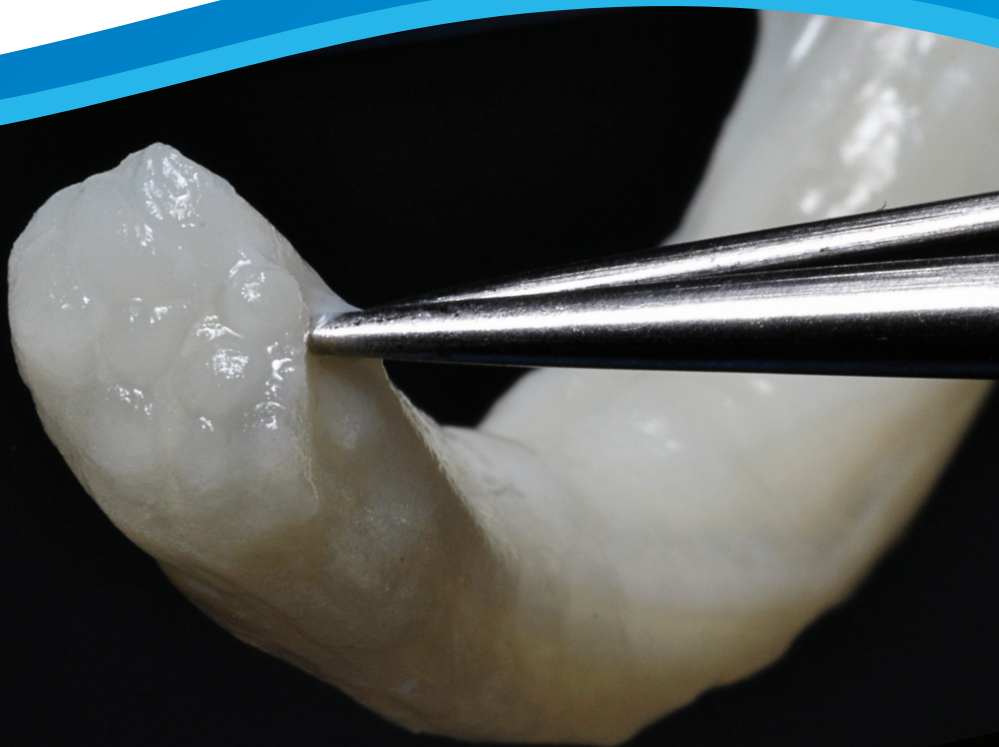
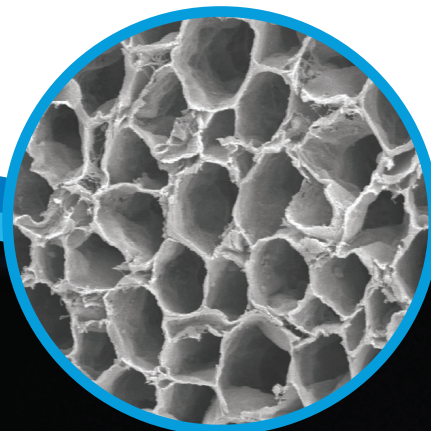


Need Nerve? Processing matters.

Avance[®]
Nerve Graft



It's time to rethink nerve repair.

Allograft tissue processing plays a critical role on how the body utilizes the implant during the healing process.

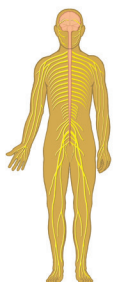
The Avance[®] Process is the only process which cleanses human peripheral nerve tissue by removing cells, cellular debris, and chondroitin sulfate proteoglycans, while maintaining the natural extracellular matrix inherent to human nerve. This process results in an off-the-shelf graft, Avance[®] Nerve Graft, which provides clear pathways to support nerve regeneration.¹

 **AxoGen**[®]

Rethink nerve repair.

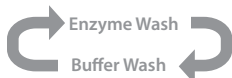
The Avance® Process...

Recovery of donor nerve tissue



Tissue processing

CSPGs Clearance



Chemical Decellularization



Sterilization
Gamma Irradiation



Avance® Nerve Graft

The Avance® Process is a patented proprietary cleansing process which is optimized for human peripheral nerve allograft.

Avance®
Nerve Graft

- Maintains the 3-dimensional ECM scaffold
 - Provides an open scaffold to support cell migration during nerve regeneration²
- Clears pathways by removing cellular debris³
- Removes inhibitors to regeneration, as seen in animal studies^{1,4,5}
- Preserves the handling characteristics of human nerve
 - Implanted using the same technique as native nerve

Retained by Avance® Process

Peripheral Nerve Component	Role in Nerve Repair	Before Processing	After Avance® Processing
Macrostructure	Provides intact epineurium and perineurium for handling and suturing	SEM of unprocessed nerve	SEM of Avance® Nerve Graft
Microstructure	Maintains endoneurium to structurally support axon regeneration	SEM of unprocessed nerve	SEM of Avance® Nerve Graft
Composition (collagen, laminin and fibronectin)	Plays an integral role in structural support	Laminin stain (laminin stains brown) of unprocessed nerve	Laminin stain (laminin stains brown) of Avance® Nerve Graft

Removed by Avance® Process

Peripheral Nerve Component	Role in Nerve Repair	Before Processing	After Avance® Processing
Cells and Cellular Debris	Clears cellular debris from the nerve tissue which makes way for axon and Schwann cell migration. Removes allogenic Schwann cells resulting in a graft that does not require immunosuppression	H&E stain (Eosin stains cell nuclei blue) of unprocessed nerve	H&E stain (Eosin stains cell nuclei blue) of Avance® Nerve Graft
Chondroitin Sulfate Proteoglycans	In animal studies, removal of CSPGs (axonal growth inhibitors) from acellular nerve allograft was associated with an increased number of axons entering into the tissue, less aberrant axon growth and axonal migration over longer distances. ^{1,4,5}	CS56 stain (CSPG stains red) of unprocessed nerve	CS56 stain (CSPG stains red) of Avance® Nerve Graft

References

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- Neubauer, D, et al. Chondroitinase treatment increases the effective length of acellular nerve grafts. *Experimental Neurology*. 2007; 207: 163-170

Indications for Use: Avance® Nerve Graft is processed nerve allograft (human) intended for the surgical repair of peripheral nerve discontinuities to support regeneration across the defect.

Contraindications: Avance® Nerve Graft is contraindicated for use in any patient in whom soft tissue implants are contraindicated. This includes any pathology that would limit the blood supply and compromise healing or evidence of a current infection.

Regulatory Classification: Avance® Nerve Graft is human tissue for transplantation. It is processed and distributed in accordance with US FDA requirements for Human Cellular and Tissue-based Products (21 CFR Part 1271). State regulations and the guidelines of the American Association of Tissue Banks (AATB). This graft is to be dispensed only by or on the order of a licensed physician.

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