, and body fat loss in people on a low-calorie diet as well as people on a regular unrestricted-calorie diet.

Calcium is essential for overall health and please consult your primary care physician for assistance in determining your current levels and advice regarding your need to supplement your calcium intake. As always, drink plenty of water, exercise and eat a balanced natural food diet to ... live well!

SOURCES:

NEUTRITIONAL INSTITUTE OF HEALTH
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Welcome Dr. Mackie & Dr. Buhr

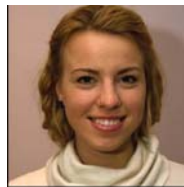
We are delighted to welcome two new doctors to our Riordan Clinic family. Dr. Christina Mackie, N.D., and Dr. Ola Buhr, M.D.



Dr. Mackie

Through her mentorship with Dr. Ron Hunninghake, Riordan Clinic's Chief Medical Officer, she heard about the wonderful things being accomplished through co-learning and was excited to accept the opportunity to partner together in real health. Co-Learners of Dr. Mackie will be treated with dignity and cared for based on their individual needs. As a Naturopathic Doctor she uses science, natural law, and intuition to assess her patients and to treat their chief concerns. She works with her patients to find the underlying cause of their concerns, and then treats with the least invasive measures.

To learn more about, or set up an appointment with Dr. Mackie, call our Riordan Clinic in Hays, Kansas, at 1.785.628.3215 or go to our website: riordanclinic.org



Dr. Buhr

Dr. Buhr is currently board certified in family medicine. She has worked in the urgent care setting and as a rural primary care provider in New Zealand. She is thrilled to work with co-learners by taking into account the whole person approach to medicine and exploring root causes of imbalance.

Dr. Buhr believes that by empowering and educating ourselves we can truly take an active role in our own health and well-being.

To learn more about, or set up an appointment with Dr. Buhr at our Wichita clinic, call us at 316.682.3100 or go to our website: riordanclinic.org

