

Submitted by Fellow Dr. Sandra Rose Michael as a helpful resource from her colleague.

**Reduce or eliminate arthritis and a whole lot more with \$5.00 for a lifetime supply of 20 Mule Team Borax.**

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1 teaspoon of Borax in a quart of good water with a cup of lemon juice ... and then drink a half teaspoon in the am and pm. Try adding a couple of shots of Pedialite for the electrolytes if you do any heavy physical activity.

The Borax Conspiracy..... How the best Arthritis Cure information every discovered has been gagged. You may not be able to imagine that borax, this humble insecticide and laundry detergent, has the potential of bringing back the way you felt when you were 21. But it can. A solution of borax is strongly alkaline with a pH between 9 and 10 (pH 7 is neutral). It reacts with hydrochloric acid in the stomach to form boric acid and sodium chloride.

The boron content of Borax is 11.3% while for boric acid it is 17.5% or about 50% higher. When drunk, boron compounds are rapidly and nearly completely excreted with the urine. Formerly boric acid was widely used as a preservative in hundreds of foods but is now banned for this purpose in most countries, and is also banned from public sale whatsoever in Australia. There is a presence of boron in all plants and unprocessed foods. Diets with a fair amount of fruit and vegetables provide about 2 to 5 mg of boron per day.

In reality the average intake in developed countries is 1-2 mg of boron per day. And institutionalized patients eating hospital foods may receive less than 0.25 mg a day. Chemical fertilizers inhibit the uptake of boron from the soil: for instance, an organic apple grown in good soil may have 20 mg boron, but if grown with commercial fertilizer it may have only 1 mg of boron. Fertilizers combined with poor food choices have greatly reduced our boron intake compared to 50 or 100 years ago and our incidence of arthritis and other chronic disease has increased accordingly.

Unhealthy cooking methods greatly reduce the availability of boron from food. The cooking water of vegetables containing most of the minerals and is discarded during home cooking or commercial processing; phytic acid in baked goods, cereals and cooked legumes reduce availability of boron, while gluten sensitivity and Candida overgrowth inhibit the absorption of minerals. All this creates health problems due to boron deficiency and these problems are now very common.

Borax and boric acid have good antiseptic, antifungal, and antiviral properties but only mild antibacterial action. In plants as well as animals, boron is essential for the integrity and function of cell walls, and the way signals are transmitted across membranes.

Boron is distributed throughout the body with the highest concentration in the parathyroid glands, followed by bones and dental enamel. - It is absolutely essential for healthy bone and joint function, because it regulates the absorption and metabolism of whatever calcium intake there may be...as well as the magnesium and phosphorus needed by the bones through its influence on the parathyroid glands. With this boron is for the parathyroids precisely what iodine is for the thyroid gland. Boron deficiency causes the parathyroids to become overactive, releasing too much parathyroid hormone.... which raises the blood level of calcium by releasing calcium from bones and the teeth. This leads to osteoarthritis and other forms of arthritis, osteoporosis and tooth decay.

With advancing age, high blood levels of calcium lead to calcification of soft tissues causing muscle contractions and stiffness; (cramps).... calcification of endocrine glands, especially the pineal gland and the ovaries; arteriosclerosis, kidney stone. The calcification of the kidneys ultimately leads to kidney failure.

Boron deficiency combined with magnesium deficiency is especially damaging to BOTH the bones and teeth. Boron affects the metabolism of steroid hormones, and especially of sex hormones. Low levels of boron exacerbate low testosterone levels in men and estrogen levels in menopausal women.

It also has a role in converting vitamin D into its active form, thus increasing the calcium uptake and eventual deposition into bones and teeth rather than just causing the soft tissue to calcify. Also, other beneficial effects have been reported such as improvement of heart problems, vision, psoriasis, balance, memory and cognition.

The German cancer researcher Dr. Paul-Gerhard Seeger has shown that cancer usually starts with the deterioration of cell membranes; therefore, because boron is essential for cell membrane health and elasticity... and boron deficiency is SO widespread, this may be an important cause for the initiation of tumor growth. Boron compounds have anti-tumor properties and are "potent anti-osteoporotic, anti-inflammatory, hypolipemic, anti-coagulant and anti-neoplastic agents"

(1). This overview shows the wide-ranging influence of boron on our health. In the following I will describe some of the health effects in greater detail.

The Arthritis Cure of Rex Newnham In the 1960's Rex Newnham, Ph.D., D.O., N.D, developed severe arthritis. At that time, he was a soil and plant scientist in Perth, Western Australia. Conventional drugs did not help, so he looked into the chemistry of plants hoping to find the cause of his own arthritis. He realized that all the plants in that area were rather mineral deficient. Knowing that boron aids calcium metabolism in plants he decided to try taking in boron himself.

