showed that magnesium may reverse middle-age memory loss, citing that maintaining correct magnesium levels in the spinal fluid is essential to proper brain cell function.

ITEM: The World Health Organization recently assembled a group of nutritional, medical and scientific experts to investigate the relationship between a worldwide rise in heart disease and the long-term lack of magnesium and other minerals in processed drinking water.

Yes, the importance of magnesium, long realized as a vital nutritional basic by pioneers such as Peter Gillham and Dr. Mildred Seelig, is finally being given its due and finding its rightful place in diagnosis and treatment.

The Broad Range of Symptoms

Many other previous studies have isolated magnesium's importance in the alleviation of a large number of specific symptoms and diseases.

Heart Disease—Per a 1993 report in the *American Journal of Cardiology*, magnesium deficiency is frequently found in patients with congestive heart failure (a condition in which the heart cannot pump enough blood). This report also discussed a clinical study which found

that irregular heart rhythms (arrhythmias) occurring in patients with congestive heart failure could be lessened by 23–52 percent by ingesting the equivalent of 384 mg of magnesium. A 1990 report in the *American Journal of Cardiology* stated that lowered magnesium may be a contributing factor in angina (heart pain) due to its influence on blood vessel spasms.

Fatigue—As reported in the UK medical publication *The Lancet* in 1991 and 1992, magnesium deficiency is very common in people experiencing chronic fatigue.

Migraine Headaches—Migraine sufferers have been found to have lowered levels of magnesium, as reported in *Family Practitioner News* (1993) and other publications. The International Headache Society's journal, *Cephalalgia*, related in 1996 that daily magnesium supplements reduce the frequency of migraines.

Asthma—All the way back in 1940, the *Journal of Laboratory Clinical Medicine* stated that magnesium levels are frequently low in asthmatics. Later, in 1989, the *Journal of the American Medical Association* and several other papers reported that injected magnesium rapidly halts asthma attacks.

Menstrual Problems—Since it plays a role in muscle relaxation, magnesium has been found in two different research projects to reduce severe menstrual cramps, per the European journal of nutrition Zeitschrift für Ernährungswissenschaft (1975) and several other publications.

Pregnancy Problems—Insufficient magnesium has been implicated in many studies as a primary cause of pregnancy-induced high blood pressure, per reports in *Nutritional Health* and numerous other scientific texts.

Kidney Stones—The *American Journal* of *Clinical Nutrition* reported in 1967, and several other publications reported later, that magnesium, in combination with vitamin B6, significantly lowers the risk of forming kidney stones.

Anemic Symptoms—According to the 1986 publication *Magnesium*, and the 1980 *Annual New York Academy of Sciences*, anemic symptoms can develop from low magnesium. The symptoms stem from a disorder called thalassemia, an inherited condition of the blood.

Magnesium research is continuing on a worldwide basis, and further results will be released as they are reported.



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4867 Fountain Ave., Los Angeles, CA 90029 800-446-7462 • www.vitaminsthatwork.com **NEWSLETTER OF PETER GILLHAM'S NATURAL VITALITY**

May-June 05 ISSUE

Interview

Dr. Carolyn Dean on Magnesium

A highly qualified medical doctor, natural health practitioner, author and expert on magnesium gives candid answers to issues that affect our overall health and well-being.

Dr. Carolyn Dean is the author of The Miracle of Magnesium, published by Ballentine Books (2003), an excellent reference on magnesium, its importance and many benefits. Dr. Dean is a medical doctor, naturopath, acupuncturist, homeopath, and certified clinical nutritionist. A regular guest on radio and television programs, she is also the author of three other books on health and a contributing editor to Natural Health magazine.

We interviewed Dr. Dean just before she was to leave on a trip to Washington, D.C., to lobby on the subject of magnesium to members of the U.S. Congress.

Your book, *The Miracle of Magnesium*, was published in 2003. Since its publication, do you feel magnesium and magnesium-related issues have received more attention, or that much more is still needed?

Oh, much more is still needed. I just attended a magnesium conference which focused on science, and I was quite surprised there wasn't a lot more focus on how it can be used by doctors for treatment and by people themselves for dietary supplement. Scientists in their universities and hospitals tend to focus on magnesium as a mineral which they have to study, find out all about, and get all the basic scientific facts about. But what people in the real world need to know is how to use it and how to take it, and

whether or not they need it. In writing *The Miracle of Magnesium* I found out that up to 80 percent of people are deficient in magnesium, so I know they really need it. I'd rather see research money going either toward studies which show magnesium benefits or toward spreading the word that magnesium is definitely needed. In other words, toward practical application as opposed to more theory.

