Vivostat®

SEALING | HEALING | REGENERATION

ArthroZheal®

Autologous bioactive matrix

Transforming the overall arthroscopic surgery experience for patients and their surgeons while its bioactive and biocompatible properties successfully provides supportive effects for sealing, healing and regeneration of ligaments, tendons and cartilage.

ArthroZheal®

Autologous bioactive matrix

ArthroZheal® is designed to improve patient outcomes through fast recovery[1].

ArthroZheal® is a autologous, biocompatible and bioactive matrix improving regeneration of cartilage, ligaments, menisci, tendons.

ArthroZheal® is prepared and applied using the Vivostat® System

The Vivostat® System is the first and only system for on-site preparation and application of the fully autologous platelet rich bioactive matrix – Arthro**Zheal**®.

- **The Vivostat® Processor Unit** automatically prepares the bioactive matrix from 120 ml of the patient's own blood, in a well-defined and reproducible dose.
- Arthro**Zheal**® is easily applied using the **Vivostat® Applicator Unit** with the arthroscopic handle specifically designed with and for orthopaedic surgeons. Furthermore, the **Vivostat® Co-Delivery** system makes it possible to simultaneously co-apply BMAC, stem cells, chondrocytes or medications (i.e. antibiotics) alongside Arthro**Zheal**®.

Three steps to prepare and apply

Step 1: Draw the patient's blood

120 ml of the patient's blood is drawn into the Preperation Unit.

Step 2: Process the patient's blood

The preparation time is approx. 30 minutes and hereafter ArthroZheal® is ready for use.

Step 3: Load Applicator Unit

ArthroZheal® is applied to the surgical site using one of the unique arthroscopic application devices.

ArthroZheal® – the only product with immediate polymerization both in dry and in the water/saline environment

ArthroZheal® provides fast sealing and hemostasis[1,3]

Arthro**Zheal**® induces immediate polymerization and great adhesion – remaining where applied even on vertical and moist surfaces[2]- supporting positioning of grafts. Arthro**Zheal**® improves control of bleeding and reduces hemarthrosis[3].

Arthro**Zheal**® may offer control of potential contamination through its anti-inflammatory and antimicrobial platelet properties[4-6].

ArthroZheal® supports regeneration and healing of ligaments, tendons, menisci, cartilage and bone

Through a combination of fibrin matrix and a sustained release of high concentrations of growth factors Arthro**Zheal**® improves regeneration and healing of tissue (cartilage, ligaments, menisci, tendons and bone) and support osteo-ligamentization, osteo-integration and graft maturation[3].

ArthroZheal® is easy to apply - also during arthroscopy with saline inside the joint cavity

Arthro**Zheal**® is easy to apply – even in water environment and can be used during arthroscopy with saline inside the joint cavity. The arthroscopic handle is specifically designed with and for orthopaedic surgeons.

Sealant and hemostat – less hemarthrosis

Regenerative product – graft maturation, osteoinduction

Scaffold – membrane

Platform for antibiotic applications (Co-Delivery)

Platform for stem cells application (Co-Delivery)

ArthroZheal®

Autologous bioactive matrix

Product and order information

Code	Product description
AZ 500	Arthro**Zheal**® Set
AZ 520	Arthro**Zheal**® Set - Endoscopic
AZ 506	Arthro**Zheal**® Preparation Kit
AZ 220	Arthroscopic Handle
PRO 800	Processor Unit
APL 400	Applicator Unit
APL 404	Applicator Unit Co-Delivery
VS 222	Foot Switch to be used with APL 400/404

References

1. Skarpas G. Arthrozheal , a Bioactive Fibrin Scafforld for Joint Cartilage, Tendon and Soft Tissue Lesions. Latest Results and Application Perspectives. Surg Tech Int 2022 (41) **2.** Kjaergard HK. et al. Comparative kinetics of polymerization of three fibrin sealants and influence on timing of tissue adhesion. Thrombosis Research; 98: 221-228. **3.** Beyzadeoglu T, Pehlivanoglu T, Yildirim K, Buldu H, Tandogan R, Tuzun U. Does the application of platelet-rich fibrin in anterior cruciate ligament reconstruction enhance graft healing and maturation? A Comparative MRI study of 44 cases. Orthop J Sports Med. 2020; 8(2):2325967120902013. **4.** Bayer A. et al. Platelet-released growth factors induce the antimicrobial peptide human beta-defensin-2 in primary keratinocytes. Exp Dermatol 2016; 25: 460-465. **5.** Knafl D. et al. In-vitro release pharmacokinetics of amikacin, teicoplanin and polyhexanide in a platelet rich fibrin—layer (PRF)—a laboratory evaluation of a modern, autologous wound treatment. PLoS ONE 12(7): e0181090. https://doi.org/10.1371/journal.pone.0181090 **6.** Tohidnezhad M. et al. Thrombocytes are effectors of the innate immune system releasing human beta defensin-3§. Injury, Int. J. Care Injured 42 (2011) 682–686.

Vivostat A/S
Borupvang 2
3450 Alleroed
Denmark
www.vivostat.com

Vivostat®

VIVOSTAT ARTHROZHEAL CONCEPT | REV02 01SEP23