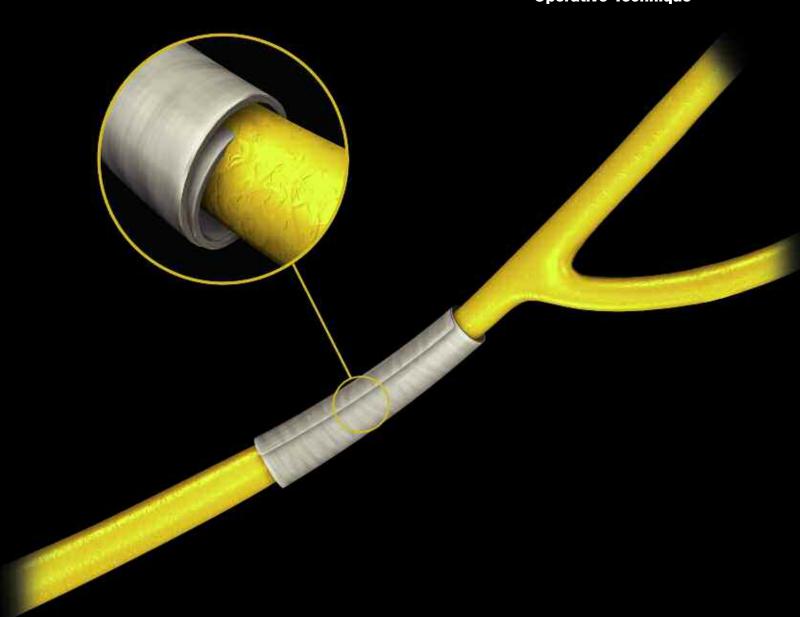
## **stryker**°

Trauma

# NeuroMend

## Collagen Wrap Conduits

#### **Operative Technique**



## Stryker NeuroMend™ Collagen Wrap Conduits

Wrap a protective environment around your patients' injured peripheral nerves

#### **Common Indications**

The NeuroMend™ Wrap is indicated for the management of peripheral nerve injuries in which there has been no substantial loss of nerve tissue and where gap closure can be achieved without tension. Possible uses for the Stryker NeuroMend™ include, but are not limited to the following:

- 1. Crush Injuries
- 2. Stretch Injuries
- 3. Nerves that have been partially severed
- 4. Nerve injuries and nerve repairs that require separation and protection from surrounding soft tissues
- 5. Compression Injuries
- 6. Over direct suture repair

#### **Contraindications**

- 1. Acute infections
- 2. Contaminated wound in the immediate area surrounding the peripheral nerve injury
- Known history of allergic reactions to collagen and/or bovine-derived products

See package insert for warnings, precautions, adverse effects and other essential product information.

## **Wrapping Your Nerves Just Got Easier**



NeuroMend™ is a non-restrictive,
Type 1 Bovine Collagen encasement
that promotes healing of minimally
damaged nerves by permitting
diffusion of healing nutrients while
blocking fibroblast cell migration.
This product is available off the shelf
at the time of surgery and is reabsorbed
within 3-6 months after implantation.

- Self-curling design allows you to use Stay Suture technique
- Rolled design allows for 25% of conduit to wrap over itself, potentially eliminates the need for sutures
- Wrap nerves from 1.0mm to 12.0mm in diameter

Type 1 Bovine Collagen Conduits and Wraps are ideally suited to peripheral nerve repair.<sup>5</sup>

- Selective permeability allows nutrients to diffuse which may promote healing and advance nerve regeneration
- Selective permeability acts as a barrier to larger fibroblast cells, which defeat nerve regeneration by blocking axonal migration
- Type 1 collagen may be better accepted by soft tissue than PGA based conduits<sup>1,6,4</sup>
- Degrades via normal metabolic pathways within 3-6 months following implantations
- Hypo-immunogenic5

### **Operative Technique**

## **Step 1: Prepare the Nerve**

Under magnification, an incision is made over the injured nerve.

The incision is extended proximally and distally. The nerve is identified proximally and distally out of the zone of injury and traced to the injury.

