

# Arthrex IRAP™ ProEAS™ System

Surgical Technique

Technique Guide



  
**Arthrex®**  
**Vet Systems**



The following technique explains how to process autologous serum containing increased levels of anabolic and inhibitory cytokines for use at the point of care. Users of this device are encouraged to contact their Arthrex representatives if, in their professional judgement, they require a more comprehensive surgical technique.



After routine preparation of the jugular vein, put on sterile gloves. Hook up the butterfly needle from the kit to the 60 mL syringe. Use the butterfly needle to puncture the jugular vein and slowly draw 50 mL of blood into the syringe. Remove the butterfly needle from the jugular and detach from the syringe.



Remove the red tethered cap from the Arthrex IRAP™ ProEAS™ device and attach the syringe with the blood to the Luer lock. Slowly inject the blood while holding the device at a 60° angle.



Remove the syringe, recap, tighten both tethered Luer caps, and gently rock the blood in the Arthrex IRAP device, inverting at least 10 times.



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Within 2 hours of blood draw, place the Arthrex IRAP™ ProEAS™ device vertically into the incubator. Incubate at 37°C for approximately 24 hours.



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After incubation, let the device stand for 20 minutes then place the Arthrex IRAP ProEAS device into a centrifuge for 10 minutes at 4000 rpm. Make sure to balance the centrifuge with an appropriate counterweight.



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Use an alcohol swab to clean the rubber stopper in the center of the Arthrex IRAP ProEAS device. Slightly unscrew the white Luer cap, then insert the spinal needle into the Arthrex IRAP ProEAS device through the rubber stopper. Next, remove the stylet from the needle, attach the 30 mL syringe from the kit to the needle, and slowly draw the serum into the syringe. Be careful not to pull up any red blood cells.



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Attach a sterile female-to-female Luer connector to the 30 mL syringe containing serum, then attach a 0.22 µm filter before attaching an empty sterile 6 mL syringe. Transfer 4 mL of serum to the 6 mL syringe, and detach the 6 mL syringe and cap. Two serum filtrations are recommended. Repeat until all the serum has been transferred through the sterile filter into the 6 mL syringes. Individual doses may be used immediately or frozen at ≤18°C for administration at a later date.

Excess blood and/or serum should be disposed of and documented according to applicable regulations. When using at site of treatment, a sterile filter should be placed on the syringe containing the autologous serum prior to use.

## Average Serum Volume and Total Dosage of IL-1Ra

In the current IRAP II device, occasionally there is a “mega-clot” formation that prevents a large volume of serum from being extracted. The new Arthrex IRAP™ ProEAS™ device has remedied this issue and optimized the clot formation. This results in a consistently higher volume of serum extracted at 24 hours and allows for a greater total dose of IL-1Ra to be delivered to the patient.

## Ordering Information

Product Description	Item Number
<b>Arthrex IRAP ProEAS System</b>	<b>VAR-1025</b>
Butterfly Needle, qty. 1 Syringe, 60 mL, qty. 1 Syringe, 30 mL, qty. 1 Aspirating Needle, qty. 1 Female-to-Female Luer Lock, qty. 1 Filters, 33 mm (0.22 µm), qty. 6 Syringes, 6 mL, qty. 6 Luer Lock Caps, qty. 7	

### Additional Products

Product Description	Item Number
Arthrex IRAP ProEAS Counterbalance	VAR-1026

Products may not be available in all markets because product availability is subject to the regulatory approvals and medical practices in individual markets. Please contact your Arthrex representative if you have questions about the availability of products in your area.



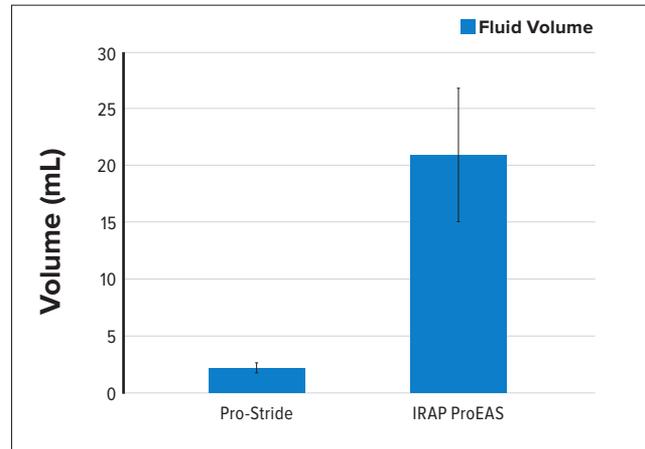
This is not veterinary advice and Arthrex recommends that veterinarians be trained in the use of any particular product before using it in surgery. A veterinarian must always rely on their own professional clinical judgment when deciding whether to use a particular product. A veterinarian must always 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.

View U.S. patent information at [www.arthrex.com/corporate/virtual-patent-marking](http://www.arthrex.com/corporate/virtual-patent-marking)

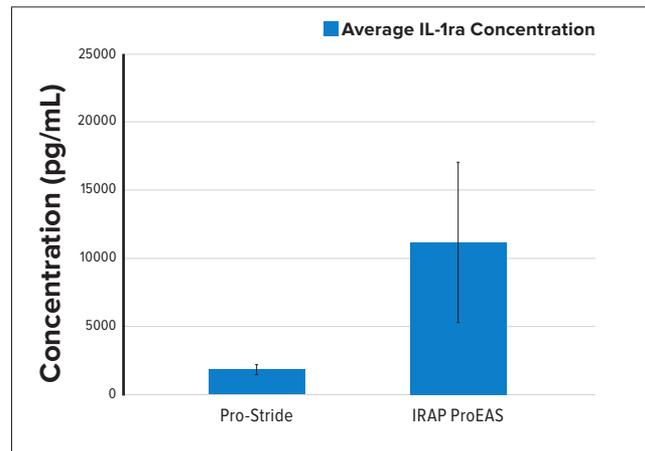
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Average Volume of Fluid Extracted From All Devices



Average IL-1ra Concentration in Fluid Extracted From All Devices



Total Dose of IL-1ra in Fluid Extracted From All Devices

