

Physical activity—maximising benefits for all

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Welcome to this edition of the *British Journal of Sports Medicine (BJSM)* focusing on how to maximise the benefits of physical activity for health. The content addresses three broad themes: (1) *Strengthening the evidence*—how physical activity is related to health outcomes; (2) *Getting active, staying active*—understanding factors which affect a person's level of physical activity, or their capacity to increase their physical activity level; and (3) *Enabling activity for all*—supporting people to become more active and to harness the power of physical activity for positive change. This 'warm-up' provides a quick overview of some of the issue's highlights.

STRENGTHENING THE EVIDENCE

The emergence of mature cohorts which have measured physical activity using wearable devices has transformed our understanding of the dose–response relationship between different dimensions of physical activity and health outcomes.¹ In this edition, Saglev and colleagues (*see page 1457*) report an individual participant data analysis in 11 989 participants across four cohorts examining the inter-relationships of accelerometer-measured moderate-to-vigorous physical activity (MVPA) and sedentary time, with risk of mortality. High levels of sedentary time were only associated with higher mortality risk in those undertaking less than 22 min of MVPA per day, raising the possibility that increasing MVPA could mitigate the health risks associated with prolonged sedentary time. Moving from body to mind, the effectiveness of physical activity as a treatment for a range of mental health conditions, including depression, has been demonstrated in several studies.² Martinez-Calderon and colleagues (*see page 1442*) add to this evidence base with a systematic review showing that

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yoga interventions may improve anxiety and depression symptoms, although they reflect that methodological limitations and heterogeneity of the findings mean that the certainty of the evidence is very low. PhD Academy Award articles provide a showcase for the work of outstanding early-career scientists. Dr Carnerio-Barrera provides an excellent summary of her work leading the Interdisciplinary Weight Loss and Lifestyle Intervention for Obstructive Sleep Apnea (INTERAPNEA) randomised controlled trial which showed that a weight loss and lifestyle intervention (which included increased physical activity) reduced sleep apnoea events by over 50% in patients already being treated with continuous positive airway pressure (*see page 1464*).

GETTING ACTIVE, STAYING ACTIVE

The path to a physically active lifestyle is rarely straight and smooth; often we encounter unexpected detours and potholes along the way. These may be literal—in which case you may benefit from this edition's infographic on the causes and management of saddle sores in cycling (*see page 1469*)—or metaphorical, such as those major life transitions of becoming a parent or retirement. As the physical and social landscape around us changes, so too do our opportunities, barriers and motivations to be active.

Becoming a parent is a transformative experience for many and is associated with notable changes in health markers and behaviour patterns.^{3,4} In their scoping review of factors associated with female athlete return to sport post partum, Tighe and colleagues (*see page 1450*) identified provision of paid maternity leave, support with carer and child transport needs and affordable/accessible childcare as critical policy-related facilitators to support this transition. Beyond the social and environmental context, there may be physiological constraints to an individual's capacity to increase their physical activity level. Rowlands and colleagues (*see page 1428*) explore this concept in a secondary analysis of data from the Physical Activity after Cardiac Events trial, showing that considering an individual's baseline physical activity profile in both absolute terms and relative to their maximum capacity can provide novel insights into the extent physical activity levels change in response to an intervention.

ENABLING ACTIVITY FOR ALL

While we continue to further strengthen and refine our understanding of physical activity's myriad health benefits, the evidence we have already compels us to work collaboratively to address the physical inactivity pandemic.⁵ In so doing, however, we must protect against widening the striking inequalities that exist in physical activity and sport participation.^{6,7} To this end, *BJSM* editor Jane Thornton calls for 'movement equity' (*see page 1414*) and provides a five-part framework for addressing inequities to the physical activity continuum across all communities. Health professionals are frontline workers in physical activity promotion, in the context of both primary and tertiary prevention, but receive little dedicated training in behaviour change counselling. Tahlia and colleagues report on the outcomes of a Delphi study to establish the knowledge and competencies required by all health professionals to support movement behaviour change in their patients (*see page 1419*). These initiatives guide us on how to move the field forward here and now, but what does the future hold for physical activity promotion? In their thought-provoking editorial, Gilson and colleagues (*see page 1413*) guide us through the potential and pitfalls of using artificial intelligence to promote physical activity behaviour change.

We are grateful to all who contributed to making the research highlighted in this

edition of *BJSM* possible. And with these advances in knowledge, challenges and calls to action ringing in our ears, it is time for us to get on our bikes! How will you be active today?

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