PROTECTIO

FRANCON

NuShield[®] is a dehydrated, protective surgical barrier.¹

> organogenesis NuShield

SURGICAL REPAIRS NEED PROTECTION THAT OFFERS MORE

Adhesions can cause post-operative pain, impaired function, and reduced range of motion.²

A dehydrated placental membrane can serve as an effective physical barrier that helps maintain separate tissue planes across a wide range of surgical procedures such as^{1,3}:

Plastic surgery:

reconstructive procedures, tendon repair, and nerve repair

General surgery:

hernia repair and abdominal colorectal procedures

Orthopedic/neurologic surgery:

tendon repair, spinal surgery, and cranial procedures

Vascular surgery:

anastomosis sites and arteriovenous graft/fistula

Urologic/ob-gyn surgery:

radical prostatectomy, hysterectomy, and myomectomy

PLACENTAL ALLOGRAFT SURGICAL BARRIER



NuShield[®] maintains distinct tissue planes and allows them to heal separately.^{1,3}



In an *in vitro* barrier model, NuShield acted as a cell barrier, demonstrating cellular attachment without significant infiltration through the product.³



In a preclinical study in Lewis rats, NuShield-treated surgical repair sites showed no signs of systemic inflammation, a marked decrease over time in local inflammatory response, and product was highly intact 84 days after implantation.⁴

NOT ALL PLACENTAL ALLOGRAFTS ARE CREATED EQUAL

NuShield[®] retains key tissue components and protects the surgical repair site.^{1,5,6}

When managing the surgical repair site, consider that some placental allograft manufacturers remove parts of the membrane. Processes like cryopreservation or lyophilization can result in decreased levels of certain growth factors and proteins as well as decreased physical thickness, which may affect the barrier efficacy of the graft.⁷⁻¹⁰

NuShield is dehydrated through a unique preservation method to retain all native layers, supporting an optimal environment for healing.^{1,5,6}

COMPLETE LAYERS SET NUSHIELD APART

The novel LayerLoc[™] preservation method allows NuShield to retain all native layers of the placental membrane, including the spongy layer.^{1,5,6}



More growth factors, cytokines, hyaluronic acid, and thickness¹¹

In a scientific study, compared to another commercially available dehydrated human amnion/chorion membrane (dHACM), NuShield had: 42%

higher concentrations of growth factors and cytokines¹¹

6X more hyaluronic acid on average¹¹

VERSATILE

NuShield $^{\circ}$ is a barrier that offers protection surgeons and patients can rely on. 1,3,4



Can be used for a variety of wounds and procedures¹

- Direct application
- Wrapping or suturing around tendons
- Onlay graft to protect tendons and nerves



Post-tibial tendon wrap using NuShield Images courtesy of Dr. Alan Ng

LOW MAINTENANCE

Shelf-stable, dehydrated placental allograft¹

- Multiple sizes available
- Convenient to use
- 5-year shelf-life stored at ambient temperature

Product Code	Product Description/Size	1.6cm
NO-1160c	NuShield 1.6cm Disc	2cm x 3cm 2cm x 4cm
NO-1230	NuShield 2cm × 3cm	3cm x 4cm
NO-1240	NuShield 2cm × 4cm	Acm v Acm
NO-1340	NuShield 3cm × 4cm	
NO-1440	NuShield 4cm × 4cm	4cm x 6cm
NO-1460	NuShield 4cm × 6cm	
NO-1660	NuShield 6cm × 6cm	6cm x 6cm



ORGANOGENESIS Nushield® Sterilized, Dehydrated Placental Allograft

For additional product or ordering information, talk with an Organogenesis Tissue Regeneration Specialist.

References: 1. Allograft Tissue Information and NuShield[®] Instructions for Use. Canton, MA: Organogenesis Inc; 2020.
2. Capella-Monsonís H, et al. *BMC Biomedical Engineering*. 2019;1(1):1-12. 3. Data on file. NS_DR-005. Organogenesis Inc.
4. Data on file. NS_DR-006. Organogenesis Inc. 5. McQuilling JP, et al. *Int Wound J*. 2019;16(3):827-840. 6. Data on file. Description of BioLoc Process. Organogenesis Inc. 7. Abshier S. *Podiatry Today*. 2015;28(11):20-26. 8. Rodríguez-Ares MT, et al. *Acta Ophthalmologica*. 2009;87(4):396-403. 9. Tan EK, et al. *J Biomater Tissue Eng*. 2014;4(5):379-388. 10. Brantley JN, et al. *Adv Wound Care*. 2015;4(9):545-559. 11. Data on file. DR-0004. Organogenesis Inc.