Return to Sports during COVID-19

Daniel Chen, MD and Drew Duerson, MD
Nationwide Children’s Hospital

Sports participation provides many benefits, including enhanced fitness, promotion of physical activity, and improved social skills, teamwork, and mood. In the current environment, sports may also serve as one of the few avenues of socialization and provide structure and routine. The risk of resuming sports participation during the current pandemic must be balanced with these mental and physical benefits.

Impact of COVID-19 on Children
In the pediatric population, severe illness is less common. However, the role that children have in spreading the virus to others is not entirely clear. Additionally, some children with COVID-19 have developed multisystem inflammatory syndrome (MIS-C), a condition which causes inflammation of multiple organ systems that can be potentially life-threatening.

Pre-Participation Considerations
The AAP recommends that all athletes who have had COVID-19 be evaluated by their medical provider for clearance prior to participation in sports. COVID-19 can cause lasting cardiac and pulmonary injury in certain individuals, particularly those who required hospitalization. These enduring effects, in particular myocarditis, should be identified, as exercise may exacerbate these conditions and potentially lead to sudden cardiac death.

Athletes who have had COVID-19
Athletes who have had mild or asymptomatic COVID-19 should be evaluated for any persisting symptoms, including decreased exercise tolerance, chest pain, palpitations, and shortness of breath. Individuals who were strongly suspected of having COVID-19 but were never tested should be presumed positive and undergo evaluation. Any concerning history or physical exam findings should prompt a referral to the appropriate provider for further evaluation. Currently, no strict guidelines exist for cardiac evaluation of athletes that are presumed or known COVID-19 positive. However, several recent publications strongly recommend evaluation with at least an EKG for those with mild symptoms (and possibly for those that are asymptomatic). For those with moderate/severe symptoms, or who were hospitalized, cardiology referral and a more extensive workup is recommended, including troponins, 24 hour holter monitor, echocardiography, exercise stress testing, and/or cardiac MRI. Individuals found to have signs of myocarditis should be restricted from sports participation for at least 3-6 months.

The AAP recommends a 2 week period of rest, without exercise, for all COVID-19 exposures. Those with symptoms, should be restricted from exercise and competition for 2-4 weeks. Once the patient is asymptomatic, a gradual return to play is recommended. Ideally, this exercise progression should be closely supervised by a certified athletic trainer. Any further symptoms during this period may prompt further medical attention.

COVID-19 negative Athletes
Many athletes may have had a significant decrease in activity during the pandemic. Pediatricians should educate all athletes on a gradual progression back into sports, in order to allow time for reconditioning and lower the risk of overuse injuries. Athletes should also be cautioned on gradual acclimation to exercise in high temperatures and proper hydration.

Reducing Risk of Transmission during Sports
Which sports are higher risk?
The prevalence of COVID-19 varies between regions and is constantly changing. In general, sports involving fewer participants, those occurring outdoors, and those that allow for increased physical distancing of participants are likely have lower risk of virus transmission. Conversely, sports involving more participants, occurring indoors, or requiring close contact, place athletes at higher risk.

Individual Considerations
All athletes should self-monitor for symptoms and immediately report any to their coach and/or athletic trainer. Athletes with suspected COVID-19 should contact their medical provider or local health department for further guidance, as well as follow CDC isolation guidelines.

The AAP recommends that cloth face masks be worn by athletes on the sideline, bench, and when entering or exiting facilities. All coaches, officials, volunteers, and spectators, should wear cloth masks at all times. Masks are not recommended during vigorous exercise, during water sports, or in sports where a mask could catch on equipment and result in vision impairment (e.g., cheer, gymnastics).

Team Considerations
All teams and leagues should follow local health guidelines and regulations, including OHSAA guidelines. Teams should limit the sharing of equipment and sanitize any equipment or surfaces that must be shared. Individuals should be encouraged to bring their own water bottle and practice appropriate hand hygiene. Travel to different regions for competition should be limited.

