

The change of season, the smell of a freshly cut field, the back to school sales, whatever it is we all have our cues that remind us of starting a new sports season. With the start of every new sports season there are lists of things coaches must consider, such as practice times, parent meetings, competition schedules, rosters, equipment, budgets, and of course training camp.

Under normal circumstances the goal of getting athletes in shape for the competitive season comes with a great deal of responsibility and is not always the easiest undertaking. This year comes with a whole new set of challenges with many student athletes coming back to sports with potentially months of time off since their last organized practice or workout.

Are my athletes ready to train? Do you try to make up for lost time and jump right in? What are the risks to starting activity again? These are some of the questions that might be plaguing coaches everywhere charged with starting training and getting ready for their first games or competition. The best way forward is to start with a plan.

In this article, we will cover the risks of training following periods of inactivity, how to implement scaled and periodized training following periods of inactivity, and preventative training exercises to incorporate into practice and warm-ups.



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Safe Return to Training & Sports in High School Athletes

What are the risks?

Data from the National Collegiate Athletic Association (NCAA) and National Athletic Trainers' Association (NATA), consistently show that preseason training has the highest rates of injury compared to in season and post season injury rates. Some of the most common types of injury include musculoskeletal injuries, exertional rhabdomyolysis, exertional heat stress, sudden cardiac death, and overuse injuries. Many of these injuries are preventable with appropriate scaling of exercise and practice volumes at the start of any training period. It's simply the case of too much, too fast, too soon.

Safe Return to Training

The National Strength and Conditioning Association (NSCA) and Collegiate Strength and Conditioning Coaches Association (CSCCa) developed a position statement on the safe return to training and recommend coaches follow the 50/30/20/10 rule to planning practices and conditioning tests. This should be implemented after any period of inactivity equal to or greater than two weeks.

This also includes transition periods such athletes starting under a new head sport coach, transfer or freshman athletes, or student athletes returning from injury or rehabilitation programs. The premise is simple. During the first week of activity, the training load, conditioning test, and/or practice plan should be reduced by 50% with a minimum work to rest ratio of 1:4. As the weeks progress, the volume can increase with reductions in work load as well as work to rest ratios.



Week	Reduction of Normal Exercise Load/Plan	Work to Rest Ratio
1	50%	1:4 or greater
2	30%	1:3 or greater
3	20%	normal
4	10%	normal

Preventative Training

Coaches and athletes can incorporate preventative training programs during pre-season and in-season practices to help avert the musculoskeletal injuries. Coaches should implement these programs at least 2-3 times per week and can run them in place of or along with a team's warm-up routine. The most effective injury prevention programs include multiple modes of exercises.

Look for programs that consist of at least 3 of the following exercise modes: strength, plyometrics, agility, balance, and flexibility. An example of one program that has proven to prevent injuries is the "Prevent Injury and Enhance Performance" (PEP) program, developed by The Santa Monica Sports Medicine Research Foundation.

Helpful Links

- Prevent Injury and Enhance Performance (PEP) program - <https://www.aclstudygroup.com/pdf/pep-program.pdf>
- ACSM Return to Sports and Exercise during the COVID-19 Pandemic: Guidance for High School and Collegiate Athletics Programs https://www.acsm.org/docs/default-source/covid-19-reopening-resources/return-to-sports-and-exercise-during-covid-19-pandemic.pdf?sfvrsn=12d644db_4
- CSCCa and NSCA Joint Consensus Guidelines for Transition Periods: Safe Return to Training Following Inactivity - https://journals.lww.com/nsca-scj/Fulltext/2019/06000/CSCCa_and_NSCA_Joint_Consensus_Guidelines_for.1.aspx
- NSCA COVID-19 Return to Training for Athletes - <https://www.nsca.com/contentassets/61c0fb0a476149848de009f1630fa457/nsca-covid-19-rtt.pdf>

References:

Caterisano, Anthony, et al. "CSCCa and NSCA joint consensus guidelines for transition periods: Safe return to training following inactivity." *Strength & Conditioning Journal* 41.3 (2019): 1-23.

Gilchrist, Julie, et al. "A randomized controlled trial to prevent noncontact anterior cruciate ligament injury in female collegiate soccer players." *The American journal of sports medicine* 36.8 (2008): 1476-1483.

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Prevent Injury & Enhance Performance Program

1. Warm-up

(50 yards each):

- Jog line to line (forward facing)
- Shuffle run (facing sideways)
- Backward running

2. Stretching

(30 s × 2 reps each):

- Calf stretch
- Quadricep stretch
- Figure 4 hamstring stretch
- Inner thigh stretch
- