

Arthrex Amnion™ Matrix

Natural Mechanical Protection



Introducing Arthrex Amnion™ Matrix

Arthrex Amnion grafts maintain the natural mechanical properties of amnion and are rich in key growth factors and cytokines. Arthrex Amnion grafts provide an anatomic barrier that aids in providing mechanical protection and support to soft tissue.

Arthrex Amnion™ Matrix

Arthrex Amnion Matrix Features and Benefits

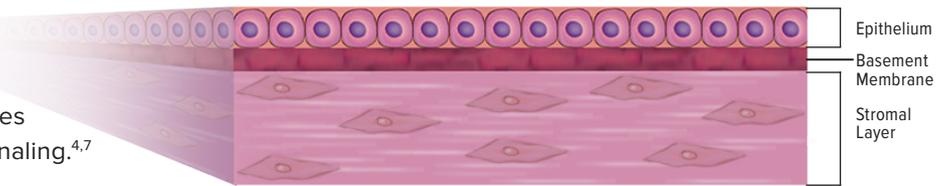
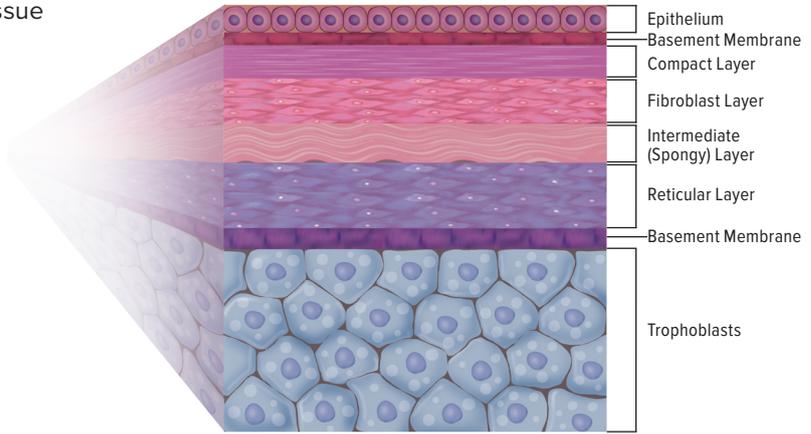
Amniotic-derived tissues contain endogenous growth factors and cytokines¹⁻⁴ that maintain the natural properties of amnion. Arthrex Amnion matrix is an anatomical barrier that helps provide mechanical protection⁵ while supporting tissue with nutrient-rich growth factors.⁶⁻⁸

About Amnion:

- Amniotic membrane is a thin, semi-transparent and resilient membrane that lines the inner cavity of the placenta.
- With over 100 years of clinical history,³ the functional capability of amniotic membrane is well documented.
- Just as amniotic tissue protects and cushions the fetus during development, Arthrex Amnion matrix helps provide the same support to damaged tissue.⁴
- Arthrex Amnion matrix harnesses growth factors essential for signaling.^{4,7}

