



# BBNZ COVID-19 Graduated Return to Play (GRTP)

GUIDELINES FOR COACHES AND ATHLETES



### Document Scope

This document has been written taking into account NZ Public Health guidelines at the time of publication. These will continue to change as greater levels of evidence is published, and these changes need to be considered before advising your athletes.



### Guidelines

**ONLY applicable** to those who have had mild to moderate illness (or are asymptomatic), and not requiring hospital care.

**NOT suitable** for those who are not being closely supervised by a healthcare practitioner (instead seek guidance from appropriate physician).



### Expert Opinion

The guidance is based on expert opinion, taking into consideration the current available literature to date on GRTP experiences of athletes who are known to have contracted COVID-19. This will be updated as more evidence becomes available. Please continue to monitor athletes and keep accurate notes of all COVID-19 cases to allow ongoing analysis and refinement.



### Stop

Under the GRTP Protocol, the athlete can advance to the next stage **ONLY** if there are **NO worsening** of symptoms at rest, and at the level of physical activity achieved in the previous GRTP stage.





## G RTP protocol

This G RTP protocol should only be started when the athlete is:

1. Free from all but the mildest 'above neck' symptoms (e.g. mild headache) for at least 5 days.
2. Off treatments that may mask symptoms (e.g. paracetamol).
3. In the case that a symptomatic athlete tests negative for COVID-19 they should continue to consult with their physician during their recovery, as per any all viral illnesses.



## Red Flags

If any of the below 'red flags' or other concerning symptoms occur, a medical practitioner should be consulted immediately, and as a minimum the athlete should rest and reattempt the previous stage after at least 24 h without symptoms.

- It is recommended that a medical practitioner be consulted at any stage if there are concerning symptoms or indications (i.e. 'red flags'), including but not limited to the following:

**Severe or increasing breathlessness**  
(disproportionate to the amount of effort)

**Thromboembolic events**  
(unusual, sharp, pain or discomfort in chest or abdomen, muscle pain +/- limb swelling)

**Overall/excessive fatigue**  
failure to recover

**Unusually ↑ HR**  
during exercise or slow HR recovery on cessation of exercise

**Unusually ↑ RPE**  
for a given exercise intensity (compared with previous known RPE responses)

**Palpitations or Persistent headache**

**Exertional light-headedness**  
(not just when standing up from a sitting position)

**Syncope**  
fainting / passing out

**Psychological**  
mental health / anxiety-related difficulties

**Athlete perception**  
of moderate / severe illness



# INDICATORS OF COVID-19 INFECTION

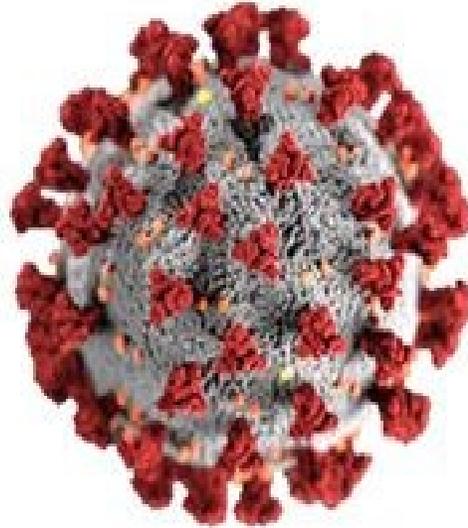
SHORTNESS OF BREATH



NEW, PERSISTENT DRY COUGH



FEVER



GI SYMPTOMS SUCH AS DIARRHOEA & NAUSEA



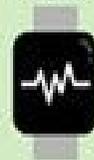
LOSS OF TASTE AND SMELL

THIS GUIDANCE IS AIMED AT ATHLETES WITH MILD TO MODERATE SYMPTOMS OF COVID-19. ATHLETES SHOULD FOLLOW LOCAL GOVERNMENT GUIDELINES OF COUNTRY OF RESIDENCE FOR MANAGEMENT OF SYMPTOMS INCLUDING ISOLATION AND TESTING PROCESSES. ATHLETES WHO HAVE MORE COMPLICATED INFECTIONS, OR REQUIRED HOSPITAL SUPPORT SHOULD HAVE A MEDICAL ASSESSMENT BEFORE COMMENCING GRTP. ASSESSMENT MAY INCLUDE:

