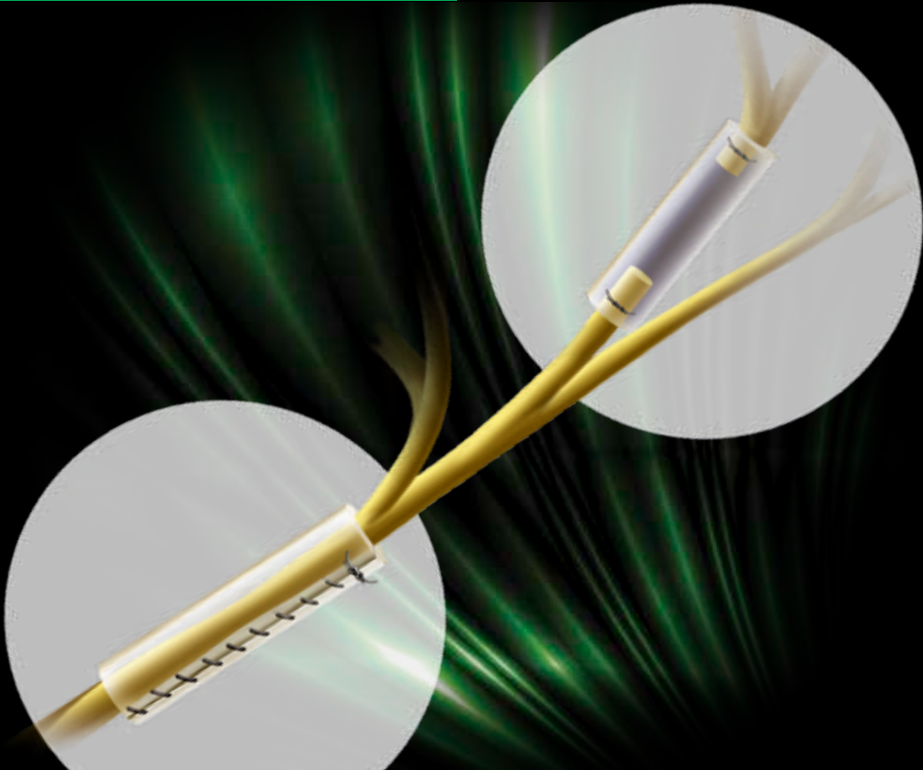


Integra®

NeuraGen® Nerve Guide
NeuraWrap™ Nerve Protector

NERVE REPAIR SOLUTIONS

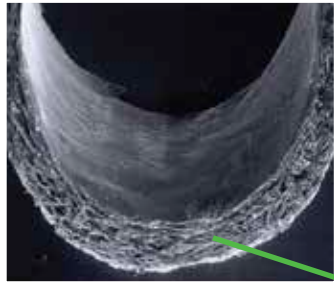


INTEGRA®
LIMIT UNCERTAINTY

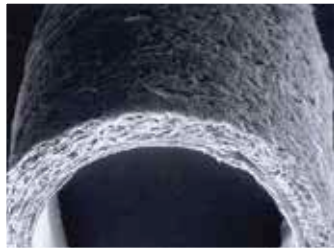
Time-Tested. Optimally-Designed. Proven Performance.^{1,2}

Electron Microscopy of NeuraGen® Nerve Guide

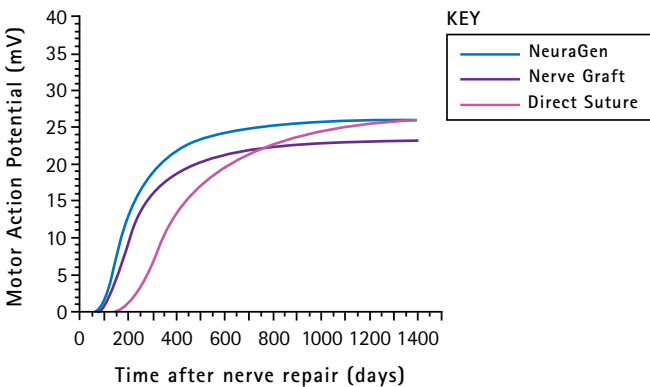
Semi-permeable, Smooth,
Inner Membrane



Porous Outer Layer

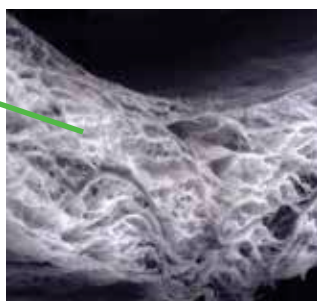


Electrophysiological Recovery⁴



Collagen Conduit Designed to Enhance Regenerative Growth Environment

- Ideally engineered pore size³
- Controlled rate of resorption⁴
- Flexible and pliable³
- Compression resistant³



