

Scientific Facts on the Biological Effects of Fluorides

Fluoride in drinking water was originally added in the 1940s to prevent tooth decay. Studies have now shown that fluoride causes [dental fluorosis](#) in 10% of the population. Even more disturbing than the cosmetic impact that fluoride can have on teeth, research is also linking fluoride to increased risk of cancer (particularly bone cancer) gene mutations reproductive problems neurotoxicity (hyper or depressed activity) bone fluorosis (decreasing density). In fact, in 1999, the EPA's Headquarters Union of Scientists took a stand opposing fluoridation of drinking water supplies. Read more [here](#). The fluoride used for water fluoridation does not have FDA approval and is considered by the FDA as an "unapproved drug". The proper use of any drug requires an understanding of how much is too much. Since fluoride is already in many foods and beverages, an estimated total intake of existing fluoride amounts is imperative. Research shows fluoridation is unnecessary since we're already receiving 300% or more of the American Dental Association's recommended daily amount.

1. Fluoride exposure disrupts the synthesis of collagen and leads to the breakdown of collagen in bone, tendon, muscle, skin, cartilage, lungs, kidney and trachea.

Reference(s):

- A.K. Susheela and Mohan Jha, "Effects of Fluoride on Cortical and Cancellous Bone Composition," IRCS Medical Sciences: Library Compendium, Vol. 9, No.11, pp. 1021-1022 (1981);
- Y. D. Sharma, "Effect of Sodium Fluoride on Collagen Cross-Link Precursors," Toxicological Letters, Vol. 10, pp. 97-100 (1982);
- A. K. Susheela and D. Mukerjee, "Fluoride poisoning and the Effect of Collagen Biosynthesis of Osseous and Nonosseous Tissue," Toxicological European Research, Vol. 3, No.2, pp. 99-104 (1981);
- Y.D. Sharma, "Variations in the Metabolism and Maturation of Collagen after Fluoride Ingestion," Biochemica et Biophysica Acta, Vol. 715, pp. 137-141 (1982);
- Marian Drozd et al., "Studies on the Influence of Fluoride Compounds upon Connective Tissue Metabolism in Growing Rats" and "Effect of Sodium Fluoride With and Without Simultaneous Exposure to Hydrogen Fluoride on Collagen Metabolism," Journal of Toxicological Medicine, Vol. 4, pp. 151-157 (1984).

2. Fluoride stimulates granule formation and oxygen consumption in white blood cells, but inhibits these processes when the white blood cell is challenged by a foreign agent in the blood.

Reference(s):

- Robert A. Clark, "Neutrophil Iodination Reaction Induced by Fluoride: Implications for Degranulation and Metabolic Activation," Blood, Vol. 57, pp. 913-921 (1981).

3. Fluoride depletes the energy reserves and the ability of white blood cells to properly destroy foreign agents by the process of phagocytosis. As little as 0.2 ppm fluoride stimulates superoxide production in resting white blood cells, virtually abolishing phagocytosis. Even micro-molar amounts of fluoride, below 1 ppm, may seriously depress the ability of white blood cells to destroy pathogenic agents.

Reference(s):

- John Curnette, et al, "Fluoride-mediated Activation of the Respiratory Burst in Human Neutrophils," Journal of Clinical Investigation, Vol. 63, pp. 637-647 (1979);
- W. L. Gabler and P. A. Leong, ., " Fluoride Inhibition of Polymorphonuclear Leukocytes," Journal of Dental Research, Vol. 48, No. 9, pp. 1933-1939 (1979);
- W. L. Gabler, et al., " Effect of Fluoride on the Kinetics of Superoxide Generation by Fluoride," Journal of Dental Research, Vol. 64, p. 281 (1985);
- A. S. Kozlyuk, et al., " Immune Status of Children in Chemically Contaminated Environments," Zdravookhranenie, Issue 3, pp. 6-9 (1987)

4. Fluoride confuses the immune system and causes it to attack the body's own tissues, and increases the tumor growth rate in cancer prone individuals.

