

Arthrex Amnion™ Matrix and Arthrex Amnion Viscous

What is it?

- Arthrex Amnion grafts are rich in growth factors and contain regenerative qualities that maintain the natural healing properties of amnion.

Key Points:

- Protection: Acts as an adhesion barrier to help protect tendons and nerves.
- Regeneration: Rich in growth factors that maintain the natural healing properties of Amnion.
- Easy to use: Available in membrane with 5-year shelf life and flowable version for injection.
- Safe: Recovered aseptically and DMSO-free.

Part Numbers:

Cord		Thin	
2 cm × 2 cm	ABS-4200-022	2 cm × 2 cm	ABS-4100-022
2 cm × 3 cm	ABS-4200-023	2 cm × 3 cm	ABS-4100-023
2 cm × 4 cm	ABS-4200-034	4 cm × 4 cm	ABS-4100-044
2 cm × 6 cm	ABS-4200-036	4 cm × 6 cm	ABS-4100-046
2 cm × 8 cm	ABS-4200-038	7 cm × 7 cm	ABS-4100-077

Arthrex Amnion Viscous

0.5 cc	ABS-4300-050
1.0 cc	ABS-4300-100
2.0 cc	ABS-4300-200

AlloSync™ Demineralized Bone Matrix

What is it?

- AlloSync DBM is demineralized cortical bone combined with a reverse-phase medium (RPM) copolymer carrier.
- Provides a natural collagen scaffold (osteoconduction) for bone remodeling.
- Provides signaling molecules such as bone morphogenetic proteins (BMPs) that aid in cell differentiation and recruit osteoblasts (osteinduction).
- AlloSync CB paste provides additional scaffolding properties and structure with the addition of cancellous bone chips.

Key Points:

- RPM carrier allows for use in a fluid environment.
- Flowable at ambient temperature; thickens to become more viscous at body temperature.
- Moldable: May be packed into any defect size or shape.
- Provided terminally sterilized.
- Efficacious: Every lot is tested for osteoinductivity.
- Convenient: Stored at ambient temperature for an extended period of time.
- One of the higher % of DBM-by-weight products on the market.
- May be combined with AlloSync demineralized sponges and cortical fibers, and hydrated with PRP or BMC.

Part Numbers:

Putty, 1 cc, 2.5 cc, 5 cc, 10 cc	ABS-2012-01-02-05-10
Gel, 1 cc, 5 cc, 10 cc	ABS-2013-01-05-10
CB Putty, 5 cc, 10 cc	ABS-2014-05-10
CB Paste, 1 cc, 3 cc, 8 cc	ABS-2015-01-03-08
BioXpress™ Graft Delivery Device - Vented	
Blunt Tip Cannula, 10 cm	ABS-10053-10
Angled Tip Cannula, 10 cm	ABS-10053-10-45
Blunt Tip Cannula, 15 cm	ABS-10053-15
Angled Tip Cannula, 15 cm	ABS-10053-15-45

BioUni® OATS® System

What is it?

- The BioUni instrument set is the new standard for restoration of the articular surface when presented with elongated cartilage defects in the medial femoral condyle.

Key Points:

- Helps preserve healthy cartilage by focusing on the length of defects instead of width.
- Reduces the potential for errors.
- BioUni instruments help save time.
- Allows reproducible restoration of the cartilage surface.

Part Numbers:

BioUni OATS Instrument Set	RAR-4080S
Allograft OATS System (RAR-4075S) ships automatically with BioUni OATS	
BioUni OATS Disposable Kit	ABS-4080D

Construct Grafts

What is it?

- Presutured, presized sterile allograft tendons for soft-tissue reconstruction procedures.

Part Numbers:

Presutured Allograft GraftLink® Construct	FGL
Presutured Allograft GraftLink Triple Strand Construct	FGLTS
FlexiGRAFT® Connect Tendon	FCON
FlexiGRAFT Connect EXT Tendon	FCONEXT

Order through JRF Ortho:

VersaGraft® Construct	VRG-001
GraftLink XL Construct (PCL)	GRX-001
SpeedGraft® Construct	SPD-001

JumpStart® Antimicrobial Wound Dressing

What is it?

