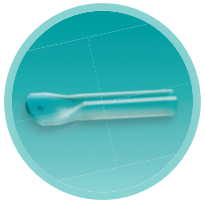
NEUROCAP®

Management of symptomatic nerve-end neuromas



Procedure

NEUROCAP® bioresorbable peripheral nerve capping device, separates the nerve-end from the surrounding environment and protects the nerve end thereby reducing the development of symptomatic neuroma.

NEUROCAP® Step-by-step

1. Excise the neuroma with a knife (No diathermy is used for dissecting or burning the nerve stump).
2. Measure the width of the nerve.
3. Select the correct NEUROCAP® according to the nerve diameter. The diameter should fit the nerve diameter.
   - If there is no NEUROCAP® size matching the nerve diameter, select one that is one size wider than the nerve-end.
4. Place NEUROCAP® in warm saline (37°C) for approximately 1 minute prior to implantation. This will make the cap more flexible and eases needle passage during suturing.
5. Cut NEUROCAP® into the appropriate length with a knife or scissors up to a minimum of 15 mm.
   - This is necessary for good positioning but leaves enough length for proper nerve positioning.
6. Start the first stitch from the outside of the nerve cap, 10 mm from NEUROCAP's tip end.
7. Take the epineurium at 5 mm of the nerve end and then back from inside the nerve cap, outside.
8. If it is not possible to glide the nerve end into NEUROCAP® easily with one suture, repeat the same steps on the other side of the NEUROCAP® and nerve.
9. Surrounded the capped nerve end with sufficient soft tissue, preferably muscle.
10. Use the tip end (with hole) for fixating NEUROCAP® by using a 5-0 ethilon or prolene suture onto the soft tissue, fascia, muscle or periost

NEUROCAP® Product Description

Internal diameter (mm)	Article number
1,5	NC01-015/03
2,0	NC01-020/03
2,5	NC01-025/03
3,0	NC01-030/03
4,0	NC01-040/03
5,0	NC01-050/03
6,0	NC01-060/03
7,0	NC01-070/03
8,0	NC01-080/03

(Total device length: 30 mm)

Recommended needle and suture size

NEUROCAP® range 1,5 - 3,0 mm:

- 7,0 or 6,0 Polypropylene with smallest needle possible.
- Tapered needle: 3/8 (9-11 mm).

NEUROCAP® range 4,0 - 8,0 mm:

- 5,0 or 6,0 Polypropylene or monofilament with 11 mm tapered needle.
- 5,0 or 6,0 polyamide/nylon with 13 mm needle or with the smallest tapered needle available.

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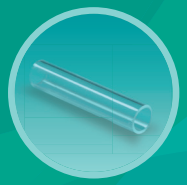
Tips And Tricks For Our Peripheral Nerve Repair Solutions



NEUROLAC® For reconstruction of transected peripheral nerves up to 20 mm

NEUROCAP® Management of symptomatic nerve-end neuromas

VIVOSORB® Minimizing adhesion formation

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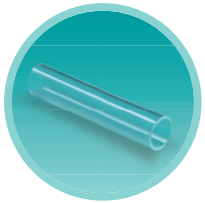
IMPROVE SURGICAL OUTCOMES AND PATIENT RECOVERY

NEUROLAC®

For reconstruction of transected peripheral nerves up to 20 mm



Procedure

NEUROLAC® is indicated for reconstruction of a peripheral nerve discontinuity up to 20 mm in order to achieve tensionless repair. NEUROLAC® provides guidance and protection to regenerate axons and prevents ingrowth of fibrous tissue into the nerve gap during regeneration of the transected nerve

