



Guidelines for Returning to Sports and Weight Training during the COVID-19 Pandemic

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As the ongoing uncertainty of the COVID-19 pandemic lingers, many schools and sports leagues are trying to navigate a return to a “new normal.” As in the classroom, sports practices now involve social distancing, handwashing stations and shorter duration of face-to-face contact. While vitally important, these new safety mandates put new pressures onto youth athletes, and their coaches and trainers, as they try to adapt. For many programs, pre-seasons have been cut short and the length of the season has been compressed. While this has obvious implications for skill development, it also risks increased injury, due to lack of time for appropriate exercise adaptation.

Unfortunately, we also know that many young student-athletes have been less active during the times of COVID-19 restrictions. While this was purposeful to limit the spread of the virus, its consequence is that young athletes are returning to sports with less baseline fitness than normal, and are entering into an environment in which there is likely less time for the gradual ramp of activity.

In June 2019, guidelines were published to help facilitate the safe return to sports training after any inactivity period of two weeks or longer.¹ While these are not specifically written for youth athletes, the principles remain applicable and are helpful to allow coaches, parents and athletes plan a successful return to activity during the COVID-19 pandemic and have been endorsed by a consensus group of sports medicine experts for this purpose.²

Conditioning Drills: It is recommended that athletes follow the **50/30/20/10 Rule** for the first four weeks. This means that the overall weekly conditioning volume should be reduced by 50% from its typical maximum intensity in week 1. In week 2, the weekly conditioning volume is reduced by 30%, etc., until returning to typical volume in week 5, as long as there are no

¹ Caterisano A, Decker D, Snyder B, et al. CSCCa and NSCA Joint Consensus Guidelines for Transition Periods: Safe Return to Training Following Inactivity. *Strength and Conditioning Journal*. 2019;41(3):23.

² Stearns RL, Scarneo-Miller SE, Huggins RA et al. Return to Sports and Exercise during the COVID-19 Pandemic: Guidance for High School and Collegiate Athletic Programs. https://ksi.uconn.edu/wp-content/uploads/sites/1222/2020/06/Return-to-Sports-and-Exercise-during-the-COVID_Final-endorsed_6.2.2020.pdf Accessed October 12, 2020.

training problems. The same principle may be applied to conditioning testing, which should be reduced by 50% if performed in the first week. For example, a normal one mile run test would be cut to half a mile for testing purposes.

Strength Training: The **F.I.T. Rule** uses the Frequency, Intensity and Time of Rest to guide a safe return to weight training. It aims to minimize the chance of severe muscle damage during weight lifting.

- **Frequency** is defined as the number of training sessions per week for a specific muscle group or movement pattern.
 - It is recommended that the frequency of weight training is limited to 3 days in the first week and a maximum of 4 days in the second week.
- **Intensity Relative Volume (IRV)** describes the volume of load. Based off of the one repetition maximum (1RM) – meaning the highest weight that can be done for a single repetition - IRV is calculated by: **Sets x Reps x % of 1RM**. For example, if an athlete's 1RM on a bench press is 100lbs, and they do 3 sets of 10 reps at 50lbs, IRV is $3 \times 10 \times 0.5 = 15$.
 - For the first two weeks, it is recommended to keep IRV between 11-30.
- **The Work-to-Rest ratio (W:R)** describes the rest time in between sets of an exercise.
 - In the first week of training, the W:R should be at least 1:4. In the second week of training it should be at least 1:3. Beyond this, W:R may return to the professional judgement of the coach based on the specifics of the exercise and the athletes.

While the specifics of individual sports, environments and athletes must be taken into account, these guidelines may be helpful to formulate the return to sports plan facing many youth athletes at this time. While everyone is excited to be back training, it is important to gradually increase the intensity and load on the athlete's body, in order to have a safe, and successful season.