



# COVID-19 RETURN TO TRAINING

Guidance on Safe Return to Training  
For Athletes

National Strength and Conditioning Association (NSCA)  
COVID-19 Return to Training Taskforce

## COVID-19: TRAINING LANDSCAPE AND CHALLENGES

The world is currently experiencing a global pandemic known as COVID-19. According to the Centers for Disease Control and Prevention (CDC), COVID-19 is a viral illness that can spread from person to person with close physical contact, coming into contact with surfaces with the virus on it, and from respiratory droplets when an infected person coughs, sneezes, or talks (1). Youth, academic and professional sport institutions in the U.S. have suspended play, as well as structured in-season and off-season training for all sports, resulting in an uncertain future landscape as it relates to the training practices for strength and conditioning coaches. Possible return to training outcomes for coaches and athletes include:

- » Modified and/or condensed pre-season schedules
- » Extreme deconditioning; Or mixed levels of preparation among teammates following extended time off
- » Increased risks of injury and overtraining
- » Adverse weight gain, weight loss, and changes to body composition
- » Slowed or interrupted progress with individual rehabilitation programs
- » Facility and program challenges related to ongoing fears and social distancing

The purpose of this document is to compile and summarize pertinent information to support safe and appropriate training practices with teams, athletes and clients during the expected transition period back to full training activity. The information included is to be applied in accordance with institutional policies, as well as the latest local, state, and federal guidelines related to the containment and prevention of COVID-19. It is also important to note that the overall risks for athletes following periods of inactivity extend beyond the scope of preventative measures against the spread of COVID-19. This document includes both COVID-19 prevention and inactivity related guidelines and resources for strength and conditioning coaches upon returning to partial or full training activity.

## MINIMIZING RISK: MANAGING SCHEDULES AND TEAMS TRAINING SESSIONS

In response to COVID-19, strength and conditioning coaches should adjust normal weight room schedules to avoid training large groups, and allow for extra time in between training sessions for the cleaning of surfaces and equipment. Due to the possibility of athletes and coaches returning from high-risk areas, or who have been previously infected, extra precautions are necessary to prevent the asymptomatic transmission of the virus. Group size counts for training sessions must include all athletes and staff, and strictly adhere to social gathering and distancing policies at your institution, according to local, state, and federal authorities. Special considerations should be made for transitional periods between training groups when overlap and crowding is more likely to occur. Dependent upon the specific timing and withdrawal of local COVID-19 restrictions, strength and conditioning coaches should be prepared to adhere to six-foot social distancing measures, as defined by the CDC (1).

## FACILITY & EQUIPMENT: CLEANING & SANITATION PROCEDURES

Safety and function are top priorities in managing a weight room facility. All weight room surfaces and equipment should be cleaned regularly with germicidal (i.e. anti-fungal, anti-bacterial, and anti-viral) cleaner to prevent the growth of microbes which can increase the spread of disease. At minimum, strength and conditioning coaches should adhere to specific cleaning schedules, which are outlined in the *NSCA's Safety Checklist for Exercise Facility and Equipment Maintenance* (2).

Appropriate cleaning and sanitation supplies should be kept on-hand in the weight room, including: disinfectant (germicide), hand sanitizer (≥60% alcohol), specialty cleaners (e.g. wood, walls, upholstery, and glass), paper towels, disinfectant wipes, spray bottles, cloth towels and rags, sponges, brooms and dust pans, vacuum cleaner, and mop supplies. If cloth towels and rags are being used, they should not be shared. Special attention should be taken to store and launder cloth towels and rags using sanitary measures (e.g. Sanitizing cycle, washing with hot water, and using separate hampers for clean and dirty).

Non-essential equipment should be removed from the training floor and stored to minimize cleaning surfaces. Cleaning and sanitation procedures should also be extended to restrooms, locker rooms, carpet and flooring, exercise mats, water fountains, athlete nutrition "Fueling" stations, and commonly shared pieces of equipment—e.g. Medicine balls, dumbbells, kettlebells, weight belts, bars and plates.

Fresh air circulation, ventilation, and sunlight (if possible) should be emphasized, as this shortens the time for respiratory droplets to be removed from the air. To prevent bacterial and microbial growth, the relative humidity should not exceed 60% (2,3).

## TRAINING SAFETY: RISK FACTORS FOLLOWING PERIODS OF INACTIVITY

After periods of inactivity athletes are especially vulnerable to exertional injuries (4,5). Due to the shelter-in-place restrictions during the COVID-19 pandemic, most training by athletes has been interrupted or limited. This section shares two key resources for strength and conditioning coaches to support early training decisions with athletes.

- » The *CSCCa and NSCA Joint Consensus Guidelines for Transition Periods: Safe Return to Training Following Inactivity* was published in 2019 to with the goal of protecting athletes during specific high-risk periods. Despite strong engagement efforts by many proactive coaches, COVID-19 represents a return to training following inactivity, which will vary by sport, team, athlete, and institution. Strength and conditioning coaches should specifically refer to the Joint Consensus Guidelines as it relates to the incidence of injuries and deaths from exertional heat illness, exertional rhabdomyolysis, and cardiorespiratory failure among athletic populations. The paper recommends safe upper limits on training volumes, intensities, and work-to-rest ratios for the first 2-4 weeks of training (4).
- » In further support of safe return to training practices, the latest *NCAA Sport Science Institute Interassociation Recommendations: Preventing Catastrophic Injury and Death in Collegiate Athletics*, published in 2019, includes portions on acclimatization and conditioning, transition and high-

risk periods for college athletes, and specific roles and responsibilities of strength and conditioning coaches to protect athletes (5).