JumpStart antimicrobial wound dressing is intended to manage wounds by providing a moist wound environment. It is indicated for partial- and full-thickness wounds such as pressure ulcers, venous ulcers, diabetic ulcers, first- and second-degree burns, surgical incisions, donor and recipient graft sites, etc.

- Elemental silver and zinc form microcell batteries that generate microcurrents in the presence of conductive fluids.
- JumpStart antimicrobial wound dressings are the most advanced antimicrobial dressings and have been shown to increase keratinocyte migration for wound and incisional care.³

Key Points:

- Flexible: Easily contours to the site.
- Provided sterile.
- Cost-effective: Proven efficacy and extended wear time.
- Improved healing, decreases infection.
- Comes in various sizes and dimensions; options are available with and without adhesive.

Energel®^d wound hydrogel is a sterile, water-soluble gel formulated to maintain a moist wound environment and provide moisture to a dry wound. Energel hydrogel is intended to cover a wound to protect against abrasion, friction, desiccation, and contamination.



AGL-L075-10

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Orthobiologics Product Overview

Arthrex ACP® System how it works:

- Arthrex ACP (autologous conditioned plasma).
- Platelets (PLTs) contain growth factors, which help to promote and modulate healing.
- ACP can be mixed with autograft and allograft bone prior to application at an orthopedic surgical site.
- White blood cells (WBCs), specifically neutrophils, are NOT concentrated with the Arthrex ACP system. Neutrophils can cause detrimental effects on the healing process.

Key Points:

- Effective: 2–3x PLT concentrations
- Reductive: 2000:1 PLT to WBC ratio
- Low Volume: 15 cc whole blood
- Quick: 5-minute centrifugation time
- Results: ~6 cc PRP
- Convenient, closed system
- Economical
- May be used with or without anticoagulant

Part Numbers:

ACP/Double Syringe	ABS-10010S
Series I ACP Kit	ABS-10011
Series II ACP Kit	ABS-10012

Arthrex Angel® System how it works:

- The Angel system uses a proprietary platelet-sensor technology and 1-button automation to prepare customized, concentrated PRP formulations from whole blood and/or bone marrow aspirate (BMA).
- Only the Angel system can provide PRP concentrate from BMA with adjustable cellular levels.

Key Points:

- Effective: Up to 18x PLT and up to 33x progenitor cell concentrations.
- Adjustable: PLT and WBC concentrations can be adjusted. The Angel system duplicates any competitor product.
- 40 cc to 180 cc blood or BMA.
- Automated and closed system.
- Programmable: 30 custom processing protocols can be stored.

Clinical Benefits:

- Adjustability in the Angel system allows surgeons to customize the end product for the specific indication. No other system on the market provides user-defined output.

Part Numbers:

Arthrex Angel System	ABS-10060
Angel Processing Kit	ABS-10063
Angel PRP Kit	ABS-10061T
Arthrex Angel cPRP and BMA Kit	ABS-10062 (Canada)
Arthrex Angel cPRP and BMA Tray	ABS-10062T
Arthrex Angel cPRP and Powered BMA Kit	ABS-10062D
BMA Kit w/ Needle	AR-1101DS
Arrow® ^a OnControl® ^a Power Driver w/ Cradle	9401
Sterile Procedure Sleeve	9403-VC-006

Thrombinator™ System for use with the Angel cPRP System how it works:

- Thrombinator system is used with the Angel system to produce an autologous activation serum.
- The serum can be used to improve the handling of bone grafts.

Key Points:

- Rapid preparation, less than 20 minutes.
- Prepare from whole blood or platelet-poor plasma.

Clinical Benefits:

- Adjustability in the Angel system allows surgeons to customize the end product for the specific indication. No other system on the market provides user-defined output.

Part Number:

Thrombinator System for Use With the Angel cPRP System ABS-10080

^aArrow and OnControl are registered trademarks of Teleflex, Inc.



AlloSync™ Pure Osteoinductive Bone Matrix



What is it?

