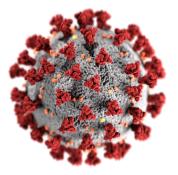
Returning to sports in the COVID era

A little more than a year ago no one had ever heard of COVID-19, the acronym for the name given by the World Health Organization (WHO) to the disease caused by the novel coronavirus SARS-CoV2. Not much was known about COVID at the time, but doctors and researchers continue to learn more about this fierce opponent every day.

One discovery was athletic home workout programs and virtual practices did not achieve the same level of training as in-person



training. This reduced training level resulted in a loss of fitness, or "detraining." Detraining negatively affects neuromuscular, cardiovascular, respiratory and musculoskeletal systems and occurs as early as one week after no training, according to researchers.

With sports resuming in the United States, sports medicine physicians, coaches and athletic trainers are concerned about detrained athletes returning to their sports and overexerting or injuring themselves. Researchers from Case Western Reserve University School of Medicine, University Hospitals Cleveland Medical Center and the school's Sports Medicine Institute conducted the first sports performance research done during the pandemic. For their study, they compared injury rates of professional German soccer players before and after the quarantine.

Data collected from injury reports revealed during the 82 games played following quarantine, there were 70 injuries on 68 players that prevented game participation. This was 3.12 times higher injury percentage than prior to the pandemic (0.84 injuries per game vs. 0.27 injuries per game). Muscular strain or tear injuries were the most common—23 total. Seventeen percent of the athletes experienced an injury prior to or during their first competitive match post quarantine. Researchers also noted athletes did not experience an increased rate of injury as the season continued suggesting there was "suboptimal sports readiness following home confinement."

However, the researchers did not consider whether some of the athletes may have had COVID prior to resuming the season. Doctors and researchers continue to learn more about the serious COVID side effects including neurocognitive changes in attention and focus—similar to those who have suffered a concussion—and cardiovascular injury from myocarditis (inflammation of the heart).

University of Kansas Health System cardiologists, neurologists, infectious disease physicians and sports medicine physicians reported their growing concerns about the side effects of COVID-19

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on athletes and their safety during the return to sport because many recovered COVID-19 patients continue to experience symptoms for several months. Therefore, they noted it is important for doctors, coaches, athletic trainers and parents to vigilantly monitor athletes.

The current recommendation for symptomatic athletes with COVID-19 includes in-home isolation and discontinuation of training. They may take antipyretics such as acetaminophen (Tylenol[®]), but should avoid NSAIDS (Advil[®], Motrin[®], Aleve[®]) and corticosteroids (Prednisone[®]). The athlete may discontinue isolation when it has been ten days since the beginning of symptoms, he/she has been without a fever for more than 24 hours without the use of medication, and if his/her symptoms have resolved.

An athlete's return to sport and training after recovery depends on the severity of the illness. Athletes with mild to moderate cases should not exercise for 10-14 days to give the body time to recover and get a medical or routine pre-participation evaluation with possible EKG or cardiac screening. If cleared and symptom-free, athletes can start low intensity training as tolerated while being closely monitored. Additionally, athletes should follow a 7-10 day acclimatization period to slowly return to sport.

For severe COVID-19 cases, a medical evaluation is necessary with symptom screening, cardiac testing, EKG, cardiac consultation, blood draw and a 48-hour postexercise EKG before returning to any sport. Additional cardiac testing may be needed in certain situations.

A University of Kansas Health System Sports Neurologist concluded, "We still don't know enough about how safe it is for COVID-19-positive athletes to return to their sport and teams must have a good plan for monitoring athletes and have a cautious return plan in place."



