

Fluoride Fact Sheet for Consumers



Fluoride is a mineral that helps prevent tooth decay and helps keep your bones strong.

What is fluoride and what does it do?

Fluoride is a mineral that helps prevent tooth decay and helps keep your bones strong.

How much fluoride do I need?

The amount of fluoride you need each day depends on your age and sex. Here are the average daily recommended amounts in milligrams (mg).

Life Stage	Recommended Amount
Birth to 6 months	0.01 mg
Infants 7–12 months	0.5 mg
Children 1–3 years	0.7 mg
Children 4–8 years	1 mg
Children 9–13 years	2 mg
Teens 14–18 years	3 mg
Adults men 19+ years	4 mg
Adults women 19+ years	3 mg
Pregnant teens and women	3 mg
Breastfeeding teens and women	3 mg

What are the sources of fluoride?

Foods and water do not contain much fluoride naturally. Fluoride is sometimes added to public water supplies—called “fluoridated” water—and some bottled waters.

Most of the fluoride you get each day comes from drinking fluoridated water. You can also get fluoride from consuming foods and beverages made with fluoridated water, like tea and coffee.

Most toothpaste and some mouthwashes also contain fluoride. Even though you should not swallow these, they still add slightly to the amount of fluoride you get each day.

What kinds of fluoride dietary supplements are available?

A few dietary supplements, including some multivitamin/multimineral products, contain fluoride. Liquid fluoride drops for children are also available. Fluoride in dietary supplements is usually in the form of sodium fluoride.

Am I getting enough fluoride?

Most people in the United States get enough fluoride from what they eat and drink, as well as from any dental products they use.

What are some effects of fluoride on health?

Scientists are studying fluoride to understand how it affects health. Here are a few examples of what they have learned:

Tooth decay

Fluoride helps protect your teeth by strengthening the outer enamel surface. If you get too little fluoride, your teeth might weaken and develop cavities. Cavities can lead to pain, tooth loss, infections, and other health problems.

Surveys show that children and teenagers who drink fluoridated water have fewer cavities. Also, adults who drink fluoridated water have fewer decayed and filled teeth and lose fewer teeth.

Children who take dietary supplements that contain fluoride have a lower risk of tooth decay and tooth loss. Many dentists recommend fluoride supplements for children living in areas where the water supply is not fluoridated or contains too little natural fluoride. We don't know how fluoride supplements affect adults.

Studies suggest that giving a pregnant woman fluoride dietary supplements does not help prevent cavities in her child's teeth.

Bone fractures

Fluoride helps bones grow and stay strong. Some studies show that taking fluoride dietary supplements or drinking fluoridated water might lower the risk of broken bones. Other studies show no effect on bone strength or fracture risk.

More research is needed to better understand if fluoride dietary supplements and fluoridated water help improve bone health and prevent fractures.

Can fluoride be harmful?

Infants and children who get too much fluoride while their teeth are forming can develop a condition called dental fluorosis. This can cause white lines or dots, stains, or small dents on the teeth.

Swallowing extremely large amounts of fluoride from dental products or dietary supplements can cause nausea, vomiting, abdominal pain, diarrhea, bone pain, and even death in rare cases.

Getting too much fluoride over a long period of time can lead to a condition called skeletal fluorosis. This very rare condition causes joint pain and stiffness, weak bones, muscle loss, and nerve problems.

The daily upper limits for fluoride are listed below.

Life Stage	Upper Limit
Birth to 6 months	0.7 mg
Infants 7–12 months	0.9 mg
Children 1–3 years	1.3 mg
Children 4–8 years	2.2 mg
Children 9–13 years	10 mg
Teens 14–18 years	10 mg
Adults 19 years and older	10 mg
Pregnant and breastfeeding teens and women	10 mg

Does fluoride interact with medications or other dietary supplements?

Fluoride is not known to interact or interfere with any medicines or dietary supplements.

Tell your doctor, pharmacist, and other healthcare providers about any dietary supplements and prescription or over-the-counter medicines you take. They can tell you if these dietary supplements might interact with your medicines. They can also explain whether the medicines you take might interfere with how your body absorbs or uses fluoride or other nutrients.

Healthful eating

People should get most of their nutrients from food and beverages, according to the federal government's *Dietary Guidelines for Americans*. Foods contain vitamins, minerals, dietary fiber, and other substances that benefit health. In some cases, fortified foods and dietary supplements may provide nutrients that people otherwise might consume in less-than-recommended amounts. For more information about building a healthy diet, see the *Dietary Guidelines for Americans* and the U.S. Department of Agriculture's MyPlate.

Where can I find out more about fluoride?

For more information on fluoride:

- Office of Dietary Supplements Health Professional Fact Sheet on Fluoride
- MedLinePlus[®], Fluoride in Diet

For more information on food sources of fluoride:

- USDA National Fluoride Database of Selected Beverages and Foods

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For more advice on choosing dietary supplements:

- Office of Dietary Supplements Frequently Asked Questions: Which brand(s) of dietary supplements should I purchase?

For information about building a healthy diet:

- MyPlate
- *Dietary Guidelines for Americans*

Disclaimer

This fact sheet by the Office of Dietary Supplements (ODS) provides information that should not take the place of medical advice. We encourage you to talk to your healthcare providers (doctor, registered dietitian, pharmacist, etc.) about your interest in, questions about, or use of dietary supplements and what may be best for your overall health. Any mention in this publication of a specific product or service, or recommendation from an organization or professional society, does not represent an endorsement by ODS of that product, service, or expert advice.



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