

# COVID-19 and Sport Guidelines



This guide emanates from a webinar “Not Playing Games: Implications of COVID-19 for Sport” hosted by the Wits Institute for Sport and Health (WISH).

The webinar is accessible at <https://youtu.be/6jXHDQmx0gE>

These are guidelines focusing on exercise in the context of COVID-19. As with any new and evolving disease, our understanding is advancing as we learn more about the disease and these recommendations may change. Until herd immunity<sup>1</sup> is obtained (either through a vaccine being developed or sufficiently large numbers of the population being exposed to the virus) our hygiene and sports habits will have to change.

DOMAIN	RECOMMENDATION
<b>DEFINITIONS</b> The Virus: SARS-CoV2 (Severe Acute Respiratory Syndrome Coronavirus 2) The Disease: COVID-19 (Corona Virus Disease 2019)	<b>Hygiene</b> <ul style="list-style-type: none"><li>Regular hand washing with soap and hot water for at least 20 seconds</li><li>Use of sanitising solutions containing at least 70% alcohol</li><li>Avoid droplet spread – sneeze into flexed elbow, wear masks in public areas</li><li>Avoid sharing gym equipment</li></ul>

## EXERCISE AND IMMUNITY

Regular, moderate exercise (3-5 times a week for 45 mins at 3-6 METs<sup>2</sup>/50-70% maximum heart rate) boosts general immunity

Sustained, prolonged high [intensity](#) exercise may temporarily lower immunity by decreasing antibodies in the airway lining and lowering the number of infection-fighting white blood cells

Abrupt leaps to a higher intensity may also compromise the immune system

Elite and well-trained athletes tolerate higher intensity [exercise](#) better without compromising immunity

## RISKS OF EXERCISING WHEN SYMPTOMATIC OR ILL

### Regular Exercisers

- Try and be [active](#) for some period in every hour during the day
- Try and include some aerobic, strength and flexibility [components](#) to your week's routine
- Recommended [exercises](#) include walking, cycling, light weights circuit and aerobics
- Maintain an [exercise routine](#) that includes more intense exercise on 2 days, some easier sessions and recovery

### School and Club Athletes

- Try and exercise as frequently as you would during a normal week's sporting routine
- Vary the exercise as described above
- If possible, include a skills component related to your specific sport e.g. hockey skills, reaction drills, multiple sprint tasks

### Elite Athletes

- Re-periodise your training if you know when your postponed events will take place
- Readjust [training](#) goals to those that are realistic in your current environment
- Lower load (total duration and intensity) by 10% if training for an uncertain extended period
- Maintain healthy eating patterns and adjust calorie and fluid intake according to your adjusted training programme and energy expenditure
- A regular eating and [sleep pattern](#) (at least 7 hours) may help the immune system to cope
- Regular exposure to natural light and sun will help with regulating your circadian rhythm and Vitamin D production
- No vitamins or supplements are proven to prevent SARS-CoV2 infection, but the following may help in mitigating the effects of the disease: [Vitamin C](#) 1g per day, [Vitamin D](#) 800-2000IU per day, [Zinc](#) 30mg per day

### To the athlete

- Higher risk of progressing mild disease to severe
- Risk of heart involvement in the form of myocarditis

### To others

- Due to more frequent and vigorous breathing during exercise, a greater risk of seed infection to those within 6 metres



<b>ATHLETES WHO TEST POSITIVE FOR COVID-19</b>	<ul style="list-style-type: none"> <li>• Most young, healthy athletes may only contract a milder form of the disease lasting 5-7 days</li> <li>• Do not exercise while symptomatic</li> <li>• Strictly self-isolate at home for at least 14 days</li> <li>• Use paracetamol to help control fever and pain; consult your doctor before using anything else</li> <li>• Stay in <u>telephonic contact</u> with your doctor particularly if symptoms worsen; specifically report worsening fevers, severe fatigue, shortness of breath, difficulty breathing and confusion<sup>4</sup></li> <li>• If you have an existing lung condition such as asthma, seek advice as to how your treatment should be modified</li> <li>• Ask about <u>resources</u> to support you if you are feeling anxious, down or depressed</li> </ul>
<b>RESUMING TRAINING AFTER INFECTION</b>	<ul style="list-style-type: none"> <li>• Resume exercise 21 days after the first symptoms appeared, or 10 days after the last symptoms disappeared</li> <li>• Competitive athletes should seek further medical advice regarding health and fitness assessments when recovered; these include blood, heart and lung tests</li> </ul>
<b>RESUMING TRAINING FOR HEALTHY ATHLETES AFTER LOCKDOWN</b>	<ul style="list-style-type: none"> <li>• Enter “pre-season mode”, the duration of which will depend on the length of time exercising sub-optimally and fitness levels post-lockdown<sup>3</sup></li> <li>• To avoid injury, scientifically grade your return to full training once your post-Corona schedule is known<sup>5</sup></li> </ul>
<b>ONGOING INTERVENTIONS FOR SCHOOLS AND CLUBS</b>	<ul style="list-style-type: none"> <li>• Students should first return to class, observing social distancing, sanitising and mask-wearing before resuming a graded exercise programme on campus according to the Risk Reduction Strategy for Sport and Exercise.</li> <li>• Return to school/university sport should be graded with individual training occurring whilst observing an increased social distance of 6m</li> <li>• Full team sport participation should only follow the resumption of normal classes.</li> <li>• Display educational <u>posters</u><sup>6</sup> reminding people of mask wearing, social distancing, hand and respiratory hygiene</li> <li>• Ensure abundant and easily accessible soap, running water and alcohol-based sanitizer</li> <li>• Washing of hands must be encouraged regularly</li> <li>• Daily cleansing protocols with disinfectant must be implemented for change rooms and equipment</li> <li>• Wearing of <u>masks</u> in change rooms and by coaching staff should be advocated</li> <li>• Schools should prepare to initially have games without spectators</li> <li>• Athletes should complete a daily screening questionnaire.<sup>4</sup> This should also include information about parents/siblings/others at home with regards to COVID19 related symptoms.</li> </ul>

