BACKGROUND
Triiodothyronine (T3) is a tyrosine-based hormone made by the thyroid gland with three iodine molecules attached to its molecular structure. It is the most powerful thyroid hormone affecting almost every process in the body, including body temperature, growth and heart rate. Triiodothyronine also regulates protein, fat and carbohydrate metabolism and is an important component in the synthesis of iodine. Triiodothyronine easily crosses the cell membrane and functions through a set of receptors in the nucleus to increase the basal metabolic rate, affect protein synthesis and increase the body's sensitivity to catecholamines. This hormone may also inhibit neuronal activity, thereby playing an important role in the hibernation cycles of some mammals. Triiodothyronine is essential to proper development and differentiation of all cells of the human body. Hyperthyroidism can be caused by an excess of circulating free Triiodothyronine.

REFERENCES