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Kidney disease requires magnesium

by Dr. Carolyn Dean

(NaturalNews) One of the contraindications for taking magnesium is kidney failure. Unfortunately the public and many doctors think that means magnesium should not be taken by anyone with any degree of kidney disease. That's just not true and I'll explain why.

I just completed a CME (continuing medical education) course on Chronic Kidney Disease. It's become so common that it has its own initials (CKD) and it develops into MBD (Mineral & Bone Disorder).

Modern medicine says CKD is epidemic because of obesity, hypertension, smoking, and lipid disorders but they admit they really don't know exactly what's causing it. The lab findings are: elevated serum phosphorus, elevated serum calcium, elevated PTH, and elevated FGF-23 (Fibroblast Growth Factor). CKD develops as the kidneys slow down their filtration of urine and hold onto calcium and phosphorus.

Even though medical texts say that calcium and magnesium compete with each other, and an excess of one can lead to excretion of the other, there was absolutely no mention of magnesium in this course.

What if the calcium and phosphorus elevation comes first and then causes kidney damage? Holding onto calcium is something the body does naturally. Whereas, magnesium is flushed out through the urine or bowels when the body is under stress or in at times when you have saturated yourself with magnesium. The likely reason is that early mankind lived near oceans with access to fish, seaweeds and thus plenty of magnesium, but with few calcium sources, like dairy and green leafy vegetables. Ocean water has three times more [magnesium](#) than calcium and twice more magnesium than phosphorus. Therefore enhancing calcium absorption and preventing magnesium excess were survival mechanisms that were encoded in our wiring millennia ago. Current promotion of [calcium](#) as supplements and fortified foods makes us a very calcified population.

Elevated calcium and phosphorus trigger an alarm in the endocrine system which responds by trying to keep calcium and phosphate serum concentrations in balance. However, elevated PTH (parathyroid hormone), even though it does decrease phosphorus, also increases calcium. Vitamin D3 made in the kidney, will decline, and that decreases calcium. So there is a great push and pull in the midst of all these balancing mechanisms. As [kidney disease](#) progresses, the rise in serum calcium and phosphate leads to calcification in soft tissues, particularly in blood vessels.

If any of you know my work with magnesium, you know that too much calcium will knock out magnesium. So, my first thought would be to treat CKD with magnesium, which would naturally diminish calcium and phosphorus. Since magnesium is required by about 1300 enzymes systems in the body, you can be sure it's required by the kidneys. Magnesium also has about 4,000 receptor sites on body proteins. However, as I mentioned above, doctors have been conditioned to avoid magnesium in kidney [disease](#).

I even have kidney failure as a contraindication in my Magnesium Miracle book. However, there is a great deal of difference between kidney disease and kidney failure. So I think doctors are avoiding it to the detriment of patients' health. And their treatment approach is actually making magnesium deficiency much worse.

The medical treatment of CKD is focused on attacking phosphorus. They use calcium-based phosphate binders even while acknowledging that these drugs can cause hypercalcemia. Some doctors want to begin using these drugs in early CKD as a "preventive" measure. In their zeal to lower phosphorus, they allow

calcium levels to rise - and still, they pay no attention to magnesium. Their second treatment is based on 1,25-dihydroxyvitamin D, which increases calcium absorption and decreases secretion of PTH.

Modern Medicine is also all agog about the newly-discovered hormone that regulates phosphate. Fibroblast growth factor (FGF-23) acts on the kidney in two ways. It causes the kidney to excrete phosphate bringing those levels down and it regulates vitamin D3 production, which adjusts phosphate absorption. Here again, they don't mention that vitamin D3 is also going to absorb lots more calcium bumping out magnesium in the process.

Then my CME course took a turn toward heart-kidney syndromes and how the heart's pumping function is altered by kidney changes. Here would be a perfect opportunity for the doctors to tell us that the heart (specifically the left ventricle) has the largest amount of magnesium in the whole body and when magnesium becomes deficient with all this excess calcium, it's going to affect the muscular action of the heart. Instead they make up some alternate-universe story that FGF-23 and Vitamin D 3 MAY affect the heart and ponder why that should be.

One doctor said he couldn't understand why there was such a high rate of cardiovascular hospitalization and cardiovascular events (5-10 times the normal population) in people with lowered kidney filtration rates but normal blood chemistry.

