

# Physical activity: short-term pain with so much to gain!

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## WARM-UP

As we slowly emerge from the pandemic, the world is finding its new normal and we are beginning to quantify the ramifications of COVID-19 and what it means to physical activity, sport and health. With lockdowns, restrictions and fear of viral transmission, physical activity was arguably a big loser during the pandemic. As a sports medicine community, it is essential we continue to advocate for the many benefits of physical activity, while maintaining an awareness of the devastating long-term consequences of COVID-19 for some people.

## HOW DOES COVID-19 INFECTION AFFECT ATHLETES?

We are only just beginning to understand some of the long-term health effects of COVID-19 infection and its potential impact on athletes. Included in this issue is important guidance for clinicians from the team led by Professor Gualano (*see page 941*) on what athletes can expect when returning to sport following COVID-19, and the signs and symptoms they can screen for which may require intervention. In their systematic review of 43 studies, inclusive of 11 518 athletes, ~94% of athletes were found to have either mild or no symptoms following COVID-19 infection. Clinicians should be aware though that between 4% and 17% of athletes experienced persistent symptoms which may affect return-to-play decision-making. Also included in this edition is an original research study of a large cohort (>3500) of collegiate athletes demonstrating a very low prevalence of persistent symptoms 3 weeks following infection (*see page 913*). However, alarming for athletes who experienced exertional chest pain on return to exercise, one-in-five had probable or definite COVID-19 cardiac

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involvement on MRI (*see page 913*). In a further prospective cohort study of athletes experiencing ongoing cardiorespiratory symptoms >28 days following COVID-19 infection, none of the athletes had active inflammatory cardiac disease, and when compared with healthy controls, also had a similar  $VO_{2\max}$  (*see page 927*). However, athletes with persistent symptoms had much higher prevalence of abnormal spirometry or low breathing reserve (*see page 927*).

## PHYSICAL ACTIVITY IS BENEFICIAL FOR CHRONIC DISEASE PREVENTION AND MANAGEMENT

With the focus on preventing COVID-19 infections, we must keep at the forefront of our minds all the positive impacts of physical activity for general health and prevention of chronic diseases. An editorial led by Dr Atkin outlines the five phases of the behavioural epidemiological framework in relation to researching the effects of physical activity on chronic disease (*see page 896*). Importantly, the authors call on national funding agencies to specifically fund the inclusion of people living with chronic conditions in physical activity research, policy and practice. One of the populations to have substantially changed their routine and physical activity during COVID-19 were children. Another editorial included within this issue highlights some of the ways we can reimagine physical activity for children as we build our new

normal activity routines post-COVID-19 (*see page 899*). If we jump to the other end of the population spectrum, a systematic review of 28 studies in people with all-cause dementia demonstrated that exercise training had a positive effect on cognition (*see page 933*).

This issue highlights that the importance of physical activity on long-term health outcomes is undisputed, and increasing physical activity is a global priority. The vision of Australia's peak multidisciplinary sports medicine organisation, Sports Medicine Australia, is to enhance health outcomes for all Australians through knowledge, training and safe participation in sport, exercise and physical activity. One of the principal knowledge translation strategies is their annual conference and this year it is back face to face! That's right, the 2022 Sports Medicine Australia national conference will run in the sunny Gold Coast from 16 November to 19 November. The Sports Medicine Australia conference is a *British Journal of Sports Medicine* endorsed, inclusive, multi-disciplinary conference showcasing internationally renowned keynote speakers, original research and clinician facing workshops that attracts delegates from all over the world (and this year's programme is jam packed)! Enjoy the surf, sand and sun while learning! Keep an eye out and get your registration in soon so you don't miss out!

See you on the Gold Coast in November.

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