

of variable potency, one rat unit ranging from .035 mg. to .075 mg.

Analyses of a purified preparation (.04 mg. = 1 rat unit) by micro methods gave C, 80.8 per cent; H, 10.4 per cent; N, 0.9 per cent; P, 0.00. From the freezing point depression the mean molecular weight was calculated to be 475; based upon the above analyses the smallest gram molecule containing 1 atom of nitrogen must have a weight of about 1500.

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The rôle of the sympathetic nervous system in muscle tonus.

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The left lumbar sympathetic trunk was removed through a median abdominal incision in cats. Autopsy showed the left trunk had been completely removed from the second lumbar to below the brim of the pelvis and that the right trunk was intact. After postoperative periods varying from 50 to 77 days, five of these cats were decerebrated by ligation of the basilar and both carotid arteries. No difference between the sound and the sympathectomized limb could be detected either as to posture or rigidity. Using a simple device, the pressure required to flex the limb was measured in ounces and the time required in minutes. The measurements were repeated several times on each cat and such differences as exist between the two sides, sometimes in favor of the normal side, sometimes against it, disappear when averages of the whole series of measurements are considered.

Three other sympathectomized cats were given tetanus toxin, injecting equal quantities subcutaneously over the femoral trochanter in each hind leg. The degree of rigidity and the abnormal posture which developed in the two limbs were identical. These experiments show that the sympathetic nervous system is not responsible for exaggerated muscle tonus caused by decerebration or the action of tetanus toxin.

The nerve to the vastus internus muscle is being studied to determine the effect of symphlectomy on its unmyelinated fiber content.