



FIG. 1.

Curve 1 shows the normal physiological response to the injection of 1 cc. of 1-1000 adrenalin hydrocyanide hypodermically.

Curve 2 shows a diminished reaction in pregnancy.

Curve 3 is a composite curve of five preeclamptic toxemic women showing a reversed adrenalin reaction.

Curve 4 shows the reaction of a preeclamptic female 6 weeks post partum. The blood pressure is still elevated but the curve has returned to normal.

Conclusion. Women with preeclamptic toxemia show an exaggerated reverse curve when given subcutaneous adrenalin injection.

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Relation of Milk Ingestion to Calcium Metabolism in Children.

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Calcium, phosphorus and nitrogen retention studies comprising 46 metabolism periods with 8 children between 3 and 5 years of age lead to the conclusion that a pint of milk, furnishing 75% of the

calcium, when included as part of a diet containing adequate amounts of phosphorus, protein, fat and vitamins from other sources will supply enough calcium to meet the needs of normal children of the ages considered. The conclusions are based on a comparison of the retentions of these essential growth constituents when the children were taking diets containing a pint and a quart of milk respectively. In one series of tests the children received cod liver oil; in a second, cod liver oil and Viosterol; and in a third during June and July they were given no cod liver oil, but spent a large part of the day out of doors. The average retentions following the various diet modifications are given in the table.

TABLE I.
Calcium, Phosphorus and Nitrogen Retention, gm. per kg., of Children Receiving Different Levels of Milk.

Children No.	Av. Age yr. mo.	Av. Wt. kg.	Diet-Modification Milk Vitamin D cc.	Calcium		Phosphorus		Nitrogen	
				Intake	Retention	Intake	Retention	Intake	Retention
11	4-4	15.6	475 C.L.O.*	.051	.010	.065	.010	.487	.089
10	4-5	16.3	950 C.L.O.	.082	.010	.079	.008	.50	.071
10	4-6	16.3	475 C.L.O.-V.†	.051	.008	.064	.008	.484	.093
8	4-9	16.7	950 C.L.O.-V	.081	.008	.079	.007	.51	.073
3	4-4	16.6	475 Sunshine	.049	.007	.070	.011	.51	.095
4	4-7	18.0	950 Sunshine	.077	.008	.079	.009	.50	.099

* 10 cc. cod liver oil daily.

† 8 drops Viosterol daily.

Seemingly the difference in the amount of calcium retained by children receiving different levels of milk above a pint reported by other investigators¹ is not related primarily to the variations in the amount of sunshine to which the children were exposed, but to the difference in the physiological condition of the children studied. The data of the study herein reported indicate that less well-nourished children may retain more calcium, phosphorus, and nitrogen during first metabolism periods when a pint of milk and sufficient Vitamin D are included in the diet than during a second successive period when a quart with Vitamin D is given. Well-nourished children retain approximately the same amount of calcium whether receiving a pint or a quart. As will be discussed elsewhere greatly under-nourished children may need somewhat more than a pint.

¹ Sherman, H. C., and Hawley, E., *J. Biol. Chem.*, 1922, **53**, 375; Willard, A. C., and Blunt, K., *J. Biol. Chem.*, 1927, **75**, 251; Wang, C. C., Kaucher, M., and Frank, M., *Am. J. Dis. Child.*, 1928, **35**, 856; Kramer, M. M., Latzke, E., and Shaw, M. M., *J. Biol. Chem.*, 1928, **79**, 283; Stearns, G., Oelke, M. J., and Boyd, J. D., *Am. J. Dis. Child.*, 1931, **42**, 88.