

Return To Sports Participation After Coronavirus Infection in Pediatric Patients

- The approach to sports participation clearance in pediatric patients should differ from the approach in adult patients
- Most pediatric patients can be cleared for participation by primary care physician without extensive cardiac testing, but pediatric providers should ensure patients have fully recovered and have no evidence of myocardial injury
- When considering the question of return-to-play, three important variables to consider:

(1) How recent was the COVID-19 infection?

- If there were no clinical or laboratory findings suggesting myocardial involvement during the acute infection, before returning to play, patients should be asymptomatic for at least 2 weeks. This 2-week period will allow for the full clinical manifestations of COVID-19 to present themselves and likely, decrease the risk of transmitting the infection to teammates or opponents.

(2) How severe was the infection?

- Asymptomatic or mild illnesses in the pediatric population should be treated similarly to other viral illnesses in the pediatric population. This will account for majority of children seen in clinic. These children should refrain from physical activity and sports while symptomatic or febrile and gradually return to activities. These patients typically will not have had cardiac testing during their acute infection, so do not need cardiac testing to clear them for participation by their primary care physician.
- Severe disease defined as someone who required hospitalization, had abnormal cardiac testing during the acute infection, and/or had multisystem inflammatory syndrome in children (MIS-C) should be treated cautiously. The impact on the heart in MIS-C mimics the presentation of other acute viral myocarditis in pediatric patients. As result, it is reasonable to treat pediatric patients who have had MIS-C as if they had myocarditis. These patients in most cases will have had cardiac testing during the acute phase (echocardiograms, ECGs, etc.). Depending on the results and supported by previous published guidelines on the care of athletes with myocarditis, the patient should be restricted for 3-6 months and only resume activities when/if cardiac testing has normalized. Please note that the long-term impact of MIS-C is unknown. Complete cardiac recovery appears to be norm, but further research is needed. These patients require pediatric cardiology follow-up.

(3) What is the physical activity or sport being considered?

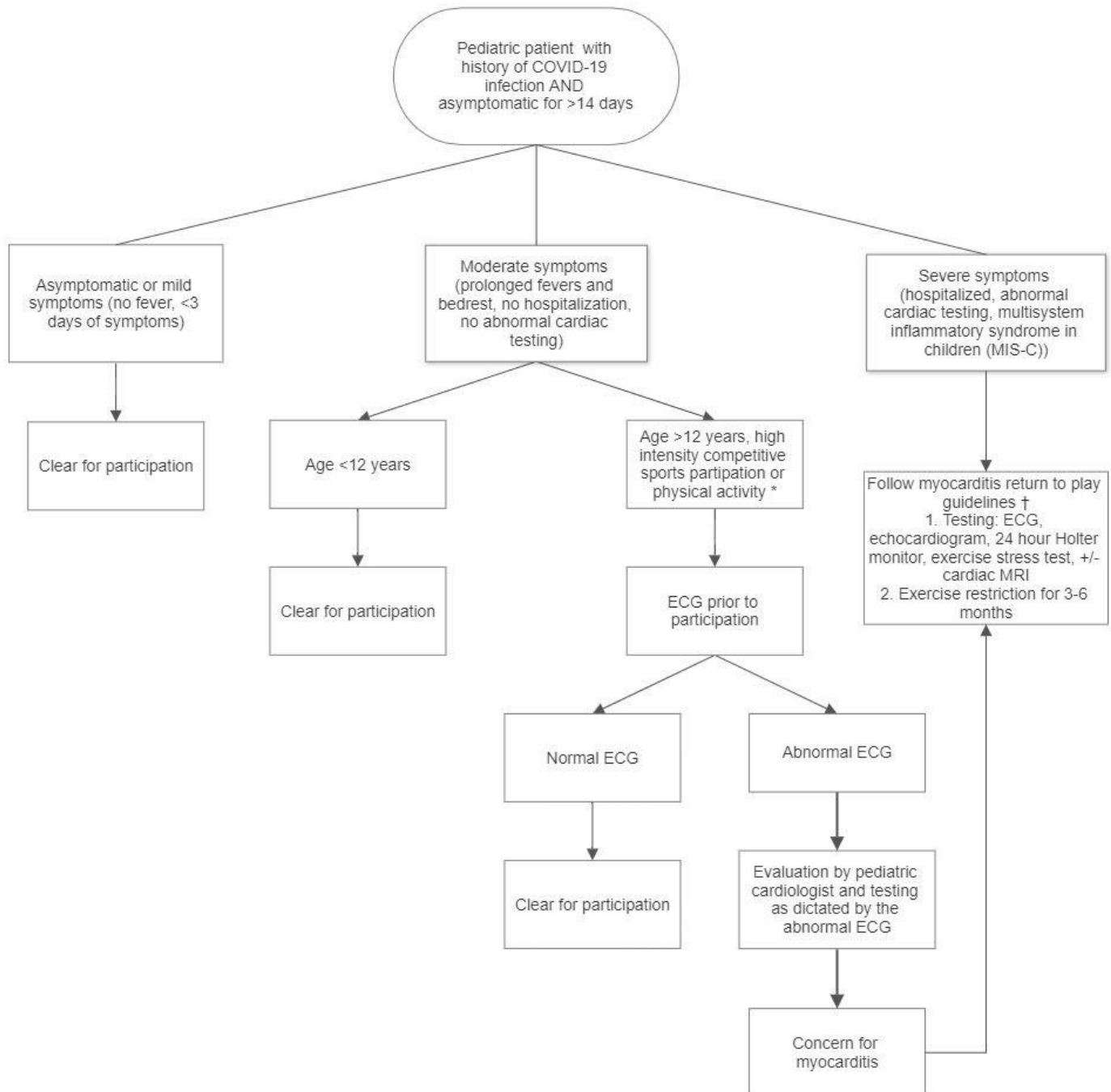
- For the younger patients (< 12 years old), in general, their exertional level during sports is not significantly higher than their activities of daily living, and as result do not need cardiac testing to be cleared
- For teenage athletes who had moderate disease (prolonged fevers and bedrest), it would be reasonable to perform an ECG, and if suggestive of myocarditis, a pediatric cardiology consultation. In those patients with a history of severe symptoms (hospitalized, abnormal cardiac testing, MIS-C), it is reasonable to refer to pediatric cardiology and perform both an EKG, echocardiogram and laboratory markers.

REFERENCES:

1. Dean PN, Jackson LB, Paridon SB. Returning TO Play After Coronavirus Infection: Pediatric Cardiologists' Perspective. July 2020 American College of Cardiology Foundation.
2. American Academy of Pediatrics: Critical Updates on Covid-19, Clinical Guidance, Covid-19 Interim Guidance: Return to Sports
3. Phelan D, Kim JH, Chung EH. A Game Plan for the Resumption of Sport and Exercise after Coronavirus Disease 2019 (COVID-19) Infection. JAMA Cardiol 2020;May 13.
4. Baggish A, Drezner JA, Kim J, Martinex M, Prutkin JM. Resurgence of Sport in the Wake of Covid-19: cardiac considerations in competitive athletes. Br J Spors Med. 2020;Jun 13.



Return to Play After COVID-19 Infection in Pediatric Patients



<https://www.acc.org/latest-in-cardiology/articles/2020/07/13/13/37/returning-to-play-after-coronavirus-infection>