BLOOD TESTING FOR MARKERS OF INFLAMMATION (HS-TROP, BNP, CRP), CONSIDER RENAL & HAEMATOLOGY MONITORING



CARDIAC MONITORING (ECG, ECHO, ETT, CARDIAC MRI)



RESPIRATORY FUNCTION ASSESSMENT (SPIROMETRY)



# BBNZ COVID-19 Graduated Return to Play (GRTP)

An athlete following this GRTP after testing positive for COVID-19 must involve a medical practitioner, who will collaborate with the coaching and performance staff.

## 'Above neck' symptoms

- There is some evidence from elite athletes that suggests COVID-positive athletes who are either asymptomatic or only experience '*above neck' symptoms*' (e.g. cough, loss of taste or smell) tend to recover slightly more quickly and thus may be able to safely resume full training quicker than athletes who experience 'below neck' or more systemic symptoms (including, but not limited to: shortness of breath, chest pains or palpitations, fatigue, sustained fever).

## Before commencing this GRTP protocol

All athletes must be able to complete:

1. *All activities of daily living without excessive fatigue and/or breathlessness, and*
2. *Be able to walk on the flat without getting breathless.*



# BBNZ COVID-19 Graduated Return to Play (G RTP)

## For athletes who experience any 'below neck' symptoms



- STAGE 1:** Involves minimum rest period during 7 days self-isolation\* in order to optimise the recovery and protect the cardio-respiratory system. Household activities and light exercise when feeling well enough.
- STAGE 2:** If symptoms are improving, and the physician approves, progression to STAGE 2. Light aerobic activity. Keep the intensity low (RPE 1-2) at <70% HRmax working for 15 minutes only. Monitor how you feel the next day. Minimum of 2 days.
- STAGE 3a:** Increase the intensity of the activities working at <80% HRmax (RPE 3-4). <50% uppermost training load. Progression over a minimum of 2 days.
- STAGE 3b:** Progress to more complex training drills at RPE 5-6 for 45 minutes. Perform conditioning activities at a heart rate <80% HRmax. Introduce competitive drills <20% of session time. <70% uppermost training load. Progression over a minimum of 2 days.
- STAGE 4:** Resume team training at 80% uppermost training load. Keep heart rate <80% HRmax and train for 60 minutes. Competitive and contact work <30% of session time
- STAGE 5:** Progression to return to play training and competition, at the discretion of the medical physician. Back into high intensity and full training leading into competition. Manipulate training components as required to meet player needs. Continue to monitor Health and Wellness status.



**BASKETBALL**  
New Zealand

\* New Zealand Government, Ministry of Health. *People with COVID-19*  
<https://www.health.govt.nz/covid-19-novel-coronavirus/covid-19-health-advice-public/people-covid-19>

# BBNZ COVID-19 Graduated Return to Play (G RTP)

For athletes who are either asymptomatic or have mild above neck symptoms only



**STAGE 2:** Commence at Stage 2, minimum of 7 days self-isolation period\*. Light aerobic activity. Keep the intensity low (RPE 1-2) at <70% HRmax working for 15 minutes only. Monitor how you feel the next day.

**STAGE 3a:** Increase the intensity of the activities working at <80% HRmax (RPE 3-4). <50% uppermost training load. Progression over a minimum of 2 days.

**STAGE 3b:** Progress to more complex training drills at RPE 5-6 for 45 minutes. Perform conditioning activities at a heart rate <80% HRmax. Introduce competitive drills <20% of session time. <70% uppermost training load. Progression over a minimum of 2 days.

**STAGE 4:** Resume team training at 80% uppermost training load. Keep heart rate <80% HRmax and train for 60 minutes. Competitive and contact work <30% of session time

**STAGE 5:** Progression to return to play training and competition, at the discretion of the medical physician. Back into high intensity and full training leading into competition. Manipulate training components as required to meet player needs. Continue to monitor Health and Wellness status.

**NOTE:** The **mandatory self-isolation period** should be fully adhered to, even if STAGE 2 commences before the end of the self-isolation), and all of these progressions are at the discretion of the medical physician and wider support team.