A neurolysis is performed to free the nerve from surrounding scar tissue at the injury site. The nerve bed is prepared by resecting scar tissue as needed until full mobilization of the nerve is accomplished (*Figure 1*).



Figure 1

#### Step 2: Select and Prepare Appropriate Sized NeuroMend™ Wrap.

The diameter of the nerve is measured to ensure that the appropriate size NeuroMend™ Wrap is selected (*Figures 2, 3*).

Note: The NeuroMend™ Wrap Conduit performs best when it wraps over itself by up to 25%. If repairing a large diameter nerve (e.g. 12mm), it may be necessary to wrap the nerve "End to End" using a Running Suture Technique.



Figure 2



Figure 3

#### Step 3: Hydrate NeuroMend™ Wrap

Hydrate nerve wrap in sterile physiological saline solution for 5 minutes.

After hydration, the nerve conduit can be trimmed to a satisfactory length.

## **Operative Technique**

#### Step 4: Implanting NeuroMend™ Wrap

Once hydrated, gently uncoil the NeuroMend™ Wrap placing it around the injured nerve.

The memory function of NeuroMend<sup> $\infty$ </sup> allows the wrap to always re-coil around the nerve and will maintain self-closure (*Figures 4*, 5).

Although the NeuroMend™ Wrap conduit is designed to maintain closure, a suture is recommended, particularly if nerve glide is necessary. Using a traumatic (6.0-8.0 nylon) suture, secure the closure of the wrap.

Note: If the wrap overlaps more than 25% it is suggested that the excess material be trimmed in order to maintain the wrap's permeable properties.



Figure 4

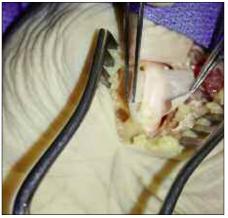


Figure 5



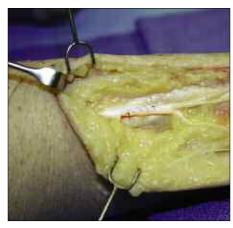
The NeuroMend™ Wrap coils around the nerve and no suture is required.



One suture is placed on each end of the NeuroMend™ Wrap.



Three sutures are placed equally spaced along the closure of the NeuroMend™ Wrap.



The NeuroMend™ Wrap meets end-to-end and a running suture technique is used in order to sustain closure.

## **Step 5: Post-operative Considerations**

Closure of the surgical field by layers is routine. Excessive and uncontrolled movement of the extremity where nerve repair was performed must be avoided to prevent possible migration of the device

## **Ordering Information**

Catalog Number	Length	Wrap Size	Diameter of Injured Nerve*
CNW4025	2.5cm	4.0mm	1.0 – 3.0mm* 4.0mm max (no overlap)
CNW4050	5.0cm	4.0mm	1.0 – 3.0mm* 4.0mm max (no overlap)
CNW6025	2.5cm	6.0mm	3.0 – 4.5mm* 6.0mm max (no overlap)
CNW6050	5.0cm	6.0mm	3.0 – 4.5mm* 6.0mm max (no overlap)
CNW12025	2.5cm	12.0mm	4.5 – 9.0mm* 12.0mm max (no overlap)
CNW12050	5.0cm	12.0mm	4.5 – 9.0mm* 12.0mm max (no overlap)

<sup>\*25%</sup> overlap is recommended – the max diameters requires the wrap to meet end-to-end which may require a running suture technique.

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## **Stryker Extremities Product Portfolio**

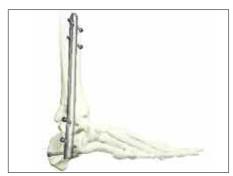
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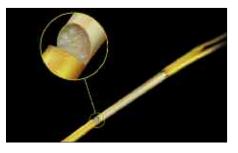
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Plating System



**Avance**<sup>™</sup> **Nerve Graft** 



Neuroflex™



**NeuroMatrix**™



If you have any patients which would benefit from these Stryker products, please contact your local Stryker representative at 866-OR-ASSIST



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#### $NeuroMend^{\text{\tiny TM}}$

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