

UHI Research Reviews

Practical Information to Help You Heal Right

Can Fam Physician. 2009 September; 55(9): 871–878.

Exercise and knee osteoarthritis: benefit or hazard?

Neil J. Bosomworth, MD CCFP FCFP

Clinical Instructor in the Department of Family Practice at the University of British Columbia in Vancouver

Correspondence **Dr Neil J. Bosomworth**, Box 887, Princeton, BC V0X 1W0; telephone 250 295-3374; e-mail john.bosomworth@interiorhealth.ca

ABSTRACT

OBJECTIVE

To determine whether physical exercise constitutes a benefit or a risk in the development and progression of knee osteoarthritis.

QUALITY OF EVIDENCE

MEDLINE, EMBASE, DARE, ACP Journal Club, and Cochrane databases were searched from registry inception to January 2009 using MeSH headings or text words, including *osteoarthritis*, *arthritis* and *knee* and *exercise*, *physical training*, and *run*. Reference lists from retrieved articles, citation listings when available, and related articles suggested in PubMed were also evaluated. For individuals without osteoarthritis, strong level II evidence was found (limited by problems with blinding and randomization); for those with pre-existing knee osteoarthritis, robust level I evidence was available.

MAIN MESSAGE

Knee osteoarthritis is a major contributor to disability in seniors, and patients have expressed concern that continued exercise might lead to knee symptoms in later years. Studies done on subjects self-selected for exercise and followed for substantial periods of time show no evidence of accelerated development of osteoarthritis, provided injury is avoided. Further, there is good evidence for reduced pain and disability with exercise in this cohort compared with controls. Patients with established osteoarthritis are shown to derive uniform benefit to physical functioning, with reduction of pain and disability, using aerobic, muscle strengthening, aquatic, or physiotherapy-based exercise modalities.

CONCLUSION

Provided trauma is avoided, moderate exercise does not lead to acceleration of knee osteoarthritis, whether or not there is evidence of pre-existing disease. In either case there appears to be improved physical functioning and reduction of pain and disability in those who exercise. It is likely that exercise interventions are underused in the management of established knee osteoarthritis symptoms.

This information shared with you by:



Universal Health Institute

8 W Chestnut

Chicago, IL 60610

312.266.9090

www.uhichicago.com