

# THE BORAX CONSPIRACY

*Borax, a naturally occurring mineral and a source of the essential element boron, is an inexpensive and effective antiseptic, antifungal and insecticidal treatment but its use is being outlawed by health authorities worldwide.*

by Walter Last © April 2012

Website:  
<http://www.health-science-spirit.com>

## HOW THE ARTHRITIS CURE HAS BEEN STOPPED

It is difficult to imagine that borax, this humble cleaner and insecticide, has the potential to bring down our economic system singlehandedly. But you do not need to worry; the danger has been recognised and the necessary steps are already being taken to defuse the situation. I will start with the basics and you will understand what I mean as the story unfolds.

Mined borax is the source of other manufactured boron compounds. The main deposits are in Turkey and California. The chemical name is sodium (or disodium) tetraborate decahydrate (or, simply, sodium borate), meaning that it contains four atoms of boron combined with two sodium atoms and 10 molecules (or sometimes less) of crystallisation water. Borax is the sodium salt of the weak boric acid. In solution, borax is strongly alkaline. When ingested, it reacts with hydrochloric acid in the stomach to form boric acid and sodium chloride. The boron content of borax is 11.3 per cent, while for boric acid it is 50 per cent higher. Ingested boron compounds are rapidly and nearly completely excreted with the urine. Formerly, boric acid was widely used as a food preservative but is now banned in most countries.

Boron is present in all plants and unprocessed foods. Good diets provide 2–5 mg of boron per day, but in reality the average intake in developed countries is 1–2 mg of boron per day, and institutionalised patients may receive only 0.25 mg. Chemical fertilisers inhibit the uptake of boron from the soil. Boron intake is further reduced by discarding cooking water of vegetables, and by the phytic acid in baked goods and cereals. All this makes health problems from boron deficiency very common.

## Health Effects of Boron

Borax and boric acid have basically the same health effects with good antiseptic, antifungal and antiviral properties but only mild antibacterial action. Boron is essential for the integrity and function of cell walls and for 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 essential for healthy bone and joint function, regulating the absorption and metabolism of calcium, magnesium and phosphorus through its influence on the parathyroid glands. With this, boron is to the parathyroids what iodine is to the thyroid.

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 teeth. This then leads to arthritis, osteoporosis and tooth decay. With advancing age, high blood levels of calcium lead to calcification of soft tissues causing muscle contractions and stiffness; calcification of endocrine glands, especially the pineal gland and the ovaries; arteriosclerosis; kidney stones and calcification of the kidneys, ultimately leading to kidney failure.

Boron deficiency combined with magnesium deficiency is especially damaging to the bones and teeth. Boron affects the metabolism of steroid hormones, and especially of sex hormones. It increases low testosterone levels in men and oestrogen levels in menopausal women. It also has a role in converting vitamin D to its active form, thus increasing calcium uptake and deposition into bone and teeth rather than causing soft tissue to calcify. Other reported benefits are improvement of heart problems, vision, psoriasis, balance, memory and cognition. Boron compounds have anti-tumour properties and are "potent anti-osteoporotic, anti-inflammatory, hypolipemic, anti-coagulant and anti-neoplastic agents".<sup>1</sup>

### The Arthritis Cure of Dr Rex Newnham

In the 1960s, Rex Newnham, PhD, DO, ND, then a soil and plant scientist in Perth, Western Australia, developed arthritis. Conventional drugs did not help, but he realised that plants in that area were rather mineral deficient. Knowing that boron aids calcium metabolism in plants, he started taking 30 mg of borax a day, and in three weeks all pain, swelling and stiffness had disappeared.

Health and medical authorities were not interested in his discovery, but improving arthritis sufferers were delighted. Eventually he had tablets made containing 3 mg of boron, and only by word of mouth he sold 10,000 bottles a month. When he asked a drug company to market the tablets, it indicated that this would replace more expensive drugs and reduce profits. It so happened that it had representatives on government health committees, and arranged that in 1981 Australia instituted a regulation which declared boron and its compounds to be poisons in any concentration. He was fined \$1,000 for selling poison, and this successfully stopped his arthritis cure in Australia.<sup>2</sup>

