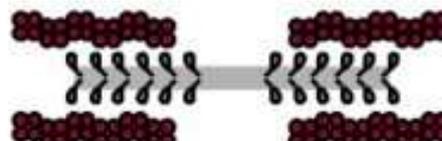


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COVID-19 & sport: How much aerosol is produced at different exercise intensities? What is the effect of surgical masks and taped masks on performance?

Master thesis in Exercise Biology

Start: Immediately

Project description

SARS-CoV-2 is the coronavirus that is causing the COVID-19 pandemic. During indoor sport, aerosol-mediated SARS-CoV-2 infections are a major concern and there have been reports of superspreader event during Zumba and spinning classes. A unique, sports-specific concern is that ventilation can increase from 5-10 L/min at rest to over 100 l/min in untrained subjects and 200 L/min in elite endurance athletes and that this may increase aerosol emission. Also some individuals are concerned about the effects of face masks during sport. We now advertise two projects to investigate these issues.

Project 1 will investigate for the first time how the exercise-induced increase of ventilation will affect the number and size distribution of respiratory aerosols. This project is in collaboration with the University of the Army (Bundeswehr). It is funded by the Bundesinstitut für Sportwissenschaft.

Project 2 will compare how surgical masks and taped face masks will affect exercise variables such as perception of breathlessness, heart rate, and lactate. The project is funded by industry.

We are seeking to recruit two highly motivated and talented MSc students to carry out these projects.

Candidates need to have a thorough understanding of exercise physiology, be solid in human performance testing, be good team workers, be highly motivated, reliable and must be able to write well in English as we aim to publish the results of these projects.

Supervision

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