



## Recommendations for Primary Care Providers Regarding Post-COVID-19 Return-to-Play (RTP) for Pediatric Athletes & Patients

### Background:

- This document was prepared as a practical reference for primary care providers by a consortium from University of Michigan faculty at C.S. Mott Children's Hospital and Central Michigan University faculty at Children's Hospital of Michigan.
- Recommendations for return-to-play (RTP) for young athletes are evolving based on observation of RTP in COVID-19 positive athletes. These recommendations are based on current expert opinion of leading sports cardiologists and are subject to change as more data become available.
- An *athlete* is considered here as one participating in organized sports at any level. However, these recommendations can also be applied to patients participating in regular high-intensity activities.
- Most young athletes experience asymptomatic or only mildly-symptomatic COVID-19 infections.
- The protocol for return-to-activities will vary based on severity of infection, time off from exercise/activities, pre-COVID-19 level of activity and whether there is a pre-existing medical condition.
- Similar to RTP after concussion or mono, amount, type and intensity of activity should be gradually increased. In regards to COVID-19, this gradual RTP should be over at least 7 days and ideally be under direct supervision, if able. One can consider this like an orthopedic injury: Rest, recover and gradual RTP.
- Given possible restrictions to in-person office visits, it is reasonable to consider a virtual visit. Follow up visits should focus on assessing the severity of COVID-19 infection, confirming cessation of symptoms, and screening for cardiovascular symptoms. Additionally, gradual RTP guidance should be covered as well as anticipatory guidance with specific focus on red flag/cardiovascular symptoms (see Red Flag section below).

### Isolation recommendations:

1. **Isolation:** Isolation is 10-days from positive-test date. (Considered from test date, as some athletes may adjust start date of symptoms to return to play sooner.) During isolation those with COVID-19 should not participate in exercise.
2. **After Isolation:** Similar to recommendations for other viral infections, RTP should be gradual. Current guidance for RTP clearance after COVID-19 includes following the CDC recommendations for isolation followed by gradual return-to-exercise based on recommendations below.

**NOTE:** The CDC defines isolation as separating someone who has been infected away from others and quarantine as separating a potentially exposed person away from others to see if they become sick ([referenced here](#)).

### Definition of COVID-19 infection severity:

- **Asymptomatic illness:** Positive COVID-19 test with no symptoms.
- **Mild COVID-19 illness:** Symptoms can include fever (oral  $\geq 100.4F$ ) for 3 days or less, fatigue, loss of smell/taste, nausea, vomiting, diarrhea, headache, cough, congestion, sore throat.
- **Moderate COVID-19 illness:** Symptoms can include persistent fever (oral  $\geq 100.4F$ ) for more than 3 days, chills, body aches, loss of smell/taste, significant lethargy/fatigue, cough, hypoxia, pneumonia, shortness of breath, chest pain, chest tightness.
- **Severe COVID-19 illness:** Those who required hospitalization, or had abnormal cardiac testing during the acute infection, or had multisystem inflammatory syndrome in children (MIS-C).

### Specific recommendations based on severity of COVID-19 infection:

1. **For asymptomatic or mild cases of all ages**
  - a. Isolation for 10 days from positive-test date.



- b. For mild cases, recommend contacting PCP to determine need for follow up. Consider virtual visit, if needed.
- c. For both asymptomatic and mild cases review anticipatory guidance regarding red flag signs and symptoms.
- d. During RTP after isolation, monitor for possible cardiac and lung-related symptoms.

## **2. For moderate cases 12 years and younger**

- a. Isolation for 10 days from positive-test date.
- b. Must be at least 10 days asymptomatic before starting RTP. (The symptom of loss of smell and/or taste may take longer to resolve and should not preclude RTP).
- c. Follow up assessment with PCP should be done prior to starting RTP. Consider virtual visit, at which time can further triage if in-person visit is needed.
- d. Review anticipatory guidance regarding red flag signs and symptoms.
- e. During RTP after isolation, monitor for possible cardiac and lung-related symptoms.

## **3. For moderate cases 13-18 years**

- a. Same as moderate cases 12 years and younger with the addition of:
- b. Consider referral to pediatric cardiology prior to RTP, depending on type of sport, level of competition, and degree of COVID-19 symptoms.

## **4. For severe cases or MIS-C cases of all ages**

- a. ALL patients should be evaluated by pediatric cardiology prior to starting gradual RTP.

### **Red flag symptoms and physical exam findings:**

1. Concerning symptoms may be during infection, during resolution or after infection.
2. Recommend reviewing red flags as anticipatory guidance upon diagnosis of COVID-19 and at follow-up prior to starting RTP.
3. Development of any of these symptoms should result in stopping activities, discussion with PCP and possible referral to a pediatric cardiologist.
4. Red Flag symptoms include:
  - a. Chest pain
    - i. concerning features for cardiac involvement include pain that gets worse with supine position or is associated with exertion, palpitations, shortness of breath, or syncope/dizziness.
    - ii. reassuring features (suggesting non-cardiac chest pain) include pre-existing or longstanding pain, pain reproducible by palpation, pain located exclusively in axillae, and soreness related to coughing.
  - b. Dyspnea
  - c. Palpitations
  - d. Syncope/Dizziness
  - e. Edema
  - f. Persistent or recurrent fever, vomiting or diarrhea
  - g. Significant ongoing fatigue
  - h. Features of MIS-C in the 4-6 weeks post COVID-19 infection
5. Physical exam findings include new-onset murmur, tachycardia, tachypnea, pericardial rub, crackles, hepatomegaly, edema.



### References:

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**Recommendations based on expert opinions, dated Dec. 15, 2020\***. Also see our:

- [Return-to-Play \(RTP\) for Pediatric Athletes & Patients – ALGORITHM](#)
- [Suggested Post-Covid-19 Gradual Return-to-Play Progression](#)

\*Recommendations are subject to change – see [www.mottchildren.org/COVIDUpdate](http://www.mottchildren.org/COVIDUpdate) for updates and additional information.