Proven Positive Performance for Peripheral Nerve Repair

- Equivalent functional recovery compared to direct suture^{1,4}
- Equivalent outcomes to nerve graft over short nerve gaps^{1,5}
- Favorable clinical results compared to direct suture and nerve grafting²
- Pre-clinical studies demonstrate superior results over other nerve conduits⁶

Collagen Experts With an Extended History of Collagen Matrix Innovation

1970-1980s
Collagen Matrix Development

1985
GENERAL SURGERY
Helistat® Absorbable Collagen Hemostatic Sponge

1996
BURN SURGERY
Integra® Dermal Regeneration Template

1999
NEUROSURGERY
DuraGen® Dural Graft Matrix

2001
PERIPHERAL NERVE SURGERY
NeuraGen® Nerve Guide

2002
PLASTIC & RECONSTRUCTIVE
Integra™ Bilayer Matrix Wound Dressing

2003
NEUROSURGERY
DuraGen Plus® Dural Regeneration Matrix

2004
PERIPHERAL NERVE SURGERY
NeuraWrap™ Nerve Protector

2004
PLASTIC & RECONSTRUCTIVE
Integra™ Matrix Wound Dressing

2005
PLASTIC & RECONSTRUCTIVE
TenoGlide® Tendon Protector Sheet

2007
PLASTIC & RECONSTRUCTIVE
Integra™ Flowable Wound Matrix

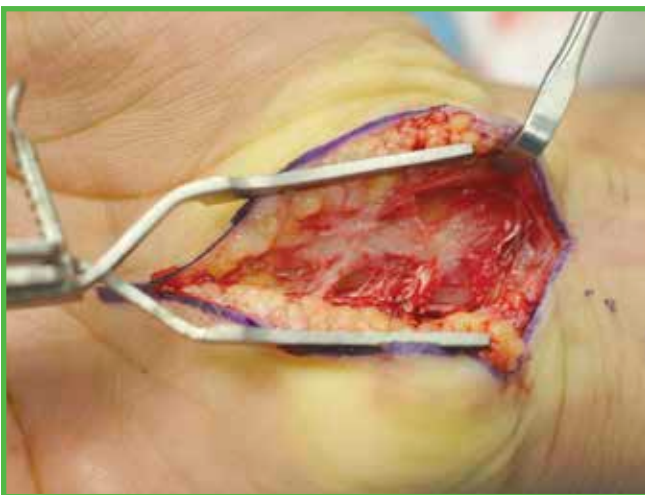
Over 12M Collagen Implants Distributed⁷

What is the Problem?



Completely Severed Nerve

Disease State



Compressed, Scarred, or Partially Injured Nerve

What is Our Solution?

NeuraGen® Nerve Guide

Semi-Permeable, Absorbable Type I Collagen Tube

- Protective environment across nerve discontinuities⁴
- Isolated conduit environment guiding axonal regrowth⁴
- Absorption via normal metabolic pathways



Indications:

NeuraGen® Nerve Guide is indicated for the repair of peripheral nerve discontinuities where gap closure can be achieved by flexion of the extremity.

Contraindications:

NeuraGen Nerve Guide is contraindicated for patients with a known history of hypersensitivity to bovine derived materials.

Intended Use

NeuraWrap™ Nerve Protector

Biocompatible, Highly Purified Type I Collagen Structure

- Nerve protection following decompression procedures^{3,8}
- Nerve isolation in traumatized wound beds^{3,8}
- Closure around partially severed nerves⁸



Indications:

NeuraWrap™ Nerve Protector is indicated for the management of peripheral nerve injuries in which there has been no substantial loss of nerve tissue.

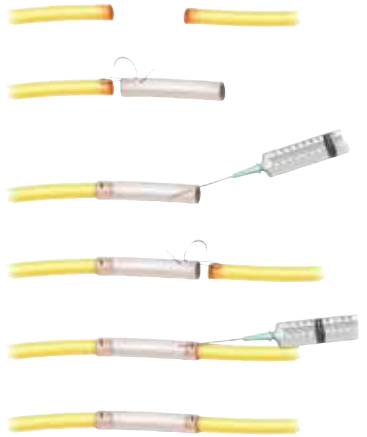
Contraindications:

NeuraWrap Nerve Protector is contraindicated for patients with a known history of hypersensitivity to bovine derived materials.

What is the Process?

