

Fluoride (F⁻)

What is Fluoride?

Fluoride is a natural trace element and exists in almost all soils. Fluoride compounds make up approximately 0.08 percent of the earth's crust.

The most widely known use of fluoride is its addition to public drinking water supplies for the purpose of reducing tooth decay. This is achieved at water treatment plants by injecting or feeding a solution of hydrofluosilicic acid, sodium silicofluoride, or sodium fluoride into the treated water stream.

Does Fluoride have any additional names?

Fluoride ion

What are the known health effects?

Small amounts of fluoride help prevent tooth cavities, but high levels can harm your health. In adults, exposure to high levels can result in denser bones. However, if exposure is high enough, these bones may be more fragile and brittle and there may be a greater risk of breaking the bone.

How does exposure occur?

In the home, children may be exposed to high levels of fluorides if they swallow dental products containing fluoridated toothpaste, gels, or rinses. The most likely place to be exposed to fluoride is through drinking water, if your drinking water is fluoridated.

Is this contaminant regulated?

Yes. Some of the water supplied to the customers of Mount Laurel MUA contains fluoride, and all of the water supplied to customers of Mount Laurel MUA is in compliance with USEPA and NJDEP requirements. The maximum concentration of Fluoride permitted in drinking water is 4 ppm; the optimal level of fluoride in drinking water recommended by the American Dental Association (ADA) is 0.70 ppm. Water supplied by the Mount Laurel MUA from Mount Laurel MUA wells and Willingboro MUA are fluoridated to between 0.45 ppm to 1.59 ppm. Water supplied by Mount Laurel MUA from NJ American is not fluoridated. Please consult your dentist or pediatrician to determine if fluoride supplements are advisable for you or your family members.

How can I reduce exposure?

Fluoride in drinking water can be removed by activated alumina, anion exchange, reverse osmosis, and distillation.

Additional information regarding Fluoride, including the information referenced, can be found at:

https://www.wqa.org/Portals/0/Technical/Technical%20Fact%20Sheets/2014_Fluoride.pdf

<https://www.atsdr.cdc.gov/toxprofiles/tp11-c1-b.pdf>