



How to Return to Sports and Physical Activities during the COVID-19 Outbreak

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Abstract

The novel Coronavirus Disease 2019 (COVID-19) continues to affect every point of life since its first days, December 31st, 2019. The outbreak, which influenced the world, changed our approach not only to our health, but also to our social life, economy, eating and drinking habits, and events such as cinema, sports, theater and concerts. It has changed the daily routines and life styles by mainly forcing people to self-isolate themselves in their houses. Coronavirus (SARS-CoV-2 virus) can spread out by drops of respiratory secretion through coughs, sneezes, laughs of the people who have been infected. Close contacts, in particular less than 1.5 meters, and contaminated objects are the main transmission ways. The fact that the virus can remain inactive for a significant period of time on many surfaces, not only with human-human contact, also requires diversification of protection measures. In the beginning of the outbreak many countries applied lockdown measurements and mandating the use of face mask in order to prevent the spread of the disease. Currently, as part of new normalization process under COVID-19 conditions gradually re-opening strategies are discussing by authorities for all sectors (transportation, restaurants/coffee shops, hotels, schools, indoor sports facilities/sports organizations and more). Particularly, this study aims to analyze the possible measurements and preventions for indoor sports activities. What should be done for cleaning the facilities? What should employees do to protect themselves and customers? Is there any difference related with the type of sports? How should the facilities organize group activities under the pandemic?

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Introduction

The COVID-19 (SARS-CoV-2) virus, which spread within a very short time and became a worldwide crisis, was first detected in Wuhan province in China in December 2019. In the first findings, conducted and ongoing studies, it was determined that the virus was transmitted from human to human through the droplets formed as a result of cough. After touching the contaminated surfaces, contamination was also observed by touching one's own face. Incubation period of the virus is 4 to 14 days and disease duration is determined as 5 days. Although it has been around 7 to 8 months since December 31st, 2019, when the first case was reported, there is no specific treatment and preventive vaccine with proven efficacy and safety for the treatment of the disease. For this reason, the most effective method of protection for now is to take the necessary precautions to avoid contact with people who have COVID-19. On February 03rd, 2020 the World Health Organization (WHO) published an international strategic preparedness and response plan for countries that may be weak or inadequate on their health systems. As the number of cases increased and notifications came from different countries, the disease that started in China spread to almost all countries in The World. WHO stated the following announcement on March 11th, 2020; "Deeply concerned both by the alarming levels of spread and severity, and by the alarming levels of inaction, WHO made the assessment that COVID-19 can be rated as a pandemic" [1] stated that the COVID-19 is a worldwide outbreak. After this situation, countries stopped the flights, partial or full quarantine and lockdown applications were started [2]. Schools, shopping malls, cinemas, theaters, many businesses, scientific and sport events have also been postponed [3].

The virus that causes COVID-19 is thought to have spread through droplets by coughs, sneezes,

laughs and even during a dialogue produced mainly from person to person, especially when an infected person speaks [4]. These droplets can enter the respiratory system of individuals through the mouth or nose and possibly pass through the lungs through these organs. Other ways in the transmission are also noted fomites produced during the aerosol of coronaviruses, such as contact with contaminated production, and inhalation procedures of aerosols. Delivery of COVID-19 has also been described from asymptomatic individuals (or incubation period). However, to what extent this happened is unknown.

Many international sports organizations were either postponed or finished this season's activities. For example; European Football Championship and Tokyo Summer Olympics were postponed to 2021 which is for the first time since World War II [5]. In addition, some sports organizations have tried to complete their seasons by ending the tests in mid-June 2020, without spectators and as much as possible, in order to end the seasons. The effects of quarantine and home isolation on athlete's health are as follows: Limited ability to move freely, not being exposed to sufficient sunlight and being away from team sports. Which it is not only had an impact on most physiological systems, it was also effective in the lives of the actors [6]. For example, poor and inappropriate nutrition can lead to conditions such as poor sleep quality, addiction, and loneliness. In addition, an increase in body fat mass content and a decrease in muscle mass, immune disorder, mental acuity and loss of satiety, insomnia and depression. These situations can have both short- and long-term negative effects on athletes' physical fitness and competitive performance.

