

tion. This is controlled largely by using ear muffs to prevent heat radiation.

Other sources are excitement and movement on the part of the animal.

*Conclusions.*

1. The blood pressure in the central artery of a rabbit's ear under properly controlled conditions ranges from 75 to 90 mm. of mercury.
2. The figures are sufficiently consistent to allow experimental study of the blood pressure.
3. Excitation, exercise and any stimulation tending to dilate the vessels locally increases the pressure above basal figures.
4. Injection of adrenalin shows the typical rise.

ABSTRACTS OF COMMUNICATIONS.

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**145 (2105)**

**The production of experimental anemia with symmetrical di-isopropyl-hydrazine hydrochloride and related compounds.**

By MEYER BODANSKY and HENRY C. HARTMAN (by invitation).

[*From the University of Texas, School of Medicine, Galveston, Texas.*]

In its physiological behavior, phenylhydrazine differs very markedly from hydrazine in that it is extremely destructive of red corpuscles. This effect may perhaps be attributed to the phenyl group in the phenylhydrazine molecule. That alkyl substitution products of hydrazine, such as symmetrical di-isopropyl-hydrazine,<sup>1</sup> may produce a very pronounced anemia, is shown by the data in the following table:

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<sup>1</sup> This compound was synthesized by H. L. Lochte in the laboratories of J. R. Bailey and W. A. Noyes (*J. Am. Chem. Soc.*, 1921, xliii, 2597). The authors are indebted to Dr. Lochte for supplying them with this compound.

## DOG 2-1, MALE, WEIGHT 12.9 KILOS.

Day.	R. B. C. millions.	Hemoglobin per cent.	Color index.	Remarks
1	5.40	83	0.77	Administered subcutaneously 0.258 grams symmetrical compound.
3	5.20	83	0.80	Marked lipemia.
4	3.80	77	1.01	Dog very sick.
5	3.60	66	0.92	Dog somewhat improved.
7	2.30	44	0.96	Dog much improved; 0.120 gram of compound administered.
8	2.20	33	0.75	Dog received 0.240 grams of compound.
10	0.92	28	1.52	
11	1.05	25	1.19	

As in the case of phenylhydrazine, the isopropyl derivative produces hypertrophy of the spleen and very marked hyperplasia of the bone marrow. Symmetrical di-isopropyl-hydrazine also resembles hydrazine in its effect upon the liver;<sup>2, 3</sup> fatty degeneration being produced after the administration of relatively small doses.

## 146 (2106)

## Further studies of the relative rates of absorption of drugs from the lymph sac and the muscles of the frog.

By C. D. HIGLEY and M. S. DOOLEY.

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New York.]

Previously it has been shown that members of the digitalis group as measured by their intensity of action upon the heart, are absorbed more rapidly and evenly from intramuscular injections than from the lymph sac. Strychnine was also found to be more rapidly absorbed from the muscles. These facts led us to suggest that in the official assay of the digitalis group of drugs the substitution of intramuscular injections be made. The present paper deals with further studies of this question.

<sup>2</sup> Underhill, F. P., and Kleiner, I. S., *J. Biol. Chem.*, 1908, iv, 165.

<sup>3</sup> Wells, H. G., *J. Exp. Med.*, 1908, x, 457.