L-thyroxine absorption in patients with short bowel.

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Abstract
Because the exact site of thyroid hormone absorption in man is not known, we assessed the absorption of oral [125I]Na-L-T4 in patients with varying lengths of intact bowel and correlated this absorption with bowel length. Two normal subjects and five patients with surgical bowel resections, all of whom were euthyroid, were studied. Each received a tracer dose of [125I]Na-L-T4 orally, and serial samples of serum were assayed for radioactivity both with and without butanol extraction. The peak serum radioactivity in normal subjects occurred 2 h post ingestion and was 15% and 17% of the administered dose per liter serum and 11% and 13%/liter serum in butanol-extracted serum, respectively. In patients with shortened bowel, the peak radioactivity both in serum and butanol extracted serum was decreased, ranging from 2%-7% and 0%-5%/liter, respectively. There was no absorption of labeled T4 in the patient with a duodenum only. No consistent relationship was found between absorption and bowel length distal to the duodenum.

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