Geistlich Surgery

# Sustained clinical success following AMIC® Chondro-Gide® treatment of focal cartilage lesions in the knee joint

**Summary of the publication by Gille et al. "Autologous Matrix-Induced Chondrogenesis for Treatment of Focal Cartilage Defects in the Knee: A Follow-up Study." in Orthop J Sports Med. February 2021. doi: 10.1177/2325967120981872.**

AMIC® Chondro-Gide® was an effective treatment for patients with focal cartilage lesions in the knee and resulted in improved pain and function scores lasting up to 7 years.

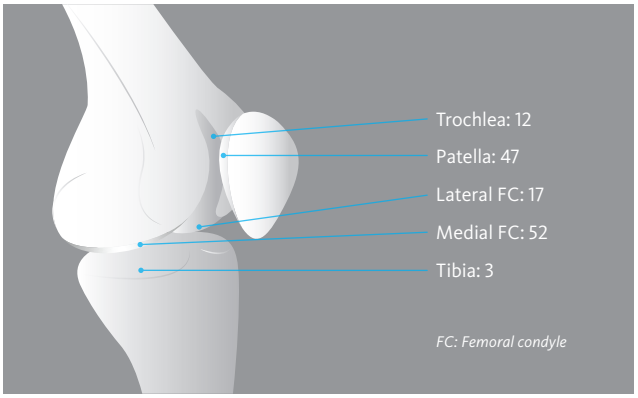
### Multisite prospective registry (Level IV):

› Patients with symptomatic, focal cartilage lesions (Outerbridge Grade III/IV) were included

› AMIC® as index procedure – cases requiring concomitant surgery were excluded

› 131 patients with pre- and post-operative data in the registry were available for analysis:
- Mean age at surgery: 36.6 ± 11.7 years
- Mean defect size: 3.3 ± 1.8 $cm^2$
- Mean follow-up: 4.6 ± 2.9 years

### Location of chondral lesions (n=131):




### Sustained clinical improvement after AMIC®

› Significant improvement in median Lysholm (Fig. 1) and KOOS Score (Fig. 2), as well as significant reduction of pain VAS were already seen within the first post-operative year after AMIC®.

› The improvement was maintained up to 7 years.

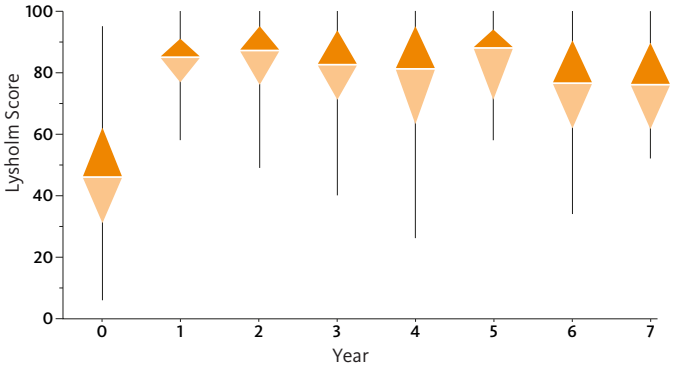



Fig. 1: Lysholm score over time

### No effect of patient-specific factors on the results

› Neither age, sex (Fig. 2), previous surgery, defect location, nor defect size had a significant effect on the outcomes.

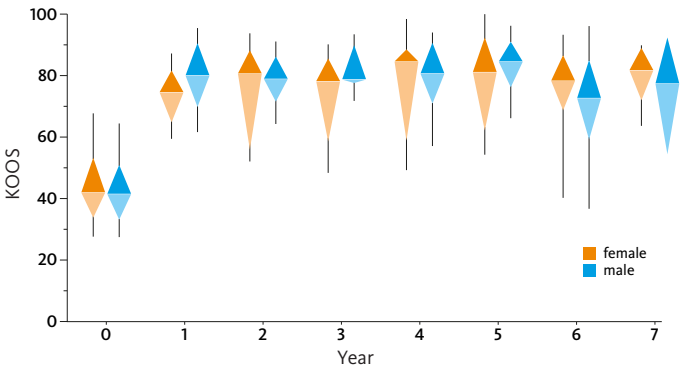



Fig. 2: KOOS score over time per sex

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## CHONDRO-GIDE® LITERATURE HIGHLIGHT

The bilayer collagen membrane is an established product for cartilage therapies with 20 years of clinical use. AMIC® Chondro-Gide®, a technique that combines bone marrow stimulation with the use of a collagen membrane, has been used for over 15 years. Based on pre-clinical and clinical evidence, AMIC® was included in the treatment recommendations for cartilage lesions of the talus, knee and hip by the respective committees of the German Society for Orthopaedics and Trauma (DGOU).

Recently, the intended use of Chondro-Gide® was extended to augment meniscal repair by wrapping the membrane around the sutured meniscus. The corresponding meniscus wrapping technique is registered as AMMR®.

This literature highlight addresses important aspects of the evidence for the use of Chondro-Gide®.

### Conclusions

› The results reported for this study were solely due to the AMIC® treatment, as cases requiring concomitant surgeries at the time of the index procedure were excluded.

› The registry-based study followed the clinic standard without additional, predefined follow-up visits imposed on patients. Although patients were motivated by study staff to complete questionnaires, the number of patients with data at each post-operative time point decreased as time progressed from the index surgery. This is a known limitation of registries and results in data gaps that decrease the power of the statistical analysis.

› AMIC® was an effective treatment for patients with mid-sized Outerbridge grade III/IV cartilage defects in the knee and led to reliably favorable results up to 7 years post-operatively.

For details of the study refer to the original article:

*Original Research*

**Autologous Matrix-Induced Chondrogenesis for Treatment of Focal Cartilage Defects in the Knee**

**A Follow-up Study**

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*Investigation performed at University [illegible] Luebeck, Germany*

› Chondro-Gide®, the original AMIC® membrane[1]
› Compatible with a variety of cost-efficient one-step cartilage repair techniques[2,3,4]
› Evidence for more than 10 years clinical success[5]
› Biocompatible, bilayer Collagen I/III membrane[1]
› Easy to handle: supple and tear-resistant[1]


1. Geistlich Pharma AG, data on file (bench tests and pre-clinical studies)
2. Kramer J, et al., Cell Mol Life Sci. 2006 Mar;63(5):616-26. (Clinical study)
3. Walther M, et al., Oper Orthop Traumatol. 2014 Dec;26(6):603-10. (Clinical Study)
4. Fossum V, et al., Orthop J Sports Med. 2019 Sep 17;7(9). (Clinical Study)
5. Kaiser N, et al., Arch Orthop Trauma Surg. 2020 Aug 13. (Clinical Study)

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