

Sports Clearance Following Covid-19 Infection

The American Academy of Pediatrics has recently released updated guidance related to sports clearance after Covid-19 due to increasing concern about the relationship between the infection and myocarditis (inflammation of the heart tissue). Bethesda Pediatric is following these guidelines as outlined below:

All individuals who test positive for COVID-19, even if asymptomatic or mildly symptomatic, **should not exercise until they are cleared by a physician**. Their primary care physician (PCP) should perform a preparticipation screening evaluation with special emphasis on cardiac symptoms (including chest pain, shortness of breath, irregular heartbeat, or fainting) and a complete physical examination. If the evaluation and examination are normal, no further testing is necessary and the patient may begin a gradual return to play **after 10 days have passed from date of the positive test result** and a minimum of 24 hours symptom free off of fever reducing medications. A patient with a positive screening with need an EKG and referral to a pediatric cardiologist for evaluation and further testing.

For those with **moderate symptoms** (≥ 4 days of fever $>100.4^{\circ}\text{F}$, myalgia, chills, or lethargy or those who had a non-ICU hospital stay and no evidence of MIS-C), an EKG and cardiology consult is currently recommended after symptom resolution, and at a minimum of 10 days past the date of the positive test result. Depending on the patient's symptoms and their duration, additional testing may be considered. If cardiac workup is negative, gradual return to physical activity may be allowed after 10 days have passed from the date of the positive test result, and a minimum of 10 days of symptom resolution has occurred off of fever-reducing medicine.

For patients with **severe** symptoms (ICU stay and/or intubation) or multisystem inflammatory syndrome in children (MIS-C), it is recommended they be restricted from exercise for a minimum of 3 to 6 months and definitely require cardiology clearance prior to resuming training or competition. Coordination of follow-up cardiology care should be arranged prior to hospital discharge.

A graduated return-to-play protocol can begin once an athlete has been cleared by a physician and is asymptomatic when performing normal activities of daily living. The progression should be performed over the course of **a 7-day minimum**. Consideration for extending the progression should be given to athletes who experienced moderate COVID-19 symptoms as outlined above.

The following progression was adapted from Elliott N, et al, infographic, British Journal of Sports Medicine, 2020:

Stage 1: Day 1 and Day 2 - (2 Days Minimum) - 15 minutes or less: Light activity (walking, jogging, stationary bike), intensity no greater than 70% of maximum heart rate. NO resistance training.

Stage 2: Day 3 - (1 Day Minimum) - 30 minutes or less: Add simple movement activities (eg. running drills) - intensity no greater than 80% of maximum heart rate.

Stage 3: Day 4 - (1 Day Minimum) - 45 minutes or less- Progress to more complex training - intensity no greater than 80% maximum heart rate. May add light resistance training.

Stage 4: Day 5 and Day 6 - (2 Days Minimum) - 60 minutes -Normal training activity - intensity no greater than 80% maximum heart rate.

Stage 5: Day 7 - Return to full activity/participation (ie, - Contests/competitions).