**BASKETBALL**  
New Zealand

\* New Zealand Government, Ministry of Health. *People with COVID-19*

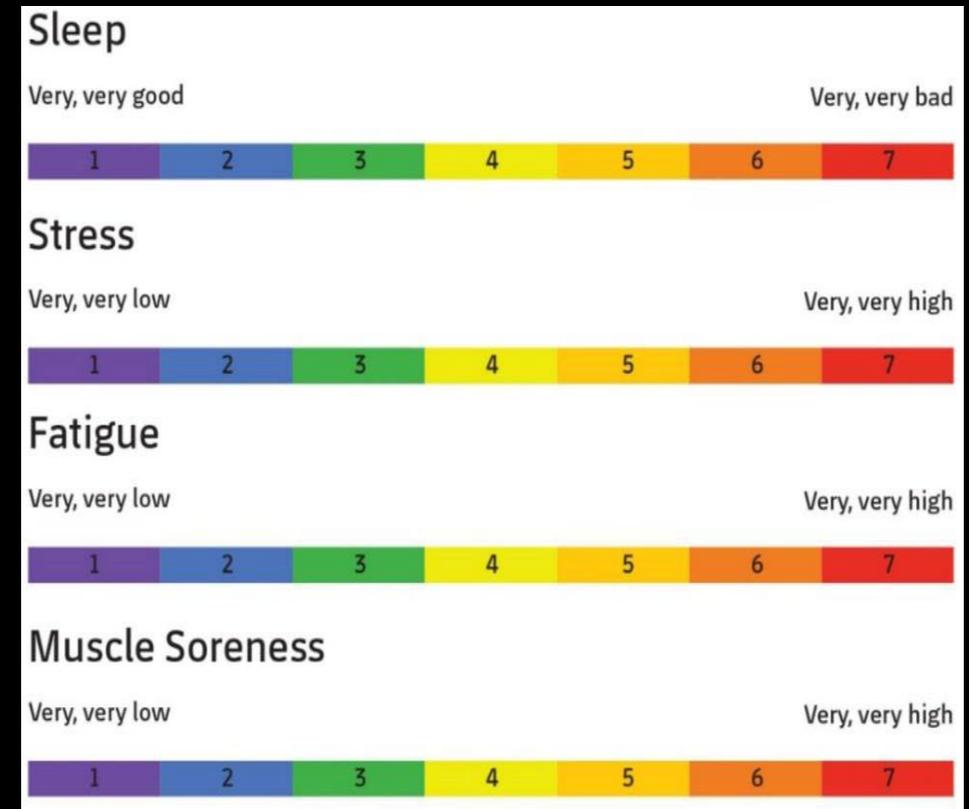
<https://www.health.govt.nz/covid-19-novel-coronavirus/covid-19-health-advice-public/people-covid-19>

# Athlete Monitoring (Examples)

## Rate of perceived exertion (RPE) scale



## Subjective symptoms (example scale)



## Psychological readiness

My overall confidence to return to training is:	0	1	2	3	4	5	6	7	8	9	10
	No confidence										Complete Confidence
My confidence to train without symptoms:	0	1	2	3	4	5	6	7	8	9	10
	No confidence										Complete Confidence
My confidence to give 100% is:	0	1	2	3	4	5	6	7	8	9	10
	No confidence										Complete Confidence
My confidence to not concentrate on the illness is:	0	1	2	3	4	5	6	7	8	9	10
	No confidence										Complete Confidence
My confidence in my body to handle the demand is:	0	1	2	3	4	5	6	7	8	9	10
	No confidence										Complete Confidence
My confidence in my skill level / ability is:	0	1	2	3	4	5	6	7	8	9	10
	No confidence										Complete Confidence



## Key Considerations

1. In all cases, if any of the previously detailed 'red flag' symptoms manifest (see page 3), or if the athlete or anyone else supporting them has any concerns, the medical physician should be consulted immediately, and the G RTP should be ceased.
2. Some people take over 3 weeks to recover and return to full training, and some mild symptoms may also persist (e.g. mild breathlessness, fatigue, reduced or altered smell / taste), which may extend the return to training process, according to the clinical scenario and performance requirements.
3. As previously detailed the self-isolation period is likely to be at least 7 days\*, so all activities during that period will need to be performed within the athlete's home.