He started taking 30 mg of borax a day, and in three weeks all his pain, swelling and stiffness had disappeared. He told public health and medical school authorities about his discovery but they were not interested. However, some people with arthritis were delighted with his discovery, because they improved. There were people who were scared to take something that had a poison label on the container, and that was sold supposedly to kill cockroaches and ants. So, eventually he had tablets made that had a safe and effective quantity of borax in them.

Within five years and only by word of mouth he sold 10,000 bottles a month. He could no longer cope and asked a drug company to market it. That was a major mistake.

They indicated that this would replace more expensive drugs and reduce their profits. It so happened that they had representatives on government health committees and arranged that in 1981 Australia instituted a law/policy that declared boron and all its compounds to be poisons in any concentration.

He was fined \$1000 for selling a poison, and this successfully stopped his arthritis cure from spreading in Australia.

(2) Subsequently he published several scientific papers on borax and arthritis. One was a double-blind trial in the mid 1980's at the Royal Melbourne Hospital which showed that 70% of those who completed the trial were greatly improved. Only 12% improved when on placebo. - There were no negative side-effects, but people reported that their heart ailments had also improved, and there was better general health and less tiredness.

(3) Most of his later research was devoted to the relationship between soil boron levels and arthritis. He found, for instance that the traditional sugarcane islands have VERY low soil-boron levels, due to long-term heavy use of fertilizers. Jamaica has the lowest level and arthritis rates are about 70% of the population. - He noted that even the dogs were limping.

Next comes Mauritius with very low boron levels and 50% levels of arthritis. The daily boron intake in these countries is less than 1 mg/day.

An interesting comparison is between Indian and native Fijians. The Indians are estimated to have an arthritis rate of about 40% and eat much rice grown with fertilizer while the native Fijians with an estimated arthritis rate of 10% eat mainly starchy root vegetables grown privately without fertilizer.

The US, England, Australia and New Zealand generally have average soil-boron levels with an estimated intake of 1 to 2 mg of boron and arthritis rates of about 20%. But Carnarvon in Western Australia has by comparison high boron levels in soil and water, and the arthritis level rate is only 1%. It is similar in a place called Ngawha Springs in New Zealand with very high boron levels in the spa water which is known to be curative for arthritis.

Actually, all spas reputedly curing arthritis have very high boron levels. These are also high in Israel with an estimated daily boron intake of 5 to 8 mg and only 0.5 - 1% arthritis.

Bone analysis showed that arthritic joints and nearby bones had only half the boron content of healthy joints. Equally, synovial fluid (the fluid that lubricates joints and provides nutrients to the cartilage), is boron deficient in arthritic joints, but after boron supplementation bones were much harder than normal and surgeons found them more difficult to saw through.

With additional boron added to anyone's diet, bone fractures heal in about half the normal time in both man and animal. Horses and dogs with broken legs, or even a broken pelvis, have been shown to have fully recovered.

Borax is also effective with other forms of arthritis, such as Rheumatoid Arthritis, Juvenile Arthritis, and Lupus (Systemic Lupus Erythematosus).

For instance, Dr. Newnham saw a female baby aged 9 months with juvenile arthritis. And with the addition of boron to her diet was able to cure her in 2 weeks. He wrote that commonly people can get rid of their pain, swelling and stiffness in about 1 to 3 months. At which point they can reduce the intake from 3 boron tabs to 1 boron tablet (each tab is 3 mg) per day, as a maintenance dose so as to avoid any future arthritis.

He also stated that patients with rheumatoid arthritis commonly experienced a "Herxheimer reaction" and that this is always a GOOD prognostic sign. No matter how sick they feel, temporarily, they MUST persevere, and in another 2 or 3 weeks the pain, swelling and stiffness will be gone. (4,5)

The Herxheimer reaction is an early aggravation of symptoms accompanied with increased pain in the joints.. it is because of the toxins that are being released by the candida and mycoplasmas that are being killed. This is very common with antimicrobial therapy, and borax definitely is an exceptionally good and strong fungicide. What surprises me, however, is that this fungicidal effect shows up at even very low doses of 75 to 90 mg of borax.

Equally surprising is that up to 30% of those people with osteoarthritis experienced a Herxheimer reaction, suggesting that the border between osteoarthritis and rheumatoid arthritis is almost non-existent. I believe that in long-standing and especially resistant cases, it would be advisable to use other antimicrobials in addition to the borax/boron

#### Osteoporosis and Sex Hormones

Boron deficiency causes greatly increased amounts of calcium and magnesium to be lost/flushed out with the urine. Therefore, a borax supplementation will reduce the daily loss of calcium by nearly 50%. Because this calcium comes mainly from resorbed bone and from the structure of the teeth, boron deficiency may be the most important factor in causing osteoporosis and tooth decay.