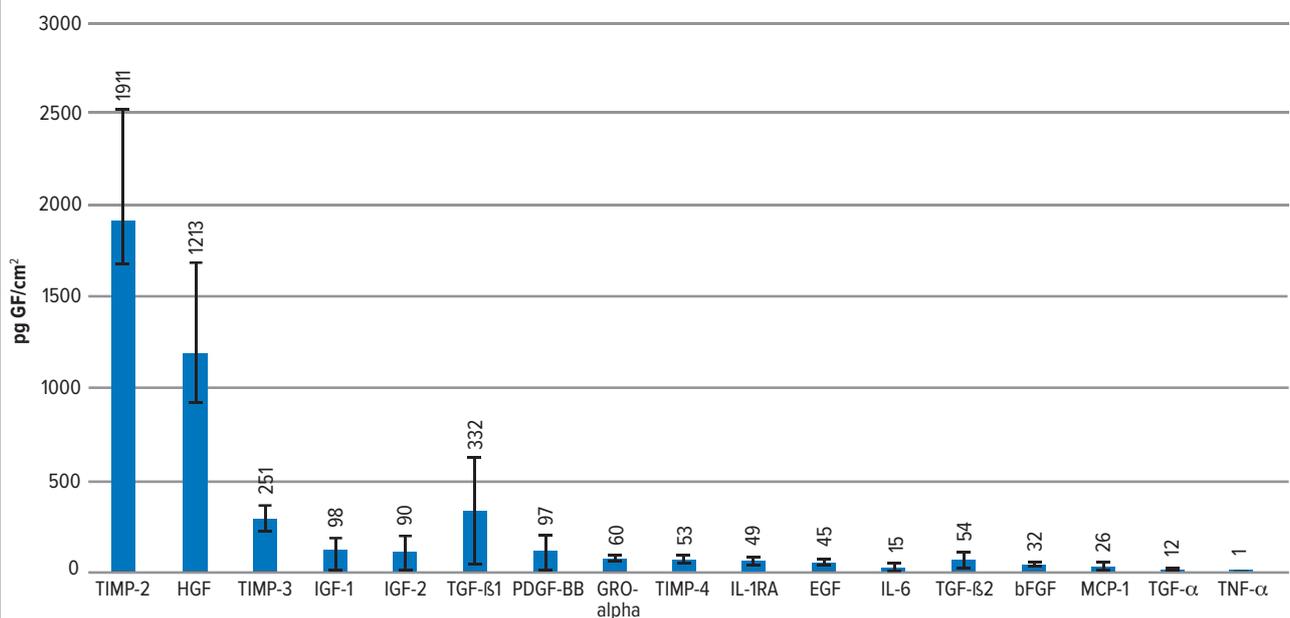


Amnion Membrane



The natural properties of Arthrex Amnion matrix are preserved during processing, maintaining inherent levels of key extracellular matrix proteins, growth factors, and cytokines.^{6,9}

Growth Factors Released From Arthrex Amnion Matrix After 24 Hours at 37°C



Arthrex Amnion™ Matrix

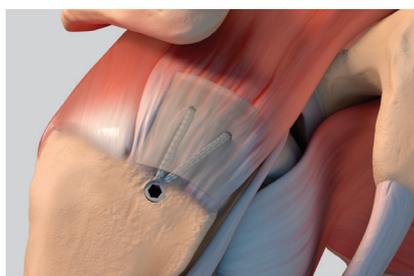
Surgical applications

In general orthopedics, arthroplasty, hand and wrist, and foot and ankle procedures, Arthrex Amnion matrix has been used as a protective barrier to provide essential mechanical protection.^{5,10}

- Shoulder
- Hand and Wrist
- Knee
- Tendons
- Achilles
- Nerves
- Wounds



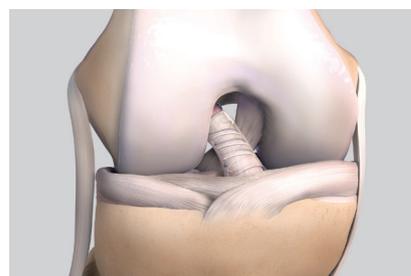
Nerve Wrap Arthrex amnion matrix can be used as an anatomical wrap to act as a natural structural barrier.⁵