- AlloSync Pure osteoinductive demineralized bone matrix is derived from 100% human allograft bone with no extrinsic carriers.

Key Points:

- Derived from 100% human allograft bone without any extrinsic carriers.
- Poststerilization, every lot is tested in vivo to ensure osteoinductivity.
- Resists irrigation when prepared with bioactive fluids.
- Histologically proven to contain all 5 elements of bone formation at 28 days postimplantation.¹

Part Numbers:

1.0 cc, 2.5 cc, 5.0 cc, 10 cc ABS-2010-01, -02, -05, -10

ArthroCell™ Cellular Bone Graft



What is it?

- ArthroCell bone graft is a viable cellular bone matrix.
- Contains donor mesenchymal stem cells, including marrow-isolated adult multilineage-inducible (MIAMI) cells supporting osteogenic healing processes.
- Includes a proprietary blend of microparticulate cortical, cancellous, and demineralized cortical allograft bone scaffold in optimal sizes ranging from 100 µm to 300 µm.

Key Points:

- Intended for use as a safe, cellular bone scaffold for bone remodeling.
- Osteogenic, osteoconductive, and osteoinductive potential.
- Convenient: Stored in a cryo-freezer (-65°C to -80°C) for 2 years.
- Novel cryoprotectant is noncytotoxic and maximizes cell viability.

Part Numbers:

ArthroCell Bone Graft, 2.5 cc ABS-2009-02
ArthroCell Bone Graft, 5.0 cc ABS-2009-05

Quickset™^b Calcium Phosphate Cement

What is it?

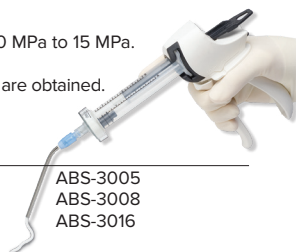
- Quickset cement is a macroporous, synthetic calcium phosphate cement.
- The powder includes: α-tricalcium phosphate which aids in crystallization, β-tricalcium phosphate analogs to support strength and absorption profile, and polysaccharide polymer (sugar) imparts cohesiveness during injection and provides immediate porosity in vivo.
- Serves as an osteoconductive scaffold for bone remodeling.
- Intended for bony voids or defects that are not intrinsic to the stability of the bony structure.

Key Points:

- Simple, dual-chamber, closed mixing system.
- Fast: 2-minute mixing time.
- Injectable: Excellent cohesiveness.
- Strong: 24 MPa, cancellous bone is 10 MPa to 15 MPa.
- Radio-opaque: Visible on X-ray.
- Within 24 hours, strength and porosity are obtained.
- Nonexothermic, no shrinking.
- 4-year shelf life.

Part Numbers:

5 cc Kit ABS-3005
8 cc Kit ABS-3008
16 cc Kit (2 x 8 cc) ABS-3016



AlloSync™ Demineralized Cancellous Sponge and Cortical Fibers

What is it?

- AlloSync demineralized sponges and fibers are 100% demineralized bone (DBM) provided in cubes, strips, chips, and fibers.
- Natural bone scaffold and porosity maintained.
- Osteoinductive growth factors remain viable within product. More growth factors within cortical bone than cancellous bone.
- Cubes, strips, sponges: Cancellous bone.
- Fibers: Cortical bone.



Key Points:

- Absorbent: Easily hydrates with PRP or BMC.
- Once hydrated, the product is compressible and flexible, and it packs into defects well.
- Provided terminally sterilized.
- Convenient: Can be stored on the shelf for an extended period of time.

Part Numbers:

Cube, 8 mm³, 10 mm³, 12 mm³ ABS-2005-01, -02, -03
Strip, 10 mm × 10 mm × 3 mm, 15 mm × 40 mm × 3 mm, 26 mm × 19 mm × 7 mm, 10 mm × 20 mm × 7 mm ABS-2006-01, -02, -03, -04
Chips, 1.0 cc, 2.5 cc, 5 cc ABS-2007-01, -02, -03
Fibers, 1.0 cc, 2.5 cc, 5 cc, 10 cc ABS-2008-01, -02, -03, -04

BoneSync™ Fast-Setting, Drillable Calcium Phosphate Cement

What is it?

