

In it we see that the Protocaseose comes chiefly from the Hemi-Group, but that there is also a small contribution from the Anti-Group.

On the other hand the Heterocaseose comes chiefly from the Anti-Group, but the Hemi-Group also contributes a part. Both the Protocaseose and the Heterocaseose by the prolonged action of the Gastric juice are transformed into Deuterocaseose, but the Deuterocaseoses will in each case be more or less different in their intimate structure. The difference between them is the difference in the proportions contributed to each by the Anti-Group and the Hemi-Group.

The Deuterocaseose by the further action of the pepsin in an acid medium is converted into amphopeptone. The Hemi-Group predominates in the Amphopeptone formed from the Protocaseose, whereas the Anti-Group predominates in the Amphopeptone formed from the Heterocaseose. A further step in the gastric digestion of casein is the separation from the Anti-Group of a small part which forms Anti-Albumin. This Anti-Albumin is but very slightly acted on by the pepsin, but on reaching the intestines the action of the trypsin converts it into Deuterocaseose and later into peptone.

The peptones derived from the Anti-Group, during their passage through the intestines are acted on by a special ferment and changed to serum albumin or Globulin.

It is as Globulin that all the products of digestion reach the blood to supply the loss by metabolism and to create new protoplasm.

This theory of digestion which was originally propounded by Kuehne and Chittenden is at present accepted by A. Gautier and most physiologists. It is now supported by the results of numerous very exacting experiments.

The reign of obscurity has now passed and we are able to give an exact account of the work performed in the gastro-intestinal tract. Globulin is the last step in the process of digestion of albuminoid matter. This albumin forms the human albumin and replaces the broken down products of metabolism and thus acts as a nutrient and a tissue builder. It is then ready to be used as required by the individual cells. It differs from peptones in that in a given weight of peptones there is always a large amount which is reduced to crystallizable substances (Leucine, Tyrosin and Aspartic Acid) and which serve no useful part in the nutrition of the body. There are none of these in Globulin and consequently all of it is assimilated. All the substances derived from the Anti-Group give rise to these same crystallizable products.

Lactoglobulin is an exceptionally fine form of Globulin. It is very carefully prepared by the Lactoglobulin Company, of Montreal. It has proven itself to be an excellent nutrient.