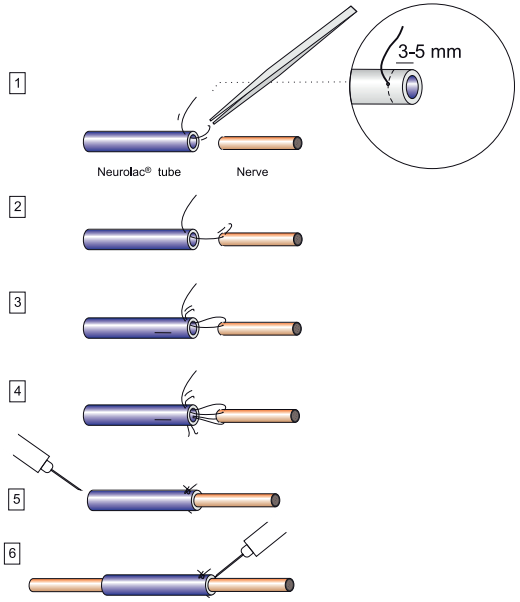
NEUROLAC® Step-by-step

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 that of the transected nerve to guarantee optimal regeneration.
2. Measure the length of the defect and cut NEUROLAC® to a length ±10 mm longer than that defect.
   - NEUROLAC® comes in 10 different diameters
   - Each nerve end should be inserted ± 3-5 mm into NEUROLAC®'s ends.
3. To ensure that the NEUROLAC® is flexible and soft when sutured to the nerve ends, place it into warm saline (ca 37°C) for a couple of minutes prior to the gap repair.
4. Suture NEUROLAC® by passing the suture first through the tube from the outside to the inside and then transversally and superficially through the epineurium (or perineurium) 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 NEUROLAC®.
   Pull the proximal nerve stump into the nerve guide.
   - It is recommended that the nerve ends are pulled into the tube for at least 3 mm for optimal nerve regeneration.
   - When positioning optimization of the nerve ends in NEUROLAC® 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 extensive movement.
6. Repeat the above step to pull the distal nerve stump into NEUROLAC®.
   - A minimum space of 5 mm should be left between the nerve ends in the nerve guide.
7. Flush and fill the tube carefully after the nerve ends are well positioned by using an IV cannula tube with a 1ml syringe, which you can glide over the nerve stumps.
   - Ensure that no blood enters the nerve guide lumen since this may hinder nerve recovery.
   - NEUROLAC® should be implanted and sutured with all joints in an extended position as to assure that no tension occurs on the proximal or distal nerve end when joints are being mobilized.
   - Close the wound and splint to prevent kinking for the first 3 postoperative weeks.
   - Long-term compression of NEUROLAC® should be avoided.
   - Patients may be administered oral antibiotics for the first post-operative week.
   - Splint the repair site dorsally to prevent hyperextension and give the therapist and patient instructions not to flex the joint fully for the first 3-4 weeks.
   - Pressure on the repair side should be avoided since this can cause closure and kinking of the tube.

NEUROLAC® Product Description

Internal diameter (mm)	Article number
1,5	NG02-015/03
2,0	NG02-020/03
2,5	NG02-025/03
3,0	NG02-030/03
4,0	NG01-040/03
5,0	NG01-050/03
6,0	NG01-060/03
7,0	NG01-070/03
8,0	NG01-080/03
10,0	NG01-100/03

(Total device length: 30 mm)



Recommended needle and suture size

NEUROLAC® Thin Wall (NEUROLAC® TW).
Range 1,5 - 3,0 mm:
- 8.0 Prolene with the smallest needle possible.
- Tapered Needle curved 3/8 (9-11 mm).

NEUROLAC®. Range 4,0 - 10,0 mm:
- 5,0 or 6,0 Polypropylene or monofilament with 11 mm tapered needle.
- 5,0 or 6,0 polyamide/nylon with 13 mm needle or with the smallest tapered needle available.

VIVOSORB®

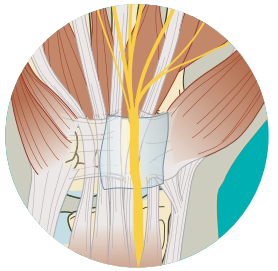
For minimizing tissue attachments

VIVOSORB® Step-by-step

1. Either fixate the VIVOSORB® sheet, covering the surgically closed soft tissue, to the surrounding tissue (using standard suturing techniques) or simultaneously with closing the wound.
   - Latter option makes the sheet an integral part of the closed tissue (and sutures).
   - Any used sutures must be at least 2mm from the edges of the sheet.
   - It must be ensured that the sheet does not act as a bridge to close a gap.

Procedure

VIVOSORB® is indicated for use as a temporary protective sheet to separate opposing soft tissues, thereby minimizing tissue attachment.



VIVOSORB® Product Description

Size	Article number
2 x 3 cm	FS01-006/20
5 x 7 cm	FS01-035/20
13 x 10 cm	FS01-130/20
12 x 17 cm	FS01-204/20

(Device thickness: 0,2 mm)