

# **IMPACT OF COVID-19 ON LONG-TERM BEHAVIOUR**

The COVID-19 pandemic has had a lasting influence on how young people engage in physical activity and sport, with evidence suggesting that many behaviour changes have persisted beyond the immediate lockdown period. Bozzola (2023) highlights that globally, lockdowns, school closures and the cancellation of organised sport reduced daily movement opportunities for children and adolescents. Across the studies reviewed, young people showed higher sedentary time and screen use alongside reduced moderate-to-vigorous physical activity, and many did not return to pre-pandemic activity patterns even after restrictions eased. These disruptions occurred during sensitive developmental periods, potentially embedding more sedentary routines and weakening sport participation pathways. Declines were often greatest among already less active or more vulnerable groups, suggesting the pandemic may have widened existing inequalities. Overall, the review indicates that COVID-19 effects were not only short-term interruptions but may have lasting impacts on lifestyle habits, fitness, and engagement with sport, reinforcing the need for targeted re-engagement and recovery strategies.

Additional evidence quantifies the scale of these behavioural shifts. Bae (2020) reports that post-pandemic, 49% of adolescents spent more than four hours per day on screens, compared with 22% pre-pandemic, indicating a substantial rise in sedentary screen-based leisure. A large systematic review by Kharel (2022), drawing on 71 studies across 35 countries, similarly found widespread declines in physical activity among children and adolescents, with reductions ranging from 10% to over 50% depending on national restrictions. Adolescents showed consistently larger decreases than younger children, particularly in moderate-to-vigorous physical activity, reflecting their greater reliance on school PE and organised sport. Environmental context also mattered: young people with access to outdoor space or informal activity opportunities were 20 to 30% more likely to stay active during and after restrictions, whereas those living in apartments or under stricter movement controls experienced sharper declines. Together, this evidence shows that pandemic-related behaviour change was shaped not only by motivation but by opportunity, space, and structural conditions.

Among 761 young people attending university across Bosnia and Herzegovina and Croatia, Drenjak (2023) found that physical activity and sport participation in 2023 remained below pre-pandemic norms even after restrictions were lifted. Many students reported reduced overall activity, with a substantial proportion not meeting recommended moderate-to-vigorous activity guidelines. Organised sport participation declined in both frequency and reach, with some students shifting toward more informal or individual activities instead of returning to structured sport. The study also showed that inactivity clustered with other health behaviours, as physically inactive students were more likely to smoke, pointing to broader lifestyle shifts. Gender differences were evident, with some evidence that female students were less likely to re-engage with organised sport. Taken together, these findings suggest that COVID-19 contributed to sustained changes in activity routines rather than short-term disruption.

## UNDERSTANDING THE NEXT GENERATION OF HIGHER EDUCATION STUDENTS



Looking further back in the participation pathway, Camenidis (2021) demonstrated that lockdowns significantly reduced children's movement opportunities due to school closures, suspension of organised sport, and limited outdoor play. This led to increased sedentary and screen-based behaviour and raised concerns about delayed motor skill development. Because motor competence underpins confidence, enjoyment, and continued sport participation, early disruption may translate into lower engagement in adolescence and young adulthood. The study highlights the "motor competence-participation" link, suggesting that cohorts affected by lockdowns may carry forward lower physical confidence and weaker activity habits. For universities, this implies that some incoming students may arrive with disrupted sport histories, lower baseline confidence, and greater need for supportive, low-barrier re-entry points into physical activity.

The cohorts most likely to experience lasting effects are those who were in the early primary school years during the pandemic (approximately ages 5–8 in 2020–21), as early childhood is considered a key period for the development of fundamental movement skills that underpin later physical activity participation and physical confidence (Lopes et al., 2021; Lubans et al., 2010). Evidence on the extent of these impacts is mixed. Pombo et al. (2021) found declines in motor competence among Portuguese children aged 6–9 following lockdown restrictions, while den Uil et al. (2023) found no overall negative effect on motor skill development among Dutch children aged 5–7. Nevertheless, concerns remain that disrupted opportunities to develop and practise movement skills during these formative years may influence future participation behaviours. If these effects persist, universities may begin to see their impact among incoming cohorts from around 2030–2034, when children most affected by the pandemic reach university age.

Building on evidence that COVID-19 disrupted activity routines and reduced organised sport engagement, recent sector analyses suggest these shifts have not simply reversed but reshaped how people participate. The McKinsey & Company and World Federation of the Sporting Goods Industry (2025) report indicates that participation has diversified toward outdoor, informal, and self-organised activities, alongside sustained growth in home workouts, fitness apps and wearable-supported exercise. Younger generations in particular show stronger preference for flexible, social, and wellbeing-focused formats over traditional competitive sport, and expect personalised, choice-driven experiences. Together, these trends point to a longer-term cultural shift toward hybrid, lifestyle-integrated participation rather than a full return to pre-pandemic models.

This pattern is supported by other recent evidence. For example, Sport England reporting shows continued growth in walking, fitness activities and informal recreation compared with some team sports, with many people citing flexibility and wellbeing as primary motives. Similarly, the World Health Organization has highlighted that pandemic-related changes accelerated reliance on digital and self-directed activity formats, while overall inactivity remains high in younger populations. Taken together, the evidence suggests that incoming student cohorts are likely to arrive with more individualised, tech-supported, and wellbeing-oriented activity habits, reinforcing the need for universities to offer flexible and inclusive sport and physical activity pathways.