How do you feel the medical community could become more aware of magnesium as a solution to the many problems it solves?

One of the books that I've just finished writing is called Death by Modern Medicine. From that title you can glean that I am concerned about medicine's focus on drug-based solutions. They really don't give a whole lot of energy or attention to non-drug solutions to health problems. When I was doing research for *The Miracle* of Magnesium, I found that most if not all of the body's metabolic processes—those chemical processes which turn food into energy—require the interaction of various vitamins and minerals in order for them to even work. Many symptoms which trace back to lack of metabolism are caused by either vitamin and mineral deficiency or imbalance. So if medicine continues to focus on drugs to treat symptoms, rather than on possible causes (continued on page 2)

MAGNESIUM IN THE NEWS

Well ahead of his time, Peter Gillham realized the importance of magnesium in 1980. His research at that time resulted in a more bioavailable form of this essential nutrient, greatly improving absorption for the body. Twenty-five years later, magnesium is only now beginning to have its rightful importance recognized on a broad scale.

ITEM: The American Diabetes Association announced that a magnesium-rich diet may help prevent type 2 diabetes, especially in people who are overweight.

ITEM: An MIT investigator recently announced that supplemental magnesium is very important for fibromyalgia patients. Fibromyalgia is a condition of chronic, widespread pain in muscles and soft tissues surrounding joints, accompanied by fatigue.

ITEM: A study lately published in the *Journal of the American Medical Association* found that intravenous magnesium given at the onset of premature-birth labor can prevent the increased risk of infant mortality and other severe side effects associated with premature birth.

ITEM: The Picower Center for Learning and Memory at MIT has released the results of a study which

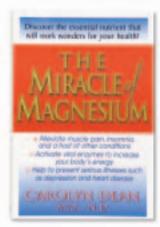
(continued on page 4)

based on deficiencies, they'll continue to miss the boat on treating a lot of what I think are the "chronic lifestyle diseases." And beyond that, the U.S. Food and Drug Administration (FDA) has an office called the Office of Dietary Supplements, and at a recent conference I had an opportunity to ask someone in this office about their basic purpose. Their basic goal is to study nutrients for the prevention of disease, not for the treatment of disease. So as long as the government's focus is just to prevent deficiency diseases by simply providing the required daily allowance (RDA) of nutrients, we'll never get to the point where we focus on the use of dietary supplements, such as magnesium, for the treatment of today's common diseases. There are at least twenty-two different diseases and symptoms that I outline in The Miracle of Magnesium for which scientific proof exists of their being caused by magnesium deficiency. It takes two, three, four times the RDA to treat these diseases.

Do you think the drug companies themselves have anything to do with keeping this kind of information out of the mainstream?

It's quite possible. In my book I talked about a number of magnesium studies—one was called LIMIT, and another was called ISIS. The LIMIT study showed that

been headline news. But shortly after, in the ISIS study, a drug company compared their post-heart-attack drugs to magnesium. Instead of following the magnesium



procedure used in the first study (giving it immediately following diagnosis of an acute heart attack), they withheld magnesium for two and sometimes three days before giving it. They made it appear that they had followed the proper magnesium procedure in comparing magnesium to their drug, and said, "Oh, magnesium doesn't work." They widely spread that result, making doctors who don't read beyond headlines or a summary of a study feel that magnesium was not useful. Unfortunately, there is no magnesium drug company or magnesium lobby that will expose the true results of magnesium studies and promote them widely.

which we really have no drug treatment can be treated by magnesium. Simple things like angina (chest pain caused by heart problems), muscle spasms, tics, insomnia, migraines—as I said earlier, a list of twenty-two conditions. It's wellknown that during pregnancy, if a woman has seizures or hypertension—a condition called preeclampsia—the treatment is intravenous magnesium. They can't use drugs for fear of damaging the fetus, so they use something extremely safe and it always works. But I've spoken to heart specialists and asked why they go all the way through the five different types of drugs used for acute heart attack patients, and then as number six give them magnesium. They say, "Well, when we finally get to the magnesium, it always works." But they don't give it first because it's really not written up in the medical references. It's not a drug, so it doesn't make the "short list." And when I ask, "Why don't you use that first?" it's almost like, "Drugs are powerful, and they're what doctors give. Doctors don't give supplements. They're too common." It's just not something that even I learned about in medical school, so doctors do not feel comfortable, it seems, prescribing dietary supplements. When they go through six to ten years of medical school and internships and residencies, they figure if they haven't learned it in their training, then it doesn't exist. They do not learn nutrition and

