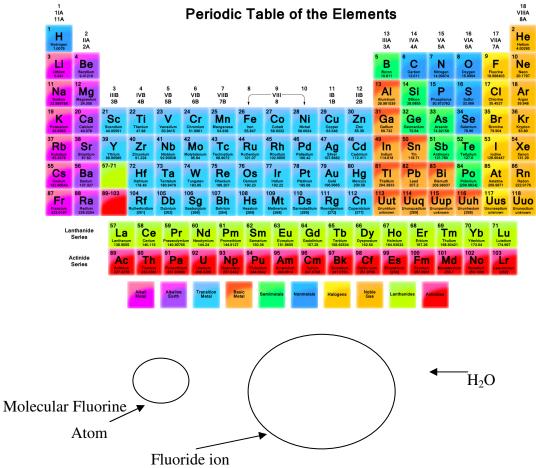


Fresh Godly drinking water for San Francisco by sun distillation of the Ocean



Industrial chemicals in dentistry infused into North San Diego County drinking water by the city of Los Angeles. Sign tacked on fence lists Federal and State law violations. Large tanks are the size of hotels that contain sodium hydroxide required to neutralize fluorosilicic acid.



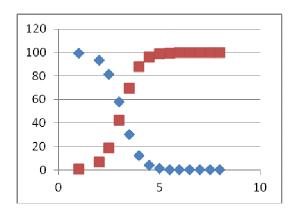
Relative Sizes of Fluorine, Fluoride and Water

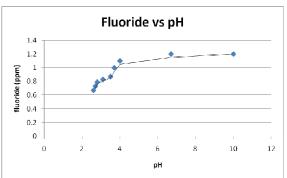
Fluorine atom: volume = 082 Å^3 , 128 Å diameter

Fluoride ion: 10-fold larger volume = 7.9 Å^3 , 272 pm diameter

Industrial Chemicals used in Dentistry Infused into Drinking Water

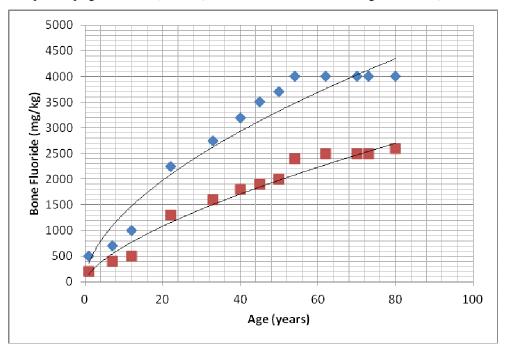
$$H_2SiF_6 + 6 NaOH \rightarrow H_4SiO_4 + 6F^- + 6Na^+ + 3H_2O + heat \ (0.7 ppm) \ (0.7 ppm) \ (3 ppm)$$





Calculated conversion of fluoride to HF as pH decreases (on left). Actual observed fluoride level as a function of pH (on right). (Data from Sauerheber, R. <u>Jour. Envir. Pub. Health</u> 439490, 2013).

Normal bone hydroxyapatite $Ca_{10}[PO_4]_6[0H]_2$ Abnormal fluoroapetite $Ca_{10}[PO_4]6F_2$



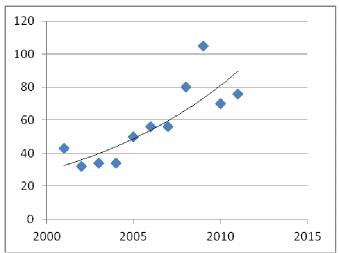
Fluoride accumulation in human rib bone as a function of age consuming natural fluoride water at 0.8 ppm (squares) in South Shields and 1.9 ppm (diamonds) in West Hartlepool, England (from Jackson and Weidmann, **Journal of Pathology and Bacteriology**, 1958) before fluoridated toothpaste and in the absence of industrial fluoridated water. 3,000 mg/kg weakens bone. 1 ppm added fluoride in water was chosen in 1939. With toothpaste in a soft water area treated with industrial fluoride, the 0.8 ppm curve would roughly compare to that at 2 ppm. 4 ppm water lifetime consumption leads to bone fluoride of 12-14,000 mg/kg (National Research Council, Report on Fluoride in Drinking Water, Washington, D.C., 2006, p. 93).

