Levothyroxine

Levothyroxine is synthetic T4 that is converted to T3 by 5’deiodinase in peripheral tissues. T3 and to a smaller degree, T4, then bind to thyroid hormone nuclear receptors in target cells to exert their effects.



PLAY PICMONIC

Indications

Hypothyroidism
Hippo-thigh-droid
Levothyroxine is used to treat hypothyroidism with the average replacement dose in adults being 1.6 mcg/kg body weight per day.

Myxedema Coma
Mixer-edamame with Comb
This is a severe hypothyroid state that is treated with Levothyroxine, supportive measures and management of infection.

Mechanism of Action

Isomer of Thyroid Hormone (T4)
Ice-mirror of Thigh-droid (Tea-(4) Fork)
Like endogenous T4, Levothyroxine is converted into T3 via the 5’deiodinase enzyme. The T3 binds to thyroid hormone nuclear receptors and results in various functions such as brain maturation, bone growth, beta-adrenergic effects, and increased basal metabolic rate.

T3 has Higher Potency
Tea-(3) Tree with High Pot
Levothyroxine is converted into T3, which has 10X greater affinity than T4 for thyroid hormone nuclear receptors. Effects at these receptors lead to brain maturation, bone growth, beta-adrenergic effects, and increased basal metabolic rate.

Side Effects

Hyperthyroid Symptoms
Hiker-thigh-droid
Too much Levothyroxine can result in hyperthyroid symptoms, such as tachycardia, heat intolerance, tremors and arrhythmias.

Sign up for FREE at picmonic.com