On the other hand, even if we are not athletes, these situations apply to everyone who stays at home. In fact, even when the results of people over 65 years of age were in the riskier group [7,8], after the first studies, lockdowns especially for people in that age group prevented them from walking around for 75 min and getting fresh air during the day. Many of them have been deprived of their walks during the day, perhaps only for market needs or a little exercise [3]. Daily exercises and activities take an important place for our health [9]. WHO recommends about the necessity of physical activity for at least 30 min in a day. The closed sports halls and curfews restricted the physical activities of all of us. There are issues that require extra attention during the pandemic period for the gyms that are opened slowly in the new normalization period and activities outside. There are some studies on the cardiovascular impact of the COVID-19. As it is known until now, one of the symptoms of this infection, which affects the respiratory system, is cough. Like many other diseases, schematic studies have been created for this virus infection and basically; the first group: People who have been tested and have a positive result, and the second group: People who have symptoms of the disease even though the test has not been performed [10]. Although a definitive long-term effect of COVID-19 cannot be clearly stated so far, clinical studies are ongoing. Particularly, athletes or individuals who took a break from sports during this period should definitely pay attention to their return to sports. In this regard, sports cardiologists state that athletes should take care of their health and that they should be a little more cautious about getting COVID-19 positive and returning to sports after the treatment period [11].

In addition to athletes, there are those who want to return to sports individually as well as sports and physical activity business owners. Subjects such as the use of masks, hand hygiene, how many people should be in at the same time according to the size of the

enterprises and ventilation systems are the issues that are considered and expected to be adjusted. With the new normalization process, businesses that are closed during quarantine periods and people staying at their homes are trying to socialize by adapting themselves to pandemic conditions. Federations and organizations responsible for the organization of football and basketball sports have published various guides and have been working on how the athletes and other active participants should comply and how the process will be handled. In order to address the issue in detail, we tried to make suggestions in different headings in this study. In this article, we have compiled the points that should be considered, the suggestions listed below are mentioned as points to be considered during the pandemic process.

Precautionary Recommendations for Sports and Physical Activities

For Facilities

- If possible, sportive activities should be carried out in outdoor environments.
- Facility ventilation systems should be suitable for the activities carried out. If necessary, the owners should make the necessary arrangements in consultation with the heating, ventilation and air conditioning specialists [3,12].
- To prevent sneezing and coughing, fragrant air fresheners and perfumes should not be used.
- Limit the comfortable use of ceiling fans or portable foot fans as much as possible. If fans are used, minimize the air flow directing the current from one person to another.
- High efficiency air filters should be used in air filters used in ventilation systems.
- Air filters should be carefully disposed of to prevent viral particles from draining during the replacement of air filters.
- A responsible person should be designated to oversee activities to ensure compliance with public health guidelines.
- Common use items such as magazines and free phone chargers should be removed. Where disposable plastic/cardboard water glasses are available, there should be a waste container for used containers.
- All participants (coaches/staff, trainers, officials, participants and their parents, volunteers) should be contacted about the practices that should be done to reduce the risk of COVID-19 transmission.
- Hand hygiene and respiratory etiquette should be followed
- Cleaning and disinfection applications should be done without disruption.
- Automatic vending machines, especially touch keypads, should be cleaned frequently.

For Staff

- Individual personnel should be assigned separate equipment and materials whenever possible [11].
- All staff must be familiar with how COVID-19 is delivered (i.e. droplet and contact transmission).

- Attention should be paid to hand hygiene among the personnel.
- Personnel must wear a mask when they do not leave a physical barrier or a distance of 2 meters from the participants.
- The facility staff should wear a mask when transferring a disabled participant into and out of equipment or assisting caregivers with an activity, where both staff and participant cannot achieve a distance of 2 meters.
- Physical barriers should be preferred to separate front desk staff and users.
- Hand sanitizer (60% alcohol or higher) should be provided at the entry and exit points.

For Sanitation, Cleaning and Disinfection

- In addition to routine facility cleaning protocols, the frequency of disinfection of frequently touched surfaces and shared equipment (water fountain arms, door handles, handrails, light switches, benches, tables, equipment arms and consoles) should be increased.
- To reduce the risk of contamination from shared objects (e.g. balls) and wheelchair users, the cleaning frequency of the gym floors should be increased.
- Provide hand sanitizer throughout the facility and ensure that hand wash sinks are completely filled with soap and paper towels.
- Facilities should restrict the use of changing rooms and ventilate the rooms as much as possible.
- Capacity limits should be determined on how many people can use the changing rooms at the same time.
- It should be suggested that self-service and commonly used products such as hair dryers, cotton swabs and disposable razors should be brought by the users themselves.
- Encourage participants to bring their own equipment to the facility. Wherever possible, the use of shared equipment should be limited, unless participants from the same event come from the same household.
- Participants should not share any personal items (e.g. water bottles, towels).
- Participants should pay attention to hand hygiene frequently before, during and after the event.
- Staff and participants should wear masks when they do not engage in intense physical activity.

