

REVENTATIVE RISK FACTORS FOR OSTEOARTHRITIS IN GREAT BRITAIN'S OLYMPIANS

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Background: Relatively little is known about the risk factors associated with osteoarthritis (OA) in Olympic athletes. As the first step towards prevention, knowledge of preventative/modifiable risk factors are needed.

Objective: To examine injury patterns, prevalence, and risk factors for OA in Great Britain's Olympians, aged 40 years and older.

Design: Cross-sectional study.

Setting: Athletes who had represented Great Britain at the Summer and/or Winter Olympic Games from 1932 to 2012.

Participants: Great Britain's Olympians were invited to complete and return a web-based or paper questionnaire. The response rate was 32%, with 605 returns achieved (40–97 years), between the 22nd May 2014 and the 31st January 2015.

Assessment of Risk Factor: Potential risk factors for OA included age, body mass index, gender, previous injury, lower limb mal-alignment, hypermobility (self-reported Beighton >4/9), comorbidities, index ring finger ratio, Heberden's and Bouchard's nodes, and having competed in either impact or weight-bearing loading sports.

Main Outcome Measurements: The primary outcome measure was self-reported physician-diagnosed OA, whereby Great Britain's Olympians confirmed that a physician had previously diagnosed them with the condition. The most severe limb was selected as the index joint for data analysis, if bilateral.

Results: Knee (14%), hip (11%), and the lumbar spine (5%) are most likely affected by OA. Injury appeared the strongest modifiable risk factor for knee [aOR 4.89; 95% CI, 2.64–9.06] and hip OA [aOR 10.46; 95% CI, 3.67–29.83]. Hypermobility appeared a risk factor for knee OA only [aOR 2.26; 95% CI, 1.08–4.74]. Intra-articular injuries through participation in weight-bearing loading sports were consistently reported in those with peripheral joint OA.

Conclusions: As one of the few modifiable risk factors, joint injury prevention should be part of the future initiatives to reduce the risk of OA.