Rotator Cuff Repair



Achilles Repair



Anterior Cruciate Ligament (ACL) Repair

Growth Factors Present in Amniotic Tissue and Corresponding Function¹¹

Growth Factor and Cytokines	Abbreviation	Property/Function
Hepatocyte Growth Factor	HGF	Myogenesis, Wound Healing, Organ Regeneration
Epidermal Growth Factor	EGF	Cell Growth, Proliferation, Differentiation
Tumor Necrosis Factor- α	TNF- α	Apoptosis, Angiogenesis
Chemokine	GRO- α	Angiogenesis, Wound Healing
Monocyte Chemoattractant Protein-1	MCP-1	Immune Modulation
Tissue Inhibitor of Metalloproteinases (1,2,3,4)	TIMP (1,2,3,4)	Growth Promotion
Insulin-Like Growth Factor (1,2)	IGF (1,2)	Cell Activation, Platelet Degranulation
IL1-Receptor Antagonist	IL1-RA	Anti-inflammatory
Transforming Growth Factor (α , β 1, β 2)	TGF (α , β 1, β 2)	Proliferation, Differentiation, Immune Modulation

Arthrex Amnion™ Matrix

Arthrex Amnion matrix is available in two convenient forms

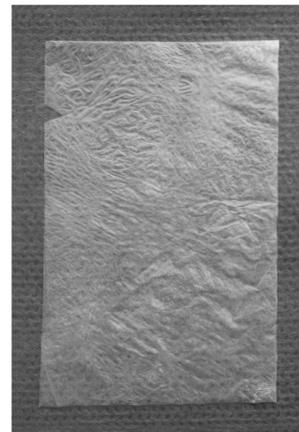
- Arthrex Amnion thin matrix is derived from the amnion membrane layer of the placenta. This semitransparent tissue can be applied directly to the surgical site for use in a number of different soft-tissue applications.
- Arthrex Amnion cord matrix is a thicker membrane derived from the umbilical cord. This resilient graft is thick enough to hold a stitch when hydrated.

These immune-privileged tissues are prepared with a processing methodology that is able to preserve the natural architecture of the amniotic membrane and its functional capability.⁶

Arthrex Amnion matrix is available in a variety of thin and thick membranes ideal for orthopedic applications. It is indicated for homologous use as a soft-tissue covering, barrier or wound covering.⁷

Arthrex Amnion Matrix Ordering Information

Product Description	Item Number
Arthrex Amnion Matrix - Thin (a)	
2 cm × 2 cm	ABS-4100-022
2 cm × 3 cm	ABS-4100-023
3 cm × 3 cm	ABS-4100-033
4 cm × 4 cm	ABS-4100-044
4 cm × 6 cm	ABS-4100-046
4 cm × 8 cm	ABS-4100-048
7 cm × 7 cm	ABS-4100-077
2 cm × 12 cm	ABS-4100-212
Arthrex Amnion Matrix - Cord (b)	
2 cm × 2 cm	ABS-4200-022
2 cm × 3 cm	ABS-4200-023
3 cm × 3 cm	ABS-4200-033
3 cm × 4 cm	ABS-4200-034
3 cm × 6 cm	ABS-4200-036
3 cm × 8 cm	ABS-4200-038



(a)



(b)