- BoneSync bone void filler is a fast-setting, drillable, resorbable cement composed of calcium phosphate and collagen.
- This synthetic bone graft sets within approximately 8 minutes and is a drillable solution for fracture repair.
- Once cured, BoneSync calcium phosphate cement can supplement hardware to support bone fixation and fill bony voids during surgical procedures.



Key Points:

- Provided in a self-contained mixing and delivery system to decrease preparation time and improve delivery.
- Fast setting to allow immediate supplemental fixation or strength to surgical repair site.
- Drillable following curing to assist fracture repair and fixation.
- Expands to improve contact forces with surrounding bone and/or plates and screw fixation.

Part Numbers:

3 cc, 5 cc, 10 cc (2 × 5 cc kit) ABS-3103, ABS-3105, ABS-3105-2

ArthroFLEX®^c Dermal Allograft

What is it?

- ArthroFLEX graft is an acellular dermal matrix (ADM) allograft intended for supplemental support and covering for soft tissue repair.
- BioWasher[®] human dermal allograft is a new form of ArthroFLEX created for arthroscopic application to reinforce the tendon/suture interface (AFLEX822).



Key Points:

- Decellularized allograft dermis: ≥97% DNA removed.
- Intact 3D scaffold consisting of collagen, elastin, and growth factors.
- Provided terminally sterilized.
- Ready for use: Provided hydrated.
- Convenient: Stored on the shelf at ambient temperature with a 3-year shelf life.

^c ArthroFLEX, FlexiGraft, and BioWasher are registered trademarks of LifeNet Health.

^d Energel is a registered trademark of Vomar's Wound Care, Inc.

Continued

ArthroFLEX® Part Numbers:

35 mm × 35 mm × 1.5 mm	AFLEX100
40 mm × 70 mm × 1.5 mm	AFLEX101
50 mm × 90 mm × 1.5 mm	AFLEX103
15 mm × 140 mm × 1.5 mm	AFLEX150
35 mm × 35mm × 2.0 mm	AFLEX200
40 mm × 70 mm × 2.0 mm	AFLEX201
40 mm × 70 mm × 3.0 mm	AFLEX301
40 mm × 40 mm × 1.0 mm	AFLEX400
40 mm × 70 mm × 1.0 mm	AFLEX401
30 mm × 40 mm × 0.5 mm	AFLEX500
10 mm × 14 mm × 2 mm	AFLEX822

OATS® Backfill Plugs

What is it?

- OATS backfill plugs are provided to fill the OATS donor site and promote natural bone healing for a complete biologic repair.
- AlloPlugs are multiphasic plugs composed of a dense cancellous layer, a cortical layer, and a cartilage layer.
- FlexiGRAFT[®] cancellous plugs are comprised of 100% human cancellous bone. These plugs are stored in a fully hydrated state at ambient temperature.



Key Points:

- Provided terminally sterilized.
- The backfill plug should be sized 1 mm larger than the OATS core harvested. Example: For a 8 mm OATS harvester, a 9 mm backfill plug is used to provide a line-to-line fit in the donor site.
- Each backfill plug is 16 mm in length.

Part Numbers:

Single Use OATS, 6 mm, 8 mm, 10 mm AR-1981-06S, -08S, -10S
Small Joint OATS, 6 mm, 8 mm, 10 mm AR-8981-06S, -08S, -10S
AlloPlug, 7 mm, 8 mm, 9 mm, 10 mm, 11mm FCPDX, "X"= Size
FlexiGRAFT Cancellous Plug, 6 mm, 7 mm, 8 mm, 9 mm, 10 mm, 11 mm PCPDX, "X"= Size
Allograft Plug Delivery Sleeve, 7 mm, 9 mm, 11 mm AR-1981BI-07, -09, -11

BioCartilage® Extracellular Matrix

What is it?

- BioCartilage matrix is an aseptically processed, dehydrated, particulated (100 µm to 300 µm) allograft articular cartilage scaffold.
- Contains the extracellular matrix that is native to articular cartilage including type II collagen, proteoglycans, and other growth factors.
- Serves as a scaffold to augment bone marrow stimulation procedures.

