This method is applicable to hemolymphs of other insects and other invertebrates and to animal or plant fluids available only in minute quantities. Successive determinations on individual insects under varying conditions can be made with no serious injury to the animal.

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Fasting Blood Sugar in Rats.

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It was found that the blood sugar during fasting falls more rapidly in women than in men.[1]

The study has been continued on rats. The animals were divided into 3 groups; the first group was fasted 12 hours, the second, 24 hours, and the third, 42 hours. Water was allowed during the fast. At the close of the fasting period, the rats were decapitated, and the blood sugar determined in duplicate by the Shaffer-Somogyi method.

The values found are shown in Table I.

TABLE I.

Fasting period		Males	No. of rats	Females	No. of rats
12 hours	Min.	79.69		77.36	
	Max.	100.19		101.82	
	Aver.	89.96	9	94.81	12
24 hours	Min.	70.60		61.74	
	Max.	85.28		89.94	
	Aver.	78.83	7	77.07	14
42 hours	Min.	65.47		52.66	
	Max.	75.72		82.02	
	Aver.	71.14	3	68.45	17

The total fall for the female rats was 27.8%; of this 67% occurred between 12 and 24 hours; the total fall for the male rats was 20.9%; of this, 59% occurred between 12 and 24 hours.

These results agree with those found in men and women in that the blood sugar falls more rapidly in females during fasting.

[1] Greisheimer, E. M., PROC. SOC. EXP. BIOL. AND MED., 1934, **31**, 1067.