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POLYGANICS
Bioresorbable Medical Devices



NEUROROLAC®

Tips & Tricks

Tussen 8°C en
-18°C bewaren

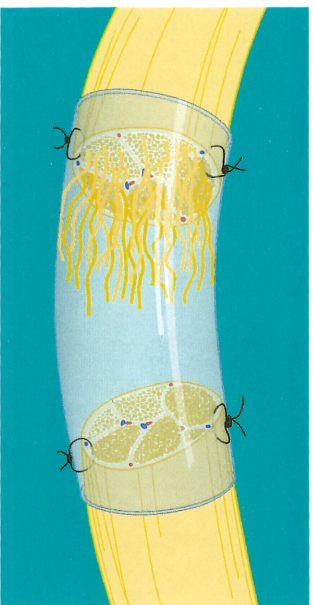


● Peripheral Nerve Repair

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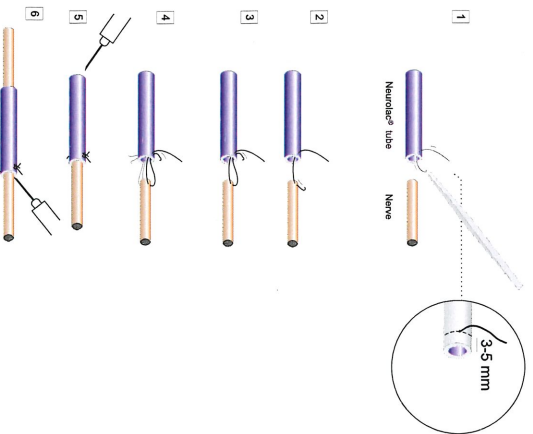
Peripheral Nerve Repair with NEUROLAC®



This is an artistic impression of nerve repair with NEUROLAC®

Procedure

NEUROLAC® is indicated for reconstruction of a peripheral nerve discontinuity up to 20 mm. NEUROLAC® provides guidance and protection to regenerate axons and prevents ingrowths of fibrous tissue into the nerve gap during regeneration of the transected nerve. NEUROLAC® comes in 10 different diameters and can be sewn to either the epineurium or perineurium in order to perform a tensionless repair.



Recommended Needle & Suture size:

- | |
|---|
| 1.5 - 2.0 - 2.5 - 3.0 NEUROLAC® Thin Wall |
| 8.0 Prolene with the smallest needle possible at NEUROLAC® TW. |
| Tapered Needle curved 3/8 (9-11 mm) |
| 4.0 - 5.0 – 6.0 – 7.0 – 8.0 – 9.0- 10.0 NEUROLAC® |
| 6.0 - Prolene or 6-0 monofilament with 11 mm needle |
| 6.0 Ethilon with 13 mm needle or with the smallest needle available |

NEUROLAC® Step by Step

1. Select the NEUROLAC® nerve guide with the proper internal diameter by measuring the diameter of the proximal and distal nerve end. (It is essential that the internal nerve guide diameter is slightly larger than the diameter of the transected nerve to guarantee optimal nerve regeneration).
2. Measure the length of the defect and cut NEUROLAC® to the appropriate size (10 mm longer than the nerve gap) → The nerve ends should be inserted into the tube (3-5mm).
3. To make the NEUROLAC® more flexible for suturing, put it in saline solution of ca 37°C for a few minutes.
4. Suture the NEUROLAC® nerve guide by passing the suture first through the tube from the outside to the inside and then transversally and superficially through the epineurium and back through the tube from the inside to the outside, after which a tie is made.
5. While with one hand carefully pulling the suture ends, guide with a forceps the nerve ending into the tube. Pull the proximal nerve stump into the nerve guide. NOTE: It is recommended that the nerve ends are pulled into the tube for at least 3 mm for optimal nerve regeneration.
6. When positioning optimization of the nerve ends in the nerve guide is required, it is recommended to place a second suture in the same nerve end. Especially if the nerve is situated in an area with lots of movement.
7. Subsequently, use the same procedure, to pull the distal nerve stump into the nerve guide. A minimum space of 5 mm should be left between the nerve ends in the nerve guide. Flush and fill the tube carefully with heparinized saline after the nerve ends are well positioned by using an IV cannula tube with 1ml syringe, which you can glide over the nerve stumps.
8. Ensure that no blood enters the nerve guide lumen since this may hinder nerve recovery.
9. The nerve guide should be implanted and sutured with all joints in an extended position to assure that no tension occurs on the proximal or distal nerve end when joints are being mobilized.
10. Immobilize the joint for 3-4 weeks as (aggressive) movement may cause the device to migrate to the surface of the skin. Pressure on the repair side should be avoided since this can cause closure and kinking of the tube.