Subsequently, Dr Newnham published several scientific papers on borax and arthritis. One paper covered a double-blind trial in the mid-1980s at the Royal Melbourne Hospital, which showed considerable improvement in 70 per cent of those who completed the trial; only 12 per cent improved on a placebo.<sup>3</sup> He also found that the traditional sugarcane islands have very low soil-boron levels due to long-term heavy use of chemical fertilisers. Jamaica has the lowest level, and the arthritis rate is about 70 per cent; he noted that even most dogs were limping. Next comes Mauritius, with very low boron levels and a 50 per cent arthritis rate. The daily boron intake in these countries is less than 1 mg/day. The USA, England, Australia and New Zealand generally have average soil-boron levels, with an estimated intake of 1–2 mg of boron and an arthritis rate of about 20 per cent. All

spas reputedly curing arthritis have very high boron levels. These are also high in Israel, with an estimated daily boron intake of 5–8 mg and an arthritis rate of only 0.5–1.0 per cent.

Bone analysis showed that arthritic joints and nearby bones have only half the boron content of healthy joints, and synovial fluid that lubricates joints is boron deficient in arthritic joints. After boron supplementation, bones were much harder than normal. With additional boron, bone fractures healed in about half the normal time in both humans and animals. Dr Newnham once saw a baby girl, aged nine months, with juvenile arthritis, and borax cured her in two weeks.

Dr Newnham wrote that, commonly, people can get rid of their pain, swelling and stiffness in about one to three months. Then they can reduce treatment from three boron tablets to one tablet (each 3 mg) per day as a maintenance dose. He also stated that patients with rheumatoid arthritis often experienced a Herxheimer

reaction and that this is always a good prognostic sign. They must persevere, and in several more weeks the pain, swelling and stiffness will be gone.<sup>4,5</sup>

The Herxheimer reaction is an early aggravation of symptoms with increased pain due to toxins released by killed *Candida* and mycoplasma. I was surprised that this fungicidal effect is already present at such a low dose. It is equally surprising that

also about 30 per cent with osteoarthritis experienced a Herxheimer reaction, suggesting that the border between osteoarthritis and rheumatoid arthritis is rather fluid. In longstanding and resistant cases, use other antimicrobials in addition.

### Osteoporosis and Sex Hormones

Boron deficiency causes large amounts of calcium and magnesium to be lost with the urine. A borax supplement reduces this loss by nearly 50 per cent. As the lost calcium comes from resorbed bone and teeth, boron deficiency is the most important factor causing osteoporosis and tooth decay. About 55 per cent of Americans over 50 have osteoporosis, and of these about 80 per cent are women. This is responsible for millions of fractures each year.

After rats with osteoporosis were given borax for 30 days, their bones were normal.<sup>6</sup> These beneficial effects are due to a higher boron content of the bones, which makes them harder, and a normalisation of sex hormones, which stimulates the growth of new bone.

Low oestrogen levels after menopause are a main reason why many women develop osteoporosis. In men, testosterone levels decline more gradually with later onset of osteoporosis. Boron supplementation in postmenopausal women doubles the blood level of the

**Health and medical authorities were not interested in his discovery, but improving arthritis sufferers were delighted.**

most active form of oestrogen, 17-beta oestradiol, to the level found in women on oestrogen replacement therapy, and also testosterone levels double.<sup>7</sup> Boron does not raise oestrogen above normal healthy levels, but instead balances sex hormones in a similar way as does maca root powder. In younger men, 100 mg of daily borax increased the level of free testosterone (which matters most) by one third.<sup>8</sup> This is of special interest for body-builders.

Contrary to the medical preference of chemically castrating men with prostate cancer, research with boron shows that elevated testosterone levels are beneficial by shrinking prostate tumours and prostate-specific antigen (PSA) levels (PSA being a marker for tumours and inflammation in the prostate). It also improves memory and cognition in elderly individuals.<sup>9</sup> Also, with oestrogen-sensitive breast cancer, I would use borax to normalise the calcium-magnesium metabolism and cellular membrane functions rather than feel restricted by a possibly faulty medical concept.

### Fungi and Fluoride

"Borax Cures" is an Earth Clinic forum<sup>10</sup> with many successful *Candida* treatments. Low- to medium-weight individuals use ¼ teaspoon of borax powder, and those with heavier weight use ½ teaspoon per litre of water. One drinks the water, spaced out during the day for four or five days a week, as long as required.

Many contributors wrote that it cured or greatly helped them. Read, for instance, this post: "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 two days drinking ¼ tsp borax in one litre of water per day."

