



RETURN TO PLAY AFTER COVID 19 INFECTION

World Triathlon Medical Committee

An infection of COVID 19 is known to be associated with severe acute and probably also chronic damage to health. Not only the lungs but also the cardiovascular system, the central and peripheral nervous systems, skeletal muscle, the liver and kidneys are affected in acute phase. The exercise capacity is probably limited especially by impaired gas exchange as a result of diffusion impairment and of the pulmonary fibrosis. The risk of myocarditis exists in a mild course or even for asymptomatic COVID 19 patients, and could be associated to sudden cardiac death.

A COVID 19 disease require the evaluation of the athlete by a medical professional for consideration of return to activity and competitive sport (RTP). The severity of the disease, particularly fatigue, appears to affect the duration of the recovery.

Exercise should not resume if the player is symptomatic such as but not limited to, persistent fever, dyspnea at rest, cough, chest pain, or palpitations. Clinicians should advise patients to return to activity in a slow gradual manner.

This guideline presents the recommendations for the reintegration in competitive sport after recovery from COVID 19 infection (1,2,3,4,5)

Mild symptoms: anosmia, ageusia, headache, mild fatigue, mild upper respiratory tract illness, and mild gastrointestinal illness.

Moderate symptoms: persistent fever > 38°, chills, cough, myalgias, lethargy, dyspnea and chest tightness, SpO2 >94%

Cardiovascular (CV) symptoms: dyspnea, exercise intolerance, chest, tightness, dizziness, syncope and palpitations, SpO2 <94%.

Athletes with a positive COVID 19 test asymptomatic:
10 days self-isolation,

Rest and no exercise for 2 weeks from positive test results.

Anamnesis, physical examination, resting ECG without abnormalities.

2) Athletes with positive COVID 19 test with mild/moderate symptoms but without clinical or radiological evidence of pneumonia: 10 days self-isolation:

Rest/recovery with no exercise during the symptomatic period; 2 weeks of convalescence without resumption of exercise, **RTP only after** symptoms resolution.

Anamnesis, physical examination, laboratory (differential blood count, PCR, CK, CK MB, hs-cTn, D-dimer), resting and exercise ECG with O2 saturation, echocardiography, spirometry without abnormalities.

3) Athletes with positive COVID 19 test with clinical or radiological evidence of pneumonia.

No sport for at least 4 weeks (RTP only after symptoms resolution.)

Anamnesis, physical examination, laboratory, resting and exercise ECG, cardio pulmonary exercise test (CPX) with BGA, echocardiography, spirometry without abnormalities

Consider adding CMRI. Return to training under doctor's supervision.

4) Athletes with positive COVID 19 test with suspected or confirmed myocarditis with/without pulmonary involvement.

No sport for at least 3-6 months.

Diagnostics according to "Guidelines myocarditis" and consider adding CMRI (6,7,8,9

Return to training under the supervision of a cardiologist.

In case of pneumonia must be performed also all the exams in the point 3.



References

1) Position Stand: Return to sport in the current coronavirus pandemic (SARS- COV- 2/COVID-19). NIFFS am, Bloch W, Friedmann -Bette B et al. German J of Sport Medicine, 71,5,2020.

2) Coronavirus disease 2019 and athletic hearth. Emerging perspective on pathology, risks, and return to play. Kim JH, Benjamin D, Dermot P et al. JAMA Cardiol.10,26,2020

3) Idoneità e ripresa all'attività sportiva agonistica in atleti non professionisti COVID-19 positivi guariti e in atleti con sintomi suggestive per COVID-19 in assenza di diagnosi da SARS COV-2. FMSI Protocolli 2020.

4) Return to activity after mild/moderate COVID-19 infection in recreational athlete. McEhlenny K, Metzl J, Scott D et al. The sport Medicine Institute. HSS NY. 2020

5) World Rowing COVID-19 related documents. Post Peak Coronavirus Pandemic.

6) Myocarditis in athlete. A clinical perspective. Halle M, Binzenhofer L,Mahrholdt H, et al. Eur J Prev Cardiol. 2020. 2047487320909670 (Epub ahead of print)

7) Recommendations for participation in competitive and leisure time sport in athlete with cardiomyopathies, myocarditis, and pericarditis. Position statement of the Sport Cardiology Section of the European Association of Preventive Cardiology (EAPC). Pelliccia A, Solberg EE, Papadakis M, et al. Eur Heart J.2019,40,19-33.

8) COVID-19 Myocardial pathology evaluated through screening cardiac magnetic resonance (Compete CMR). Clark DE, Parikh A, Dendy JM, et al. medRxiv 2020. https://doi.org/10.1101.2020.2008.2031.20185140

9) Cardiovascular magnetic resonance findings in competitive athletes recovering from COVID-19 infection. Raipal S,Tong MS,Borchers J, et al. (e-pub ahead of print) JAMA cardiology