Application of NeuraGen Nerve Guide

1. Determine nerve diameter and choose appropriate NeuraGen size
2. After hydrating, pass first suture into the nerve guide
3. Draw nerve stump into the nerve guide and pass suture through the epineurium
4. Flush the lumen of the guide with saline
5. Repeat suturing procedure for the other nerve stump
6. Repeat flushing procedure and complete repair



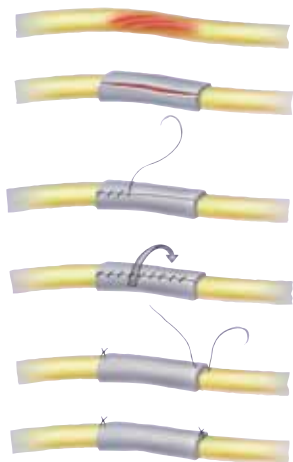
Precautions

- Hemostasis of the nerve stumps must be achieved prior to placement of the NeuraGen Nerve Guide. A blood clot in the lumen of the nerve guide will impede axon growth.
- Tensionless repair technique should be used to prevent tension along the length of the nerve.
- NeuraGen Nerve Guide should be used with caution in infected regions.

Surgical Technique*

Application of NeuraWrap Nerve Protector

1. Determine nerve diameter and choose appropriate NeuraWrap size
2. After hydrating, open wrap slit and place over the injured nerve
3. Close slit with a running suture technique
4. Rotate wrap so that the suture line is away from the injured soft tissue
5. Additional stay suture(s) may be placed to prevent migration
6. Complete repair



Precautions

- After application, NeuraWrap Nerve Protector must fit loosely around the injured nerve to avoid constriction of the nerve tissue.
- NeuraWrap Nerve Protector should be used with caution in infected regions.

Why Use Our Product?

An Efficient Alternative to Nerve Graft or Direct Suture

- Eliminates nerve harvest procedure and potential donor site complications
- Simple, rapid entubulation repair minimizes OR time and potential for scar formation and tissue ingrowth⁴
- Demonstrated functional recovery equivalent to nerve graft and direct suture^{1,4}
- Manufactured from Ultra Pure Collagen™, minimizing pathogenic⁹ and immuno-rejection concerns¹⁰
- Readily available supply, extended shelf-life, dependable and precise sizes available

Benefits

Biocompatible Isolation of Healing Nerves

- Generated from Integra's Ultra Pure Collagen™ technology
- Mechanically resists compression from surrounding tissue and excludes scar tissue ingrowth^{3,4}
- Recovers and maintains closure once placed around nerve^{3,8}
- Remains in place during active phase of tissue healing⁴
- Completely resorbed after tissue response has resolved⁴

Convenience and Precision Sizing Off-The-Shelf Availability and Size-Matched to Fit

NeuraGen Nerve Guide Ordering Information

Reference	Description	Diameter (mm)**
PNG130	1.5mm (ID) x 3cm (length)	
PNG220	2mm (ID) x 2cm (length)	
PNG230	2mm (ID) x 3cm (length)	
PNG320	3mm (ID) x 2cm (length)	
PNG330	3mm (ID) x 3cm (length)	
PNG420	4mm (ID) x 2cm (length)	
PNG430	4mm (ID) x 3cm (length)	
PNG520	5mm (ID) x 2cm (length)	
PNG530	5mm (ID) x 3cm (length)	
PNG620	6mm (ID) x 2cm (length)	
PNG630	6mm (ID) x 3cm (length)	
PNG720	7mm (ID) x 2cm (length)	
PNG730	7mm (ID) x 3cm (length)	

NeuraWrap Nerve Protector Ordering Information

Reference	Description	Diameter (mm)**
NW320	3mm (ID) x 2cm (length)	
NW340	3mm (ID) x 4cm (length)	
NW520	5mm (ID) x 2cm (length)	
NW540	5mm (ID) x 4cm (length)	
NW720	7mm (ID) x 2cm (length)	
NW740	7mm (ID) x 4cm (length)	
NW1020	10mm (ID) x 2cm (length)	
NW1040	10mm (ID) x 4cm (length)	

** actual size

NeuraGen Nerve Guide

Adverse Events

Possible complications can occur with any nerve repair surgical procedure including pain, infection, decreased or increased nerve sensitivity, and complications associated with use of anesthesia.

NeuraWrap Nerve Protector

Adverse Events

Possible complications can occur with any peripheral nerve surgical procedure including pain, infection, decreased or increased nerve sensitivity, and complications associated with use of anesthesia.

* As the manufacturer of this device, Integra LifeSciences Corporation does not practice medicine and does not recommend this or any other surgical technique for use on a specific patient. The surgeon who performs any procedure is responsible for determining and using the appropriate technique in each patient.

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integrallife.com

