became less marked after repeated administration of the drug. Such a tolerance was observed after large doses of very active preparations of the fluid extract and also when the alcohol was driven off. Although the final amounts administered were gradually increased, six to ten times, the bluing of the comb observed was in many cases less marked than after the initial dose.

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Creatine in the muscle tissue of the lamprey.

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Creatine was isolated from the muscle tissue of the lamprey, *Petromyzon marinus*.

The lampreys, commonly known as "lamprey eels," are sea animals found on our shores, and belong to the lowest class of vertebrates, the Cyclostomata. For this reason, the presence of creatine in the muscle extracts is of especial interest. It has never been isolated from the muscles of invertebrates and its occurrence in this, the lowest form of vertebrate, seems indicative of some radical and sudden difference in the composition of the muscle tissue between these two great animal divisions.

Mellanby[1] estimated the creatine content of lamprey muscle by Folin's colorimetric method but failed to isolate the compound. Isolation is necessary for proof in muscle extracts of these low forms where anomalous color reactions often occur.

A water extract of the muscle tissue was made, freed from protein, evaporated to a small volume and allowed to stand. The creatine which separated out was purified by recrystallization and analyzed.

[1] Mellanby, *Journal of Physiology*, 1908, *36*, 472.