

creatine storage. Any significant increase in the creatine content of the tissues of creatine-fed animals would indicate either a creatine reservoir or would reveal a site important in the metabolism of this substance.

Young rats were fed on adequate diets containing creatine (0.67 and 2.67 per cent) for a period of 2 months. The growth curves of these animals did not differ from those of the control animals.

The average creatine concentrations for the tissues of albino rats are as follows: muscle 0.449 per cent, testes 0.281, heart 0.174, brain 0.129, kidney 0.046, liver 0.033, and blood 0.017 (total creatinine).

The liver is the only organ of those enumerated in which a significant increase in creatine concentration was noted in animals fed on creatine-containing diets. There is no evidence of a creatine reservoir in any of the tissues studied. It is suggested that the liver plays an important rôle in the metabolism of creatine.

THE "INORGANIC PHOSPHATE" OF MUSCLE.

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Only a small fraction of what has been regarded as inorganic phosphate in voluntary muscle is actually inorganic. The bulk of it is an unstable compound of creatine and phosphoric acid, which is hydrolyzed on stimulation and resynthesized when the muscle is permitted to recover.⁷

OBSERVATIONS ON THE CHEMICAL COMPOSITION OF SYNOVIAL FLUID.

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Synovial fluid and blood plasma have been compared with respect to non-protein nitrogen, urea, and amino acids. Almost identical values were found. The concentration of other diffu-

⁷ Fiske, C. H., and Subbarow, Y., *Science*, 1927, lxx, 401.