Here's one about toe fungus: "He wet his feet and then took a handful [of borax] and rubbed it all over his feet. He said it 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 hasn't come back! That stuff totally cured it.'"

Other enthusiastic posts are about vaginal thrush. Borax appeared to be more effective than other remedies. Commonly, one large gelatine capsule filled with borax or boric acid was inserted at bedtime for several nights or up to two weeks. Alternatively, the powder was mixed with cool, solidified, coconut oil as a bolus or suppository.

A recent scientific study<sup>11</sup> confirms these positive observations with vaginal thrush. Boric acid in a filled capsule worked even in cases of drug-resistant *Candida* and against all the tested bacteria. Because of the greater dilution, a douche may not be strong enough for bacteria and drug-resistant *Candida* but should work for normal *Candida*. Borax, due to its alkalinity, was more effective than boric acid.

Normally, *Candida* exists as harmless oval yeast cells. When stressed, chains of elongated 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. Boric acid/borax inhibits the formation of biofilms and the transformation of harmless yeast cells into invasive hyphae. In other articles I have shown that this process, usually initiated by antibiotics, is a basic cause of most of our modern diseases, and this makes borax and boric acid primary health remedies.

A scientific review in 2011 concluded that "boric acid is a safe, alternative, economic option for women with recurrent and chronic symptoms of vaginitis when conventional treatment fails".<sup>12</sup> Being so much better than drugs, why not use it as the first option?

A study from Turkey<sup>13</sup> showed the protective effect of boric acid on food contaminated with mycotoxins, especially fungal aflatoxins. Among these, aflatoxin B<sub>1</sub> (AFB<sub>1</sub>) causes extensive DNA damage and is the most potent carcinogen ever tested, especially affecting liver and lungs and also causing birth defects,

immunotoxicity and even death in farm animals and humans. Boric acid treatment was protective, with increased resistance of DNA to oxidative damage induced by AFB<sub>1</sub>. The strong antifungal action of boric acid is, of course, the reason why traditionally it has been used as a food preservative.

Borax, similar to the equally endangered Lugol's solution, can also be used to remove accumulated fluoride and heavy metals from the body.<sup>14</sup> Fluoride not only causes bones to deteriorate, but also the pineal gland to calcify and the thyroid to become underactive. Borax reacts with fluoride ions to form boron fluorides which are then excreted in the urine. In a Chinese study, 300 to 1,100 mg/day of borax was used for three months to

**In other articles  
I have shown  
that this process,  
usually initiated  
by antibiotics,  
is a basic cause  
of most of our  
modern diseases,  
and this makes  
borax and  
boric acid primary  
health remedies.**

treat 31 patients with skeletal fluorosis. The treatment was very effective.

One Earth Clinic forum contributor suffered with fibromyalgia/rosacea, chronic fatigue and temporomandibular joint disorder (TMJ) for over 10 years due to fluoride. She used ½ teaspoon of borax and within two weeks her face cleared, the redness faded, her body temperature normalised, her energy level increased, and she steadily lost excess weight.

Another post read: "Seven 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 was fluoridated 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 pain in my back... After reading about fluoride, I came to understand where all of my problems originated... I began the borax detox of ½ tsp in a litre of water, and within three days my symptoms were almost gone."

### The Calcium–Magnesium Ratio

There is antagonism as well as cooperation between calcium and magnesium. About half the total body magnesium is found in bones and the other half is *inside* the cells of tissues and organs. Only one per cent is in the blood, and the kidneys keep this level constant by excreting more or less with the urine. In contrast, 99 per cent of calcium is in the bones, and the rest is 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. This then leads to only partial relaxation of the muscles, with stiffness, frequent cramps and poor blood and lymph circulation. The problem gets worse, the more that calcium moves from bones into soft tissue. Nerve cells can also accumulate calcium, leading to faulty nerve transmission. In the lens, excess calcium causes cataracts. Hormonal output keeps reducing as endocrine glands increasingly calcify and all other cells become handicapped in their normal functions. In addition, this excess calcium 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 for wastes to move out. When the intracellular calcium level gets too high, the cell will die. This shows the importance of boron as a regulator of cell membranes, especially in regard to movements of calcium and magnesium. With boron deficiency, too much calcium moves into the cell while magnesium cannot displace it. This is the condition of old age and of the boron-deficiency diseases leading up to it.

