Dr. Jonathan V. Wright's

NUTRITION & HEALING

Vol. 14, Issue 4 • June 2007

The essential mineral your body needs more than ever to treat everything from acne to ulcers

By Jonathan V. Wright, M.D.

inc is an essential element for both plants and animals. Among its many other functions, zinc—along with folate and vitamin B₁₂—is absolutely essential for DNA replication. Humans literally can't even start to grow from an initial single cell without adequate zinc.

Plants get zinc from the soil, animals get it by eating plants, and humans get their zinc from eating both (except, of course, for vegetarians). If there's not enough zinc in the soil, there likely won't be enough in the plants or the animals and humans that eat them.

In 1969, the Department of Agriculture of these United States (USDA) published data showing that of the 50 states only 17 had what it considered adequate zinc in their agricultural soil. Since the very large majority of fertilizers used in agricultural regions since 1969 haven't been "organic" and contain little to no zinc, soil zinc depletion has only gotten worse since then.

It's best to get as much zinc as

possible from food; foods higher in zinc include seafood, meat, eggs, nuts, bran, and oatmeal. However, there's a problem; all zinc found in food (except for that in seafood) depends on soil zinc content, and soil is significantly lower in zinc in 2007 than it was in 1907 or 1807. So with the exception of seafood and some organically produced food, even "high-zinc" foods contain less zinc than they ever did before.

Human zinc requirements for good health remain the same, so until zinc and other essential nutrients are restored to optimum levels in all agricultural soils throughout these United States, there will be an increasing requirement for supplemental zinc to ensure better health.

The many health benefits of supplemental zinc

Prostate problems: Along with essential fatty acids, zinc can both prevent and treat benign prostatic hypertrophy (BPH), non-cancerous enlargement of the prostate gland. Unfortunately,

most men don't bother with trying to prevent BPH, but instead are notified of the need to "do something" when there's enough enlargement to affect the ease or frequency of urination.

In the only zinc and BPH research I've been able to find, reported by the head of the department of urology at Cook County Hospital, Chicago, 14 of 19 men with BPH who were treated with zinc experienced shrinkage of their prostates as confirmed by digital prostate exam (DRE), X-ray, and endoscopy. In addition, 140 of 200 men with chronic non-bacterial prostatitis had relief of all symptoms after two to 16 weeks of zinc treatment.¹

Despite the paucity of research, hundreds of men over my more than 30 years of practice have told me that zinc supplementation (combined with essential fatty acids) has substantially reduced—or frequently eliminated—symptoms of BPH. Results are always better when zinc and essential fatty acid supplementation is started at the first sign of symptoms.

Always try zinc (and essential fatty acids) before using saw palmetto. If zinc and essential fatty acids are needed by your prostate, they're needed elsewhere in your body too. Using saw palmetto first may help alleviate your prostate symptoms, but will not supply the zinc needed by all those other tissues, so your zinc

(continued on next page)

NUTRITION & HEALING

Editor: Jonathan V. Wright, M.D.

Associate Publisher: Paul Amos

Copy Editor: Ken Danz Publisher: Dennis J. Sullivan

Designer: Ramsey Brisueño

Customer Service Specialist: Tim Ford

© Copyright 2007 Healthier News, L.L.C., 819 N. Charles St., Baltimore, MD 21201. Reproduction in whole or part is prohibited without written permission of the publisher. Dr. Jonathan V. Wright's Nutrition & Healing is published monthly by Healthier News, L.L.C., 819 N. Charles St., Baltimore, MD 21201. Subscription rates are \$74 per year (\$6.16 an issue). POSTMASTER: Send address changes to Dr. Jonathan V. Wright's Nutrition & Healing, 819 N. Charles St., Baltimore, MD 21201.

For questions regarding your subscription, please call reader services at (915)849-4605 (9 a.m.-6 p.m. EDT Mon.-Fri.), fax (410)230-1273 or send an e-mail to service@HealthierNews.com. Send cancellations to P.O. Box 206, Baltimore, MD 21203.

