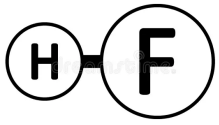
Fluoride Overview

Why We Need It?
Fluoride is a trace mineral primarily known for its role in dental and bone health. It helps prevent tooth decay, strengthens enamel, and supports bone mineralization. While naturally present in some foods and water sources, fluoride is commonly added to drinking water and dental products to enhance oral health.

Functions in the Body
Tooth Enamel Strengthening: Helps prevent cavities by making enamel more resistant to acid and bacteria.
Bone Health: Supports bone density and may help prevent osteoporosis.
Cavity Prevention: Reduces the risk of dental caries by promoting remineralization of teeth.
Oral Microbiome Balance: Helps control harmful bacteria that contribute to tooth decay.

Daily Recommended Intake (RDI):
Infants (0-6 months): 0.01 mg/day
Children (1-8 years): 0.5-1 mg/day
Adolescents (9-18 years): 2-3 mg/day
Adults (19+ years): 3-4 mg/day
Pregnant & Lactating Women: 3 mg/day



Upper Limit (UL):
Infants & Children: 0.7-2.2 mg/day
Adults: 10 mg/day (excessive intake can lead to fluorosis and bone issues).

Benefits of Supplementation
- Strengthens teeth and reduces the risk of cavities.
- Supports bone health and may lower the risk of fractures.
- Helps repair early signs of tooth decay through remineralization.
- Maintains overall oral hygiene when combined with proper brushing and flossing.

Most Bioavailable Form
Sodium Fluoride: Commonly found in drinking water and toothpaste.
Stannous Fluoride: Found in some oral care products, provides antimicrobial benefits.
Calcium Fluoride: Naturally occurring in some water sources.
Sodium Monofluorophosphate: Used in toothpaste and dental treatments.

Best Food & Water Sources
Fluoridated Water: Primary source in many regions.
Tea: Black and green tea naturally contain fluoride.
Seafood: Shrimp, crab, and fish with bones (e.g., sardines).
Dairy Products: Some milk and cheese contain small amounts.
Fluoridated Salt: Used in some countries as an alternative to water fluoridation.

Conclusion
Fluoride is essential for maintaining strong teeth and bones. While most people receive enough through fluoridated water and toothpaste, supplementation may be necessary in areas without fluoridation. Maintaining proper intake is important, as excessive fluoride can lead to fluorosis and skeletal issues.