**Standing on a Hidden Burden: The Oft-Overlooked Problem of Foot and Ankle Osteoarthritis**

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The high prevalence and significant burden of osteoarthritis (OA) is well known. But it is becoming apparent that OA research efforts do not necessarily match disease prevalence or disability. The International Foot and Ankle Osteoarthritis Consortium is a new international organization that seeks to highlight a major and overlooked problem in OA research – foot and ankle OA – and grow research efforts in the field to ultimately improve patient outcomes. The authors of this article represent the Steering Committee of the International Foot and Ankle Osteoarthritis Consortium. Many members of this international group are actively involved in running large epidemiology studies that seek to understand disease burden and risk factors, and in designing and conducting large randomized controlled trials to identify effective treatment targets. These activities fomented our united desire to seek common goals and ultimately better outcomes.

**Background and importance**

Over previous decades there has been substantial research efforts directed towards understanding OA pathogenesis and testing treatments, predominantly for the large weight bearing joints of the knee and hip. This is likely because these joints were considered to be the most affected in the lower limb, and because of the detrimental impact of knee and hip OA on mobility and daily function. Yet, it often comes as a surprise that OA of the foot affects 16.7% of people aged over 50 years,1 making it as common as knee OA (7.6-16.4%).2 And when we consider individual foot joints, OA affects the first metatarsophalangeal joint more commonly than the hip (7.8% vs 5.0-7.4%),1,2 while prevalence in the midfoot region is even higher (12.0%).3 Foot OA also results in substantial disability. Nearly three quarters of persons with symptomatic radiographic OA report disabling foot pain,1 which is concerning given such pain causes significant problems with daily functional tasks such as walking, balance, stair climbing and rising from a chair.4,5 The limited research in the field of foot and ankle OA also extends to treatment: a recent search identified only four randomized trials on any treatment for first metatarsophalangeal joint OA,6-9 six for ankle OA,10-15 and an additional six randomized feasibility or pilot studies.16-21 This contrasts with 54 randomized trials on land-based exercise alone for knee OA, identified in a 2015 Cochrane Review.22 Clearly, it is time to bring this over-looked problem into focus.

**The International Foot and Ankle Osteoarthritis Consortium**

It is unclear why the foot has received considerably less research attention compared to the knee and hip, however the International Foot and Ankle Osteoarthritis Consortium (IFOAC) aims to grow research in the field. The organization was officially established in 2019 to provide a forum for the development of a sustainable network of clinicians, researchers and other health professionals who share a common interest in driving foot and ankle OA research forward. In reality, work to develop IFOAC had begun informally many years before through a series of international collaborations across continents. Several workshops and Special Interest groups held during the 2007-2012 American College of Rheumatology (ACR) annual scientific meetings sparked initial conversations, along with subsequent meetings at European League Against Rheumatology (EULAR) and eventual expansion to the Osteoarthritis Research Society International (OARSI) and British Society of Rheumatology (BSR) meetings. Today, IFOAC is governed by five steering committee members and an early career researcher representative, from the United States, the United Kingdom and Australia. In the short time since its inception, formal membership has grown in the past 2 years to include many more clinicians and researchers from a multitude of countries across the world. Information is readily shared via Twitter ([@ifoac](https://twitter.com/ifoac?lang=en)) and posting of relevant articles of interest on the organization’s website (see [here](https://www.sportsarthritisresearchuk.org/international-foot-and-ankle-oa-consortium/international-foot-and-ankle-oa-consortium.aspx)), so potential members can easily see information and also gauge interest in particular topics.

IFOAC has a number of strategic objectives via which it seeks to increase the recognition of the impact of foot and ankle OA, and to identify effective treatment targets. These objectives include:

* To organize research priorities to maximize progress and impact of scientific studies to advance our understanding of foot and ankle OA epidemiology, aetiology, prevention and effective management.
* To compile current and progressive evidence to develop a clear global definition for foot and ankle OA to enable us to answer important epidemiological questions, assess the burden of disease and progress to intervention trials.
* To agree upon a core set of outcomes that all principal investigators use to assess foot pain and foot and ankle OA.
* To make recommendations for research priorities in foot and ankle OA, with the intention of ongoing dissemination in future conferences, contribution to guideline development and / or consensus statements.
* To prioritise the development and evaluation of effective treatments to improve the lives of people with foot and ankle OA.

**Progress to date**

Significant work towards these objectives has commenced. In 2019, IFOAC had its first global working group discussion meeting at the OARSI World Congress in Toronto, Canada. In this session, the group highlighted current knowledge and future directions on clinical and radiographic case definitions for foot and ankle OA, provided estimates for the prevalence of foot and ankle OA according to specific radiographic definitions, and discussed priorities for the subsequent 12 months to help move the field forward. This work builds upon foundations formed at previous group discussions held at the ACR Annual meetings and EULAR. Initial discussions included the range of foot conditions and problems that affect patients with rheumatic diseases, such as hallux valgus and pes planus. While long-term goals are to address foot problems in our patients, the decision was made to start with OA, given its prevalence and important role in mobility limitations. To emphasize the importance of this focus, two separate editorials have recently been published in Arthritis Care & Research highlighting the overlooked burden of foot and ankle OA, and identifying major gaps in our understanding of the disease and its management, including the lack of a clinical definition.23,24 Following on from these, in May this year IFOAC initiated a consensus exercise on the epidemiology, diagnosis, burden, outcome assessment and treatment of foot and ankle OA to begin to more formally identify and prioritize these research gaps.

The organization is financially supported by the UK Centre for Sport, Exercise and Osteoarthritis Research Versus Arthritis and closely connected with other international Rheumatology groups and Learned Societies with interests in promoting foot and ankle OA research. For instance, IFOAC members are actively involved with ACR, the British Society of Rheumatology, the Australian Rheumatology Association, OARSI and Outcome Measures in Rheumatoid Arthritis Clinical Trials (OMERACT).

**Call to arms**

Now established, our goal is to promote IFOAC to the rheumatology field more broadly, to gain greater representation and ensure the research agenda and objectives meet the needs of clinicians, patients and researchers. To that end, we welcome members to join IFOAC to bring their voice to the group and help improve outcomes for this group of patients under-serviced by research. For those interested, please head on over to the website [here](https://www.sportsarthritisresearchuk.org/international-foot-and-ankle-oa-consortium/international-foot-and-ankle-oa-consortium.aspx) to sign up – membership is free! For those of us interested in moving the field forward and moving towards better options for our patients with foot and ankle OA, we are quite interested in hearing your voices, concerns and ideas. Rather than calling our concerns out into the Great Void, we believe our collective focus will bring much needed light to this ‘hidden burden’ of foot and ankle OA as well as to future work on other important foot conditions in rheumatology.

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