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Levothyroxine Sodium

National Cancer Institute

Source

National Cancer Institute. *Levothyroxine Sodium*. NCI Thesaurus. Code C888.

The sodium salt of levothyroxine, a synthetic levoisomer of thyroxine (T4) that is similar to the endogenous hormone produced by the thyroid gland. In peripheral tissues, levothyroxine is deiodinated by 5'-deiodinase to form triiodothyronine (T3). T3 enters the cell and binds to nuclear thyroid hormone receptors; the activated hormone-receptor complex in turn triggers gene expression and produces proteins required in the regulation of cellular respiration; thermogenesis; cellular growth and differentiation; and the metabolism of proteins, carbohydrates and lipids. T3 also exhibits cardiostimulatory effects.