

Papalia R, Del Buono A, et al. Meniscectomy as a risk factor for knee osteoarthritis: a systematic review. Br Med Bull. 2011;99:89-106.

Design: systematic review of observational studies

Study question: Do patients who have had meniscectomy incur an increased risk of developing osteoarthritis (OA) of the knee, and are there patient factors or features of the surgical procedures which can be said to influence that risk?

Reasons not to cite as evidence:

- The authors retrieved and reviewed 32 publications after a well-conducted literature search and selection process, but they also report that there are numerous problems with the quality of the included literature, preventing the available studies from qualifying as evidence by DOWC standards
- The scale in Table IV which was used to score methodological quality is designed for surgery of patellar tendinopathy, and may not be well-adapted to the goals of the systematic review
- There is an increased risk of OA in post-meniscectomy patients, ranging from 16% to 92.9% of the operated knees in the available studies; the overall average prevalence of OA in operated knees was 53.5%, but the variable length of followup and methods of ascertainment in the included studies make this a very uncertain estimate
 - o The large quantity of poor quality studies and the lack of prospective long-term data limited the authors' ability to undertake a meaningful statistical analysis of the available data

Useful information which may be cited as such:

- Even though the risk cannot be estimated with good precision, there is a clear association between meniscectomy and knee OA
- There is no clear association between age at the time of surgery and the development of OA
- The amount of meniscus removed is associated with postoperative osteoarthritic changes; partial meniscectomy is associated with a lower risk than subtotal and total meniscectomy
- The duration of followup was not clearly or consistently associated with the amount of postoperative joint changes
- Cartilage status at the time of surgery was not consistently associated with the development of knee OA
- There is a higher risk of knee OA following the excision of degenerated than traumatic meniscal tears
- The association of a high BMI and knee OA was inconsistent

- There did appear to be a lower risk of OA following partial arthroscopic meniscectomy than following open total meniscectomy

Additional comments:

- The lack of a consistent association between obesity and knee OA, which is a likely risk factor for knee OA in nonoperated people, illustrates the problems which the authors faced as they attempted to establish and quantify the associations between meniscectomy and knee OA