It has been estimated that 55% of Americans over 50 have osteoporosis and 80% are women. Worldwide 1 in 3 women and 1 in 12 men over the age of 50 manifest osteoporosis, and this is responsible for millions of fractures each year.

Rats with osteoporosis were given a boron supplement for 30 days with the result that their bone quality was now comparable with that of the healthy control group and of a group supplemented with estradiol.

(6). The beneficial effect of borax on bones seems to be due to two interrelated effects: #1 A higher boron content of the bones which makes them harder, and ... #2 A normalization of sex hormones which stimulates the growth of new bone.

Low estrogen levels after menopause are believed to be the main reason why so many older women develop osteoporosis. In men testosterone levels seem to naturally decline more gradually ... which seems to be reflected by their later onset of osteoporosis.

Research has now shown that boron supplementation in postmenopausal women DOUBLES the blood levels of the most active form of estrogen, "17-beta estradiol", to the level found in women on estrogen replacement therapy. Equally, the blood levels of testosterone is also more than doubled

(7). With HRT there is a higher risk of breast or endometrial cancer which is not known to happen with the hormones that are produced by a body that is supplemented with borax. Some women get premenstrual problems because estrogen levels are too high, and progesterone too low, and therefore they may be afraid of using boron. However, I found no evidence that boron ever raises estrogen above normal healthy levels. Boron may balance levels of sex hormones in a much similar fashion to the action of maca root powder. Maca acts on the pituitary gland and not only increases, but also balances our sex hormones and stimulates our own progesterone production as it is needed.

A recent study in younger men (29 - 50) showed that the level of free testosterone (the form that matters most) had risen by one third after a daily supplementation of about 100 mg of borax for one week.

(8). This is of special interest for bodybuilders. Contrary to the medical preference of chemically castrating men with prostate cancer, research with boron has shown that elevated testosterone levels are beneficial by shrinking prostate tumors and PSA levels, PSA being a marker for tumors and inflammation in the prostate. Also significantly improved memory and cognition in elderly individuals may be partly due to increased levels of sex hormones and partly to improved membrane functions of brain cells.

(9). I have been asked about boron supplementation for women with estrogen-sensitive breast cancer. Breast cancer is related to calcifications in the breast. In my opinion it is more important to normalize the calcium-magnesium metabolism and cellular membrane functions, rather than be restricted by a faulty medical concept, ..... especially as I believe that cancer can usually be controlled with long- term antimicrobial therapy.

Therefore, I would use boron as well as maca in this case. Fungi and Fluoride being such an excellent fungicide it is not surprising that borax is being successfully used to treat Candida. There is much interesting information on an Earth Clinic forum called Borax Cures (10).

With low to medium-weight people use 1/8 teaspoon of borax powder and with heavier weight people, use 1/4 teaspoon per liter of water. Drink the water spaced out during the day, and do this for 4 or 5 days a week as long as is required. Many contributors have written that boron cured or greatly helped them.

One of the posts follows:

"I also have psoriasis, so maybe the soreness in my joints is the psoriatic arthritis creeping in. I thought, after reading about borax here on this forum, I would give it a try. OMG! In one day, the soreness in my knees has vanished! .... Also, my psoriasis seems a lot better after 2 days drinking 1/4 tsp borax in 1 litre of water per day."

Another contributor about toe fungus: "He wet his feet and then took a handful (of borax) and rubbed it all over his feet. - He said the feet stopped itching immediately! He was stunned.

A few weeks later I asked him how his athlete's foot was and he said: Oh WOW! it has never come back! That stuff totally cured it !!!"

Other enthusiastic posts were about vaginal thrush. Borax appeared to be more effective than other remedies.

Commonly one large gelatin capsule filled with borax or boric acid was inserted into the vagina at bedtime for several nights or up to 2 weeks. – Alternatively, the powder can be mixed with cool solidified coconut oil as a bolus/ suppository.

A recent scientific study (11) confirms these positive observations with vaginal thrush. Boric acid at the dose of one boron filled capsule worked even in cases of drug-resistant Candida, and against all the tested pathogenic bacteria.

Because of the greater dilution, a douche may not be strong enough for bacteria and drug-resistant Candida, but it should work for normal Candida. Borax, due to its alkalinity, was more effective than the boric acid.