Our mission:

Nutrition & Healing is dedicated to helping you keep yourself and your family healthy by the safest and most effective means possible. Every month, you'll get information about diet, vitamins, minerals, herbs, natural hormones, natural energies, and other substances and techniques to prevent and heal illness, while prolonging your healthy life span.

A graduate of Harvard University and the University of Michigan Medical School (1969), Dr. Jonathan V. Wright has been practicing natural and nutritional medicine at the Tahoma Clinic in Renton, Washington, since 1973. Based on enormous volumes of library and clinical research, along with tens of thousands of clinical consultations, he is exceptionally well-qualified to bring you a unique blending of the most up-to-date information and the best and still most effective natural therapies developed by preceding generations.

Nutrition & Healing cannot improve on these famous words:

"We hold these truths to be self-evident, that all men are created equal, that they are endowed by their creator with certain unalienable rights, that among these are life, liberty, and the pursuit of happiness."

The inalienable right to life must include the right to care for one's own life. The inalienable right to liberty must include the right to choose whatever means we wish to care for ourselves. In addition to publishing the best of information about natural health care, *Nutrition & Healing* urges its readers to remember their inalienable rights to life, liberty, and freedom of choice in health care. This information is published to help in the effort to exercise these inalienable rights, and to warn of ever-present attempts of both government and private organizations to restrict them.

All material in this publication is provided for information only and may not be construed as medical advice or instruction. No action should be taken based solely on the contents of this publication; instead, readers should consult appropriate health professionals on any matter relating to their health and well-being. The information and opinions provided in this publication are believed to be accurate and sound, based on the best judgment available to the authors, but readers who fail to consult with appropriate health authorities assume the risk of any injuries. The publisher is not responsible for errors or omissions.

Moving? Missed an issue? Please let us know within 60 days of moving or if you have not received an issue. (International subscribers, please notify us within 90 days.) After this time period, missed issues can be purchased for US\$6.50 each. Postage costs may apply to international requests.

zinc

(continued from page 1)

deficiency in those tissues will just get worse.

Acne: Zinc supplementation for at least three months leads to a significant reduction in acne outbreaks, usually 50-60 percent or more. It's effective for both teenagers and adults² and can be combined with any other types of acne treatment, preferably natural ones.

Eczema: Much more common in smaller children than in teenagers and adults, eczema (also called "atopic dermatitis") is significantly helped by zinc and essential fatty acid supplementation. Although I've seen literally hundreds of children improved by this combination of supplemental items, I've still not seen any published research.

Please don't use only these supplements for this condition, as you won't be treating the basic cause of eczema: food allergies. Always start by finding and eliminating any food allergies, if necessary having desensitization done if there are too many food allergens to simply eliminate. After that, add the zinc and essential fatty acid supplements.

Colds: Zinc lozenges (usually containing 13-23 milligrams of zinc each), dissolved in the mouth every two to three hours while awake, reduce the duration of colds by 50 percent or more.³ Zinc treatment is most effective when it's used within 24 hours of symptom onset. Zinc acetate and zinc gluconate are the most effective forms; the effect is decreased by citrate/citric acid, sorbitol, or mannitol, so read zinc lozenge package labels carefully. So far, research has inexplicably demonstrated effectiveness for adults but not for children.

Wound healing and ulcers: Some of the earliest work about the healing-promoting effects of zinc was done at the Cleveland Clinic in the late 1960s and early 1970s. When compared with a placebo, zinc was found to significantly accelerate the healing of "standardized" wounds—identical surgical wounds created by identical surgeries done to remove "pilonidal cysts," a type of benign birth defect.

Zinc induces wound and ulcer healing for the same reason it helps to prevent birth defects: stimulation of normal DNA replication, which is necessary to grow new cells of all types.

Macular degeneration: Along with selenium, zinc is a principal component of the successful macular degeneration treatment evolved at Tahoma Clinic since the early 1980s.⁴ ("Successful" means stopping the loss of vision or sometimes even improving vision in more than 70 percent of cases.) There's more zinc in a normal retina than nearly anywhere else in our bodies except in the "hearing apparatus," so it just made sense to try it—and it helps.

