injected subcutaneously (in rabbits), a certain amount of dextrose appears within a short time in the urine. It is possible that glycolaldehyde might be formed in normal metabolism out of glycocoll (CH_2NH_2COOH).

Glycerine ($CH_2OH—CHOH—CH_2OH$) is also readily converted to hexose in the laboratory, becoming first of all oxidized to dioxyacetone ($CH_2OH—CO—CH_2OH$) and glyceric aldehyde ($CH_2OH—CHOH—CHO$). Two molecules of either of these may then polymerize to form a hexose. When this process occurs in the body, the hexose formed is dextrose. The sorbose-bacterium may also oxidize, and then polymerize glycerine to form a hexose.

Lactic acid ($CH_3CHOH—COOH$) is completely converted to dextrose in the body. This process must involve a rearrangement of the molecule, and subsequent polymerization (7). The related substance, propyl alcohol ($CH_3—CH_2—CH_2OH$), is also converted to dextrose in phlorhizin dogs.

Coming now to the amino-acids, it has been found that *glycocoll*, *alanin* (i), *aspartic*, and *glutamic acids*, cause a marked increase in the dextrose excretion of phlorhizin dogs, whereas *leucin* and *tyrosin* have no action in this regard. By determining the extent of the dextrose increase in the manner described above, Lusk and Ringer (2) have been able to show how the molecule of these substances must be split in order to produce the dextrose. The following Table is a summary of their results and conclusions:

(Twenty grammes of the various amino-bodies were given to phlorhizin-diabetic dogs.)

Acid and Formula.	Average Amount of Dextrose produced in Body.	Probable Change.	Dextrose that would be produced by Change.
Glycocoll CH_2NH_2COOH	13·43 (five dogs, one dog gave 15·77)	All C converted to dextrose	16·00
i. alanin CH_3CHNH_2COOH	18·77 (two dogs)	Do.	20·22
Aspartic acid $COOH—CH_2—CHNH_2—COOH$	12·42 (four dogs)	Three of the four C atoms converted to dextrose	13·52
Glutamic acid	13·31	Three of the five C atoms converted to dextrose	12·24