

# **Locally-applied collagenase and regeneration of transected and repaired rat sciatic nerves.**

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## **Abstract:**

The possible effects of collagenase on peripheral nerve regeneration were evaluated after epineurial repair of rat sciatic nerves. In the control group the repair site was covered by fibrin adhesive and infused with isotonic saline and in the experimental group collagenase was infused into the fibrin adhesive. In the short term study the regeneration distance was measured by a pinch test four, six, or eight days postoperatively. In the long term study the evaluation of nerve regeneration and recovery of motor function was made by testing the tetanic contraction force of the anterior tibial muscle three months postoperatively. There were no significant differences between the two groups in either the short or long term. We conclude that locally-applied collagenase had no effect on peripheral nerve regeneration.