Immune system function: In both cancer³ and AIDS patients, ⁶ zinc has been shown to improve immune function. In "normal" individuals, the thymus gland (the "master gland" of the immune system) shrivels to practically nothing by ages 70 to 80—supplemental zinc has been found to restore a small fraction of thymic function even at these ages.

One of the most striking pieces of zinc research was done with pregnant experimental animals fed zinc-deficient diets. As soon as the baby animals were born, they were given diets with adequate zinc. Despite this, they experienced lifelong severe impairment of immune function, which could only be improved with extra, supplemental zinc.

When the female animals from this first generation became pregnant, they were given zincadequate diets; despite this, their offspring (the second generation after the pregnant "grandma" animals given zinc deficient diets) had a moderate impairment of the immune system. And the third generation still had a small impairment of immune function. Not until the fourth generation did immune function return to normal-and remember that only the great-greatgrandmas had experienced zinc deficiency during pregnancy!

Birth defect prevention: Folate is now well known to significantly reduce the risks of spinal bifida and related birth defects. It isn't as well known that vitamin B₁₂ and zinc have both been found to reduce the risks of these very same problems. Not a surprise—remember these three nutrients are key factors in DNA replication.

Tinnitus (ringing in the ears): Research has shown zinc to diminish tinnitus in 25-50 percent of individuals with low zinc levels, but it wasn't helpful in individuals with normal zinc levels.7 (Note for your doctor: "Serum zinc" is less accurate as a measurement of body zinc levels than "white blood cell zinc," available through Doctor's Data Laboratories, Chicago, 1-800-323-2784, www.doctorsdata.com)

Childhood learning: In a doubleblind, placebo-controlled trial, seventh-grade students who took 20

(continued on page 4)

A personal note: What I learned about zinc and mainstream medicine that stavs with me 35 years later

I first read about the healingproperty effect of zinc in 1972, just out of a residency program in Family Practice. I was working at an outpatient clinic for a "pre-paid health care co-operative" in the Seattle area.

Shortly thereafter, a man came into the clinic with an open ulceration on the outer side of his right ankle. As he took the bandage off to show me, he told me he was diabetic (type 2), and had had the ulceration "on and off for several years." His medical record detailed the several surgeries he'd had, which "worked for a little while" and then failed again.

He'd been given several patent medications along with every other treatment known to conventional medicine; nothing worked for very long. He wasn't very hopeful, but was checking back in because the ulceration had grown to almost the size of a 50-cent piece, the worst it had been in two to three years.

As he'd done everything else known, I told him about the Cleveland Clinic research. He asked if it could hurt him. I told him it was safer than nearly any patent medication and recommended the quantities used in the research projects, which he found at a small natural food store.

When he returned in two months, the ulceration had diminished to less than the size of a quarter. Two months later, it was dime-sized, and in another two months it was healed! He cut his zinc quantity to a "maintenance" level-and the ulcer stayed away.

Apparently "word got around,"

because shortly after he first returned with the ulcer healed. I was summoned (for the first time) to the office of the Chief of the Family Practice Department. He had the patient's chart open on his desk, and asked me what I thought I was doing treating this man with zinc.

Surprised, I asked him if he had read the result in the record—the ulcer had healed, and stayed that way, for the first time in years. He said there was no research about zinc and ulcer healing. I was prepared for this, and put my copies of several research papers about zinc and wound healing on his desk. (Unfortunately, they weren't returned.) Without even looking at them, he said that this research didn't matter anyway, since zinc treatment wasn't "approved" (he didn't specify by whom), so I shouldn't be using it.

As this was one of the first times I'd encountered this attitude, I was very surprised. I remarked that I thought the "point" of medicine was helping people get better without hurting them and since that had happened, I'd done my job. I couldn't understand what the problem was. He told me I had a lot to learn, to never do anything like this again, and to please leave his office.

At that point, I started thinking that this clinic might not be the best place for either me or for patient care.

Since then, I've learned that a common attitude in "mainstream" medicine is this: It's OK if the patient dies, just so long as the treatment is "approved," but even if the patient recovers completely with an "unapproved" treatment, the doctor is likely to get in trouble!

zinc

(continued from page 3)

milligrams of supplemental zinc daily for 10 weeks significantly improved performance on tests of learning, memory, and vigilance.8

Anorexia: My colleague, Alex Schauss, Ph.D., of Tacoma, Washington, specialized for several years in the very successful treatment of anorexia. He found that young women with anorexia routinely couldn't taste a standard solution of zinc in water, while non-anorexics would usually react by immediately spitting it out in disgust.

