

The cellfree matrix for autoregeneration of articular cartilage defects



Who is Amedrix GmbH ?

Amedrix GmbH, located in Esslingen near Stuttgart, is a medical biotech company which develops highly innovative collagen based implants for cartilage repair. Our novel cell-free, autoregenerative medical devices are produced to treat defects with just one procedure and high therapeutic efficiency. These is the next generation of cartilage implants in the field of biomedicine. We can provide cost effective products with very high quality through our long standing collaboration with the Fraunhofer Institute for Interfacial Engineering and Biotechnology and our significant know-how in the commercial processing of this new matrix technology.



What is ChondroFiller ?

ChondroFiller is a novel acellular collagen implant for autoregenerative treatment of articular cartilage defects. As our studies showed, this unique collagen matrix offers optimal conditions for the ingrowth of cartilage and stem cells. Autoregeneration is stimulated assuring high quality regenerated hyaline-like cartilage within a short time frame. The product line ChondroFiller enables treatment of defects caused by trauma or degeneration. This treatment is efficient and easy on the joints. Especially early treatment of smaller defects prevents forming serious secondary damages.

What are the indications for ChondroFiller ?

The form stable implant matrix is suitable for use in treating full thickness focal defects of the articular cartilage e.g. in knee, ankle and shoulder joints. Additionally it is also an effective and easy-to-use alternative to OATS or microfracturing.

ChondroFiller^{gel}

ChondroFiller^{gel} is a dimensionally stable collagen implant which requires only a single, minimally invasive surgical procedure (mini arthrotomy). The cell-free matrix has a tight, gel-like consistency and is secured in the defect site using only fibrin glue and is custom fitted to the defect site intraoperatively by the surgeon. The autoregenerative potential of ChondroFiller^{gel} has been documented in studies showing significant ingrowth of chondrocytes and stem cells from the surrounding tissues and from the synovial fluid, leading to the formation of high quality, hyaline-like tissue in the defect site. ChondroFiller^{gel} is the first product to combine the advantages of microfracturing and cellular treatments (ACT/MACI). ChondroFiller^{gel} is available with diameters of 2 or 4 cm and a thicknesses of 4, 6 and 8 mm and in addition can be custom fitted to the defect site. The matrix is suitable for the treatment of articular cartilage defects from 3 cm² to 12 cm² in size.

Advantages of ChondroFiller^{gel}

- Autoregenerative in just one procedure
- Acellular; no 2nd procedure attaining a biopsy
- Defect zones completely fillable
- Minimally invasive procedure
- Adaptable to any defect size
- Easy to use; no additional covering or suturing necessary
- Short surgery time
- Low-priced
- Storable and ready to use



ChondroFiller^{liquid}

ChondroFiller^{liquid} is a dual chamber syringe made for the application of primary liquid collagen matrix for defect sizes < 3 cm². The implantation can be done during an arthroscopy without opening the joint any further. 2-3 min after the injection into the defect zone a dimensionally stable implant matrix forms itself. Because of this regions can be reached which are usually impossible or very difficult to get to (posterior tibia plateau, retropatellar defects, ankle joint, etc.). Even hard to reach lesions, fissures and pores can be filled up accurately by ChondroFiller^{liquid}. You don't have to use fibrin glue. As the studies demonstrate, the newly formed collagen implant is equal to our product ChondroFiller^{gel} and therefore has the same autoregenerative potential to synthesize hyaline-like cartilage. The chambers are filled with a neutralization solution and pure native collagen type I. The total volume equals 2.3 mL or 1.5mL.

Advantages of ChondroFiller^{liquid}

- Autoregenerative in just one procedure
- Acellular; no 2nd procedure attaining a biopsy
- Defect zones completely fillable
- Implantation during an arthroscopy
- Liquid application of collagen
- Perfect adaption to the defect zone
- No fibrin glue
- Easy handling
- Short surgery time
- Low-priced
- Storable and ready to use

