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**The insulin content of the pancreas and other tissues in animals
poisoned with phlorhizin.**

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The insulin content of the pancreas, liver, blood, and skeletal muscles of starved and completely phlorhizinized cats and of normal cats, starved for the same length of time has been determined. The Doisy, Somogyi and Shaffer process with only slight modifications was used for the preparation of insulin, and the insulin obtained was tested on mice. From organs other than the pancreas very small amounts of insulin were obtained. The yields have a comparative value only and have been expressed in mouse units, since it did not seem justified to calculate these very small amounts of insulin in the commonly used rabbit units. The amount of insulin injected intraperitoneally which lowers the blood sugar of a mouse (previously starved for 24 hours, weighing 18 to 22 gm. and kept at a room temperature not below 24° C.) in one hour to 0.038 to 0.044 per cent has been considered as a mouse unit. From the following table it may be seen that a lack of insulin production of the pancreas or a lack of insulin fixation in the tissues cannot account for the incapacity of phlorhizinized animals to metabolize sugar.

TABLE I.

The insulin content of the organs of control cats and of cats completely poisoned with phlorhizin, expressed in mouse units per gm. tissue.

	Phlorhizinized cats		Control cats	
	1	2	1	2
Pancreas	26	40	33	94
Liver	0.1	0.13	0.13	0.08
Blood	0.1	0.2	0.04	0.04
Muscle	traces (0.04)	traces (0.034)	traces (0.007)	traces (0.024)