and dated; and the third restricts the probable date of the beginning of volcanic activity in the region.

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Sex Differences in Blood Pressure of Dogs

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There have been numerous reports in the literature dealing with blood pressure values in presumably normal men and women. Recently Boynton and Todd (*1*) reported blood pressure determinations on 75,258 students at the University of Minnesota—truly a formidable number. There were 43,800 men and 31,458 women in the various age groups studied. The mean systolic blood pressure for men and women of all ages was 122 and 111 mm of Hg respectively; the diastolic was 74.5 and 69.7 mm of Hg respectively. In every age group, save that over 40, the mean systolic pressure in men significantly exceeded that in women. Other workers have reported similar differences in blood pressure between the sexes, although a minority of authors believes that there is no significant difference.

It was thought worth while, from the standpoint of comparative physiology, to study the problem in the dog, to see if significant differences in blood pressure exist there between the sexes. It was deemed impracticable to determine the blood pressure in dogs by the indirect method, that is, by use of the inflated cuff. Therefore, 147 anesthetized dogs were used. Sodium barbital was the anesthetic chosen and was given either intravenously or intraperitoneally (300 mg/Kg). In the latter instance it was given 60 to 90 min prior to the blood pressure determinations. Under surgical anesthesia, a cannula was inserted into the carotid artery and the blood pressure recorded by means of a mercury manometer. After the normal blood pressure readings had been ascertained, these animals were used for other experimental purposes, before recovering from the surgical anesthesia.

Table 1 shows the results obtained. The male dogs had, on the average, a blood pressure of 9 mm Hg higher than that of the females. This difference is also reflected in the median values: 132 mm Hg for the males; and 124–125 for the females.

Tatum and Parsons (*3*) in 1922 called attention to the desirability of using barbital as an anesthetic agent for dogs, since it had the significant property of preserving an approximately normal blood pressure. As far as known, furthermore, the barbiturates have the same effect on male as on female dogs, in contradistinction to the action of some of them on male and female rats. Our results are not entirely comparable to those of Hamilton (*2*), who found no significant differences in blood pressure values between the sexes in street dogs. His method differed from ours, in that he used light doses of morphine sulfate and in that our experiments were performed on unselected dogs. It was impossible for us to control the age factor, except for the fact that only adult dogs were used.

TABLE 1

Sex Differences in Blood Pressure in Dogs

Blood pressure range mm of Hg	Number of males	Number of females	Male average mm of Hg	Female average mm of Hg
60–79	0	1	...	60
80–99	3	6	91	92
100–119	12	24	111	110
120–139	28	24	129	128
140–159	14	23	150	147
160–179	9	2	165	166
180–199	1	0	190	....
60–199	67	80	134	125*
	Standard	Deviation :	21.5	20.7

* The difference (9 mm of Hg) between blood pressure for male and female dogs has a t value (according to Fisher) of 2.5803; for this value p is 0.011. The standard error of this difference is 3.50.

It is to be concluded from our data that in adult barbitalized dogs, males have a significantly ($p = 0.011$) higher mean systemic blood pressure than females by 9 mm Hg.

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A Metabolism Cage for Small Animals

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The cage designed by Henriques and Hansen (*3*) for the quantitative collection of urine and described by them in 1904 has undergone numerous modifications. Some of these have simplified the form and increased the ruggedness (*1, 2*) while others have overcome specific problems in quantitative collection (*4*). The modification described below falls into the last category and was designed to isolate the feces so that subsequent specimens of urine could not contact them. The value of this adap-