"...calcium has been called the major mineral or the major nutrient mostly because there are a lot of books on osteoporosis (bone disease especially common in the elderly), and everybody thinks calcium is the major treatment for that. But if you don't have magnesium, calcium doesn't even work in the body."

magnesium, when given immediately upon diagnosing an acute heart attack, could decrease the incidence of many major after-effects of a heart attack, including irregular heart rhythms, damage to blood vessels, and various other factors. It was an incredible conclusion to this study, which should have

What would you say to an average MD to get him or her to take a look at the benefits of magnesium?

Well, they can read my book! (*Laughs*) In it, there are hundreds of references from medical review journals. I was able to show that many common symptoms for

they do not learn dietary supplements, and they shy away from them.

Do you think insurance companies have helped keep magnesium out of the mainstream as well? Insurance covers drugs, but they don't cover any kind of supplements. No, they don't. The whole medical system—insurance, drug companies—is all built around drugs. I think insurance companies, in the past couple of years, have been getting an inkling that drugs are very expensive, they may not be working, and that people are going toward dietary supplements. So there is some movement toward insurance coverage where a person will be covered. Some insurance companies are beginning to see the light and starting to cover alternatives, not necessarily dietary supplements. But what's completely ironic is that people who try to take care of their health by taking dietary supplements have to go to a

one thing. I also focus on the fact that calcium has been called the major mineral or the major nutrient mostly because there are a lot of books on osteoporosis (bone disease especially common in the elderly), and everybody thinks calcium is the major treatment for that. But if you don't have magnesium, calcium doesn't even work in the body.

What dosage would you recommend as a daily magnesium supplement, generally?

The recommended daily allowance (RDA) is about 350 mg per day, but most researchers say you need two and three times that amount, partly because it's not

amount of calcium in a normal diet, is a calcium supplement even necessary?

That's a very good question. If people are eating dairy products, which are high in calcium—people are eating a lot of organic yogurt and kefir these days, so they are getting absorbable calcium. And if they eat green vegetables, they're getting a lot of calcium. Yogurt doesn't contain magnesium. If you cook your green vegetables, you lose the magnesium. So, if people eat a good diet, they usually get enough calcium, and what they need is just a magnesium supplement.

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medical doctor to get a written prescription even to get income tax deductions for their dietary supplements. So it's pretty much a closed shop.

There seem to be a lot of "most vital" supplements out there, claimed to be the most important and/or most basic. To put it in perspective, how would you rate magnesium in the scheme of necessary supplements?

It's the highest! In my book I actually quote a number of doctors who say that if they can get a patient to take one supplement, make it magnesium, because it seems to be so important for over 350 different functions in the body. And it's important in working with a lot of other nutrients. But I also continually make the point that vitamins and minerals all work together. You can't separate any

in foods. If it is in foods, if you cook and process the foods in any way, you lose magnesium. And then when you do take magnesium in any form, only about half of it is absorbed.

In what form do you feel supplemental magnesium is best taken—powder dissolved in liquid, tablets or other?

The powdered form is the best because you start absorbing it straight away, even in the mouth. So, powdered first, and then capsules, and then tablets. The tablets usually have a lot of binders and fillers and are harder to dissolve than capsules.

In your book, you mention the necessary balance of calcium and magnesium, and that calcium can't be utilized without magnesium. Given the high

There are so many individual benefits of magnesium that it would take a whole book to list them all—and in fact it did! For the benefit of our readers, how might you succinctly and simply state magnesium's overall benefit?

In my book, I talk about magnesium being "the spark of life" in the body, and in fact it is responsible for creating the energy in the cells and the energy in the body. So when a person is feeling fatigued, it can actually be coming from a magnesium deficiency. The first symptom that people tend to feel when they start to get ill is tiredness. Fatigue can be caused by stress, it can be caused by getting run-down, or falling into some sort of immune deficiency or some illness. So I say magnesium is the spark of life!