

# Arthroscopic meniscal tear surgery is no better than sham surgery, study shows

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Arthroscopic surgery to repair a meniscal tear is no better than sham surgery in improving knee pain in patients with a degenerative meniscal tear and no knee arthritis, show results from a randomised controlled trial that questioned the use of this common procedure for this type of knee problem.

Arthroscopic partial meniscectomy is one of the commonest orthopaedic procedures, yet rigorous evidence of its effectiveness has so far been lacking, said the Finnish research group that carried out the trial.

The procedure aims to relieve symptoms attributed to a tear in a meniscus, one of the two pads of cartilage that cushion the knee joint, by removing torn meniscal fragments and trimming the meniscus back to a stable rim.

The study included 146 patients aged 35-65 years who had had knee pain for at least three months that was not responding to conservative treatment and where clinical findings were consistent with a tear of the medial meniscus.

Experienced surgeons at five centres in Finland carried out diagnostic arthroscopy to confirm a degenerative meniscus tear and that there was no knee osteoarthritis before randomly assigning patients to arthroscopic partial meniscectomy or sham surgery, in which the knee was manipulated as if the actual procedure were performed.

“Because the act of performing surgery itself has a profound placebo effect, a true treatment effect is impossible to distinguish from nonspecific placebo effects without a sham comparison group,” argued the research group, led by Teppo Järvinen of the University of Helsinki.

The results showed that improvement in knee pain from baseline to 12 months among patients who underwent partial meniscectomy was similar to the improvement shown in the sham surgery group. Knee pain after exercise improved by 3.3 and 3.1 points, respectively (between group difference  $-0.1$  (95% confidence interval  $-0.9$  to  $0.7$ )).

Patients showed similar improvements in two further measures of knee function and symptoms: the Lysholm and Western Ontario Meniscal Evaluation Tool scores. And there were no significant differences between the two groups in the number of patients requiring subsequent knee surgery (two patients in the partial meniscectomy group and five in the sham surgery group) or having serious adverse events (one and zero, respectively).

“These results argue against the current practice of performing arthroscopic partial meniscectomy in patients with a degenerative meniscal tear,” concluded the researchers.

Growing evidence indicated that a degenerative meniscal tear may be an early sign of knee osteoarthritis rather than a separate clinical problem requiring meniscal intervention, they said.

Previous cohort studies have indicated that osteoarthritis may progress more rapidly in patients undergoing arthroscopic partial meniscectomy, they cautioned, adding that long term follow-up of patients in their trial, as well as in other trials, would help answer this question.