As the anorexics improved with zinc treatment, they also became more and more able to taste the zinc solution. When their anorexia was gone or almost gone, they reacted with the same degree of distaste as did the non-anorexics.

He also observed that anorexic young women described their body shapes differently when looking in a mirror than they did after months of zinc treatment, even when weight gain was still small. He concluded that zinc deficiency might actually change perception.

Dr. Schauss pointed out that a successful 19th-century treatment program for anorexia operating in the United Kingdom used as principal means of treatment a diet high in oysters—one of the best sources of zinc. Published research has also shown zinc to be of use in the treatment of anorexia nervosa.

Rosacea: In a clinical study, after 3 months, zinc treatment improved rosacea by approximately 75 percent.¹⁰

"Skin cracking": Many people develop cracks in the skin of the heels, especially in the wintertime. Sometimes, the cracks deepen and start to bleed. Other people get small cracks along the edges of the fingers; these don't usually proceed to bleeding. But in either case, zinc

supplementation (along with essential fatty acids) always eliminates the cracking and much of the usually associated dry skin.

Even though the "heel cracks" themselves usually disappear in two to three months, getting rid of often-associated heavy heel calluses usually requires six to eight months of extra vitamin A—40,000-50,000 IU daily for non-pregnant adults.

Although there's no research at all on these effects of supplemental zinc (with essential fatty acids), or on this effect of vitamin A, they work every time!

Warts: In a single-blind trial, 20 of 23 patients treated with a relatively large quantity of zinc sulfate (not recommended because of gastrointestinal side effects) had their warts disappear completely after two months. 11 But several other people (not counted in the 23) had to drop out of the research project because of adverse gastrointestinal effects of zinc sulfate.

Types and quantities of zinc

From 1981-1992, I was a member of the Board of Trustees of Bastyr College of Naturopathic Medicine (now Bastyr University), the first fully accredited American college for naturopathic doctors (NDs). In the mid-1980s, I helped obtain Bastyr's first-ever research grant (given by General Nutrition Corporation), which inaugurated Bastyr's research department.

This research demonstrated that zinc picolinate is the best-absorbed form of zinc, with zinc citrate a close second. Both forms of zinc were well tolerated, with practically no side effects. The highest absorbability of zinc picolinate was no surprise, as at that time other researchers had reported zinc is absorbed by means of a "zinc-binding ligand," picolinic acid.

Here's how it works: After zinc

is digested from our food, it's then bound to picolinic acid, which is a metabolite of the essential amino acid tryptophan, produced in the pancreas. The combination of zinc and picolinic acid becomes zinc picolinate, which is a major form in which zinc is absorbed.

Following this research, zinc picolinate became the best-selling form of zinc supplementation.

If you want to try zinc supplementation for any of the conditions noted above, or any other application, please check with a physician skilled in and knowledgeable about nutritional medicine to determine the quantities best for you. Also, be sure to read the safety information below.

In my own practice, for nearly all the applications for zinc noted above, I most often use a "starting" quantity of 30 milligrams (of elemental zinc, as picolinate) three times daily for adults and teenagers weighing over 120 pounds. Once the problem is eliminated or "levels out" at a much lower level (acne, for example, which improves 60-80% with zinc supplementation, but rarely to 100% as other conditions can) then it's important to taper to twice daily for a month or two, then once daily for "maintenance."

For children weighing 60-120 pounds, 30 milligrams twice daily is a good starting point, following the same schedule as above. For 30-60 pound children, a daily starting dose of 30 milligrams is usually adequate, tapering to 15 milligrams daily. At 30 pounds and under, it's wisest to start with 15 milligrams daily, increasing the dosage only if there's no response after four weeks.

And about those essential fatty acids that accompany zinc for treatment of several problems noted above: Presently, I recommend a combination of high DHA/EPA fish oil (from 1½ tablespoonsful to 1