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 requires 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%.

1) 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


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