

**Les protéines contractiles durant la dégénérescence et la régénération
du muscle strié après traumatisme**
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Translated from French

**Contractile proteins during degeneration and regeneration of
striated muscle after trauma**

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Gastrocnemius muscles of frogs or rats are excised, cut in pieces of 1 mm³. and replanted on the spot. After a phase of histological degeneration; the muscle is reconstituted, vascularized and innervated in three to four weeks (Carlson, 1973). The regenerate is dissected one, four, eight, fifteen, or thirty days after the operation. The myofibrils are isolated, dissolved in sodium dodecylsulfate, subjected to polyacrylamide gel electrophoresis and stained with Coomassie blue. Of the fifteen detectable bands, nine are identified to known contractile proteins, based on their molecular weights and relative concentrations. The operation hardly changes these proteins. This result contrasts with the profound histological changes that follow the operation, both during the degeneration phase and during the regeneration phase.

These facts suggest that if minced muscle regenerates, while a less brutally injured muscle regenerates poorly, or not at all, it would be because the destruction of the histological structures would be very rapid, leaving on the spot quasi-normal contractile macromolecules, usable for regeneration.