Strength and conditioning coaches should always consider the training level of each athlete, as well as environmental and external factors in determining the appropriate course for training after COVID-19. While it is common to start beginners with an introductory training phase, intermediate and advanced lifters who possess the ability to train near failure on every set should be discouraged from doing so to avoid contributing to an overtrained state (6). Considering all the preparatory and logistical factors related to the return to training following COVID-19, initial weight room training splits should include no more than three training sessions per week, with one to two days of recovery between sessions (6). Strength and conditioning coaches should use their best evidence-based and consensus-based judgement if employing other weekly programming strategies favoring shorter, more frequent training sessions, while managing for recovery and readiness.

Advanced knowledge that following any prolonged period of inactivity increases the likelihood of delayed onset muscle soreness (DOMS), as well as losses in mobility and flexibility, should be considered in progressing athletes back into eccentric and plyometric exercises. An initial focus on reestablishing dynamic movement patterns required for sport can be accomplished with a targeted and structured daily warm-up prior to activity. During COVID-19, many athletes have been training in small at-home spaces. A systematic and progressive dynamic warm-up, lasting 10-20 minutes in length, is well suited for drilling sprint mechanics, improving mobility and range of motion, and reestablishing a cardiovascular base while preparing the body for athletic activity and reducing the likelihood of injury.

## OTHER IMPORTANT FACTORS

Strength and conditioning coaches are impactful in the lives of athletes and will play a vital role in helping their teams adjust back into training and competition. However, before considering training, supporting the primary needs of athletes is most important. This includes helping athletes get back on a regular schedule, especially sleep habits, waking-up, meals, commuting, and academic responsibilities.

Most coaches and athletes have never experienced this level of uncertainty towards their sport and whether their upcoming seasons will occur. Recognizing that COVID-19 has been a stressful and uncertain time for many individuals and families is an important perspective. As strength and conditioning coaches working to ensure the utmost precautions for athlete safety, the health and wellness of all coaches and staff must also be made a priority.

## REFERENCES

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# NSCA'S GUIDELINES CHECKLIST

## FOR S&C COACHES RETURNING TO ACTIVITY WITH THEIR TEAMS



### MINIMIZING RISK: MANAGING SCHEDULES & TEAM TRAINING SESSIONS

- Adhere to social gathering and distancing policies at your institution, according to local, state, and federal authorities
- Group size counts should include both athletes, staff, and account for transition periods between sessions
- Schedule mid- and post-workout cleaning periods, allowing a 10 – 15 minute buffer between teams or groups
- Limit or stagger training groups throughout workout blocks and/or alternate training days
- Favor efficient training methods, limiting workouts to 2 – 3 non-consecutive days per week
- Avoid person-to-person contact while spotting with use of bar catches and the two-spotter technique
- For programming purposes, consider grouping athletes based on conditioning status
- Create exercise pairings to limit weight room traffic; Or one-way traffic flow based on entrances and exits
- Maximize fresh air flow in the weight room, and a relative humidity  $\leq 60\%$
- Use outdoor training spaces whenever possible
- Keep doors propped open and lights on throughout the day

### FACILITY & EQUIPMENT: CLEANING & SANITATION PROCEDURES

- Clean all weight room surfaces with germicidal disinfectant
- Consider providing masks and/or gloves
- Educate on weight room upkeep expectations during onboarding meetings with new athletes
- Provide COVID-19 related updates to weight room rules for athletes already in the program
- Promote hand washing before and after workouts, and provide hand sanitizer
- Keep extra bottles of disinfectant for athletes to wipe down equipment after use
- Avoid the sharing of cloth towels or rags; Provide one for each athlete and staff member

- Remove and store extra loose equipment from the training floor to minimize cleaning surfaces
- Carry a personal water bottle instead of drinking directly from the community water fountain
- Delegate staff cleaning duties, especially towards commonly shared pieces of equipment, including: Medicine balls, dumbbells, kettlebells, weight belts, bars and plates
- Ensure that cleaning and sanitation procedures are extended to restrooms, locker rooms, carpet and flooring, exercise mats, water fountains, and athlete nutrition "Fueling" stations
- Also refer to the *NSCA's Safety Checklist for Exercise Facility and Equipment Maintenance*

### TRAINING SAFETY: RISK FACTORS FOLLOWING PERIODS OF INACTIVITY

- In the first 2 – 4 weeks of training, apply CSCCa-NSCA Joint Consensus, and NCAA Sport Science Institute Guidelines on training volumes, intensity, and work-to-rest ratios as upper limits to protect against catastrophic injury
- Avoid high volume submaximal exercises to fatigue, or performed within in a limited time frame
- Emphasize a 10 – 20 minute daily dynamic warm-up for reestablishing sport-related movement patterns
- Consider that prolonged inactivity increases the likelihood of delayed onset muscle soreness (DOMS)
- Communicate regularly with the medical and coaching staffs about at-risk athletes, including those with cardiac abnormalities, sickle cell trait, history of exertional or nonexertional collapse, asthma, and diabetes
- Consider the use of pre-screening, readiness surveys and/or workload monitoring for tracking athlete status
- Plan and adjust workouts to match environmental factors, especially in cases of high heat and humidity
- Do not perform physically exhausting drills for the purpose of developing "mental toughness"

## ABOUT THE NSCA

The **National Strength and Conditioning Association (NSCA)** is an international nonprofit professional association dedicated to advancing strength and conditioning and other sport science professions around the world.

The NSCA advances the profession by supporting strength and conditioning and sport science professionals devoted to helping others discover and maximize their strengths.

The organization disseminates research-based knowledge and its practical applications by offering industry-leading certifications, research journals, career development services, and continuing education opportunities. The NSCA community is composed of over 60,000 members and certified professionals who further the industry standards as researchers, educators, strength and conditioning coaches, personal trainers, tactical facilitators, and other roles in related fields.