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## Fluoride in diet

Fluoride occurs naturally in the body as calcium fluoride. Calcium fluoride is mostly found in the bones and teeth.

### Function

Small amounts of fluoride help reduce tooth decay. Adding fluoride to tap water (called fluoridation) helps reduce cavities in children by more than half.

### Food Sources

Fluoridated water is found in most community water systems. Well water often does not contain enough fluoride to prevent tooth decay.

Food prepared in fluoridated water contains fluoride. Natural sodium fluoride is in the ocean, so most seafood contains fluoride. Tea and gelatin also contain fluoride.

Infants can only get fluoride through drinking infant formulas. Breast milk has a negligible amount of fluoride in it.

### Side Effects

A lack (deficiency) of fluoride may lead to increased cavities, and weak bones and teeth.

Too much fluoride in the diet is very rare. Rarely, infants who get too much fluoride before their teeth have broken through the gums have changes in the enamel that covers the teeth. Faint white lines or streaks may appear, but they are usually not easy to see.

### Recommendations

The Food and Nutrition Board at the National Academies of Sciences, Engineering, and Medicine recommends the following dietary intake for fluoride:

These values are adequate intakes (AI), meaning that there is insufficient evidence to establish exact recommendations, so they are best estimates of what most people need.

#### Infants

- 0 to 6 months: 0.01 milligrams per day (mg/day)
- 7 to 12 months: 0.5 mg/day

## Children

- 1 to 3 years: 0.7 mg/day
- 4 to 8 years: 1.0 mg/day
- 9 to 13 years: 2.0 mg/day

## Adolescents and adults

- Males ages 14 to 18 years: 3.0 mg/day
- Males over 18 years: 4.0 mg/day
- Females over 14 years: 3.0 mg/day

The best way to get the daily requirement of essential vitamins is to eat a balanced diet that contains a variety of foods from the United States Department of Agriculture (USDA) MyPlate food guide.

Specific recommendations depend on age and sex. Ask your health care provider which amount is best for you.

To help make sure infants and children do not get too much fluoride:

- Ask your provider about the type of water to use in concentrated or powdered formulas.
- DO NOT use any fluoride supplement without talking to your provider.
- Avoid using fluoride toothpaste in infants younger than 2 years.
- Use only a pea-sized amount of fluoride toothpaste in children older than 2 years.
- Avoid fluoride mouth rinses in children younger than 6 years.

## Alternative Names

Diet - fluoride

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Updated by: Stefania Manetti, RD/N, CDCES, RYT200, My Vita Sana LLC - Nourish and heal through food, San Jose, CA. Review provided by VeriMed Healthcare Network. Also reviewed by David C. Dugdale, MD, Medical Director, Brenda Conaway, Editorial Director, and the A.D.A.M. Editorial team.

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