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Normal Heart-Weight, Body-Weight (HW/BW) Ratio in the Guinea Pig.

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In the course of experimental work upon cardiac hypertrophy it was found necessary to obtain data upon the normal heart weight-body weight ratio in a large number of guinea pigs. Joseph[1] reported ratios of 4.22 gm. per kilo in 14 males and 3.91 gm. per kilo in 33 females. However, these animals had been used for other purposes in the laboratory, so there may be some question as to whether they were actually normal.

The animals reported in this paper were kept upon an adequate diet until a constant weight was reached. They were finally weighed, then killed by a blow upon the head. The thorax was opened and the heart removed from the pericardium. The great vessels were cut flush with the surface of the heart, and all 4 chambers were opened and washed free of blood. The excess moisture was removed by blotting the organ with filter paper, and the heart was then carefully weighed. The ratio was determined by dividing the heart weight, in grams, by the body weight, in kilograms.

The figures obtained are summarized in Table I.

TABLE I.

		——Heart Weight/Body Weight Ratio, Gm. per kilo——			
Sex	No. of Animals	Mean	Median	Mode	Standard Deviation of Mean
Male	77	3.17	3.14	3.16	0.015
Female	71	3.19	3.09	3.09	0.015

The fact that the standard deviation is the same for the 2 sexes does not confirm Joseph's[1] report of greater variability among males.

We feel that future work may be based upon these normal figures, since they withstood a rigorous statistical analysis.

[1] Joseph, D. R., *J. Exp. Med.*, 1908, **10**, 521.