For Group Sport Activities

- In group sports and physical activities in all aspects, physical distance should continue whenever possible (programming, training, practice and competition).
- Those who do not participate in physical activity should use a mask if they cannot maintain a safe physical distance.
- Generally, in sports and activities involving interaction between the participants at a distance of less than 2 meters: The event should take place in the open air [4].
- There is no scientific evidence that creates a 'safe' distance

between participants during indoor high-intensity activities.

- Both operators and participants should attend such exercises carefully and take appropriate measures to reduce the risk of exposure and contamination.
- For high-intensity classes (e.g., Zumba, Spin/cycle class, hot yoga, training camp), reduce the total number of participants in the classes to ensure that each participant has a minimum distance of 3 meters in all directions.
- Increase physical distance or build physical barriers between trainer and participants.
- Allow sufficient time between each class to thoroughly clean and disinfect equipment.
- In low-intensity cardio classes (e.g. Yoga, Pilates), participants should be encouraged to bring their own equipment (e.g. mats, blocks).
- If the equipment is shared, it must be cleaned and disinfected between users.
- If different activities are held in the gym environment, the groups should be kept separate. If possible, physical barriers (e.g. Curtains) are recommended.

Conclusion

Considering that COVID-19 does not have any treatment approved by health institutions yet, we have mentioned above the points which should be considered during the outbreak, in particular for sport activities. We would like to reiterate that we should pay attention to hand hygiene, face mask use and social distance. We should integrate the sport into our lives by paying as much attention as possible after long quarantine days without forgetting that sports is a part of our lives.

References

1. WHO. Archived: WHO Timeline - COVID-19. 2020.
2. Blocken B, van Druenen T, van Hooff T, Verstappen PA, Marchal T, Marr LC. Can indoor sports centers be allowed to re-open during the COVID-19 pandemic based on a certificate of equivalence? *Build Environ*. 2020;180:107022.
3. Hammami A, Harrabi B, Mohr M, Krusturup P. Physical activity and Coronavirus Disease 2019 (COVID-19): Specific recommendations for home- based physical training. *Manag Sport Leis*. 2020.
4. de Abajo FJG, Hernandez RJ, Kaminer I, Meyerhans A, Rosell-Llompart J, Sanchez-Elsner T. Back to Normal: An old physics route to reduce SARS-CoV-2 transmission in indoor spaces. *ACS Nano*. 2020;14(7):7704.
5. Sarto F, Impellizzeri FM, Spörri J, Porcelli S, Olmo J, Requena B, et al. Impact of potential physiological changes due to COVID-19 home confinement on athlete health protection in elite sports: A call for awareness in sports programming. *Sport Med*. 2020;50(8):1417.
6. Jukic I, Calleja-Gonzalez J, Cos F, Cuzzolin F, Olmo J, terrados N, et al. Strategies and solutions for team sports athletes in isolation due to COVID-19. *Sports (Basel)*. 2020;8(4):56.
7. Hull JH, Loosemore M, Schwellnus M. Spotlight respiratory health in athletes: Facing the COVID-19 challenge. *Lancet Respir Med*. 2020;8(6):557.
8. Toresdahl BG, Asif IM. Coronavirus Disease 2019 (COVID-19): Considerations for the competitive athlete. *Sports Health*. 2020;12(3):221.

9. Mahaffey BL. COVID-19 guidelines for sports and physical activity. *Mo Med.* 2020;117(3):205-6.
10. Schellhorn P, Klingel K, Burgstahler C. Return to sports after COVID-19 infection. *Eur Heart J.* 2020.
11. Verwoert GC, Vries ST, Bijsterveld N, Willems AR, Borgh RV, Jongman JK, et al. Return to sports after COVID-19: A position paper from the Dutch Sports Cardiology Section of the Netherlands Society of Cardiology. *Neth Heart J.* 2020;28(7-8):391-5.
12. Alberta. "Guidance for sport, physical activity and recreation-stage 2". 2020.