Return to Sports during COVID-19

Daniel Chen, MD and Drew Duerson, MD
Nationwide Children’s Hospital

Participation in sports provides many benefits, including better fitness, increased physical activity, and improved social skills, teamwork, and mood. There are risks to resuming sports during the current pandemic, but it is important to weigh these along with the benefits of sports.

Impact of COVID-19 on Children

The illness can be serious and lead to death, although this is less common in children. Individuals may also have COVID-19 and spread it to others, even without having symptoms. Some children with COVID-19 have developed multisystem inflammatory syndrome (MIS-C), a condition which causes inflammation of multiple organ systems in the body and can be life-threatening.

Considerations prior to starting Sports

The American Academy of Pediatrics (AAP) recommends all athletes who have had COVID-19 be examined by their medical provider prior to sports participation. Some people who contract COVID-19 can develop myocarditis (inflammation of the heart), particularly those who were hospitalized. It is not clear how often this happens in young athletes, but it is thought to be a risk for anyone COVID-19 positive, whether they had no symptoms or severe illness. Therefore, it is important for medical providers to consider this possibility and evaluate further if needed, as exercising with myocarditis can be life-threatening.

Athletes who have had COVID-19

Athletes who have tested positive for COVID-19 or are strongly suspected to have COVID-19 (had symptoms and exposure to someone with COVID-19), should be evaluated by their medical provider prior to returning to sports.

Let your medical provider know if your child has any symptoms of chest pain, difficulty breathing, or getting tired more easily during exercise. Your provider may decide to run tests to evaluate heart function, and may send you to a heart specialist. If your child had severe symptoms or was hospitalized for COVID-19, further testing by a heart specialist is recommended prior to returning to sports. If myocarditis is found, it may be 3-6 months before it is safe to return to exercise.

If your child has COVID-19 or was exposed to someone with COVID-19, the AAP recommends resting without exercise for 2 weeks. After they are cleared by their medical provider and do not have any symptoms, athletes should slowly increase their exercise intensity before fully returning to sports. Ideally, this exercise progression is supervised by a certified athletic trainer. If any symptoms occur while increasing exercise intensity, contact your medical provider.

Athletes who have not had COVID-19

Many athletes have been less active during the pandemic. If cleared to return to sports, athletes should slowly increase their level of exercise before returning to a normal level of training or competition. Athletes should be careful as their bodies adjust to exercising in hot climates and be sure to stay well hydrated.

Reducing Transmission Risk

Which athletes are at higher risk?

There are multiple factors that can affect an athlete’s risk of getting COVID-19. Sports with fewer participants, those occurring outdoors, and those with less physical contact between athletes (e.g., tennis, cross country, golf) are likely lower risk. Sports with more participants, occurring indoors, or requiring close contact (e.g., football, basketball, wrestling) place athletes at higher risk.

Additionally, athletes with underlying conditions such as diabetes, obesity, heart problems, or a weakened immune system are at higher risk for developing severe illness. The decision to return to sports should take into account these individual risk factors, as well as any family members or close contacts with underlying health conditions who could be affected by exposure to the virus.

Individual Considerations

All athletes should self-monitor for symptoms of COVID-19 and immediately report any symptoms to their coach and/or athletic trainer. Athletes suspected to have COVID-19 should contact their medical provider or local health department for further guidance and follow CDC isolation guidelines. The AAP currently does not recommend COVID-19 or antibody testing for individuals without symptoms, unless they have had close contact with an infected person.

• The AAP recommends cloth face masks be worn by athletes on the sideline, bench, and when entering or exiting facilities
• Coaches, officials, volunteers, and spectators should wear cloth masks at all times
• Masks are not recommended during vigorous exercise, water sports, or in sports where a mask could catch on equipment and block vision (e.g., cheer, gymnastics)

Team Considerations

• Follow local health guidelines, including OHSAA guidelines
• Limit the sharing of equipment when possible and sanitize equipment or surfaces that must be shared
• Encourage individuals to bring their own water bottle and practice appropriate handwashing and social distancing
• Limit travel to different regions for competition