AmnionXpress™ Delivery Device

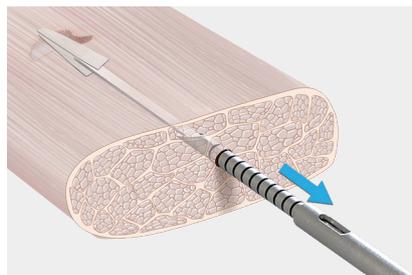
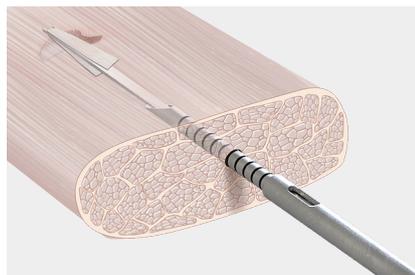
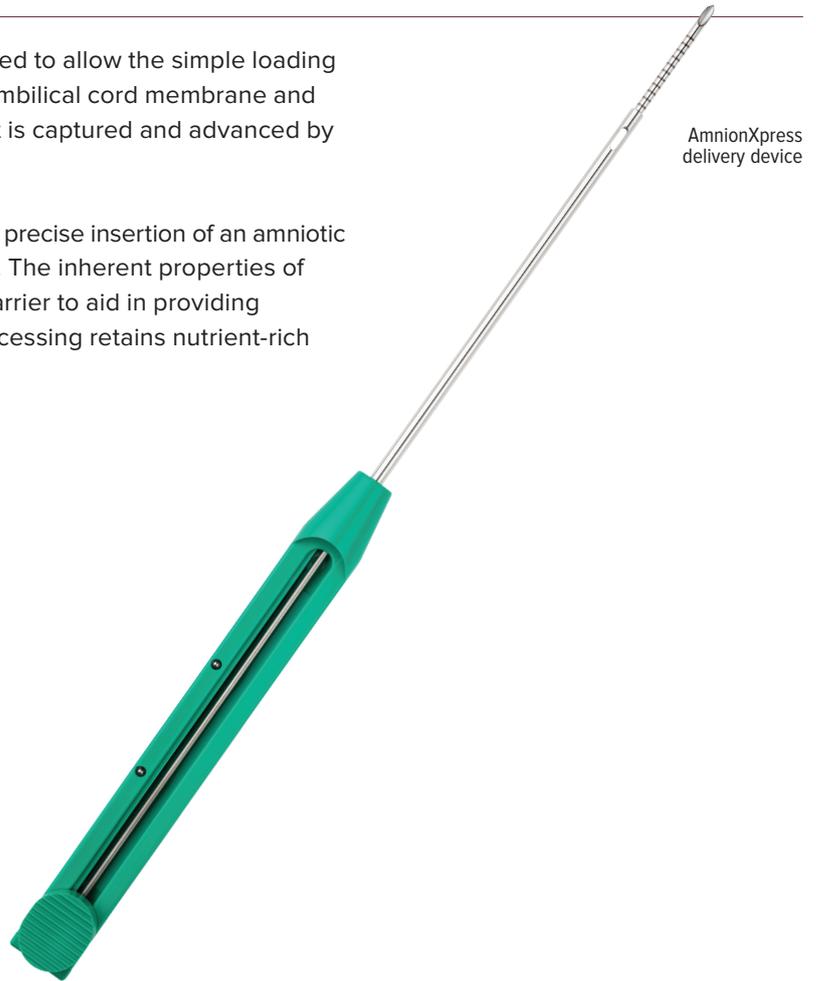
For the insertion of an Arthrex Amnion 5 mm × 40 mm streamer to damaged pathologic tissue in the shoulder

The AmnionXpress delivery device is designed to allow the simple loading of Arthrex Amnion matrix strips made from umbilical cord membrane and measuring 40 mm × 5 mm through a slot that is captured and advanced by a forked-tip nitinol delivery needle.

The AmnionXpress delivery device is used for precise insertion of an amniotic matrix strip directly to the pathologic tissues. The inherent properties of amniotic tissues help provide an anatomic barrier to aid in providing mechanical protection, while proprietary processing retains nutrient-rich growth factors essential for signaling.^{1,12}



AmnionXpress device prior to loading, and then with the forked-tip Nitinol needle fully deployed.



Arthrex AmnionXpress Ordering Information

Product Description	Item Number
AmnionXpress Delivery Device	ABS-4400
Amnion Matrix, Cord Membrane, 5 mm × 40 mm	ABS-4200-054

References

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This description of technique is provided as an educational tool and clinical aid to assist properly licensed medical professionals in the usage of specific Arthrex products. As part of this professional usage, the medical professional must use their professional judgment in making any final determinations in product usage and technique. In doing so, the medical professional should rely on their own training and experience, and should conduct a thorough review of pertinent medical literature and the product's directions for use. Postoperative management is patient-specific and dependent on the treating professional's assessment. Individual results will vary and not all patients will experience the same postoperative activity level and/or outcomes.

View U.S. patent information at www.arthrex.com/corporate/virtual-patent-marking

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