

# Clinical Applications of Rubidium

*"Receiving feedback from clinicians, I thought it would be fun to go over some of the uses of rubidium to expand our nutritional repertoire."*

My first introduction to rubidium was from an 80 year old osteopath who had the wit and energy of a man in his mid-50s, Dr. Bill Ellis. Dr Bill was lecturing to a group of doctors and shared that patients who possessed above average cognitive skills had higher levels of rubidium in their trace mineral analysis. Years later I read a paper where Dr. Brewer was using rubidium with cesium and potassium to create a high pH environment as a treatment for cancer pain. But recently a physician trained in applied kinesiology shared how a low dose rubidium, Rb-Zyme, strengthened gut muscles when nothing else would. So I thought it would be fun to go over some of the uses of rubidium to expand our nutritional repertoire.

Rubidium is the twenty-third most abundant element in the earth's crust, roughly as abundant as zinc and more common than copper. On the periodic table it is found all the way to the left classifying it as an alkali metal.

Alkali metals form alkaline solutions when they are mixed with water. The top mineral in that column is hydrogen, followed by the other alkali metals: lithium, sodium, potassium, rubidium and cesium.

On previous Tuesday Minutes we've discussed the value of alkalizing one's diet and the profound effects it can have on multiple systems. You can see a link to the right but basically when the body is relatively acidic mostly due to a lack of buffers (vegetables) the body experiences multiple

levels of stress, cell membranes are rigid, red blood cells can't carry oxygen to outer tissues, there is a significant increase in free radicals creating oxidative stress, and valuable minerals needed for bone and tissue integrity are relocated to be used as buffers to neutralize excess acid and then excreted as waste products.

So alkali metals are very, very important. Scientists in Belgium found that levels of rubidium fall as we age. Not surprising, most of our minerals become depleted as we age. But here is where the

story gets intriguing for me, a Chinese research team found 2.2 mcg /mL of rubidium in human blood compared to 1.18 mcg of copper and 6.4 mcg of zinc. Our body contains about 350 mg of total rubidium. These blood levels show rubidium to be of equal importance biologically to copper and zinc.

And here's another zinger. Rubidium plays a supportive role in making super oxide dismutase (SOD), one of the body's major antioxidants. SOD is one of the most powerful enzymes in the body and acts as an intracellular antioxidant and works in both the mitochondria and the cytoplasm of the cell.

Rubidium has been shown to be valuable for reproductive health. A study with goats showed rubidium deficient diets resulted in depressed growth and greater than 80% of pregnant female goats aborted their kids.

Rubidium may function like an antidepressant because of its ability to increase 5HTP production which ultimately is converted to serotonin and melatonin. In studies with mice, rubidium has also helped decrease tumor growth.

The highest dietary source of rubidium comes from asparagus. Other sources of rubidium are Brazil nuts, spinach, parsley, bilberry fruit, rhubarb, dandelion leaves, cashews and beets. Boiling drastically reduces the rubidium content in vegetables. Poultry meat as well as freshwater fish is relatively rich in Rb. Oddly, Coffee and tea are high in Rb, 85% of which pass into the beverage.

Over 35 years ago, years ahead of their time, Biotics Research developed a vegetable culturing process which concentrates minerals into plant cell structure. Their product, Rb-Zyme contains 300 mg of a concentrated sprouted plant tablet with 100 mcg of organi-

cally complexed rubidium. The balance of the tablet contains enzymes, trace minerals, antioxidants and polyphenols that are part of the plant.

The result is that your stomach sees Rb-Zyme as a concentrated food high in rubidium rather than an inert mineral tablet high with compressible sugars, starches or fillers.

I have also provided a link to a very interesting website that shares some clinical feedback on the areas that they have found rubidium useful. Normally I limit my references to scientific papers but this website had so many thought provoking points I felt any interested reader would enjoy. The author shares personal clinical experience how rubidium has been associated with the regulation and absorption of iron, pituitary hormone release, and a modulator of cell and mitochondrial membranes.

If membranes are rigid, even if sufficient hormones are present, the hormones cannot be utilized sufficiently. To me, the fact that rubidium blood levels are higher than they are with copper and almost as high as zinc tells me the body has a very definite use for this trace mineral.

Make sure you use a multiple vitamin/mineral that contains rubidium like ProMulti-Plus or Bio-Trophic Plus and consider using Rb-Zyme, 1-2 tablets three times a day for cases that do not respond to traditional therapies.

Give special consideration for cognitive problems in the elderly, chronic fatigue, difficult cases of sub-acute thyroid or adrenal cortical hypofunction.

Thanks for reading this week's edition. I will see you next Tuesday.