


TOPIC: TRACE MINERALS: FLOURIDE AND IODINE

Fluoride (F)

RDA: 3-4 mg

◆ Main bodily functions:

- Enhances _____ of teeth.
 - Prevents cavities (dental caries).
 - Protects against acid & bacteria.
- ◆ Can be absorbed directly by the _____ and gums.

Food Sources	Deficiency	Excess/Toxicity
Fluorinated municipal _____, dental products, tea. → _____ in bottled water. 	Dental _____ / cavities.	_____ ◆ Porous, pitted, & _____ teeth. ◆ Increased bone mass & stiffness.
◆ Main dietary concern: insufficient fluoride leads to _____ dental outcomes (caries & cavities).		

PRACTICE

True or False: if false, choose the answer that best corrects the statement.

Nutrient dense foods like fruits and vegetables tend be excellent sources of fluoride.

- a) True.
- b) False, animal products, especially dairy, are the best sources of fluoride.
- c) False, there are extremely few food sources that are rich in fluoride.
- d) False, nutrient dense foods like fruits and vegetables are not good sources of fluoride, because the fluoride in those foods is not readily absorbed.

TOPIC: TRACE MINERALS: FLOURIDE AND IODINE



Iodine (I)

RDA: 150 µg

UL: 1100 µg

◆ Main bodily functions:

- Necessary for the synthesis of _____ hormone.

Food Sources	Deficiency (Rare)	Excess/Toxicity
Iodized _____, seafood, & seaweed. 	◆ Inhibited _____ hormone production. ◆ <i>Goiter</i> : enlargement of the thyroid gland. ◆ <i>Congenital Hypothyroidism</i> : lack of iodine in utero leads to stunted growth & issues with brain development.	◆ _____ thyroid hormone production.
 Main dietary concern: iodine deficiencies largely eliminated through introduction of iodized _____.		

PRACTICE

What conditions are prevented through the use of iodized salt?

- a) Goiter and anemia.
- b) Anemia and dental caries.
- c) Congenital hypothyroidism and osteoporosis.
- d) Goiter and congenital hypothyroidism.

PRACTICE

Which of the following is a function of iodine?

- a) Glucose metabolism.
- b) Thyroid hormone synthesis.
- c) Oxygen transport.
- d) B vitamin synthesis.