A practical way to monitor health and incorporate these training guidelines is through the **CoronaFighter Webb App** found here: <https://www.InsightFit.com>

## USEFUL RESOURCES:

### COVID-19 Health Guidelines

<https://www.nicd.ac.za/diseases-a-z-index/covid-19/covid-19-prevention/>  
[https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/summary.html?CDC\\_AA\\_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fsummary.html](https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/summary.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fsummary.html)

### Understanding Exercise Intensity

<https://www.mayoclinic.org/healthy-lifestyle/fitness/in-depth/exercise-intensity/art-20046887>

### Exercising During Lockdown

[https://www.wits.ac.za/media/wits-university/students/wits-sport/documents/EIM\\_Rx%20for%20Health\\_%20Staying%20Active%20During%20Coronavirus%20Pandemic%20\(003\).pdf](https://www.wits.ac.za/media/wits-university/students/wits-sport/documents/EIM_Rx%20for%20Health_%20Staying%20Active%20During%20Coronavirus%20Pandemic%20(003).pdf)  
<https://basem.co.uk/series-of-tips-and-training-techniques-during-self-quarantine/>  
[https://www.discovery.co.za/vitality/vitality-home-work-out-channel?sap-outbound-id=8A0294EAE62F479E8B077CBEB884833B944B906&utm\\_source=SAPHybris&utm\\_medium=email&utm\\_campaign=1608&utm\\_term=VITA\\_TV\\_Newsletter\\_15042020\\_LM\\_WATCH%20AND%20LEARN&utm\\_content=EN](https://www.discovery.co.za/vitality/vitality-home-work-out-channel?sap-outbound-id=8A0294EAE62F479E8B077CBEB884833B944B906&utm_source=SAPHybris&utm_medium=email&utm_campaign=1608&utm_term=VITA_TV_Newsletter_15042020_LM_WATCH%20AND%20LEARN&utm_content=EN)  
<https://www.mywellness.com/activateddcampus>

### Higher Intensity Exercise

<https://www.wits.ac.za/media/wits-university/students/wits-sport/documents/Wits%20Sport%20April%20Fitness%20Challenge.pdf>  
<https://www.olympicchannel.com/en/stories/features/detail/watch-pita-taufatofua-s-home-workouts-on-olympic-channel/>

### Daily Routine – The Circadian Rhythm and Immunity

<https://theconversation.com/beyond-sanitizing-and-social-distancing-a-healthy-circadian-rhythm-may-keep-you-sane-and-increase-resilience-to-fight-covid-19-135535>

### Mental Health Resources

<https://sacoronavirus.co.za/2020/04/10/covid-19-lockdown-and-your-mental-health/>

### Educational Hygiene Posters

<https://jivemedia.co.za/science-spaza/haykhona-corona-spreading-the-word-not-the-virus/>

## REFERENCES

1. The immunity or resistance to a particular infection that occurs in a group of people or animals when a very high percentage of individuals have been vaccinated or previously exposed to the infection. <https://www.dictionary.com/browse/herd-immunity>
2. The metabolic equivalent for task (MET) is a unit that estimates the amount of energy used by the body during physical activity, as compared to resting metabolism. i.e. Resting energy expenditure = 1 MET (Physical Activity Guidelines Committee. 2018 Physical Activity Guidelines Advisory Committee Scientific Report. U.S. Department of Health and Human Services; 2018.)
3. [https://www.researchgate.net/publication/288000757\\_Has\\_the\\_athlete\\_trained\\_enough\\_to\\_return\\_to\\_play\\_safely\\_The\\_acutechronic\\_workload\\_ratio\\_permits\\_clinicians\\_to\\_quantify\\_a\\_player%27s\\_risk\\_of\\_subsequent\\_injury](https://www.researchgate.net/publication/288000757_Has_the_athlete_trained_enough_to_return_to_play_safely_The_acutechronic_workload_ratio_permits_clinicians_to_quantify_a_player%27s_risk_of_subsequent_injury)
4. <https://www.cebm.net/covid-19/are-there-any-evidence-based-ways-of-assessing-dyspnoea-breathlessness-by-telephone-or-video/> (accessed 20 April 2020)
5. <https://rowingaustralia.com.au/wp-content/uploads/2015/02/AIS-whitepaper-on-load.pdf> (accessed 20 April 2020)
6. <https://jivemedia.co.za/science-spaza/haykhona-corona-spreading-the-word-not-the-virus/> (accessed 20 April 2020)