

# advances in nerve coaptation: connector-assisted repair®



## see the difference

experience the only small intestine submucosa  
coaptation aid for peripheral nerve repair.

# challenges in direct nerve repair

Concentrated **tension** at the coaptation site

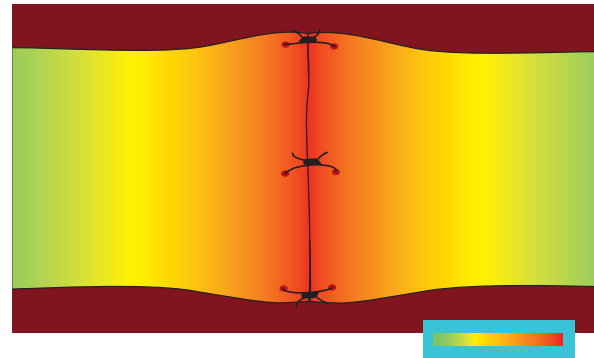
Tension leads to restricted blood flow and ischemia

- As little as 8% elongation decreases blood flow 50%<sup>1</sup>

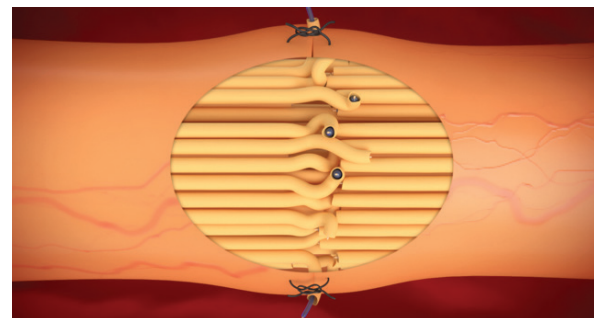
Direct repair may not remain tension free during full range of motion

Fascicular misalignment due to overtightening of sutures

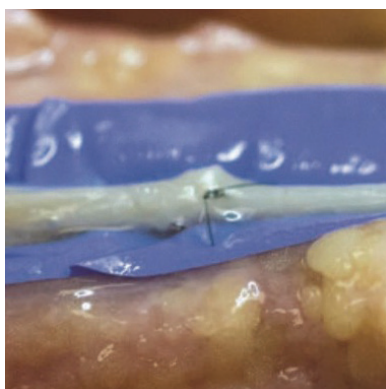
Localized **inflammation** from sutures in the zone of regeneration<sup>2</sup>



Tension map highlighting the localized tension at the coaptation site in direct repairs.



Fascicular misalignment resulting from the over-tightening of suture.



**Overtightened sutures  
leading to bulging fascicles  
at the coaptation.**

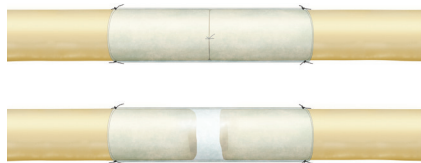
# axogen's portfolio of products

## option for no transection



**axoguard**  
nerve protector<sup>®</sup>

## options for 0 mm to 5 mm



**axoguard**  
nerve connector<sup>®</sup>

## options for 5 mm to 70 mm



**avance**<sup>®</sup>  
nerve graft



**avance**<sup>®</sup> nerve graft + **axoguard**  
nerve connector<sup>®</sup>



**avance**<sup>®</sup> nerve graft + **axoguard**  
nerve protector<sup>®</sup>

## options for 70 mm+



**autograft** + **axoguard**  
nerve connector<sup>®</sup>



**autograft** + **axoguard**  
nerve protector<sup>®</sup>

## option for no distal target



**axoguard**  
nerve cap<sup>®</sup>

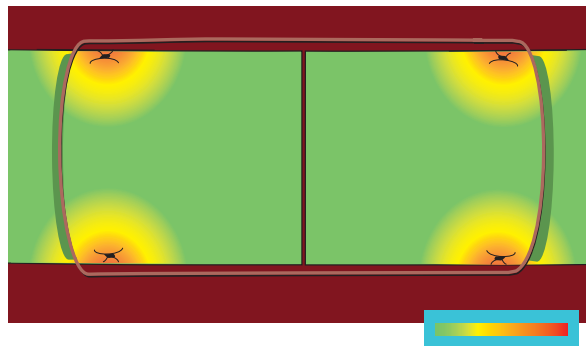
# clinical benefits of a connector-assisted repair technique