## References

Bhatia, R. T., Marwaha, S., Malhotra, A., Iqbal, Z., Hughes, C., Börjesson, M., et al. (2020). Exercise in the severe acute respiratory syndrome Coronavirus-2 (SARS-COV-2) era: A question and answer session with the experts endorsed by the section of Sports Cardiology and Exercise of the European Association of Preventive Cardiology (EAPC). *European Journal of Preventive Cardiology*, 27(12), 1242-1251.

Bird, S.P., Osborne, H., Huyghe, T., Nolan, E., & King, L. (2020). *Basketball New Zealand COVID-19 Return to Training and Competition Guidelines: A Framework for a Safe Return to Training and Competition for Coaches and Players*. Wellington, New Zealand.

Biswas, A., Elliott Niall, Martin, R., Heron, N., Grimstead, D., Wass, J., et al. (2021). The BASES Expert Statement on Graduated Return to Play Following Covid-19 infection. *Sport and Exercise Scientist*, 67(Spring), 62-67.

Davey, M. S., Davey, M. G., Hurley, R., Hurley, E. T., & Pauzenberger, L. (2022). Return to play following COVID-19 infection—a systematic review of current evidence. *Journal of Sport Rehabilitation*, 31(2), 218-223.

Elliott, N., Martin, R., Heron, N., Elliott, J., Grimstead, D., & Biswas, A. (2020). Infographic. Graduated return to play guidance following COVID-19 infection. *British Journal of Sports Medicine*, 54(19), 1174-1175.

Hull, J. H., Loosemore, M., & Schwellnus, M. Respiratory health in athletes: facing the COVID-19 challenge. *Lancet Resp Med*, 8(6), 557-558.

Kim, J. H., Levine, B. D., Phelan, D., Emery, M. S., Martinez, M. W., Chung, E. H., et al. (2021). Coronavirus disease 2019 and the athletic heart: Emerging perspectives on pathology, risks, and return to play. *JAMA Cardiology*, 6(2), 219-227.

Martinez, M. W., Tucker, A. M., Bloom, O. J., Green, G., DiFiori, J. P., Solomon, G., et al. (2021). Prevalence of inflammatory heart disease among professional athletes with prior COVID-19 infection who received systematic return-to-play cardiac screening. *JAMA Cardiology*, 6(7), 745-752.

Sport Scotland (2021, Apr 05). Coronavirus graduated return to play for performance athletes: Guidance for healthcare practitioners who are supporting performance athletes. UK Home Countries Institute of Sport.

Udelson, J. E., Rowin, E. J., & Maron, B. J. (2021). Return to play for athletes after COVID-19 infection: The fog begins to clear. *JAMA Cardiology*, 6(9), 997-999.



# RESOURCES

New Zealand Government

<https://covid19.govt.nz>

New Zealand Ministry of Health

<https://www.health.govt.nz>

World Health Organisation: Coronavirus disease (COVID-19) pandemic

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019>

High Performance Sport New Zealand: Resources relating to Wellbeing, Nutrition and Immunity

<https://hpsnz.org.nz/covid-19/wellness-for-athletes>

Basketball New Zealand: BBNZ Resources Library > PLAYERS (Infographics)

<https://nz.basketball/resources>

- [Recovery Benefits](#)
- [Recovery Points Checklist](#)
- [Return To Training | 50 30 20 10 Rule](#)



**BASKETBALL**  
New Zealand

# BASKETBALL NEW ZEALAND COVID GRTP FRAMEWORK TEAM

## Stephen P. Bird, PhD

Head of Athlete Performance and Wellbeing, Basketball New Zealand.

Associate Professor, Sport and Exercise Science, University of Southern Queensland, Australia.

## Dr Hamish Osborne

Tall Blacks Doctor, Basketball New Zealand.

## Anousith Bouaaphone

Tall Blacks Physiotherapist, Basketball New Zealand.

## Leonard King

Head of High Performance, Basketball New Zealand.

## Mel Downer

National Pathways Manager, Basketball New Zealand.



**BASKETBALL**  
New Zealand