

Factors that Affect Thyroid Function



Factors that contribute to proper production of thyroid hormones

- **Nutrients:** iron, iodine, tyrosine, zinc, selenium, vitamin E, B2, B3, B6, C, D

Factors that inhibit proper production of thyroid hormones

- **Stress**
- **Infection, trauma, radiation, medications**
- **Fluoride (antagonist to iodine)**
- **Toxins: pesticides, mercury, cadmium, lead**
- **Autoimmune disease: Celiac**

T4

Factors that increase conversion of T4 to RT3

- **Stress**
- **Trauma**
- **Low-calorie diet**
- **Inflammation (cytokines, etc.)**
- **Toxins**
- **Infections**
- **Liver/kidney dysfunction**
- **Certain medications**

Factors that increase conversion of T4 to T3

- **Selenium**
- **Zinc**

RT3

T3

T3 and RT3 compete for binding sites

Nucleus/
Mitochondria

Cell

Factors that improve cellular sensitivity to thyroid hormones

- **Vitamin A**
- **Exercise**
- **Zinc**