

EFFECT OF CALCIUM AND IODINE ON THE EXPERIMENTAL PRODUCTION OF GOITER
IN THE RAT. J. Edgar Braham, Carlos Tejada, Ricardo Bressani and Mi-
guel A. Guzmán. Institute of Nutrition of Central America and Panama
(INCAP), Guatemala, C. A.

Female albino rats were fed ad libitum a diet low in iodine supplemented with graded levels of calcium, as calcium carbonate, ranging from 0 to 6 g of calcium per 100 g of diet. At each level of calcium used, iodine, in the form of a solution of potassium iodide, was supplemented by mouth in doses ranging from 0 to 3 mcg/rat/day. After 35 days on the different experimental diets, all animals were sacrificed, their thyroid glands removed and immediately weighed. One portion of the gland was used for histological studies and the rest was kept in alkaline ethanol under refrigeration until analyzed for its iodine content.

In three experiments with weanling rats and one with adult rats there was no significant effect of high calcium intakes on either of the thyroid weight or its iodine content. Iodine supplementation, on the other hand, showed a significant effect in decreasing the thyroid weight and increasing the concentration of iodine in the gland. The histological studies showed that a high intake of calcium had no effect on the size of the follicles, amount of colloid and appearance of the cells.