It is recognized that this is hypothetical, but Morrison and Sothers[2] have suggested this very thing, although with no apparent evidence to substantiate their suggestion. And recently A. C. Swinnerton[3] states that bacteria "may be important factors in the cementation of sand and gravel materials."

Work along this line is being continued.

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Physical measurements on operated hyperthyroids.

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A better understanding of the relationship of physical measurements to body weight is necessary before a more certain basis for predicting normality of weight can be found. At present height is practically the sole basis. But height is a very stable measure in which adults are probably more nearly alike than for any other physical measurement. Stature has a coefficient of variability of only 4 per cent, weight has around 12 per cent, and pelvic diameter as representative of bony body widths has approximately 9 per cent. If the bony widths of the body have so much variability as compared with bony lengths should they not be taken into account in estimating the normal weight, which of course is a cubic factor?

A group of adult hyperthyroid cases were measured before, and again, six months after operation. Critical linear measures were carefully taken. The effort was for "bony measurement." Data for 14 cases, 11 women and 3 men, are summarized. The average gain in weight was 9.1 kilograms, an increase of 17 per cent of the preoperation weight. The calories per kilogram decreased 37 per cent. Chest girth, a cross-sectional measure, increased 9 per cent, but the bony lengths gave almost no change;

[2] Morrison, C. G. T., and Sothers, D. B., *J. of Agr. Science*, 1914, vi, 84.

[3] Swinnerton, A. C., *Science*, lxiii, 74.

height, + 0.1; sternal notch height, + 0.2, and sitting height, + 0.4 per cent. Widths were not quite as fixed during this marked weight change as were lengths: shoulders (acromion) + 2.3; chest (transverse diameter) + 2.7; chest depth, + 4.2, and pelvic maximum diameter, + 0.5 per cent. The latter measure is remarkable constant with the individual.

Since adults show relatively large differences among themselves in the linear skeletal widths, and, these measures show themselves quite constant in the individual adult, even under marked and rapid weight change, it is evident, if further data confirms, that some skeletal widths should appear in the formula for predicting normal weight.

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The crystallization of starch.

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In the early stages of the malt diastase hydrolysis of starch, Lintner and Düll[1] obtained crystal clusters which gave the characteristic starch reaction with iodine, were insoluble in cold water but soluble in hot, and had a specific rotation of 196°. Beijerinck[2] dissolved starch paste by autoclaving and obtained microscopic needle clusters on cooling. These were birefringent when viewed between crossed nicols, but did not show the black cross which is so characteristic of starch grains. The writers' associate, Van de Sande Bakhuyzen,[3] found that aqueous solutions of starch, prepared by the method of the writers[4] without

[1] Lintner, C. J., and Düll, G., *Ber. d. Deutsch. Chem. Gesellsch.*, 1893, p. 2533.

[2] Beijerinck, M. W., *K. Akad. v. Wetenschapp. te Amsterdam*, Proc. Section of Sciences, xviii, 1, 305.

[3] Van de Sande Bakhuyzen, H. L., PROC. SOC. EXP. BIOL. AND MED., 1926, xxiii, 506.

[4] Alsberg, C. L., and Perry, E. E., PROC. SOC. EXP. BIOL. AND MED., 1924, xxii, 60.