

type, but the blood sugar curve was higher and of longer duration.

Cases of diabetes with signs of nephritis showed an initial high blood sugar with comparatively low urine sugar. The blood sugar curve increased at about the normal rate but return to normal did not take place before $4\frac{1}{2}$ to 6 hours. The urine sugar curve was low, the highest concentration being 1.5 per cent., although the blood at that time contained 0.31 per cent. sugar.

Cases of chronic nephritis showed an initial high blood sugar, 0.16 per cent., with urine normal. Alimentary hyperglycemia was delayed and prolonged, the highest point being reached in 2 hours and return to normal not taking place before 4 to 6 hours. The highest point in the urine sugar curve was 0.5 per cent., the blood at that time containing 0.37 per cent.

A case of chronic parenchymatous nephritis showed a constant glycosuria of 0.5 per cent. This was independent of the blood sugar up to the latter's concentration of 0.21 per cent. In a second test where the blood sugar reached 0.4 per cent. the urine sugar increased to 1.0 per cent., later decreasing and continuing at 0.5 per cent., the blood containing 0.2 per cent.

Cases of myxedema and hypopituitarism were also studied. In these cases the initial blood sugar and urine sugar values were normal. Alimentary hyperglycemia was delayed and prolonged as in nephritis and kidney permeability was greatly decreased.

86 (1150)

The digestibility and utilization of egg-proteins.

By W. G. BATEMAN. (By invitation.)

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Raw egg-white is found to be a decidedly indigestible substance. It may cause diarrhea in dogs, rats, rabbits and men when ingested in any large quantity. Its utilization by the body is poor since it is used only to the extent of from 50 to 70 per cent. Subjects can acquire a certain tolerance for the native protein after ingesting it for several days so that it no longer causes diarrhea and is somewhat better utilized.

Raw egg-white can be made digestible through coagulation by heat; by precipitation with alcohol, chloroform, or ether; by incubation with dilute acids or alkalies; by partial digestion by pepsin; by conversion into alkali meta-protein.

The indigestibility of native egg-white probably lies either in its antitryptic content or in its chemical constitution. Its physical texture appears to play a minor part in its behavior.

Of the individual proteins constituting egg-white, the albumin fraction appears to be the indigestible component.

The whites of the hen's egg and duck's egg act alike in causing diarrhea and in being poorly utilized.

Egg-yolk either raw or cooked is excellently utilized. It sometimes causes digestive disturbances in dogs, apparently because of its high fat content.

A review of the literature shows that dietitians have relied, in general, upon the early observations of Beaumont as support for the use of raw eggs. These observations were in the main exact; but, so far as the digestibility of raw egg-white is concerned, were misinterpreted.

In current dieto-therapy raw whole eggs, raw egg-white and albumen-water are extensively prescribed. There appears to be little in their conduct as foodstuffs, however, to warrant such faith in their nutritive value or ease of assimilation.

87 (1151)

The position of the head after experimental removal of the otic labyrinth.

By A. L. PRINCE. (By invitation.)

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In the vertebrates usually employed in the physiological laboratory, unilateral destruction of the otic labyrinth is immediately followed by a permanent torsion of the head to the injured side.¹ In a series of experiments on cats, I have found that this posture is associated with diminished tonus in the cervical

¹ Wilson and Pike, *Philosophical Transactions of the Royal Society*, London, 1912, series B, Vol. 203, pp. 127-160.