While in good health and especially in younger years, a calcium–magnesium ratio of 2:1 is normal and is supplied with a good diet; but with increasing age, boron deficiency and resulting diseases, we need progressively less calcium and more magnesium.

For boron to be fully effective in reversing tissue calcification, ample magnesium is required. For elderly individuals, I recommend 400–600 mg of magnesium together with the daily borax supplementation spaced out during the day; and with protracted joint problems, additional transdermal magnesium. However, oral magnesium needs to be adjusted for its laxative effect. I doubt that calcium supplements are beneficial in the case of osteoporosis. In my view, these individuals have plenty of calcium stored in soft tissues where it does not belong, and supplementing boron and magnesium is expected to redeposit this misplaced calcium into the bones. I regard the medical focus on a high-calcium intake as a prescription for accelerated ageing.

**With boron deficiency, too much calcium moves into the cell while magnesium cannot displace it. This is the condition of old age and of the boron-deficiency diseases leading up to it.**

### What and How Much to Use

In some countries (e.g., Australia, New Zealand, USA), borax can still be found in the

laundry and cleaning sections of supermarkets. There is no "food grade" borax available or necessary. Boric acid, if available, may be used at about ⅓ the dose of borax.

First, dissolve a lightly rounded teaspoonful (5–6 grams) of borax in one litre of water. This is your concentrated solution. Keep the bottle out of reach of small children.

- A standard dose is one teaspoonful (5 mL) of concentrate. This has 25–30 mg of borax and provides about 3 mg of boron. Take one dose daily with drink or food. If that feels right, then take a second dose with another meal. As a maintenance dose, you may continue indefinitely with one or two doses daily.

If you have arthritis, osteoporosis or related conditions, menopause or stiffness due to advancing years, or if you need to improve low sex-hormone production, then

increase intake to three or more spaced-out standard doses until you feel that your problem has sufficiently improved. Then drop back to one or two doses per day.

If you want to try the higher dose recommended by Earth Clinic for treating *Candida* and removing fluoride from the body, then use the concentrated solution thus:

- lower dose for low to normal weight: 100 mL (¼ tsp of borax powder); drink at spaced-out times during the day.
- higher dose for heavier individuals: 200 mL (½ tsp of borax powder); drink at spaced-out times during the day.

Always start with a standard dose and increase gradually to the intended maximum. Take the maximum amount for four or five days a week, as long as required.

Borax is rather alkaline, and in higher concentrations it has a soapy taste. You may disguise this with lemon juice, vinegar or ascorbic acid.

Borax and boric acid have been classified as reproductive poisons in Europe, and since December 2010 are no longer available to the public within the European Union. Presently, borax is still available in Switzerland,<sup>15</sup> but shipment to Germany is not permitted. In Germany, a small amount (20–50 g) may be ordered through a pharmacy as ant poison, but the sale has to be registered.

Boron tablets can be bought from health shops or over the Internet, commonly with 3 mg of boron. These contain tightly bound boron not present in ionic form, as with borax or boric acid. While they are suitable as a general boron supplement, I do not expect them to work against *Candida* and mycoplasmas or as a quick arthritis, osteoporosis or menopause cure. Most scientific studies and individual experiences were with borax or boric acid. To improve effectiveness, I recommend taking three or more boron tablets spaced out daily for an extended period, combined with sufficient magnesium and a suitable antimicrobial program.<sup>16</sup>

### Possible Side-Effects

While side-effects from pharmaceutical drugs tend to be negative and often dangerous, with natural medicine such as borax therapy these are usually healing reactions with beneficial long-term effects. Most common is the Herxheimer reaction from eliminating *Candida*.

In some of the above forum posts, rapid improvement was experienced within days. This is always a functional response. High cellular calcium levels cause muscle contraction with cramps or spasms as a common cause of pain. Boron, especially together with magnesium, can rapidly relax these muscles and take away the pain.

However, with longstanding severe calcifications, a large amount of calcium cannot be redistributed in a short

time. This leads to increased calcium levels in the affected area, especially the hips and shoulders, and for a considerable time can cause problems such as a tendency to severe cramping and pain, or problems with the blood circulation or nerve transmission. Nerve-related effects in hands and feet may be numbness or reduced skin sensitivity. Higher amounts of calcium and fluoride passing through the kidneys may cause temporary kidney pain. Such healing reactions cannot be avoided when aiming for a higher level of health. Whenever you experience an unpleasant effect, reduce borax intake until the problem subsides. Then gradually start increasing again. Helpful additional measures are a greatly increased fluid intake, using more organic acids such as lemon juice, ascorbic acid or vinegar, and improving lymph flow as with rebounding, walking or inverted positions.