Normal and Severely Fluorotic Human Tibia/Fibula, Museum of Man, San Diego



Leg bone is in part responsible for delivering calcium into the blood to support heart function, where normal bone has a smooth surface. The bones with fluorosis are severely spiculed with calcium fluoride deposits, abnormally thickened due to bone cell replication to help maintain normal whole body calcium homeostasis in response to the poisonous insult of the calcium chelator fluoride. The extent of incorporation is determined by water hardness that minimizes fluoride assimilation, as well as the fluoride concentration in water. This is not due to very high concentrations or the person would not have lived long enough to accumulate it.

Racehorse fatal breakdowns as a function of year at Los Alamitos racetrack



Yearly Los Alamitos racetrack, Los Angeles, CA breakdowns over 12 years, before and after fluoridation in 2011. Data are from 170,000 racing starts, tabulated by the California Horse Racing Board. 80-90% of all race horses race with stomach ulcers. 7% of all humans feel stomach discomfort in the absence of ulcers from 1 ppm industrial fluoridated water consumption. Similar results occurred for 40,000 racing starts over the period 2008-2013 at Hollywood Park, Inglewood, CA. LsAlamitos stopped purchasing MWD fluoridated water in 2013 and relies on well water. Hollywood Park closed down mostly due to lack of attendance in part from the increased breakdown rate. Bone fluoride accumulates in horses as in humans (Krook L and Justus C. Fluoride Poisoning of Horses from Artificially Fluoridated Drinking Water, Fluoride: 2006; 29:3-10).



Zenyatta won her first 19 races in a row and lost race #20, and was retired and has given birth. She consumed industrial fluoride water at the beginning of her racing career in 2007 in CA and raced three years. Notice horses at full gallop have all four hooves airborne. CA Chrome, now based at Los Alamitos, won the 2014 Kentucky Derby. His first race was in 2013 after Los Alamitos stopped purchasing fluoridated MWD water.

The San Juan River water at Pagosa Springs contains only 5.8 ppm calcium, extremely soft. (As the river traverses toward Shiprock the calcium content dramatically increases). The ratio of calcium to fluoride in Pagosa Springs was a morbidly dangerous 4.8:1. It has now returned to a safe level (>150:1).

In L.A. the ratio was a dangerous 60:1 from 2007-2011 and 86:1 from 2011-2013. From 2013 to present in Los Alamitos it is a more safe 150:1 in well water. The natural level in the Colorado River and Los Angeles water before fluoridation in 2007 was a safe 300:1.

Lethal level of calcium fluoride is 3,700 mg/kg (/2.2 pound per kg x 1,000 lb horse - 1000) = 1363 g/horse (/454) = **3.8 lbs**.

Lethal level of sodium fluoride is 100 mg/kg ($/2.2 \times 1000/1000$) = 45 g/horse (/454) = 0.1 lbs. = **1.6 ounces**.

Soft water does not protect from fluoride poisoning. Hard water can.



Carlsbad is fluoridated from MWD, Los Angeles. So CA is most all fluoridated from North Los Agneles through San Diego city to the Mexico border except for Poway, Camp Pendleton Marine Bse and Old Oceanside. However, non-fluoridated also are Leucadia, old Encinitas, Cardiff, Solana Beach, Rancho Santa Fe, and Fairbanks Ranch, due to the large horse population at the latter two locations. The suffering of Cathy's horses was not in vain.

The FDA ban petition was accepted for review in 2007 and remains pending.

U.S. Food and Drug Administration Re: FDA2007-P-0346 Center for Drug Evaluation and Research Rockville, MD 20857

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