

## COBLATION<sup>®</sup> Technology produces better long-term patient outcomes and lower revision rates at 10 years, when compared with mechanical debridement (MD)

Results from this randomised controlled trial in patients with grade III articular cartilage lesions represent the first long-term analysis of COBLATION



### Study design

- Sixty patients with grade III medial-femoral cartilage defects undergoing medial meniscectomy with concomitant chondroplasty were initially randomised to treatment with COBLATION bipolar radiofrequency technology or MD with a shaver
- At 10 years, follow-up data were available for 47 original participants (78.3%), though clinical analysis was possible in only 22 (13 with COBLATION and 9 with MD); there were no significant differences in baseline characteristics between the remaining patients in either group



### Key results

- Compared with patients receiving MD, at 10 years those treated with COBLATION experienced:
  - A significantly longer mean time to revision (Figure)
  - A lower overall rate of revision (23.3 vs 60.0%;  $p=0.061$ )
  - Significantly superior knee injury and osteoarthritis outcome scores (50.8 vs 33.1;  $p<0.001$ )
  - Equivalent median Tegner activity scores (1 for both groups)

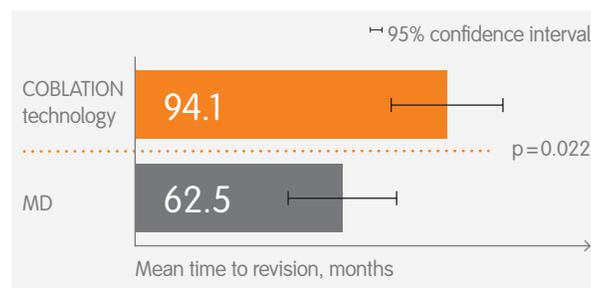


Figure. Mean survival time



### Conclusion

This was the first long-term study in this field of investigation. It found that COBLATION treatment produced better clinical outcomes and lower revision rates than MD over long-term follow up. The mean time to revision was significantly longer after COBLATION treatment.



### Considerations

- The study is limited by the number of patients lost to follow up
- Sample size calculations estimated that 25 patients were needed for each treatment, which was attained in neither group at 10 years; however, both groups remained comparable in baseline characteristics



### Study citation

\*Spahn G, Hofmann GO, von Engelhardt LV. Mechanical debridement versus radiofrequency in knee chondroplasty with concomitant medial meniscectomy: 10-year results from a randomized controlled study. *Knee Surg Sports Traumatol Arthrosc*. 2016;24:1560-1568.