### Toxicity Issues

Government health agencies are concerned about boron toxicity. You might be concerned as well if you read the following, pertaining to sodium chloride (salt): "Acute oral toxicity [LD<sub>50</sub>, the dose at which half of the tested animals die]: 3000 mg/kg [Rat]... Chronic Effects on Humans: Mutagenic for mammalian somatic cells... Slightly hazardous in case of skin contact, ingestion or inhalation. Lowest Published Lethal Dose (LDL) [Man]...1000 mg/kg... Causes adverse reproductive effects in humans (fetotoxicity, abortion) by intraplacental route... [M]ay increase risk of Toxemia of Pregnancy in susceptible women... May cause adverse reproductive effects and birth defects in animals, particularly rats and mice (fetotoxicity, abortion, musculoskeletal abnormalities, and maternal effects [on ovaries, fallopian tubes])... May affect genetic material (mutagenic)... Ingestion of large quantities can irritate the stomach...with nausea and vomiting. May affect behavior (muscle spasticity/contraction, somnolence), sense organs, metabolism, and cardiovascular system. Continued exposure may produce dehydration, internal organ congestion, and coma..."<sup>17</sup>

Now, compare the sodium chloride toxicity with the Material Safety Data Sheet (MSDS) for borax/boric acid: "Low acute oral toxicity; LD<sub>50</sub> in rats is 4,500 to 6,000 mg/kg of body weight... Reproductive/developmental toxicity: Animal feeding studies in rat, mouse and dog, at high doses, have demonstrated effects on fertility and testes. Studies with the chemically related boric acid in the rat, mouse and rabbit, at high doses, demonstrate developmental effects on the fetus, including fetal weight loss and minor skeletal variations. The doses

**High cellular calcium levels cause muscle contraction... Boron, especially together with magnesium, can rapidly relax these muscles and take away the pain.**

administered were many times in excess of those to which humans would normally be exposed... No evidence of carcinogenicity in mice. No mutagenic activity was observed for boric acid in a battery of short-term mutagenicity assays. Human epidemiological studies show no increase in pulmonary disease in occupational populations with chronic exposures to boric acid dust and sodium borate dust... [and] no effect on fertility."<sup>18</sup>

Here you see that table salt is 50–100 per cent more toxic than borax; it changes the genetic material and is mutagenic, while borax is harmless in this regard. Infants are most at risk from high borax ingestion. It has been estimated that 5–10 grams can cause severe vomiting, diarrhoea, shock and even death, but lethal doses are not well documented in the literature.

The following toxicity data are from documents of the US Environmental Protection Agency and the Centers for Disease Control.<sup>19, 20</sup>

A review of 784 accidental human poisonings from 10 to 88 grams of boric acid reported no fatalities, with 88 per cent of cases being asymptomatic, meaning that they did not notice anything. However, gastrointestinal, cardiovascular, hepatic, renal and central nervous system effects, dermatitis, erythema and death have been observed in some children and adults exposed to more than 84 mg boron/kg, corresponding to more than 40 g of borax for 60 kg of body weight.

Animal studies have identified reproductive toxicity as the most sensitive effect of boron ingestion. Exposure of rats, mice and dogs for several weeks showed some damage to the testes and sperm at doses of more than 26 mg boron/kg, which corresponds to 15 g of borax/day for 60 kg of body weight. Most at risk is the developing foetus, and, in the studied animals, rats were most affected. In one study, slight reductions in the foetal body weight were already found at 13.7 mg boron/kg/day used during pregnancy. The no-effect dose was set at less than 13.7 mg/kg/day, corresponding to about 7 g of borax for 60 kg of body weight.

However, a rat study lasting for three generations found no reproductive toxicity at 30 mg boron/kg/day. This dose corresponds to 17 g of borax for 60 kg ingested for three generations! In another three-generation study, no problem was found at 17.5 mg boron/kg/day, corresponding to 9 g of borax/60 kg, while the next higher tested dose of 58.5 mg/kg/day, corresponding to 30 g of borax/60 kg, resulted in infertility. Therefore, we can assume that the safe reproductive dose is up to about 20 g/60 kg/day.