Reference(s):

- Alfred Taylor and Nell C. Taylor, "Effect of Sodium Fluoride on Tumor Growth," Proceedings of the Society for Experimental Biology and Medicine, Vol. 119, p. 252 (1965);
- Shiela Gibson, "Effects of Fluoride on Immune System Function," Complementary Medical Research, Vol. 6, pp. 111-113 (1992);
- Peter Wilkinson, " Inhibition of the Immune System With Low Levels of Fluorides," Testimony before the Scottish High Court in Edinburgh in the Case of McColl vs. Strathclyde Regional Council, pp. 17723-18150, 19328-19492, and Exhibit 636, (1982);
- D. W. Allman and M. Benac, " Effect of Inorganic Fluoride Salts on Urine and Cyclic AMP Concentration in Vivo," Journal of Dental Research, Vol. 55 (Supplement B), p. 523 (1976);
- S. Jaouni and D. W. Allman, " Effect of Sodium Fluoride and Aluminum on Adenylate Cyclase and Phosphodiesterase Activity," Journal of Dental Research, Vol. 64, p. 201 (1985)

5. Fluoride inhibits antibody formation in the blood.

Reference(s):

- S. K. Jain and A. K. Susheela, "Effect of Sodium Fluoride on Antibody Formation in Rabbits," Environmental Research, Vol. 44, pp. 117-125 (1987)

6. Fluoride depresses thyroid activity.

Reference(s):

- Viktor Gorlitzer Von Mundy, "Influence of Fluorine and Iodine on the Metabolism, Particularly on the Thyroid Gland," Muenchener Medicische Wochenschrift, Vol. 105, pp. 182-186 (1963);
- A. Benagiano, "The Effect of Sodium Fluoride on Thyroid Enzymes and Basal Metabolism in the Rat," Annali Di Stomatologia, Vol. 14, pp. 601-619 (1965);
- Donald Hillman, et al., "Hypothyroidism and Anemia Related to Fluoride in Dairy Cattle," Journal of Dairy Science, Vol. 62, No.3, pp. 416-423 (1979);
- V. Stole and J. Podoba, "Effect of Fluoride on the Biogenesis of Thyroid Hormones," Nature, Vol. 188, No. 4753, pp. 855-856 (1960);
- Pierre Galleti and Gustave Joyet, "Effect of Fluorine on Thyroid Iodine Metabolism and Hyperthyroidism," Journal of Clinical Endocrinology and Metabolism, Vol. 18, pp. 1102-1110 (1958)

7. Fluorides have a disruptive effect on various tissues in the body.

Reference(s):

- T. Takamori "The Heart Changes in Growing Albino Rats Fed on Varied Contents of Fluorine," The Toxicology of Fluorine Symposium, Bern, Switzerland, Oct 1962, pp. 125-129;
- Vilber A. O. Bello and Hillel J. Gitelman, "High Fluoride Exposure in Hemodialysis Patients," American Journal of Kidney Diseases, Vol. 15, pp. 320-324 (1990);
- Y. Yoshisa, "Experimental Studies on Chronic Fluorine Poisoning," Japanese Journal of Industrial Health, Vol. 1, pp. 683-690 (1959)

8. Fluoride promotes development of bone cancer.

Reference(s):

