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The Calcium Content of the Body in Relation to That of the Food.**H. C. SHERMAN AND L. E. BOOHER.***From the Department of Chemistry, Columbia University.*

The importance of calcium in normal development accompanying growth, and the purely scientific interest in the so-called law of the minimum, have both emphasized the desirability of more extended investigations of the relation between the calcium intake and the calcium content of the growing body.

In the present investigation, chemical analyses have been made of the bodies of large numbers of rats which, starting from comparable heredity and nutritional backgrounds and with all factors other than food maintained strictly uniform, had received food of differing calcium content. The calcium content of the diet was varied in two ways: (1) by varying the ratio of two natural foods of widely different calcium content wheat and milk; (2) by feeding specially designed laboratory diets in which calcium, in the form of calcium lactate, was the sole variable factor. In both cases vitamin D was amply supplied.

It was thus found that individuals otherwise well nourished but with low calcium intake do grow up with calcium-poor bodies. It is also evident as a result of these experiments, that the body may be able to retain calcium at a sub-normal rate on a diet relatively poor in calcium and so at an abnormally late age may finally come to approximate a normal percentage of body calcium.

Application of these findings to the problem of normal human nutrition should prevent any relaxation of attention to adequate calcium supply in the food. Vitamin D as a "calcium mobilizing" factor is not a substitute for calcium. The body at birth has a low calcium content and its normal development involves a large increase not only in the *amount* but also in the *percentage* of calcium which it contains, and so requires a liberal supply of calcium in the food. Otherwise the growing body remains calcium-poor, even though it shows every external appearance of being well nourished.