

Fluoride and Dentistry: How Much Fluoride is in Your Toothpaste?

Bill Wolfe, D.D.S.

By Bill Wolfe, DDS, NMD

he second fastest way, next to intravenous delivery, to deliver a drug is sublingually...under the tongue. Therefore, it is very important what chemicals we place in our mouths.

Over 95% of toothpastes now contain fluoride, and many young children swallow over 50% of the toothpaste added to their brush, if they are not supervised during brushing. A single strip of toothpaste (covering the length of a child's brush) contains between 0.75 to 1.5 mg of fluoride. This exceeds the amount of fluoride in most prescription fluoride supplements (0.25 to 1.0 mg). A 2-ounce tube of prescription ControlRX contains 282 milligrams of fluoride, a nearly-lethal dose for a 2-year old.

At high doses, fluoride is a potent poison that is almost on par with arsenic. Fluoride's potency explains why it was used for years as a rodenticide (to kill rodents) and why it is still being used as a pesticide. It also explains why the Food & Drug Administration now requires that all fluoride toothpastes sold in the United States carry the following warning: "WARNING: Keep out of the reach of children under 6 years of age. If more than used for brushing is accidentally swallowed, get medical help or contact a Poison Control Center right away."

Poisonings from Fluoride Toothpaste: Fluoride toothpastes carry a poison warning for good reason. A tube of fluoride toothpaste, including bubble-gum flavored varieties with child-friendly cartoon characters on the packaging, has enough fluoride to kill an average-weighing child under the age of 9. While fatalities from toothpaste ingestion are rare, poisoning incidents are not. A young child can receive an "acutely toxic" dose of fluoride (the dose capable of inducing toxic responses such as gastric pain, nausea, or headache) by ingesting a mere 1 gram (1000 mg) of fluoridated paste. Each year there are over 20,000 calls to Poison Control Centers as a result of excessive ingestion of fluoride toothpaste..

Many poisoning incidents from fluoride toothpaste, however, likely go unreported. Parents may not notice the symptoms associated with mild fluoride toxicity or may attribute them to colic or gastroenteritis, particularly if they did not see the child ingest fluoride. (Journal of Public Health Dentistry.)

The National Institutes of Health encourages parents to call the American Association of Poison Control Centers (1-800-222-1222) anytime they have a question about poisoning. Parents are advised to take extra care to lock up these types of prescription dental products, as well as any fluoride supplements, which can easily contain enough fluoride to kill a child.

My response is... "Why even have fluoride products in the house at all...?"

 Fluoride is not an essential nutrient. No biological process in animals or humans has been shown to depend on it. On the contrary, it is known that fluoride can interfere with many important biological processes and vital cellular constituents. This makes fluoride potentially toxic even at low doses. (International Association of Oral Medicine and Toxicology-IAOMT.)

- Segments of the population are unusually susceptible to the toxic effects of fluoride. (USPHS, 1993.)
- "Fluorides are general protoplasmic poisons, probably because of their capacity to modify the metabolism of cells by changing the permeability of the cell membrane and by inhibiting certain enzyme systems. (*JAMA*, *September*, 1943.)
- According to the *Clinical Toxicology of Commercial Products*, "fluoride is more poisonous than lead and just slightly less poisonous than arsenic."
- According to the *Physicians' Desk Reference*: "In hypersensitive individuals, fluoride occasionally causes various skin eruptions, gastric distress, headaches, and weakness."

I am proud to say that I have never incorporated fluoride into any of my dental products, and I am even more proud to say that my practice has been Fluoride Free for 32 years, and I haven't missed it at all...

