Nationwide Children’s Hospital Sports Medicine has created a comprehensive, gradual return to activity protocol for youth and adolescent athletes that have had mild to moderate cases of COVID-19. This progression is adapted from the current information and research available regarding COVID-19 at the time of publication.

Return to Activity Protocol

COVID-19 Considerations

- Children with asymptomatic or mild COVID-19 infection (<4 days of fever >100.4°F, short duration of myalgia, chills, and lethargy) need clinical evaluation from primary care provider. If the preparticipation evaluation is normal, no further testing is warranted and the child may begin 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-fever reducing medications.

- Children with moderate COVID-19 infection (>4 days of fever > 100.4°F, myalgia, chills, lethargy or those who had a non-ICU hospital stay without MIS-C) are recommended to have an ECG and cardiology consult and cardiac work-up after symptom resolution. These children should not exercise until cleared by a physician or collaborating licensed medical provider.

- Children with severe COVID-19 infection (ICU stay/intubation or MIS-C) should be restricted from exercise for a minimum of 3-6 months and require cardiology clearance prior to resumption of training or competition.

Return to Play

- A graduated return-to-play protocol may begin after clearance by a physician or a cardiologist or collaborating licensed medical provider.
- Children should be asymptomatic when performing normal activities of daily living.
- The return-to-play protocol progresses over the course of a 7-day minimum.
- Effort at each stage based on predicted heart rate maximum (220-age) or the modified Borg Rating of Perceived Exertion (RPE) - see below
- Extension of the return-to-play protocol is warranted for those who experienced moderate COVID-19 symptoms.
**Sports Medicine**

**Return to Play Stages**

| STAGE 1 | Days 1 and 2: (minimum of 2 days) for 15 minutes or less  
|         | Intensity level of no greater than 70% of maximum heart rate or RPE of 3-4  
|         | Light aerobic activity such as stationary bike, brisk walking, light jogging  
|         | No resistance exercises |
| STAGE 2 | Day 3: (minimum of 1 day) for 30 minutes or less  
|         | Add simple movement activities at no greater than 80% of maximum heart rate or RPE of 5-6 |
| STAGE 3 | Day 4: (minimum of 1 day): 45 minutes or less  
|         | Intensity no greater than 80% of maximum heart rate or RPE of 7-8  
|         | Proceed to more complex training  
|         | Add light resistance training |
| STAGE 4 | Days 5-6: (minimum of 2 days)  
|         | Normal training up to 60 minutes  
|         | Intensity no greater than 80% maximum heart rate or RPE of 8-9  
|         | Proceed to more complex training  
|         | Add light resistance training |
| STAGE 5 | Day 7  
|         | Resumption of full physical activity/participation in contests and competitions |

**Rating of Perceived Exertion Scale**

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<th>RPE Scale</th>
<th>Rating of Perceived Exertion</th>
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| 10        | Max Effort Activity  
|           | Feels almost impossible to keep going. Completely out of breath, unable to talk. Cannot maintain for more than a very short time. |
| 9         | Very Hard Activity  
|           | Very difficult to maintain exercise intensity. Can barely breath and speak only a few words |
| 7-8       | Vigorous Activity  
|           | Borderline uncomfortable. Short of breath, can speak a sentence. |
| 4-6       | Moderate Activity  
|           | Breathing heavily, can hold short conversation. Still somewhat comfortable, but becoming noticeably more challenging. |
| 2-3       | Light Activity  
|           | Feels like you can maintain for hours. Easy to breathe and carry a conversation |
| 1         | Very Light Activity  
|           | Hardly any exertion, but more than sleeping, watching TV, etc |
Cardiac Screening Questions for COVID-19 Return to Activity Protocol
Updated 12/10/2020
(Adapted from OHSAA 2020-2021 Pre-Participation Physical Form)

To be asked before progression is started (questions 1-6) and at the start of a new stage (questions 3-6)

1. Has a doctor told you that you have any heart problems, specifically within the last 14 days?
2. Did a doctor schedule or complete a test for your heart recently? For example, electrocardiography (ECG) or echocardiography, or cardiac MRI, other cardiac tests or bloodwork?
3. Have you passed out or nearly passed out during or after exercise?
4. Have you had discomfort, pain, tightness, or pressure in your chest during exercise?
5. Does your heart ever race, flutter in your chest, or skip beats (irregular beats) during exercise?
6. Do you get light-headed or feel shorter of breath than your friends during exercise?

Additional Information
For additional information, please click on the links below from current AAP’s guidance on return to sports and the British Journal of Sports Medicine’s Infographic on Graduated Return to Play Guidance following COVID-19 infection.


https://bjsm.bmj.com/content/bjsports/early/2020/06/22/bjsports-2020-102637.full.pdf