

## Special Interest Articles:

- Chinese herb and rheumatoid
- Antioxidants and Graves' disease
- Dysmenorrhea and magnesium
- Scientists and bumble bee watchers
- Allergies and sinusitis
- Stress and birth defects
- Endometriosis and antioxidants

## Niacin and Dysmenorrhea

Research appearing in the *Western Journal of Surgery, Obstetrics, and Gynecology* (1954;62:610-611) looked at the effect niacin and vitamin C with rutin had on dysmenorrhea. The subjects of the study were 220 women between the ages of 15 and 44 with dysmenorrhea, 80 of them completed the treatment.

They were given 100 mg. of niacin twice each day, taking more (100 mg. every 2-3 hours) when menstrual cramps were present. Supplementation relieved symptoms in 90% of the cases. Giving 300 mg. of vitamin C with 60 mg. of rutin (a flavonoid) improved the efficacy of the niacin.

## Regular Exercise Helps Prevent Colds

According to research appearing in the October, 2006 issue of the *American Journal of Medicine* (2006;119;937-942), post-menopausal women who exercised regularly for at least one year had a lower incidence of colds than those who did not. The subjects were 115 postmenopausal women who were sedentary and either obese or overweight. They were divided into two groups. For 12 months one group did 45 minutes of moderate exercise, five days per week. The control group did 45 minutes of stretching.

The subjects filled out quarterly questionnaires about upper respiratory infections. The group that exercised had a

lesser risk for catching a cold, which was more pronounced late in the study. In the final three months, the risk for colds in the control group was more than three times that for the group performing the exercise.

Other research, appearing in *Medicine & Science in Sports & Exercise* (2002; 34:1242-1248) evaluated 500 subjects over the course of a year to find how many colds they had and how often they exercised moderately (defined as activity more strenuous than a walk). The most active subjects had 25% fewer colds each year compared to the least active subjects.

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## Chinese Herb Helps Rheumatoid Patients

*In traditional Chinese medicine, extracts of the roots of the medicinal vine Tripterygium wilfordii Hook F (TwHF) (known as lei gong teng or thunder god vine) have shown promise in treating inflammatory conditions.*

Research appearing in *Arthritis and Rheumatism* (2002 Jul;46(7):1735-43) looked at the response rheumatoid arthritis patients had to the herb, Tripterygium wilfordii Hook F (TWHF). The subjects of the study were 35 patients who had not responded to conventional therapy. They were randomly assigned to receive a high dose of TWHF (360 mg/day), a low dose of TWHF (180 mg/day), or a placebo. The study lasted 20 weeks. Subjects were

evaluated with criteria from the American College of Rheumatology, and a successful response was defined as a 20% improvement by those standards. None of the patients in the placebo group met the criteria for improvement, but 75% of those in the high dose group and 40% in the low dose group met the American College of Rheumatology criteria for 20% (or more) improvement.

## Antioxidants and Graves' Disease

Research appearing in *IUBMB Life* (2001;51:105-109) looked at the effect supplementing with antioxidants had on Graves' disease. The subjects were 56 patients between the ages of 22 and 66, with hyperthyroidism. They were randomly divided into three groups and received either methimazole (anti-thyroid medication) alone, with an antioxidant supplement (200 mg vitamin E, 3 mg beta carotene, 250 mg vitamin C, 7.5 mg zinc, 7.5 mg manganese, 1 mg copper and 15 mcg selenium), or a combination of the drug and antioxidant. The antioxidant alone did not affect thyroid hormone

levels. It was noted that hyperthyroid patients had indicators of oxidative stress (need for antioxidants); malondialdehyde is increased and superoxide dismutase (SOD) and catalase activity is decreased when compared to healthy controls. The authors of the study believe that antioxidants may be a valuable adjunct to help relieve some of the symptoms of Graves' disease. Other research appearing in *Pharmazie* (2005; 60(9): 696-700) looked at DNA damage to peripheral lymphocytes (white blood cells) in patients with Graves' disease. Treatment with antioxidants reduced the cellular damage.

