These results would seem to indicate that the phospholipids have at least 2 functions: in the intestinal mucosa and in the liver part of the phospholipids fulfill a rôle in the absorption and assimilation of fat; in the muscles the phospholipids probably are vital constituents of protoplasm and, as has been suggested by Bloor,[2] undergo wear and tear and reconstruction.

Further work on the effect of diet and of starvation on the constitution of the phospholipids is in progress.

It is a pleasure to acknowledge the continued helpful advice received from Professor W. R. Bloor throughout this investigation.

4335

Comparison of the Icteric Index and the Direct Van den Bergh Tests.

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In 316 specimens submitted for the determination of the degree of pigmentation of the serum by the method of Meulengracht[1] the direct diazo reaction described by Van den Bergh[2] was also carried out. The table shows the relationship found between the results of the 2 tests. When the icteric index was high practically all specimens gave a positive diazo reaction, but when it was low the number of specimens which gave this result was much smaller. The time required for the reaction to become positive also varied with the

TABLE I.
Icteric Index and Direct Van den Bergh Tests Compared.

Index	Total	Tested	Neg.	Minutes for reaction to develop						
				0	5	10	15	20	25	30
units	No.	No.	%	%	%	%	%	%	%	%
to 7	68	25	56	0	0	0	16	20	24	32
7- 10	73	31	42	0	0	3	16	26	26	36
10- 12	72	72	18	1	1	8	18	40	51	71
12- 15	69	69	13	1	3	14	29	51	61	78
15- 20	45	45	16	9	9	20	36	64	71	80
20- 30	48	48	4	23	29	42	60	69	79	88
30- 50	12	12	0	58	67	75	100	—	—	—
50-100	2	2	0	100	—	—	—	—	—	—
over 100	12	12	0	100	—	—	—	—	—	—

[2] Bloor, W. R., *J. Biol. Chem.*, 1927, lxxii, 327.

[1] Meulengracht, E., *Deut. Arch. f. klin. Med.*, 1921, cxxxvii, 38.

[2] Van den Bergh, A. A. H., *Presse Médical*, 1921, xx, 441.

intensity of the yellow color (amount of bilirubin present). The time was decidedly shorter in the average specimen with a high index than when the index was low. The occurrence of an immediate reaction seemed in most instances to be a part of the expression of this decrease in the reaction time rather than of some independent phenomenon, such as a chemical difference in the nature of the bile pigment present. There were a few rather conspicuous exceptions to this orderly arrangement, and the authors believe that the presence of substances, other than bile pigments, which give the diazo reaction must be considered as a possible explanation for them.

4336

Tissue Respiration and Endocrine Function. III. Influence of Thyroidectomy on Tissue Respiration.*

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Opinion differs in regard to the exact method by which the thyroid hormone exerts its influence on body metabolism. Plummer and Boothby,[1] Kendall[2] and others have accepted the view that its action is within the cells themselves and believe that it acts as a catalyst. Kunde[3] has shown that when daily repeated doses of thyroid substance are given to dogs a progressive increase in metabolism occurs as time advances, reaching a maximum in 3 weeks or more after the initial dose. This investigator states further that the height of response to a quantity of the thyroid substance depends upon some condition of the body cells, which become less and less resistant to repeated doses of the thyroid hormone, and that the catalytic theory of Plummer is inadequate to explain hyperthyroidism experimentally induced in dogs.

Data previously reported from this laboratory[4] would indicate that the apparent catalysis of the fundamental processes of metabolism induced by thyroid substance is, in part at least, indirect, *i. e.*,

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1 Plummer, H. S., and Boothby, W. M., *J. Am. Med. Assn.*, 1924, lxxxiii, 1333.

2 Kendall, E. C., *Endocrinology*, 1924, iii, 156.

3 Kunde, M. M., *Am. J. Physiol.*, 1927, lxxxii, 195.

4 Dye, J. A., and Waggener, R. A., *Am. J. Physiol.*, 1928, lxxxv, 1.