

# Fluorine / Fluorides

## What is it:

Fluoride is a naturally-occurring pale yellow-green gas that may also be found in a solid form when combined with a metal. Fluoride compounds are used in making steel, chemicals, ceramics, lubricants, dyes, plastics, and pesticides. Fluorides are often added to drinking water supplies and dental products.



## How is it used:

Fluorides are added to drinking water supplies and dental products but may also be used at industrial sites.

**Greater Detail:** Low levels of fluorides can be beneficial, such as helping to prevent dental cavities. At high levels, fluorides can result in tooth and bone damage.

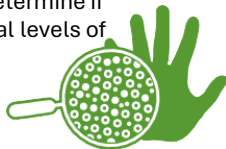
## How does the contaminant travel:

Fluorine is not destroyed in the environment, but it often changes form. Fluorine forms salts and minerals in soils. As a gas, Hydrogen fluoride will be absorbed by rain and into clouds where it will eventually fall back to the ground. Fluorine released in the air can travel by wind and rain to nearby water, soil, and food sources. Fluorides can accumulate in plants and animals, primarily in the bones or shells rather than in soft tissue.



## How do you know you have been exposed:

High levels of fluorine can cause changes in bone density. In animals, high levels of fluorine have caused fertility issues. Urine tests are available to measure fluoride levels in the body; these tests can determine if you have been exposed to higher-than-normal levels of fluorides.



## How can you reduce the risk of exposure:

Avoiding known sources with high levels of fluoride is recommended. In the home, children may be exposed to high levels of fluorides if they swallow dental products containing fluoridated toothpaste, gels, or rinses. Parents should supervise brushing and teach children not to swallow dental products.