

Iodine Overview

Why We Need It?

Iodine is an essential trace mineral necessary for thyroid hormone production, which regulates metabolism, growth, and brain development. It is especially critical during pregnancy and early childhood for proper cognitive function and neurological development.

Functions in the Body

Thyroid Hormone Production: Essential for synthesizing thyroid hormones (T3 & T4), which regulate metabolism.

Brain Development: Crucial for fetal and infant brain growth, preventing cognitive impairments.

Energy Metabolism: Supports efficient energy use and fat metabolism.

Hormonal Balance: Helps maintain body temperature, heart rate, and overall metabolic function.

Detoxification: Aids in removing harmful toxins and heavy metals from the body.

Daily Recommended Intake (RDI):

Infants (0-6 months): 110 mcg/day

Children (1-8 years): 90 mcg/day

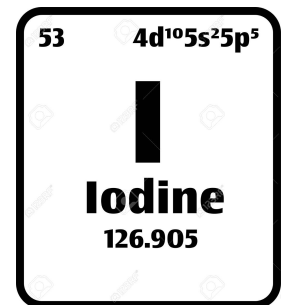
Adolescents (9-18 years): 120-150 mcg/day

Adults (19+ years): 150 mcg/day

Pregnant Women: 220 mcg/day

Lactating Women: 290 mcg/day

Upper Limit (UL): 1,100 mcg/day (excess intake may cause thyroid dysfunction).



Benefits of Supplementation

- Supports healthy thyroid function and prevents goiter.
- Enhances metabolism and energy production.
- Promotes cognitive function and neurological health.
- Essential for fetal development and reducing the risk of birth defects.
- May help protect against environmental toxins like bromine and fluoride.

Most Bioavailable Form

Potassium Iodide: Commonly used in supplements and iodized salt.

Sodium Iodide: Often found in table salt and some medications.

Iodine from Kelp: A natural source, but iodine content varies.

Lugol's Iodine Solution: A mix of potassium iodide and elemental iodine, used for supplementation.

Best Food Sources

Seafood: Cod, tuna, shrimp, seaweed (kelp, nori, wakame).

Dairy Products: Milk, cheese, yogurt.

Eggs: A good natural source of iodine.

Iodized Salt: The most common dietary source.

Fruits & Vegetables: Potatoes, cranberries, strawberries (iodine content depends on soil quality).

Conclusion

Iodine is essential for thyroid health, metabolism, and brain function. While iodized salt and seafood provide sufficient iodine for most people, supplementation may be necessary for those at risk of deficiency, such as pregnant women and individuals with low iodine intake. Maintaining balanced iodine levels is crucial for overall health.