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What makes fireworks red?

The answer is lithium, the lightest of all metals, which even floats on water. Its salts have been used since ancient times for healthful effects. It is found in large concentration in the healing waters of the ancient mineral springs in Europe, Searles Lake in California and a few salt lakes throughout the world. Lithium is found in small amounts in fish, processed meats, dairy products, eggs, potatoes and some veggies. Even with eating the above, it is less than one tenth of what is needed to keep our brain working better.

Forty years ago, it was FDA approved for a mood stabilizer in treatment of manic-depressive disease. It is still used some today for this reason. A better use of this is for the prevention and treatment of Alzheimer's disease! There are at least five studies that show this metal in vitro (test tube) and in vivo (in live animals) decreases the amyloid/beta plaques and neurofibrillatory tangles that are the hallmark of Alzheimer's. Lithium protects against neuronal death very much like the latest drug on the market for Alzheimer's disease, NamendaR, by decreasing glutamate-induced excitotoxicity. The latter is the main cause of Alzheimer's.

Excessive amounts of glutamate, the brain's most prevalent transmitter, damages our brain cells. Lithium stimulates the protective Brain Derived Neurotropic Factor (BDNF), which is essential for the

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development and maintenance of healthy neurons. One further mechanism has been described recently in Lancet that it stimulates the growth of new brain cells, a process called neurogenesis. However, the increase of this grey matter was mostly the supporting tissue, the glial cells.

In therapeutic doses, lithium requires a prescription. It is very inexpensive in that it has been generic for the last 15 years. The dose of 600-1200mg a day is usually required for the treatment.

It is important that the blood is monitored periodically so that the therapeutic range of .5 to 1.5mm/l is obtained. If lower than this, there may be poor results. If higher, there may be negative effects on organs such as the kidneys and can cause tremors. Even in the desired range, after many months lithium can cause a low thyroid and this too must be monitored. For more information on this and to inform your physician, visit my web site at docblock.com for the scientific references.