IT'S BECAUSE OF LOW MAGNESIUM!@#\$\$^#@@! Which they don't even test for. I'll get to the lack of proper magnesium testing in a minute.

Then they wax poetic about "this wonderful piece of work showing that FGF-23 is related to left ventricular heart mass and is likely to be related to cardiovascular events." Remember, magnesium is highest in the left ventricle. However they complain that to treat this condition "Right now the only thing we have available are phosphate binders."

Grrrrr. This is from top-of-the-line, overly-educated doctors that are training other doctors and they don't seem to have a clue about magnesium and heart disease!

Another doctor mentions that many elderly patients are in early renal failure, and one of the standard therapies is calcium supplementation. He does express a concern and he says "We hope the calcium is going into the bone, but of course there is no way of knowing that it is not going into the soft tissues." I would like to remind him that 'Hope is not a strategy!'

They end the course by saying "Our patients put their trust in us, and we need to honor that."

OK, I'll tell you how to honor our trust...Do Your homework.

1. Use ionized magnesium testing so you know what's really going on with magnesium levels in the body. Serum magnesium testing is highly inaccurate. It gives everyone a false sense of security about magnesium levels. Only about 1 percent of the total body magnesium is in the serum. And since magnesium is so crucial in preventing heart muscle spasms and arrhythmias, the body is going to drag magnesium out of storage any time the serum magnesium levels drop.

2. Use equal amounts of magnesium and calcium in the total amount of your diet, water and supplements. Since our standard American diet only has about 200 mg of magnesium but around 700 mg of calcium, we need to supplement magnesium, not calcium. Even though the RDA for calcium is said to be around 1,200 mg. The RDA for calcium in the UK and recommended by the WHO is 500-700 mg.

3. Use magnesium in liquid, pico-ionic form to treat kidney disease. (See Susan's case below.)

Another point of honor I'd like to mention is a suppressed study on kidney disease. A magnesium researcher asked a colleague, who is kidney disease specialist, to allow him to test his patients for magnesium. Ionized magnesium and serum magnesium testing was done on 100 patients. The results were that people with chronic kidney disease (of all varieties) have the highest levels of serum magnesium and in the same sample, the lowest levels of ionized magnesium. When these patients took ionized magnesium liquid their blood ionized magnesium levels improved and they all got better. When the magnesium researcher asked if the kidney specialist would write about these amazing findings - he said he could not and refused to publish

the study 'because everyone knows that magnesium can't be taken in kidney disease!'

I have included the following story in my Future Health Now! Online Wellness Program and in my Kindle and eBook, Invisible Minerals. It illustrates the importance of absorption versus consumption. Susan is a dialysis patient. Her kidneys have failed completely. She requires a machine to clean her blood. She barely urinates.

Dialysis machines, however, are very poor at cleaning out excess minerals. Dialysis patients usually go on a strict diet where they limit their intake of potassium, sodium and phosphates to avoid build-up in their bloodstream. No dietary restrictions, however, are given about magnesium - because there is so little available in our diet it's difficult to overdose. Calcium is monitored by serum blood testing but, as I mention below, this testing is often inaccurate.

(Just to clarify: If your kidneys function properly, dietary "overdosing" on magnesium is usually not a problem - you will simply urinate it out or it will be eliminated by having increased bowel movements.)

Susan started taking magnesium citrate before she consulted me. She took about 700mg a day because she had classic magnesium deficiency symptoms of cramping, insomnia and irritability. She quickly began to feel welcome relief once she went on the magnesium citrate. A week later, however, her condition worsened. She started to become very weak, nauseous, sleepless and suffered horrible headaches. She felt awful.

Her nurse ran a blood test and found that her magnesium levels were dangerously high. (Again, if your kidneys work fine, this will not happen to you. Magnesium is one of those minerals that will be released by your kidneys and your bowels when there is too much.)

But Susan wasn't really taking all that much magnesium - only 700mg - less than she probably needed. When she first consulted me, I suspected that her body cells were not absorbing all the magnesium citrate. The rest was left circulating in the blood stream, unable to pass through her kidneys into her bladder. I immediately took her off the magnesium citrate. All her symptoms went away in a few days.

We then tried low-dose, pico-ionic magnesium. This type of magnesium has been broken down to 5 billionth of a meter in size, small enough to be immediately absorbed through mineral ion receptors in cells. Several days later Susan felt much better, had no more magnesium deficiency symptoms and a week later her blood work showed that her magnesium levels were fine - no excess build-up.


