ter effect to be due, not to the action of pituitrin *per se,* but rather to the increased fluid content of the blood present at the time pituitrin administration ceases.

This is a preliminary report.

[1] Underhill, F. P., and Pack, G. T., *Am. J. Physiol.*, 1923, lxvi, 520.

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A Comparative Study of the Extent of the Knee-jerk and the Achilles-jerk.

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In this investigation the extent of the knee-jerk is compared with the extent of the Achilles-jerk. Apparatus has been devised which is capable of automatically delivering stimuli of uniform intensity, at a constant rate, to both the *ligamentum patellae* and the tendon Achilles.

In case of the knee-jerk, the subjects were seated in an adjustible chair so that they could be placed in proper proximity to the stimulating hammer. The leg was attached to a movable stylus, suspended from a rubber band, which records the lateral movement on a revolving drum. In all cases a constant leverage was maintained by keeping the point of attachment to the leg at a uniform distance of 30 cm. from the inferior margin of the *ligamentum patellae.* The details of the technique may be found elsewhere.[1]

For the Achilles-jerk experiments, the subjects were placed in a prone position on a well padded table, equipped so that the leg in question could not move. The apparatus is so devised that a stimulating hammer falls upon the tendon Achilles ten times per minute with a force of 296 grams. The extent of the movement of the toe is recorded by connecting it to a moveable stylus, as previously described. A constant leverage was maintained by keeping the point of attachment of the toe 26 cm. from the *malleolus medialis.*

The extent of the jerks was obtained by measuring the distance in millimeters through which the stylus moved when they were elicited. This distance is referred to as the "extent" or "height" of the jerk.

In this investigation 115 normal subjects were used. The data obtained from 95 subjects are shown in condensed form in Table I.

In the case of 20 subjects either one or both jerks was absent, and thus these data are treated separately.

For the purpose of comparison the data were divided into arbitrary groups, the limits of which are shown in column 2, Table I.

TABLE I.

A comparison of the distribution of subjects based on the extent of their knee-jerk with that of those based on the extent of their Achilles-jerk.

Group	Range mm.	No. K-J subjects in each group	Distribution of A-J subjects by groups							
			1	2	3	4	5	6	7	8
1	0-10	14	7	3	1	3	0	0	0	0
2	11-20	20	3	6	8	1	0	1	0	1
3	21-30	20	2	5	3	6	1	3	0	0
4	31-40	23	2	3	7	8	0	2	1	0
5	41-50	5	0	2	0	1	2	0	0	0
6	51-60	9	0	1	1	3	0	3	1	0
7	61-70	3	0	1	0	0	1	0	1	0
8	71-80	1	0	0	0	0	1	0	0	0

Seventeen of the subjects exhibited no Achilles-jerk, eleven of them falling in group 1, five in group 2, and one in group 3. In three cases both jerks were absent. The writer wishes to infer only that in the case of absent jerks subjects did not respond to the strength of the stimuli used, and not that it was impossible to elicit the jerks.

The data show a rather close correlation between the extent of the

knee-jerk and the Achilles-jerk, especially in the lower groups where 81 per cent of the cases fall.

It is evident that where the knee-jerk is unusually high the Achilles-jerk falls into a lower group, which indicates a lack of proportional increase in extent.

Where the Achilles-jerk is absent, the majority of the cases fall into group 1, while the rest are found in groups 2 and 3. This seems to further indicate a close correspondence between the extent of the two jerks.

This is a preliminary report.

[1] Tuttle, W. W., *Am. J. Physiol.*, 1924, lxxv, 338.

3570

Experimental Study of Ovarian Regeneration in Mice.

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Whether or not mammalian ovaries are capable of regeneration following complete ovariectomy seems still to be somewhat of a question. Davenport,[1] working on mice, found that, on the average, regeneration occurred in 64 per cent of his animals following removal of the ovaries. The experimental period ranged in time from 8 to 45 weeks, and he based his conclusions regarding ovarian regeneration upon the fact that post-mortem examination revealed distinct ovarian masses on the site of the original ovaries, and in many cases embryos were found *in utero*. No histological evidence was advanced, however, to show that all of the original ovary was removed in each case, and it seems essential that such evidence be established before it can be stated definitely whether regenerated ovarian tissue actually arises from the peritoneum, or from fragments of the original substance inadvertently left *in situ*.

Considering the importance of this subject in its bearing upon the problem of germ-cell origin, it has seemed desirable to repeat the experiment, basing any conclusions drawn upon histological study. Such evidence would show definitely two things: (1) whether or not all of the original ovary had been removed—a factor of prime importance—and (2) whether or not regenerated tissue actually is ovarian in nature.

Ninety-six operations were performed upon mice; 76 of the oper-