ClubConnect **Engage. Capture. Elevate**

Dear Fitness Professional,

ClubConnect is committed to providing clubs, gyms and fitness facilities with the most reliable information and resources to help them be safe and successful. In collaboration with the National Academy of Sports Medicine, we are proud to provide these evidence-based, recommended guidelines.

If you have any questions about these recommendations, or would like to hear how ClubConnect can help support your goals with access to the industry's best continuing education and advanced training courses, innovative digital tools and exclusive discounts on NASM and AFAA programs, please call (833) 977-2020.

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NASM™

NATIONAL ACADEMY OF SPORTS MEDICINE

DISINFECTING GUIDELINES FOR FITNESS PROFESSIONALS

POSITION STATEMENT

The National Academy of Sports Medicine (NASM) has been the leader in educating health and fitness professionals for more than 30 years. With the onset of the COVID-19 virus and the presence of other harmful germs (e.g., bacteria, viruses, fungus), fitness professionals need to ensure a clean environment by following proper disinfecting guidelines for surfaces and equipment. Based on the current evidence, it is recommended that all fitness professionals follow a consistent, daily cleaning process. This document will discuss expert advice on facility contamination risks, disinfect vs. sanitize vs. sterilize, commercial disinfectants, personal protective equipment, disinfecting procedures, client education, and facility cleaning and documentation.

FITNESS FACILITIES: CONTAMINATION RISKS

Fitness professionals work in different workout spaces such as but not limited to commercial gyms, small studios, and client's homes. In all these settings, there are surfaces and equipment that are constantly being touched by individuals. Several research studies have found that fitness facilities contain high amounts of viruses and bacteria on different surfaces (e.g., floors, counters), and exercise equipment (Markley et al., 2012; Mukherjee et al., 2014). One research study found that exercise equipment was contaminated with viruses more than bacteria. Specifically, weight equipment was more contaminated than aerobic equipment (Goldhammer et al., 2006). The busy fitness facility often involves multiple individuals touching the same surfaces and equipment which can increase the spread of harmful germs.

DISINFECT VS. SANITIZE VS. STERILIZE

There are many terms related to the cleaning of a facility. Perhaps the most important word is disinfect, which describes a cleaning process of eliminating or reducing nearly 100% of harmful germs on surfaces (Wiemken et al., 2016). Sanitize is another word that is often used interchangeably with disinfect. Sanitize describes a cleaning process that lowers the level of germs on a surface but not as much as disinfecting (Song et al., 2019). The last term is sterilize which describes the killing of all harmful germs through a complex thermal (e.g., dry or wet heat) or non-thermal (e.g., chemical, radiation) process (Seavey, 2013). Sterilization is often done in hospitals where a high level of cleaning is necessary to prevent the spread of harmful germs.

Most facility surfaces and equipment are non-porous (not allowing liquid or air to pass through) and can be sanitized or disinfected (West et al., 2018). Non-porous surfaces include glass, metals, plastics, glazed tiles, and marble. Disinfection is preferred for facility surfaces and equipment. This can be done by using some type of cleaning agent recommended by the Center for Disease Control (CDC) and the Environmental Protection Agency (EPA) (Larson et al., 2007).

COMMERCIAL DISINFECTANTS

Disinfecting of surfaces or equipment often includes the use of an EPA approved commercial cleaner in the form of a spray or a ready-to-use wipe. The CDC and EPA recommend the use of an approved low-level chemical disinfectant or preferably an intermediate- level disinfectant (Table 1) (Nielsen et al., 2012; Veiga-Malta, 2016). Common intermediate- level disinfectants include 70% isopropyl alcohol, Lysol® brand disinfectant products, and Clorox® brand disinfectant products. Bleach can also be used to clean (e.g., 5 tablespoons or 1/3 cup bleach to 1 gallon of water) but can be corrosive to some surfaces.

Fitness professionals should follow the directions when using a commercial cleaner. Most products require the liquid to remain on the surface for a specific amount of time to be effective. This is based upon the product's "wet time" (aka: dwell time) (Rutala & Weber, 2016). For example, to sanitize a surface, the Lysol® brand wipes recommend a "wet time" of 10 seconds and to disinfect a "wet time" of 4 minutes. Each product will have its own recommended time provided on the label.