**Reduces tension** and likelihood of tension-induced ischemia<sup>1,3</sup>

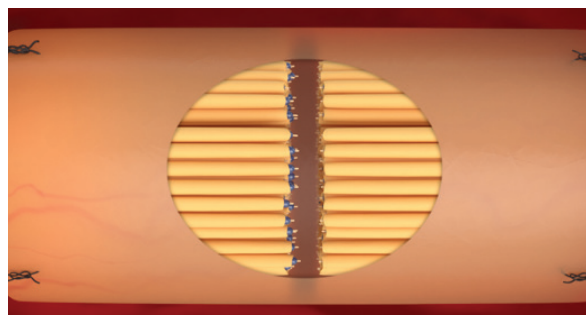
Reduces the negative inflammatory impact of sutures at the critical zone of regeneration by allowing for **suture placement away from the coaptation site**<sup>2,4</sup>

Allows for better alignment of nerve ends reducing the risk of forced fascicular mismatch<sup>5</sup>

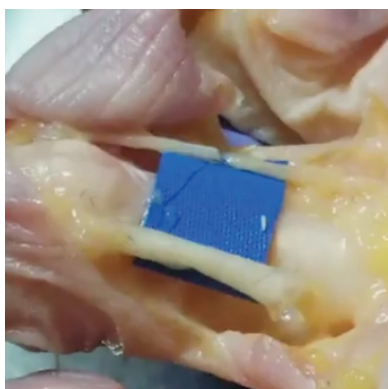
Provides a physical barrier reducing infiltration of surrounding tissues into the coaptation site and the potential for axonal sprouting outside the coaptation site<sup>4,6</sup>



Tension map highlighting tension concentrated away from the coaptation site with a Connector-Assisted Repair.



Fascicular alignment and appropriate axonal growth facilitated by a Connector-Assisted Repair.

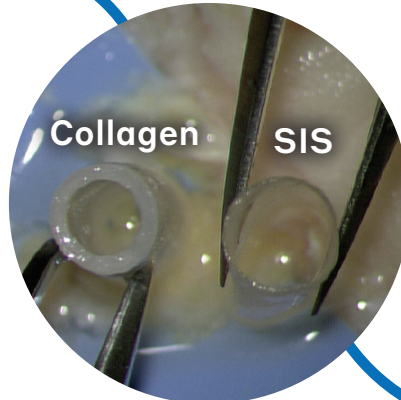
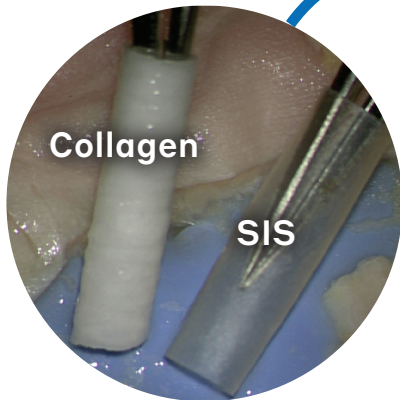
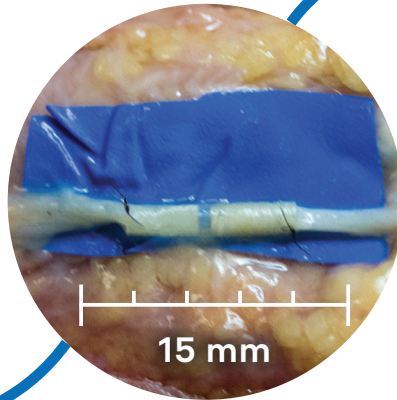


**Direct repair (top) and Connector-Assisted Repair (bottom) during full finger extension.**

**Tension on the direct repair coaptation results in visible gapping and may limit revascularisation and axonal regeneration.**

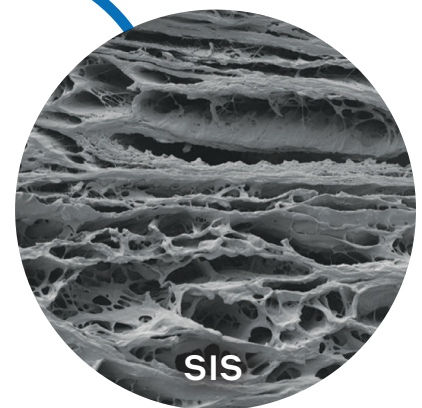
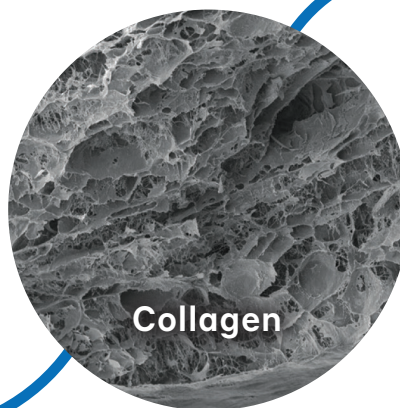
# benefits of axoguard nerve connector

Axoguard Nerve Connector is semi-translucent, providing visualization of the nerve ends during approximation.




Axoguard Nerve Connector's Porcine SIS material offers excellent flexibility and is semi-translucent compared to opaque competitive collagen products.

Axoguard Nerve Connector's porosity supports vascularization and remodeling to form a new soft-tissue layer.<sup>6-8</sup>




# one company for all your surgical nerve repair solutions

**avance®**  
nerve graft




Biologically active, processed human nerve allograft developed for bridging nerve discontinuities up to 70 mm

**axoguard**  
nerve connector®



Semi-translucent coaptation aid for nerve transections up to 5 mm

**axoguard**  
nerve protector®



Extracellular matrix that remodels to protect injured nerves and reinforce nerve reconstructions

**axoguard**  
nerve cap®



Separates nerve end from surrounding environment to protect from mechanical stimulation and reduce painful neuroma formation

Code	Dimensions
111215	1–2 mm x 15 mm
211215	2–3 mm x 15 mm
311215	3–4 mm x 15 mm
411215	4–5 mm x 15 mm
111230	1–2 mm x 30 mm
211230	2–3 mm x 30 mm
311230	3–4 mm x 30 mm
411230	4–5 mm x 30 mm
111250	1–2 mm x 50 mm
211250	2–3 mm x 50 mm
311250	3–4 mm x 50 mm
411250	4–5 mm x 50 mm
111270	1–2 mm x 70 mm
211270	2–3 mm x 70 mm
311270	3–4 mm x 70 mm
411270	4–5 mm x 70 mm

Code	Dimensions
AGX110	1.5 mm x 10 mm
AGX210	2 mm x 10 mm
AGX310	3 mm x 10 mm
AGX410	4 mm x 10 mm
AGX510	5 mm x 10 mm
AGX610	6 mm x 10 mm
AGX710	7 mm x 10 mm
AGX115	1.5 mm x 15 mm
AGX215	2 mm x 15 mm
AGX315	3 mm x 15 mm
AGX415	4 mm x 15 mm
AGX515	5 mm x 15 mm
AGX615	6 mm x 15 mm
AGX715	7 mm x 15 mm

Code	Dimensions
AG0220	2 mm x 20 mm
AG0320	3.5 mm x 20 mm
AG0520	5 mm x 20 mm
AG0720	7 mm x 20 mm
AG1020	10 mm x 20 mm
AG0340	3.5 mm x 40 mm
AG0540	5 mm x 40 mm
AG0740	7 mm x 40 mm
AG1040	10 mm x 40 mm

Code	Dimensions
AGT215	2 mm x 15 mm
AGT315	3 mm x 15 mm
AGT415	4 mm x 15 mm

## references

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## indications and trademark disclaimers

### Axoguard Nerve Connector

**INDICATIONS 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. The Axoguard Nerve Connector is supplied sterile and is intended for one-time use.

**CONTRAINDICATIONS:** The Axoguard Nerve Connector is derived from a porcine source and should not be used for patients with known sensitivity to porcine material.

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MKTG-0128 R03

revolutionizing the science of nerve repair™

