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Preface

Prevention, management and long-term consequences of sport and exercise-related musculoskeletal disorders



Participation in sport and exercise is an essential part of health at all life stages, with benefits for physical, mental and social wellbeing. However, participation in sport and exercise-related activities carries an inherent risk of musculoskeletal injuries. Such injuries are commonly seen as a nuisance or inevitable consequence of sport, innocuous and something that one will naturally recover from. In reality, it is well established that they are associated with a variety of negative consequences. In the short term they are associated with pain and functional limitation alongside negative mood states, loss of social identity, withdrawal from sport, re-injury and physical inactivity. Longer-term consequences include elevated risk of obesity, post-traumatic osteoarthritis, subsequent comorbidities and reduced health-related quality-of-life. Given the potential long-term consequences of musculoskeletal injuries it is not surprising that they often precipitate the development of persisting or reoccurring musculoskeletal disorders.

The most recent Global Burden of Disease Study (2016) reported that musculoskeletal disorders are the second leading cause of disability worldwide, affecting up to one third of the world's population. They are relevant across the life course, prevalent in up to 50% of persons with multiple morbidities and commonly linked to persistent pain and depression. Perhaps one of the most compelling arguments for why musculoskeletal disorders are important is evident when we consider their impact at an individual level, and the fact that they are one of the most common reasons that we become inactive as we age. As human beings we live to move, and when this ability is taken from us it is devastating and often the beginning of a downward cycle of physical, mental and social ill-health. This problem has prompted many calls to action, including Arthritis Research UK's 'Musculoskeletal Health – A public health approach (2014)', which highlighted the need for effective primary, secondary and tertiary prevention strategies and the importance of musculoskeletal health to overall health and wellness throughout the life course.

To minimize the burden and long-term consequences of sport and exercise-related musculoskeletal injuries it is essential that we, as a global community, make every effort possible to prevent them from occurring and provide or facilitate evidence-based management when they do. In the past decade we have seen significant advances in the content, delivery and implementation of sport injury prevention programs and management strategies for common sport and exercise-related musculoskeletal injuries and conditions. We have also seen an exponential growth in the number of youth participating in organized sport and resulting gains in knowledge related to youth sport and exercise-related injuries.

These efforts in primary prevention need to be matched by evidence-based strategies for secondary prevention – perhaps most relevant in the prevention of post-traumatic osteoarthritis.

The overall vision of this issue of Best Practice & Research Clinical Rheumatology was to create a practical resource for a clinical audience that provides evidence-based and appropriate messages that are consistent with high-value, patient centered healthcare through 12 complimentary chapters on the prevention, management and long-term consequences of sport and exercise-related musculoskeletal disorders. This includes: current trends in sport injury prevention; the role of various types of medical imaging, opioids, surgery and supervised rehabilitation in the care of sport and exercise-related disorders; evidence-based management strategies for anterior cruciate ligament injury, patellofemoral pain, femoroacetabular impingement, youth low back pain, sacro-iliac pain and tendinopathy; a pragmatic approach to preventing post-traumatic osteoarthritis after a sport or exercise-related injury; the impact of youth sport participation on lifelong musculoskeletal health and physical activity behavior; a review of the benefit and risk of sport and; the role of implementation science in reducing the prevalence and burden of sport and exercise-related musculoskeletal disorders.

We would like to thank all the individuals that contributed to this thematic issue. In particular, we like to thank our colleagues who have delivered 12 exceptionally clinically relevant chapters and the administrative and production team at Best Practice & Research Clinical Rheumatology. It is our hope that you will find this issue an invaluable resource as you work with us to make sport and exercise safer for all level of participant and reduce the enormous burden of musculoskeletal disorders.

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