- J.K. Mauer, et al., "Two-Year Carcinogenicity Study Of Sodium Fluoride In Rats," Journal of the National Cancer Institute, Vol. 82, pp. 1118-1126 (1990);
- Proctor and Gamble "Carcinogenicity Studies with Sodium Fluoride in Rats" National Institute of Environmental Health Sciences Presentation, July 27, 1985;
- S. E. Hrudley et al., "Drinking Water Fluoridation and Osteosarcoma," Canadian Journal of Public Health, Vol. 81, pp. 415-416 (1990);
- P. D. Cohn, "A Brief Report on the Association of Drinking Water Fluoridation and Incidence of Osteosarcoma in Young Males," New Jersey Department of Health, Trenton, New Jersey, Nov. 1992;
- M. C. Mahoney et al., "Bone Cancer Incidence Rates in New York," American Journal of Public Health, Vol. 81, pp. 81, 475 (1991);
- Irwin Herskowitz and Isabel Norton, "Increased Incidence of Melanotic Tumors Following Treatment with Sodium Fluoride," Genetics Vol. 48, pp. 307-310 (1963);
- J. A. Disney, et al., "A Case Study in Testing the Conventional Wisdom: School Based Fluoride Mouth Rinse Programs in the USA," Community Dentistry and Oral Epidemiology, Vol. 18, pp. 46-56 (1990);
- D. J. Newell, "Fluoridation of Water Supplies and Cancer – An Association?," Applied Statistics, Vol. 26, No. 2, pp. 125-135 (1977)

9. Fluorides cause premature aging of the human body.

Reference(s):

- Nicholas Leone, et al., "Medical Aspects of Excessive Fluoride in a Water Supply," Public Health Reports, Vol. 69, pp. 925-936 (1954);
- J. David Erikson, "Mortality of Selected Cities with Fluoridated and Non-Fluoridated Water Supplies," New England Journal of Medicine, Vol. 298, pp. 1112-1116 (1978);
- "The Village Where People Are Old Before Their Time," Stern Magazine, Vol. 30, pp. 107-108, 111-112 (1978)

10. Fluoride ingestion from mouth rinses and dentifrices in children is extremely hazardous to biological development, life span and general health.

Reference(s):

- Yngve Ericsson and Britta Forsman, "Fluoride Retained From Mouth Rinses and Dentifrices In Preschool Children," Caries Research, Vol. 3, pp. 290-299 (1969);
- W. L. Augenstein, et al., "Fluoride Ingestion In Children: A Review Of 87 Cases," Pediatrics, Vol. 88, pp. 907-912, (1991);
- Charles Wax, "Field Investigation Report," State of Maryland Department of Health and Mental Hygiene, March 19, 1980, 67 pages;

- George Waldbott, " *Mass Intoxication from Over-Fluoridation in Drinking Water,*" *Clinical Toxicology*, Vol. 18, No.5, pp. 531-541 (1981)

Other Facts

The contents of a family size tube of fluoridated toothpaste is enough to kill a 25 pound child.

In 1991, the Akron (Ohio) Regional Poison Center reported that "death has been reported following ingestion of 16mg/kg of fluoride. Only 1/10 of an ounce of fluoride could kill a 100 pound adult. According to the Center, "fluoride toothpaste contains up to 1mg/gram of fluoride." Even Proctor and Gamble, the makers of Crest, acknowledge that a family-sized tube "theoretically contains enough fluoride to kill a small child."

Fluorides have been used to modify behavior and mood of human beings.

It is a little known fact that fluoride compounds were added to the drinking water of prisoners to keep them docile and inhibit questioning of authority, both in Nazi prison camps in World War II and in the Soviet gulags in Siberia.

Fluorides are medically categorized as protoplasmic poisons, which is why they are used to kill rodents.

The September 18, 1943 issue of the *Journal of the American Medical Association*, states, "fluorides are general protoplasmic poisons, changing the permeability of the cell membrane by inhibiting certain enzymes. The exact mechanisms of such actions are obscure."

Fluoride consumption by human beings increases the general cancer death rate.

In 1975 Dr. John Yiamouyiannis published a preliminary survey which showed that people in fluoridated areas have a higher cancer death rate than those in non-fluoridated areas. The National Cancer Institute attempted to refute the studies. Later in 1975 Yiamouyiannis joined with Dr. Dean Burk, chief chemist of the National Cancer Institute (1939-1974) in performing other studies which were then included in the *Congressional Record* by Congressman Delaney, who was the original author of the Delaney Amendment, which prohibited the addition of cancer-causing substances to food used for human consumption.