

## Disposal rates of thyroxine and triiodothyronine in iodine-deficient rats

Silva, Enrique

Since iodine deficiency induces in the plasma a rise in the concentration of T3 and a proportional fall in the concentration of T4, the disposal rates of both hormones and the thyroid function were studied in iodine deficient rats. In rats fed an iodine deficient diet for three months the growth rate and the basal metabolic rate were the same as those of a control group fed a normal diet, as was the increase in oxygen consumption when the environmental temperature was lowered; when exposed for 48 hr to 4 C, the fall in rectal temperature was similar in both groups, even after Pentobarbital anesthesia for 2 additional hours. The total clearance of T3 and of T4 did not change with the iodine deficiency and it is concluded that the disposal rate of both hormones is directly proportional to their plasma concentrations. The influence of peripheric deiodination of T4 to T3 is discussed and the changes in disposal rates are considered to be due to corresponding changes in the composition of

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