

# **[Comparative studies of the stability of nerve anastomoses using CO2 laser adaptation compared with conventional technics].**

## **[German]**

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### **Abstract:**

Despite sophisticated microsurgical techniques for nerve repair, neural anastomoses often dehisce, especially under pronounced traction on the nerve endings. We investigated the resistance to traction of several neural anastomoses made by different techniques, including the laser. Neural anastomoses constructed or fixed by a CO2 laser beam were considered with special interest. The forces required to disrupt the different anastomoses were monitored by a dynamometer, and the whole procedure was recorded in slow motion on video. Improved results cannot be achieved with the laser techniques available today: indeed neural anastomoses were less resistant to traction after CO2 laser coagulation. Anastomoses constructed by means of epineural sutures showed much the best resistance to traction.