

The challenges in the primary prevention of Osteoarthritis



Implication for
clinical practice:
narrative review

Early identification of at-risk individuals (e.g. those with previous joint trauma, obesity, or high-impact occupational loading) is essential.

Patient education and behavioural interventions should be integrated into routine physiotherapy practice to promote preventive lifestyle changes. Key strategies like strength training and weight management should be emphasised for delaying or preventing osteoarthritis (OA).

Advocacy for public health initiatives addressing obesity and physical activity could indirectly contribute to reducing incidence of OA.

Context

To explore the feasibility of primary prevention in OA. To identify modifiable and non-modifiable risk factors for OA development. To discuss the challenges in designing interventions and measuring their effectiveness in preventing OA.

Methods

- Review of existing literature on OA risk factors, prevention strategies and long term outcomes.
- Analysis of population-based studies to determine the impact of risk factors such as age, obesity, joint trauma and occupational load on OA incidence.
- Discussion of barriers to intervention implementation, including adherence and motivation challenges.

Results

- Identifying at-risk individuals is challenging due to the slow development of OA and varying risk factors.
- Modifiable risk factors (e.g. obesity, muscle weakness, joint trauma) provide opportunities for prevention, but interventions must be lifespan-oriented to be effective.
- Behavioural strategies (e.g. motivational interviewing/health coaching) may improve adherence to preventive measures.
- OA prevention efforts should align with broader public health initiatives targeting obesity and musculoskeletal health.

Reference

Runhaar, J., & Bierma-Zeinstra, S. M. A. (2022). The Challenges in the Primary Prevention of Osteoarthritis. Clinics in geriatric medicine, 38(2), 259–271