Key Points:

- Injectable: After being mixed in a 1 to 0.8 ratio with an autologous blood solution, the product can be easily injected into the defect site.
- Custom mixing and delivery system to reduce operating time and improve handling.
- Convenient: Stored at ambient temperature for up to 5 years.
- Provided off the shelf to eliminate need for secondary surgery.
- May be performed open or arthroscopically.



Part Numbers:

1.0 cc	ABS-1010-BC
0.75 cc	ABS-1007-BC
Mixing and Delivery Kit, large joint	ABS-1000-L
Mixing and Delivery Kit, small joint	ABS-1000-S
Tuohy Needle, long (hip applications)	ABS-1001-L

Cartiform®^d Viable Osteochondral Allograft

What is it?

- Cartiform allograft is a cryopreserved viable osteochondral allograft.
- Composed of extracellular matrix, viable chondrocytes, and chondrogenic proteins, Cartiform allograft offers the safety and success of fresh osteochondral allografts with ease of use.
- The pores in the tissue graft are provided to improve flexibility, enhance cryopreservation of native chondrocytes, and facilitate mesenchymal stem cell migration into Cartiform allograft, following marrow stimulation.



Key Points:

- Flexible: Easily cut and conforms to all contours.
- Simple fixation: Fibrin glue with or without sutures and/or suture anchors.
- Convenient: Stored in a cryo-freezer (-80°C) for up to 2 years from date of recovery.
- Viable: In a study conducted by Osiris Therapeutics, Inc., >72% cell viability was maintained following >2 years storage at -80°C (n=3).²

Part Numbers:

10 mm Disc	ABS-1101-10
12 mm × 19 mm	ABS-1102-19
20 mm Disc	ABS-1101-20
20 mm × 25 mm	ABS-1102-25

Fresh Cartilage

What is it?

- Fresh hyaline cartilage that is minimally processed and refrigerated in a nutrient media for up to 45 days (28 days for JRF Ortho) to maintain chondrocyte viability.

Key Points:

- Indicated for osteochondral defects (OCDs), post-traumatic lesions, avascular necrosis (AVN), and lesions greater than 2.0 cm² in diameter.
- Fresh osteochondral allografts (OCAs) allow the surgeon to transplant mature, hyaline cartilage with viable chondrocytes and subchondral bone in a single procedure.
- Allograft OATS[®], BioUni[®] OATS, and Allograft Talus OATS instrument sets are provided at no charge when using a fresh graft from JRF Ortho or LifeNet Health.

What's Available?

- Hemi-condyle
- Talus
- Patella bone w/ attachment
- Whole or hemi-tibial plateau w/ meniscus
- Distal femur
- Distal tibia
- Humeral head
- Femoral head
- Trochlea



Precut Fresh Osteochondral Allograft Cores

Precut OCA cores provide a viable and mature hyaline cartilage and a cortical/cancellous bony structure for biologic and structural repair of full-thickness osteochondral lesions.

Part Numbers:	Arthrex	JRF Ortho	LifeNet Health
Single-Use OATS Kit, 16 mm	ABS-1981-16S		
10 mm Precut Osteochondral Core, fresh	45647010	RFP10	
16 mm Precut Osteochondral Core, fresh	45647016	RFP16	

Order fresh or precut cartilage through JRF Ortho or LifeNet Health.

^dCartiform is a registered trademark of Osiris Therapeutics, Inc.

References

- CellRight Technologies, LLC. Data on file (ConCelltrate[®] 100 histology and in-vitro alkaline phosphate induction assay). Universal City, TX; 2017.
- Arthrex, Inc. LA1-00007-EN. Naples, FL; 2015.
- Banerjee J, Das Ghatak P, Roy S, et al. Improvement of human keratinocyte migration by a redox active bioelectric dressing. *PLoS One*. 2013; Mar 3;9(3):e89239. doi:10.1371/journal.pone.0089239. eCollection 2014.

^bQuickset is a trademark of Graftys, S.A.