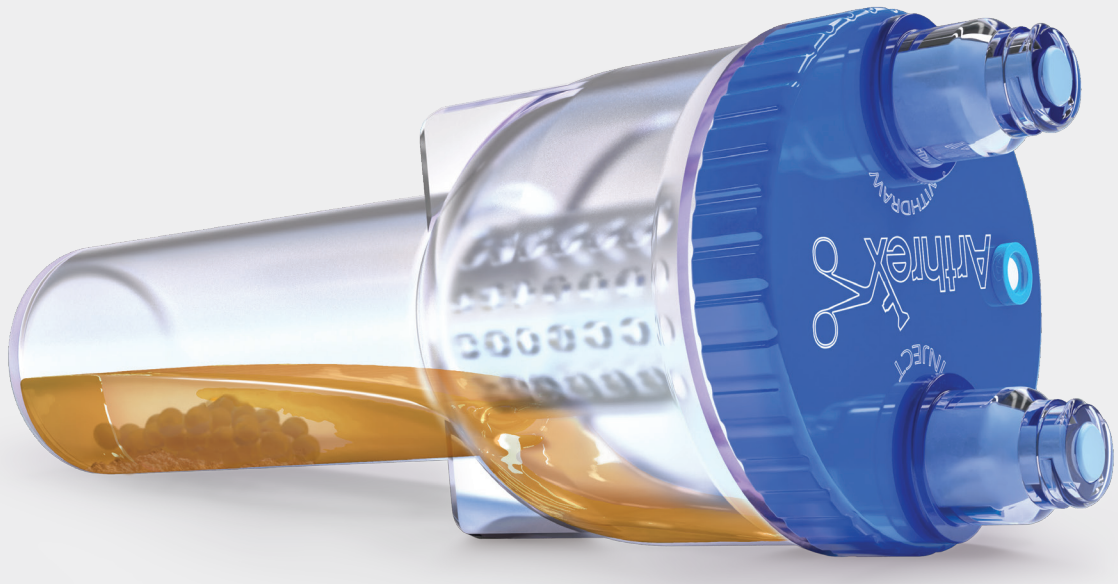
Thrombinator™ System

Brochure



Arthrex®
Vet Systems

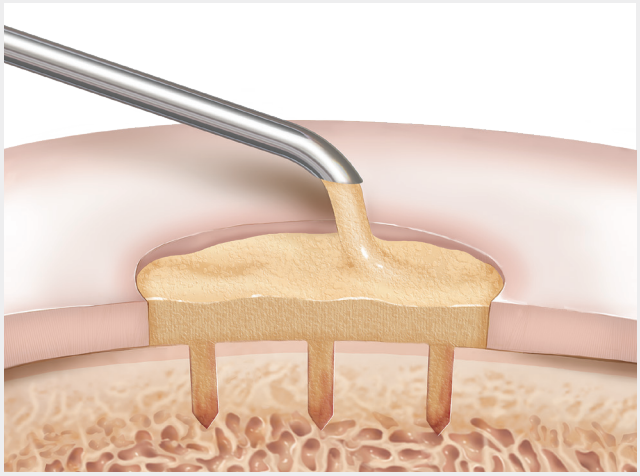
Thrombinator™ System

Introduction

The Thrombinator device for use with an Arthrex platelet-rich plasma (PRP) system is designed to harness the clotting cascade in autologous blood products without allogeneic thrombin or harsh chemicals. Serum produced by the Thrombinator device can be used as a fibrin clot to assist in the adherence of BioCartilage® allograft in an osteochondral defect, or to improve the handling of bone grafts hydrated with PRP. When autologous fluids begin the clotting cascade, platelets begin to produce a gel that serves as a binding agent for allograft or autograft material. The system's design also eliminates the need for lengthy incubation times and heating requirements. Fibrin-rich solution created with the Thrombinator device can be produced in less than 20 minutes from whole blood or platelet-poor plasma at the point of care.

