

concentrated hydrochloric acid diluted with an equal volume of water is added from a burette until precipitation is complete, carefully avoiding an excess. If the nucleic acid does not flock out after the solution has been quiescent for several minutes, the same process should be repeated upon another aliquot after first adding 5 per cent. of magnesium sulphate ($\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$). Magnesium sulphate renders nucleic acid more insoluble. A proportionate quantity is then added to the bulk of the solution. The nucleic acid, which forms large flocks and slowly settles, is washed successively with 60, 80, and twice with 95 per cent. alcohol by decantation, filtered on hardened filter paper, washed again with 95 per cent. alcohol and finally with ether and then rapidly dried at about 70°C .

The yields from different glandular tissues vary from 0.8 per cent. to 1.5 per cent.

67 (1527)

Some human digestion experiments on raw white of egg.

By MARY SWARTZ ROSE and GRACE MACLEOD.

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Experiments to determine the relative digestibility of raw and cooked white of egg in the human subject were carried out with four young women students in two periods of five days each. As they all had practically the same food requirements, they took the same diet, quantitatively and qualitatively, throughout the experiment, the only variation being the change from raw whites to cooked whites for half the time, and some differences in the ways in which the whites were prepared. The egg whites furnished 48 grams of protein per capita per day out of a total of 67 grams. Besides the eggs the diet consisted of rice, cream, saltines, butter, olive oil, fruit juice and a small amount of lettuce. The cooked eggs were never subjected to a temperature or method of cooking which would toughen them unduly; the raw whites were taken unbeaten by one person, all beaten light by another, and about half and half by the other subjects.

The coefficients of digestibility for the two diets have been calculated for the total protein and for the egg white protein alone.

COEFFICIENTS OF DIGESTIBILITY FOR RAW AND COOKED EGG WHITES.

Subject	For Protein of Whole Ration.			For Protein of Whites of Eggs Only.			Remarks.
	Eggs Cooked, %.	Eggs Raw, %.	Diff. (in Favor of Cooked).	Eggs Cooked, %.	Eggs Raw, %.	Diff. (in Favor of Cooked).	
G. S. .	85.7	82.6	+3.1	85.4	81.0	+ 4.4	½ beaten
L. S. .	86.2	82.5	+3.7	86.0	80.8	+ 5.2	½ beaten
M. K.	83.2	83.9	-0.7	81.8	82.8	- 1.0	All beaten
M. F..	83.3	75.7	+7.6	81.9	71.2	+10.7	All unbeaten

In these experiments the raw white was as well digested as the cooked if beaten light, and the difference between the two was not striking when taken half beaten and half unbeaten. The greatest difference was observed when the whites were swallowed with no subdivision whatever, and even then the difference between the cooked and the raw was only 11 per cent. when as many as ten or twelve whites were taken per day. The effect of beating on the coefficient of digestibility is under further investigation.

68 (1528)

A study of the sugar and oxygen relationships in the blood of dogs during exercise.

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As a phase of our investigation of the chemical changes in the organism resulting from exercise, the following study of the sugar and oxygen relationships in the blood of dogs was undertaken.

Samples of blood amounting to about 1 per cent. of the body weight were drawn from the external jugular vein. Determinations of the blood sugar by the MacLean method, of the oxygen by the Van Slyke technique, and of the volume of the corpuscles by a precision hematocrit were made every two hours during the course of six-hour working periods. During these periods the dogs ran on an electrically-driven, horizontal treadmill at the rate of about five miles per hour. For each such experiment, we made a corresponding series of control observations on the same