1. Open

Open the Nerbridge®

* The recommend size is 0.5mm to 1.0mm larger than the thickness of the autologous nerve.

Confilm the size of the device to be used and remove the Outer pouch from the outer box.

Open the Outer pouch and take the inner foil pouch. (Please note that the outer pouch is for protection only and is not a sterile barrier. Only contents of the inner foil pouch are sterile.)

Clean field

Carefully transfer the tray and $\text{Nerbridge}_{\mathbb{R}}$ into the clean field.

Remove the Nerbridge $_{\mathbb{R}}$ from the tray.

2. Preparation

Follow standard procedures for exposure and mobilization of the severed nerve. Determine the nerve diameter in millimeters (mm) using a suitable measuring instrument. Select a Nerbridge[®] of sufficient diameter to allow easy insertion of the nerve stumps into Nerbridge[®].

Account for normal edema following traumatic nerve injury. Carefully transfer Nerbridge_{\mathbb{R}} into the clean field. Hydrate Nerbridge_{\mathbb{R}} in sterile saline for 3 minutes or more before use.



3. Suturing Procedure

Using 6-0 to 10-0 non-absorbable monofilament nylon or polypropylene sutures, suture the proximal side first. Pass the suture through the wall of Nerbridge[®] at a point about 1-2 mm from its end, transversing from the outside to the inside. Next, pass the suture through the epineurium of one nerve stump so that the tip of the needle exits 1-2 mm from the tip of the nerve stump. Reverse the suture and pass it through the epineurium of the nerve stump closer to the operator and away from where the needle exited. Take care not to damage any axons when suturing the epineurium. Next, pass the suture back through the wall of Nerbridge[®] this time from the inside to the outside.



Then slowly rotate both the nerve stump and Nerbridge[®] by 180 degrees, and suture the opposite side of Nerbridge[®] and the nerve stump in the same manner as just described. When rotating Nerbridge[®], be careful not to cross the thread.



After this, pull the suture such that the nerve stump is gently drawn into the Nerbridge[®] lumen. The approximate length of the nerve stump to be inserted into Nerbridge[®] should be greater than or equal to the inner diameter of the Nerbridge[®] lumen. A secure knot must be made in the suture, taking care not to apply tension on the suture itself.

Nerbridge[®] must be long enough to allow each nerve stump to be drawn into the Nerbridge[®] lumen at a distance greater than or equal to the inner diameter of Nerbridge[®]. If needed, Nerbridge[®] may be cut to an appropriate length.



The suturing on the distal side should be done in the same manner as on the proximal side.



In addition, Nerbridge[®] and the nerve should be ligated at multiple points and secured with sutures. If the tube falls out of the nerve stump, neuroma may develop.

Postoperative Procedure

Immobilize the repair area of the limb using standard procedures for immobilization following any peripheral nerve repair.

When Nerbridge_® is implanted close to a joint, immobilize the limb for at least 1 week. When starting rehabilitation pay attention to the positional relationship between the implanted site and the joint, in addition to the surrounding soft tissue.

Note: Proceed to rehabilitation depending on the condition of scars, the presence or absence of subjective and objective symptoms, the results of ultrasound imaging and a physical examination.