In normal healthy conditions Candida exists as harmless oval yeast cells. When challenged, chains of elongated cells called pseudohyphae develop, and finally strongly invasive long, narrow and tube-like filaments called hyphae. These damage the intestinal wall, and cause inflammation and Leaky Gut Syndrome.

Pseudohyphae and hyphae can be seen in the blood of individuals with cancer and autoimmune diseases. Candida can also form tough layers of biofilm. This same study shows that boric acid/borax inhibits the formation of biofilms and also the transformation of harmless yeast cells into invasive hyphal form. In other articles I have shown that this process, commonly initiated by antibiotics, is a basic cause of most of our modern diseases, and this makes borax and boric acid primary health remedies.

But this article shows that there are many more reasons to give them a top rating. A scientific review in 2011 concluded: "... boric acid is a safe, alternative, economic option for women with recurrent and chronic symptoms of vaginitis when conventional treatment fails..."

(12). But as it is so much better than drugs why not use it as a first option, or use the even more effective borax? Another study from Turkey.

(13) Shows the protective effect of boric acid on food contaminated with mycotoxins, especially fungal aflatoxins. Molds... fungus... Among these, Aflatoxin B1 (AFB1) causes extensive DNA damage and is the most potent carcinogen ever tested, especially affecting liver and lungs, also causing birth defects, immunotoxicity and even death in farm animals and humans. Boric acid treatment was protective and led to increased resistance of DNA to oxidative damage induced by AFB1.

The strong antifungal action of boric acid is, of course, the reason why it has traditionally been used as a food preservative. Borax, similar to the equally endangered Lugol's iodine solution, can also be used to remove accumulated fluoride and heavy metals from the body.

(14). Fluoride not only causes bones to deteriorate, but also the pineal gland to calcify and the thyroid to become underactive. (Weight gain.) Borax reacts with fluoride ions to form boron fluorides which are then excreted in the urine.

In a Chinese study borax was used to treat 31 patients with skeletal fluorosis. The amount was gradually increased from 300 to 1100 mg/day during a three-month period, with one week off each month. The treatment was effective with 50 to 80% improvement.

One forum contributor suffered with Fibromyalgia/Rosacea, chronic fatigue and TMJ for over 10 years which she believed were caused by her previous intake of fluoride.

She used 1/8 tsp of borax and 1/8 tsp. of sea salt in a liter of de-chlorinated water, and drank this for 5 days each week. Within two weeks her face cleared, the redness faded, body temperature normalized, energy level increased, and she steadily lost the excess weight she was carrying. The only side-effect was an initial aggravation of her Rosacea symptoms which did not last long.

Another post: "7 years ago thyroid cancer, the next year adrenal fatigue, then early menopause, the following year uterine prolapse followed by hysterectomy - the following year fibromyalgia and neuropathy."

"Early childhood had only fluorinated water along with fluoride tablets. Fall of 2008 I was looking at total disability. I could barely walk and couldn't sleep because of the pain and was throwing up daily from the extreme pain in my back. ... After reading about the toxicity of fluoride I came to understand where all of my problems originated. ....I began the borax detox of 1/8 tsp. in a liter of water and within 3 days my symptoms were almost totally gone."

Calcium-Magnesium Metabolism: There is antagonism as well as cooperation between calcium and magnesium. About half of the total body magnesium is found in bones and the other half inside the cells of tissues and organs. Only 1% is in the blood, and the kidneys try desperately to keep this level constant by excreting more or less with the urine. In contrast, 99% of calcium is in bones, and the rest in the fluid outside of cells. Muscles contract when calcium moves into the cells, and they relax when calcium is again pumped out and magnesium moves in. This cellular pump requires much energy to pump calcium out, and if cells are low in energy, then calcium may accumulate inside cells. Low cellular energy may be due to Candida, faulty sugar or fat metabolism, deficiencies, or accumulating metabolic wastes and toxins.

This then leads to only partial relaxation of the muscles because of the stiffness, and a tendency to cramps, and poor blood and lymph circulation. The problem gets worse the more calcium moves from bones into soft tissue.

Nerve cells can also accumulate calcium, leading to faulty nerve transmission, in the lens of the eye it causes cataracts, hormonal output keeps reducing more and more as endocrine glands increasingly calcify, and all other cells become handicapped in their normal functions.

In addition, it causes intracellular magnesium deficiency. Magnesium is needed to activate countless enzymes, and a deficiency leads to inefficient and blocked energy production. A further problem is that excess calcium damages the cell membrane and makes it difficult for nutrients to move in and wastes to move out. - When the intra-cellular calcium level gets too high the cell WILL die. Here we can see the importance of boron as the major regulator of cell membrane functions, especially in regard to movements of calcium and magnesium.