Human studies of the possible association between impaired fertility and high boron levels in water, soil and

dust in Turkish populations and boron mining and processing workers found no effect. One study even reported elevated fertility rates in borax production workers as compared to the US national average.

All this is important because possible reproductive toxicity is the official reason for the present assault on borax. The sodium chloride MSDS mentioned above also states: "While sodium chloride has been used as a negative control in some reproductive studies, it has also been used as an example that almost any chemical can cause birth defects in experimental animals if studied under the right conditions." Keep this in mind when you read the following.

### The Assault on Borax

Arthritis and osteoporosis affect about 30 per cent of people in developed countries. Osteoporosis requires more long-term hospital care than any other individual disease. This is a main source of income for the

medical–pharmaceutical system. If the boron–magnesium cure becomes widely known, this vital income stream will stop. The medical–pharmaceutical industry cannot allow this to happen.

When Dr Newnham discovered the boron–arthritis cure, it was not a big problem for the pharmaceutical companies because news travelled slowly and was easily suppressed. This is very different now. In

response, borax is publicly demonised and important articles about it have been removed from PubMed.

In the European Union, borax is now replaced by a borax substitute. Borax and boric acid were reclassified as "Reprotoxic Category 2", and since December 2010 have been banned from public sale. This is part of a Globally Harmonized System of Classification and Labelling of Chemicals (GHS). In 2012, Australia is to implement new GHS regulations.<sup>21</sup>

To paraphrase the European Chemicals Agency's reason for its reclassification of boron products: The available data do not indicate major differences between laboratory animals and humans, therefore it must be assumed that the effects seen in animals could occur in humans, as epidemiological studies in humans are insufficient to demonstrate the absence of an adverse effect of inorganic borates on fertility.

A dose of 17.5 mg boron/kg/day was derived as an NOAEL [no effect level] for male and female fertility. For the rat, decreased foetal weight occurred at 13.7 mg boron/kg/day, and a safe limit of 9.6 mg/kg/day has been derived.<sup>22</sup>

**This is very different now.  
In response, borax is  
publicly demonised and  
important articles about it  
have been removed  
from PubMed.**

**Continued on page 79**

## The Borax Conspiracy

### Continued from page 34

It is really saying: "While we have no human data, animal studies suggest that for adult reproductive functions a daily ingestion of about two teaspoons of borax is safe. But to be absolutely sure that no one is harmed, we will ban it totally."

Importantly, this ruling is not related to borax in foods or supplements where it is already banned, but only for general use as in laundry or cleaning products or as insecticides. Because borax is not readily inhaled or absorbed through intact skin, it is difficult to get even a few milligrams daily into the body with conventional use. If the same standard were to apply to other chemicals, there would be none left. The key study in this assessment was published in 1972. Why is this being dug up now to justify banning borax when it was of no

concern for the past 40 years? It does not make any scientific sense, especially if you consider that the main chemical in the borax substitute, sodium percarbonate, is about three times more toxic than borax.<sup>23</sup> Even sodium bicarbonate is nearly twice as toxic as borax.<sup>24</sup> Both of these have not been tested for long-term reproductive toxicity at the high borax levels. The same applies to washing powders. Yet, why do really toxic items such as caustic soda and hydrochloric acid remain publicly available when one of the safest household chemicals is banned, despite its being absolutely impossible to cause reproductive harm with the approved use?

Regardless of the lack of any scientific credibility, the stage has been set for borax and boric acid to be removed from public sale globally at short or no notice. Even low-level and less-effective boron tablets are now

tightly controlled by the pharmaceutical industry and may be removed at any time through Codex Alimentarius regulations. With this, the medical-pharmaceutical system has safely defused any potential danger that borax may have posed to its profitability and survival. ∞

### About the Author:

Walter Last is a retired biochemist, research chemist, nutritionist and natural therapist based in Australia. His health-related books are available at <http://tinyurl.com/4xkdgc>. He is a regular contributor to NEXUS. For more information, visit his website <http://www.health-science-spirit.com>.

### Editor's Note:

Due to space constraints, we are unable to publish the full text of Walter Last's article. To view this, as well as accompanying endnotes, go to <http://www.health-science-spirit.com>.