



Smith PA

The Arthrex ACP® double-syringe system is used to facilitate the safe and rapid preparation of autologous platelet-rich plasma (PRP) from a small sample of blood at the patient's point of care. The PRP can be mixed with autograft and allograft bone prior to application to an orthopedic surgical site as deemed necessary by the clinical use requirements. There has been increased interest in autologous blood products for use in a number of orthopedic therapies. The healing effects of PRP are caused by growth factors released from the platelets, which may induce a healing response.

New scientific articles highlighting the benefits of Autologous Conditioned Plasma (ACP):

2016

Intra-articular autologous conditioned plasma injections provide safe and efficacious treatment for knee osteoarthritis: an FDA-sanctioned, randomized, double-blind, placebo-controlled clinical trial.

Am J Sports Med. 2016;44(4):884-891. doi:10.1177/0363546515624678.

- ACP is safe and provides pain relief and functional improvement with regard to knee OA Level 1.
- After 1 year, WOMAC scores for the ACP subjects had improved by 78% from their baseline score, whereas scores for the placebo control group had improved by only 7%.

Efficacy of intra-articular platelet-rich plasma injections in knee osteoarthritis: a systematic review.

Arthroscopy. 2016;32(3):495-505. doi:10.1016/j.arthro.2015.08.005.

- Significantly better outcomes after PRP versus HA at 3 to 12 months post-injection.
- In patients with symptomatic knee OA, PRP injection results in significant clinical improvements up to 12 months post-injection.
- Review of 6 articles, 739 patients. Level of evidence: Level 1, systematic review of Level 1 studies.

2015

Treatment with platelet-rich plasma is more effective than placebo for knee osteoarthritis: a prospective, double-blind, randomized trial.

Am J Sports Med. 2013;41(2):356-364. doi:10.1177/0363546512471299.

- WBC-filtered, PRP-treated groups had significantly better results than saline group.
- Bi-lateral knee OA, 78 patients, 156 knees. Level of evidence: Level 1.

2013

Comparison of intra-articular injections of plasma rich in growth factors (PRGF-Endoret) versus Durolane hyaluronic acid in the treatment of patients with symptomatic osteoarthritis: a randomized controlled trial.

Arthroscopy. 2013;29(10):1635-1643. doi:10.1016/j.arthro.2013.07.264.

- PRGF-Endoret (PRP) safe and significantly superior to Durolane HA at 24, 48 weeks. Level 1 multicenter randomized controlled clinical trial.
- Reduced patients' pain and improved joint stiffness and physical function with respect to basal levels in patients with knee OA.
- Level of evidence: Level 1.

2012

Comparison between hyaluronic acid and platelet-rich plasma, intra-articular infiltration in the treatment of gonarthrosis.

Am J Sports Med. 2012;40(12):2822-2827. doi:10.1177/0363546512461902.

- Treatment with ACP showed significantly better clinical outcome than treatment with HA.
- Treatment did not seem effective in grade III arthritis, Level 1.
- Level of evidence: Level 1.

Meheux CJ
McCulloch PC
Lintner DM
Varnier KE
Harris JD

Patel S
Dhillon MS
Aggarwal S
Marwaha N
Jain A

Vaquerizo V
Plasencia MA
Arribas I, et al.

Cerza F
Carni S
Carcangiu A
Di Vavo I
Schiavilla V
Pecora A

Videos

BioCartilage® Cartilage Extracellular Matrix and Arthrex Double Syringe System® in the Talus

- Michael W. Bowman, MD, (Wexford, PA) arthroscopically treats a talar cartilage defect with BioCartilage extracellular matrix and the Arthrex ACP double-syringe system. BioCartilage extracellular matrix provides a reproducible, simple and inexpensive method to augment traditional marrow stimulation procedures.

BioCartilage® Cartilage Extracellular Matrix and Arthrex Double Syringe System in the 1st MTP Joint

- Michael W. Bowman, MD, (Wexford, PA) treats a 1st metatarsophalangeal (MTP) joint chondral defect with BioCartilage extracellular matrix and Arthrex ACP double-syringe system. BioCartilage extracellular matrix provides a reproducible, simple and inexpensive method to augment traditional marrow stimulation procedures.

Double Compression Plate System - Talonavicular Fusion with Orthobiologics

- In this video, Mark D. Campbell, MD, (Phoenix, AZ) demonstrates a talonavicular fusion. This is an in-depth surgical technique using the Arthrex® Double Compression Plate System and orthobiologics with live audio and detailed explanation of the products and procedure.

Subtalar Fusion with Biologics and the Arthrex® Low Profile 6.7 mm Cannulated Lag Screw

- Mark D. Campbell, MD, (Phoenix, AZ) demonstrates the subtalar arthrodesis procedure with Arthrex biologics and fixation with 6.7 mm Low Profile Cannulated Lag Screws. He utilizes StimuBlast® demineralized bone matrix to fill the small gaps in the joints and for larger defects, he uses FlexiGRAFT® demineralized sponges and cortical fibers with the Arthrex ACP double-syringe system to fill the bony defect.

White Papers

Plasma-based Autologous Blood Systems: Arthrex ACP®, MTF Cascade®, and Orthovita® CellPaker®/Vitagel™

- Shows the results from whole blood samples collected from 5 donors using the appropriate ratio of anticoagulant. Each sample was processed per the manufacturer's specifications.

In Vitro Comparison of Autologous Conditioned Plasma (ACP) to a Buffy Coat-Based Platelet-Rich Plasma (PRP) Product

- Tenocyte proliferation after 5 days indicated that ACP performed better than controls and whole blood.

Arthrex Research
and Development

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