GLOBAL EPIDEMIOLOGICAL ASSESSMENT OF THE DISEASE BURDEN OF OSTEOARTHRITIS IN 2023

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OBJECTIVES

Osteoarthritis is one of the leading causes of disability worldwide, particularly among older adults. The aim of this study was to analyse the global epidemiological burden of osteoarthritis using the most recent data from the Global Burden of Disease Study, focusing on the year 2023.

METHODS

The epidemiological burden of osteoarthritis was assessed using data from the Global Burden of Disease Study (GBD 2023) provided by the Institute for Health Metrics and Evaluation (IHME). We analysed prevalence, incidence, disability-adjusted life years (DALYs), and years lived with disability (YLDs) at the global level. Results were examined in terms of crude and age-standardized rates, stratified by sex, and by anatomical localization of osteoarthritis.

RESULTS

In 2023, the global prevalence of osteoarthritis was 8.13%, corresponding to 7,877.55 cases per 100,000 population. The age-standardized prevalence was 7.16% (6,909.25 per 100,000 population) *(Table 1)*. The prevalence increased markedly with advancing age across all age groups *(Figure 1)*. The global incidence of osteoarthritis was 0.12%, corresponding to 595.07 new cases per 100,000 population. Marked sex differences were observed: the prevalence was 6.44% in men (6,184.21 per 100,000) and 9.80% in women (9,583.91 per 100,000) *(Table 2)*. The burden of disease attributable to osteoarthritis accounted for 0.79% of total global DALYs, with 277.19 DALYs per 100,000 population. Osteoarthritis was responsible for 2.23% of total global YLDs. Regarding joint involvement, knee osteoarthritis was the most prevalent (5.01%), followed by hand (2.61%), other joints (0.84%), and hip osteoarthritis (0.48%) *(Table 3)*.

CONCLUSIONS

The 2023 GBD data confirm that osteoarthritis remains a major and progressively age-related contributor to global disability, with a pronounced female predominance and a disease profile dominated by knee and hand involvement. These patterns indicate that future health system responses should prioritize early detection, prevention, and resource planning strategies that explicitly account for demographic and anatomical differences in disease burden.

Epidemiological indicators of osteoarthritis	%	Per 100,000
Prevalence	8.13	7,877.55
Age-standardized prevalence	7.16	6.909.25
Incidence	0.12	595.07
DALY	0.79	277.19
YLDs	2.23	277.19

Table 1. ***Epidemiological indicators of osteoarthritis in 2023***

Prevalence by sex	%	Per 100,000
Male	6.44	6,184.21
Female	9.80	9,583.91

Table 2. ***Prevalence of osteoarthritis by sex in 2023***

Prevalence by anatomical location	%	Per 100,000
Hand	2.61	2,526.27
Knee	5.01	4,852.71
Hip	0.48	468.13
Other	0.84	811.27

Table 3. ***Prevalence of osteoarthritis by anatomical location in 2023***

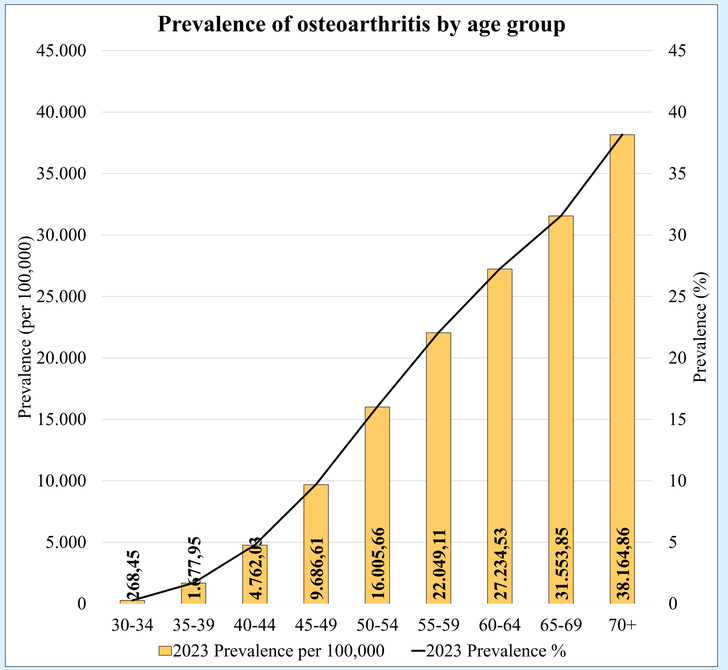

Figure 1. ***Prevalence of osteoarthritis by age group in 2023***

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