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## Dysmenorrhea and Magnesium

A study appearing in *Zentralblatt für Gynäkologie* (1989;111:755-760) looked at 50 women with primary dysmenorrhea. The women were randomly divided and received either magnesium supplementation or a placebo for six months. At the end of the study, 21 of the 25 supplemented women demonstrated a reduction in symptoms. Magnesium may reduce the production of prostaglandin F2a, a substance which may be responsible for the symptoms of dysmenorrhea. The subjects receiving the magnesium had 45% less prostaglandin F2a in the menstrual blood. Other research appearing in the German medical journal, *Schweizerische Rundschau für Medizin Praxis* (April 17, 1990;79(16):491-494) looked at the effect magnesium supplementation had on dysmenorrhea. The subjects in the double-blind trial were 32 patients suffering with dysmenorrhea, between the ages of 16 and 42. The women were randomly divided to receive either a placebo or a dose of magnesium for three days, beginning on the day before menstruation. There was little difference in symptomatology between the two groups on the

first day. On the second and third day, however, the magnesium group experienced less back pain, less lower back pain as well as a reduction in other symptoms.

An article appearing in *Clinical Obstetrics and Gynecology* (1978;21(1):139-145) discusses the role of prostaglandin F2a and how it increases the amplitude and frequency of uterine contractions—creating cramping. This is demonstrated by the fact that when injected, prostaglandin F2a can produce uterine cramping. The author of the study recommends a combination of magnesium and vitamin B<sub>6</sub> to treat dysmenorrhea. He notes that when B<sub>6</sub> is given alone, it can increase the magnesium content of red blood cells, because B<sub>6</sub> increases the influx of magnesium into the cell. The combination of these two nutrients can reduce the intensity and duration of menstrual cramps.

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## Scientists and Bumble Bee Watchers

A few decades ago, sixth graders in science class were told that it was impossible for a bumble bee to fly, according to all of the knowledge available in aerodynamics at the time. When you measured the size of the bumble bee's wings, computed the speed of the wings and weighed the bumble bee, mathematically it was impossible for the creature to fly.

You could say that there two kinds of people in the world, researchers and bumble bee watchers. Science does not always provide the proof that what natural health care practitioners do is valid. Yet if you go into many natural health clinics, you will find people who are improving under therapies that have not been proven YET. The research will catch up one day; the practitioners merely look at bumble bees and value those observations as much as research.

It turns out that after some advances in high speed photography new calculations were able to be made. Scientists were able to see that the wings of the bumble bee fill up like a parachute on the down stroke—greatly increasing the surface area of the wing. They were able to plug the new surface area into the calculations and declared that the bumble bee could indeed fly—much to the relief of bumble bees all around the planet.

Working in natural health care is an exercise in following research and looking at bumble bees. In asthma, for example, there is a fair amount of research that shows that a good diet, antioxidants, magnesium and omega-3 fatty acids can all help improve symptoms. Many practitioners get results with improving digestion, adrenal support and other therapies, even though there is not a lot of research to support it. After all, most of the medical journals sell

ads to drug companies, so you are not going to see a lot of research that says natural health care is good and drugs are dangerous. Just because there is not research to support a therapy, it does not mean that some future study won't prove the therapy to be valid. For decades we were told that nutrition had nothing to do with birth defects, but finally someone did the research to prove that folic acid can prevent spina bifida. Now all pregnant women are told to take folic acid—to prevent birth defects.

You may hear things like, “The research just isn't there; you really need to be more scientific.” But there is a difference between science and research. Anecdotal information, clinical observations, statistics and other information are part of science. Science forms theories based on earlier observations; so information gotten from other doctors and patients, even “anecdotal” information is valid. Natural therapies are very low-risk, so if a patient is not getting results with traditional medicine, why not try something safe and natural? If you know that research shows a strong correlation between oxidative stress and asthma symptoms, and you know that poor digestion leads to oxidative stress, it is not much of a stretch to expect that improving digestion will get many asthma patients better—even though there is not a lot of direct research showing a connection between digestion and asthma. Research is a way of focusing on a single thing and determining if your observations mean anything. Science incorporates lots of sources of information, including (but not limited to) research. Truth is truth, whether the research has caught up or not. Bumble bees flew long before we could prove it was possible.

