

URICACIDEMIA IN RELATION TO STOMACH TROUBLES.*

BY W. H. PEPLER, M.D., L.R.C.P., LOND.

"Nothing is perhaps so bewildering in the whole of bio-chemistry as are the various hypotheses regarding the metabolism of the purin bodies." This statement from Leonard Hill's excellent new work entitled "Recent Advances in Physiology and Biochemistry," alone prevents the possibility of my burdening you to-day with any lengthy controversy on the many insoluble problems that present themselves when considering the metabolism of uric acid.

It is now generally recognized, however, that uric acid arises in the body from two sources.

(a) Exogeneous uric acid, that from nuclein-proteids and purin bodies present in food.

(b) Endogenous uric acid from the nuclein bodies of the tissues.

The uric acid is formed in most of the organs of the body, principally the liver and spleen, where it is also disintegrated.

Exactly when the presence of uric acid in the blood leaves the physiological state to become a pathological one, is difficult to say, there being always a small amount of it present in the blood in health. Uric acid is 35 times more soluble in the blood than in distilled water, but you require a high alkalinity of the blood to retain it in solution. This is greatly aided by the action of the gastric juice, the hydrochloric acid of which extracts the alkaline phosphates from the food, so that after each meal we get a lessened acidity of, or even an alkaline urine, if hydrochloric acid is present in regular amount. In this way we can roughly gauge the amount of HCl. present in the gastric juice.

Sir W. Roberts says that "one part of sodium biurate in 6,000 of the blood serum constitutes a supersaturation, and precipitation must take place, and irritation and inflammation follow as a result."

An excess of uric acid in the blood may be caused in a variety of ways. The principal ones are:

1. Alterations in diet.
2. Increased destruction of nuclein material in the body.
3. Lessening in the further combustion of the uric acid formed.

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