# Feeling pulled? Tension matters.

AxoGuard® Nerve Connector can alleviate tension at the repair site in peripheral nerve gaps up to 5mm.



Extension of finger after direct repair shows tension along the length of the nerve.

Repair of digital nerve using AxoGuard® Nerve Connector shows laxity of nerve upon extension of finger.

# It's time to rethink nerve repair.

AxoGuard® Nerve Connector is a natural extracellular matrix designed as a coaptation aid for tensionless repair of transected or severed peripheral nerves.



# Rethink nerve repair.

Relieve tension with AxoGuard® Nerve Connector.

## Tension matters. In nerve repair, alleviating tension can ... -

- Open blood flow to minimize ischemia in the nerve.<sup>1, 2</sup>
- Minimize fascicular distortion and axonal misdirection.2
- Allow full range of motion during post-operative rehabilitation.<sup>1,2</sup>

## ... support healing

### Direct Repair \_\_\_\_

- Nerve retraction can result in increased gap size creating more tension during repair.<sup>2,3</sup>
- Suture pull concentrates tension at the repair site.1
- Direct repair may not remain tension-free through full range of motion.<sup>1</sup>
- Mobilization to achieve direct repair may lead to devascularization of the nerve.<sup>3,4</sup>



Excess tension under direct repair may lead to constriction of nerve and compromised blood flow.

### Repair with AxoGuard® Nerve Connector

- · AxoGuard® Nerve Connector
  - Can alleviate tension at the repair site.2,5
  - May move sutures away from the coaptation site.
  - Holds nerve ends within close proximity of each other.
- AxoGuard® Nerve Connector may alleviate tension through the full range of motion.<sup>1,2</sup>



Nerve repair using AxoGuard® Nerve Connector alleviates tension and allows vascular channels to remain open.

#### TO ORDER, CONTACT YOUR AXOGEN REPRESENTATIVE OR AXOGEN CUSTOMER CARE

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#### INDICATION FOR USE

AxoGuard® Nerve Connector is intended for the repair of peripheral nerve discontinuities where gap closure can be achieved by flexion of the extremity. This device is supplied sterile and is intended for single use.

#### CONTRAINDICATIONS

This device is derived from a porcine source and should not be used for patients with known sensitivity to porcine material.

- 1 Schmidhammer R, et al. Alleviated tension at the repair site enhances functional regeneration: The effect of full range of motion mobilization on the regeneration of peripheral nerves—Histologic, electrophysiologic, and functional results in a rat model. *J Trauma*. 2004;56(3):571-583.
- Ducic I, et al. Innovative treatment of peripheral nerve injuries. *Ann Plast Surg.* 2012;68(2):180-187.
- 3 Clark WL, et al. Nerve tension and blood flow in a rat model of immediate and delayed repairs. J Hand Surg. 1992;17A(4):677-687.
- 4 Messina A and Messina JC. Transposition of the ulnar nerve and its vascular bundle for the entrapment syndrome at the elbow. J Hand Surg. 1995;208(5):638-648.
- Mir H, et al. Assessment of nerve regeneration after entubulation with a novel extracellular matrix-based conduit. Poster presentation at the American Society of Plastic Surgeons 2011.