## Allergies and Fungus in Sinusitis

In the *Archives of Environmental Health* (July 2003;58(7):433-441), a study looked at the sinus lining in 639 patients diagnosed with chronic sinusitis. It found that many of the cases were due to a high fungal load in the air and in the sinus lining. Reducing air exposure to fungus and saline irrigation improved the health of the sinus lining. The author believes that sinusitis due to allergies or fungal sensitivity may be due to a genetic defect. Other research in appearing in *Family Practice News* (April 1, 1992;30) stated that allergic sinusitis can be caused by several species of fungus and recommended culturing the mucus to identify the exact fungus involved. Of the 40 subjects in the study, half had a history of allergies or asthma.

Saline irrigation is a valuable treatment for sinusitis. A study appearing in *Family Practice News* (August 1, 2004:49) randomly assigned 43 sinusitis patients to receive either nasal irrigation or amoxicillin. After 11 months, the group receiving the irrigation had dramatically better scores on the Rhinosinusitis Disability Index, suggesting the superiority of nasal irrigation to antibiotic therapy.

While it is common to treat chronic sinusitis with antibiotics, many cases are due to allergies or fungus. According to an article in *Medical Tribune* (December 7, 1995;1), between 25% and 70% of patients with allergies have sinusitis as a symptom.

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## Stress and Birth Defects

According to research appearing in the September, 2000 issue of *The Lancet*, women who are under stress during the first trimester of their pregnancy are more likely to give birth to a child with birth defects than women who are not under stress. The researchers reviewed the medical records of women and looked for sources of extreme stress—like severe illness of a partner or child or death of a loved one. The stress occurred during the pregnancy or up to 16 months before the pregnancy. The researchers identified 3,560 women who had such stress and compared them to over 20,000 pregnancies where the women did not have extreme stress.

There were 42 women in the stress group who gave birth to a child with birth defects; this constitutes 1.18% of those pregnancies resulting in a birth defect. In

the control group, only 0.65% of the pregnancies resulted in a birth defect. This represents an 80% increase in risk. If the death of an older child occurred during the pregnancy, it created a five-fold increase. If that death was unexpected, it created an eight-fold increase in the likelihood of producing a birth defect.

Interestingly, stress can affect fertility. A study published in the *Medical Tribune* (December 1, 1994;16) studied 150 couples and found that the stress of a death in the family had a negative effect on the quality of sperm. Stress caused by a divorce or separation also had a negative effect on sperm. Interestingly, stress from work had no effect on sperm. Considering what stress can do to the fetus, this may be a blessing in disguise.

## Endometriosis and Antioxidants

*“My doctor told me to stop having intimate dinners for four; unless there are three other people.”—*  
Orson Welles

A study appearing in *Ginecologia y Obstetricia de Mexico* (2006; 74(1): 20-8) looked at the amount of oxidative stress and the antioxidant intake in 48 women with endometriosis. The researchers found an inverse relationship between the amount of antioxidants in the diet and the severity of the disease. Also, women with endometriosis tend to have poorer antioxidant status than healthy controls. Other research in *Family Practice News* (March 15, 2004:75) showed that taking antioxidants (1,200 IU vitamin E and 1,000 mg vitamin C per day) reduced inflammatory markers in women with endometriosis. Also, an animal study appearing in the *International Journal of Fertility* (1991;36(1):39-42) found that SOD and catalase reduced inflammation and adhesions in areas where endometrial tissue was present.

Other research has shown that there is a link between endometriosis and chemical exposure; so it makes sense that antioxidant intake can help women who suffer with endometriosis. A study appearing in *Toxicology Science* [2001; 59(1):147-59] demonstrated that animals with elevated serum levels of dioxin and chemicals similar to dioxin had a high prevalence of endometriosis, and the severity of disease correlated with the serum concentration of the toxic chemical. Research appearing in *Human Reproduction* [2005; 20(1):279-85] tested blood levels of PCBs in women with endometriosis and concluded that anti-estrogenic PCBs may be associated with the development of endometriosis. Research appearing in *Fertility and Sterility* [2005; 84(2):305-12] also found a connection between the body burden of PCBs and similar chemicals to the incidence of endometriosis.