In this one anecdotal case, the pico-ionic magnesium absorbed a lot better than the magnesium citrate. The evidence is in the blood work and in how Susan feels.

So, just like the magnesium researcher found, Susan's serum levels of magnesium were high...but they never tested her ionized magnesium levels. However, by taking pico-ionic magnesium, her serum magnesium levels went down and she was getting the benefit of magnesium at the cellular level.

My final points? Take magnesium (you can see my recommendations on my website under [Resources](#)) and lobby for ionized magnesium and calcium testing in your local lab or hospital. The ionized magnesium and calcium electrodes are made by Nova Biomedical. There are only 140 labs of 5,000 in the U.S. that do the ionized magnesium test but Nova doesn't seem to want to give out the list of these labs. Many more labs are already doing the ionized calcium test.

About the author:

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Carolyn Dean MD ND is The Doctor of the Future . She is a medical doctor and naturopathic doctor in the forefront of the natural medicine revolution since 1979.

She is working on several patents on novel products including the iCell in RnA Drops. Dr. Dean is a leading expert in magnesium and she has created a picometer, stabilized-ionic form of magnesium, called ReMag that's 100% absorbed at the cellular level and non-laxative making it one of the only magnesiums that can be taken in therapeutic amounts with no side effects. ReLyte is her multiple mineral product that is also completely absorbed at the cellular level and contains the 9 minerals necessary for supporting proper thyroid function. RnA Drops help make perfect cells via RNA through Chromosome 14 affecting DNA. ReNew, which is highly concentrated RnA Drops is a powerful skin serum and ReAline is a safe detox formula with methylated B's, I-aurine and dl-methionine (the precursor to glutathione), all available at

www.RnAReSet.com

Dr. Dean is the author/coauthor of 33 health books (print and eBooks) and 106 Kindle books including The Magnesium Miracle, Death by Modern Medicine, IBS for Dummies, IBS Cookbook for Dummies, The Yeast Connection and Women's Health, Future Health Now Encyclopedia, Death by Modern Medicine, Everything Alzheimers, and Hormone Balance.

She is on the Medical Advisory Board of the non-profit educational site - Nutritional Magnesium Association (www.nutritionalmagnesium.org).

Dr. Dean has a free online newsletter and a valuable online 2-year wellness program called Completment Now! at www.drcarolyndean.com/fhn. She also runs a busy telephone consulting practice and has a weekly radio show Mondays at 4pm PST on www.achieveradio.com. Find out more at www.drcarolyndean.com, www.drcarolyndeanlive.com, www.RnAReSet.com, and www.howionic.com.

About the Author: Carolyn Dean MD ND is The Doctor of the Future♦. She is a medical doctor and naturopathic doctor in the forefront of the natural medicine revolution since 1979. She is working on several patents on novel products including the iCell in RnA Drops. Dr. Dean is a leading expert in magnesium and she has created a picometer, stabilized-ionic form of magnesium, called ReMag that's 100% absorbed at the cellular level and non-laxative making it one of the only magnesiums that can be taken in therapeutic amounts with no side effects. ReLyte is her multiple mineral product that is also completely absorbed at the cellular level and contains the 9 minerals necessary for supporting proper thyroid function. RnA Drops help make perfect cells via RNA through Chromosome 14 affecting DNA. ReNew, which is highly concentrated RnA Drops is a powerful skin serum and ReAline is a safe detox formula with methylated B's, l-aurine and dl-methionine (the precursor to glutathione), all available at www.RnAReSet.com Dr. Dean is the author/coauthor of 33 health books (print and eBooks) and 106 Kindle books including The Magnesium Miracle, Death by Modern Medicine, IBS for Dummies, IBS Cookbook for Dummies, The Yeast Connection and Women's Health, Future Health Now Encyclopedia, Death by Modern Medicine, Everything Alzheimers, and Hormone Balance. She is on the Medical Advisory Board of the non-profit educational site - Nutritional Magnesium Association (www.nutritionalmagnesium.org). Dr. Dean has a free online newsletter and a valuable online 2-year wellness program called Completment Now! at www.drcarolyndean.com/fhn. She also runs a busy telephone consulting practice and has a weekly radio show Mondays at 4pm PST on www.achieveradio.com. Find out more at www.drcarolyndean.com, www.drcarolyndeanlive.com, www.RnAReSet.com, and www.howionic.com.

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