lactation, or to carry the animal over a period of subsistence upon foods deficient in this vitamine. Animals kept under like conditions upon the same diet deficient in fat soluble vitamine show different survival periods according as their previous diet was rich or poor in this substance. Our results suggest that it may be largely because of previous storage of this vitamine that adult animals seem less dependent upon it than do young of the same species.

4. *Heat Destruction of the Fat Soluble Vitamine.*—Dry heating at a temperature of 100° C. with free access of air, only very slowly destroyed fat soluble vitamine. The results thus far obtained emphasize the importance of taking full account of the time as well as the temperature of heating, and of the initial concentration of the vitamine in the food, as well as of the opportunity for previous storage of the vitamine by the test animal.

Experiments upon these four problems are being continued.

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A new diet for gastric ulcer.

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From the dietetic standpoint the two main indications for the treatment of gastric ulcer are:

1. To protect the ulcer from mechanical and chemical injury, and

2. To maintain the nutrition of the patient at a level which will favor the healing of the ulcer.

In the author's opinion, none of the diets hitherto employed in the treatment of gastric ulcer fulfills these indications: in none of them do the therapeutic properties of food appear to have received adequate consideration. In general, the frequent administration of small or moderate quantities of milk constitutes the basis of diets for gastric ulcer. Even admitting the economic quality of the secretion called forth by milk, its hourly or two-

hourly administration keeps the secretory glands of the stomach in a state of constant activity. Recognizing this some authors advise the neutralization of the gastric contents with magnesia or soda midway between the feedings. Since the majority of the symptoms of gastric ulcer, at least in the earlier stages, and possibly considerable injury, are referrable to hyperacidity, such a diet lacks physiological support. In addition to excessive secretion, the motor activity of the stomach is abnormally increased.

In the diet which I propose the objections referred to have been eliminated. Moreover, I believe that the maximum protection of the ulcer obtainable when food is given by mouth has been achieved. As in some other diets, complete rest is given the stomach for 3 to 5 days through the use of glucose enemata—300 c.c. of a 7 per cent. to 12 per cent. solution by the Murphy-drip method, three or four times a day. The quantity of water is sufficient to prevent thirst. Protein and fat are not added to the enemata because of the doubt of their absorption.

Since a satisfactory state of nutrition cannot be maintained by nutrient enemata alone, foods for administration by mouth must be selected. Theoretically, egg-albumin to furnish the necessary nitrogen and olive oil to furnish the greater part of the energy most nearly meet the requirements. According to Pawlow egg-albumin, alone, does not call forth gastric secretion and oils inhibit it. In addition, olive oil affords mechanical protection to the ulcer. The olive oil is given at first in moderate but gradually increasing quantities, up to a total of 150 c.c. a day—1,395 calories. The whites of two or three eggs a day are added shortly after the oil is begun and increased to five or six—7–8 gm.N and 450 calories. The 100 gm. of glucose, given by rectum throughout the treatment, brings the energy intake to some 2,200 calories a day. The procedure is continued for three or four weeks. This diet has been employed for about eight years and the results have been satisfactory.