Features and Benefits

- Rapid preparation, less than 20 minutes
- Prepare from whole blood (WB) or platelet-poor plasma (PPP)
- Produces clot in as little as 15 seconds
- Centrifugation not required
- Heating step and allogeneic products not required

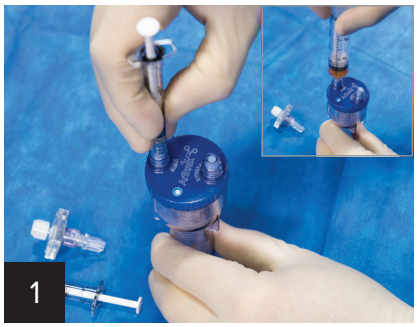


The Thrombinator serum produced from the patient's own plasma can be used with allograft or autograft bone and cartilage tissue to help seal it in place and potentially improve healing. Using the fibrin clot from the Thrombinator device has been tested with Arthrex BioCartilage products and preformed mechanically equivalent to allogeneic fibrin sealants in an ex vivo model.[1]

Reference

1. Irwin RM, Bonassar LJ, Cohen I, Matuska AM, Commins J, Cole B, Fortier LA. The clot thickens: autologous and allogeneic fibrin sealants are mechanically equivalent in an ex vivo model of cartilage repair. *PLoS One*. 2019;14(11):e0224756. doi: 10.1371/journal.pone.0224756

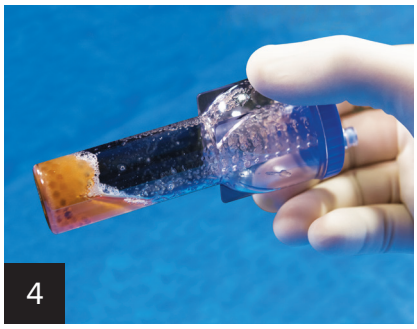
Directions for Use



Add 0.1 mL of $CaCl_2$ + 4 mL WB or PPP to the Thrombinator™ device via the port labeled “Inject.”

Mix for 5 seconds.

Place flat and wait a minimum of 10 to 15 minutes with the withdraw port facing up.



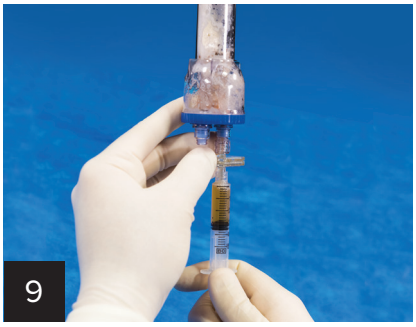
Shake device to break up clot.

Add 0.2 mL of $CaCl_2$ + 8 mL WB or PPP via the port labeled “Inject.”

Place filter on the “Withdraw” port and shake for 5 seconds.

Place flat and wait 1 minute.

Shake device to break clot.



Invert and withdraw from port on filter.

Place flat and wait 1 minute, then use within 3 to 5 minutes to prevent clotting.

Ordering Information

Product Description	Item Number
Thrombinator™ System for Use With an Arthrex PRP System	ABS-**10080**

Accessories

Product Description	Item Number
Arthrex ACP Double-Syringe System, w/ cap	VAR-**1200S**
ACP Max PRP System, w/o ACD-A	VABS-**10013**
ACP Max PRP System, w/ ACD-A	VABS-**10015**
Angel PRP Tray	ABS-**10061T**
Angel Bone Marrow Kit	ABS-**10062**
Fenestrated Delivery Needle	ABS-**20000**
Tuohy Delivery Needle	ABS-**10060**
Cannula Bending Tool	AR-**6650**
10 cc Applicator Assembly, 1:1 ratio	SA-**3310**
16 ga × 10 cm (4 in)	SA-**3600**
20 ga × 5 cm (2 in)	SA-**3615**
20 ga × 10 cm (4 in)	SA-**3618**
20 ga × 18 cm (7 in)	SA-**3619**
20 ga × 26 cm (10.25 in)	SA-**3620**
Dual Cannula Semiflexible Endoscopic, 32 cm	SA-**3650**
Dual Spray Tip	SA-**3660**
Endoscopic Applicator w/ Mixing Tip, 30 cm, 1:1 ratio	SA-**3662**
Blending Connector w/ Single Flexible Cannula	SA-**3673**
Blending Connector w/ Single Spray	SA-**3674**
Mixing Applicator Low Viscosity w/ Spray Tip	SA-**3675**
Blending Connector w/ Mixer	SA-**3678**

Arthrex® Vet Systems

This is not veterinary advice and Arthrex recommends that veterinarians be trained in the use of any particular product before using it in surgery. A veterinarian must always rely on their own professional clinical judgment when deciding whether to use a particular product. A veterinarian must always refer to the package insert, product label, and/or directions for use before using any Arthrex product. Products may not be available in all markets because product availability is subject to the regulatory or veterinary practices in individual markets. 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 or outcomes. Please contact your Arthrex representative if you have questions about availability of products in your area.

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