

Aside from the particular interest in the bloods examined, the sensitiveness of the test to amounts present in blood suggests the use of the test in localizing the distribution of the substance in the blood streams and possibly in pellagra investigations etc.

(d) The value of the test in comparisons of vitamine concentrations was demonstrated and the point made that there is an optimum amount which must first be established by diluting the extracts studied. Below this optimum amount the test varies approximately with the concentration. Amounts above the optimum cannot be detected except by this method of applying the test. By such a method it was shown that autoclaving for three hours at 15 lbs. and approximately 120° temperature produces some destruction of the vitamine. Alkali was shown to be definitely destructive in concentrations of N/20 to N/40 NaOH. Concentration lower than N/40 seemed to have little effect.

(e) The results of applying the test to water extracts of some ten sources of the B vitamine confirmed the feeding experiments with these substances.

The detailed counts upon which these conclusions are based were presented but need not be recorded here.

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Dietaries of infants in relation to the development of rickets

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For the past two years we have been observing the effect of various diets on the development of rickets in infants. The babies received orange juice to exclude the possibility of latent scurvy. All have been on the diet for at least six months, and were followed clinically as well as controlled by means of the X-ray. It was found that many diets supposed to be eminently conducive to rickets resulted in normal nutrition. Condensed milk, for example, only exceptionally induced rickets. The one food which almost regularly led to marked rickets was a "protein milk" prepared by precipitating buttermilk with heat (not with rennin).

This preparation contained about 3.3 per cent. protein; 2.5 per cent. fat; and 6.6 per cent. carbohydrate. Its ash was about 0.44 per cent., of which the calcium and phosphorus stood about midway between that of human milk and cow's milk; its sodium content was even higher than that of the latter. Its fat-soluble vitamine content was high, its water-soluble vitamine low. Judged from the clinical standpoint, this must be regarded as a diet markedly productive of rickets.