Table 1. Center for Disease Control Levels of Disinfection	
Intermediate-level disinfection	These disinfectants kill mycobacterium, most viruses, and bacteria with a chemical germicide registered as a "tuberculocide" by EPA
Low-level disinfection	These disinfectants kill some viruses and bacteria such as HIV and HBV with a chemical germicide registered as a hospital disinfectant by the EPA.

EPA: Environmental Protective Agency; HBV: Hepatitis B Virus, HIV: Human Immunodeficiency Virus

PERSONAL PROTECTIVE EQUIPMENT

Experts often advise people to wear some type of personal protective equipment (PPE) when disinfecting, which may include a gown, helmet, glasses/goggles, face shield, face mask, and gloves (Honda & Iwata, 2016). At a minimum, gloves and possibly a mask can be used during cleaning. A mask can be worn if the product creates an unhealthy odor or there is no proper ventilation. The instructions on the product will have recommendations.

DISINFECTING PROCEDURES: FIVE STEPS

When disinfecting the facility, the fitness professional is advised to follow five essential steps. First, wash hands before cleaning. Wash hands with soap and water or rub hands together using an alcohol-based hand sanitizer (e.g., 60-70% alcohol) for a minimum of 20 seconds (Fuls et al., 2008; Honda & Iwata, 2016). Second, wear PPEs during cleaning (Honda & Iwata, 2016). Third, when using wipes, the surface should be wiped in the same direction to prevent contamination versus back and forth. Multiple wipes may need to be used. If using a spray, the surface can simply be sprayed down. Fourth, the disinfectant liquid must remain on the surface for a specific amount of time based upon the product recommendations. Fifth, when finished dispose of any PPE, cleaning materials, and re-wash hands.

When using shared portable equipment such as a foam roller or stability ball, it is not uncommon for different individuals to touch the equipment's surface. These objects may need to be disinfected several times a day. After disinfecting, the fitness professional may want to flush the piece of equipment with soap and clean water to wash away any dried chemical disinfectant, which could irritate a client's skin.

CLIENT EDUCATION: 3 STEPS

The fitness professional may want to teach their client ways to help prevent the spread of harmful germs. This can be taught in three easy steps: cover, wipe, and wash. First, use a towel to cover the equipment when used during the workout. This will create a barrier between the client and the equipment surface. Second, use the towel or a disinfectant wipe to clean the equipment surface after use. This especially applies to individuals who may sweat on the equipment. Third, wash hands after the workout. This is a crucial measure to prevent the spread of harmful germs among individuals (Larson et al., 2007).

FACILITY CLEANING AND DOCUMENTATION: 3 STEPS

Preventing the spread of harmful germs should be a priority for any fitness organization and professional. Fitness facilities can ensure a clean and safe environment by following three steps: training, cleaning schedule, and documentation. First, fitness organizations should properly train all employees in personal hygiene (e.g., washing hands) and disinfecting procedures. Employees should learn how to safely use the disinfectants, including "wet time" and the use of PPE. All employees should know where each product's Safety Data Sheet (SDS) is located. The SDS sheet is a document that provides employees with procedures for safe handling of the disinfectant and what steps need to be taken in case of an emergency (e.g., disinfectant got in the eyes) (Allen, 2017).

Usually, the SDS sheets are in a binder in a central location. Second, every organization should have a daily cleaning schedule for employees to follow to ensure the facility is cleaned on a regular basis. Third, there should be a continuous documentation log of cleaning practices to ensure that all facility disinfecting is accomplished daily. Having a consistent, daily cleaning schedule can be difficult in a busy facility. Organizations should strive to have a reliable cleaning plan to protect professionals and clients.

CONCLUSION

Based on the current evidence, it is recommended that all fitness facilities and professionals follow proper disinfecting guidelines. The document provides important guidelines to help prevent the transmission of harmful germs. A summary of the current recommendations are as follows:

- Fitness facilities and professionals should have a daily plan for disinfecting surfaces and equipment.
- Disinfection is preferred versus sanitization for fitness facility surfaces and equipment.
- An EPA approved intermediate-level disinfectant is preferred for fitness facility surfaces and equipment.
- Professionals should follow the recommended 5 step cleaning procedure, which includes: washing hands, wearing PPE, cleaning surface, leaving the surface wet, and disposing materials, and re-washing hands.
- Clients can also help to prevent the spread of germs by following three steps: cover, wipe, wash.
- Fitness facilities should follow the three recommendations for cleaning and documentation: proper training, cleaning schedule, and documentation.

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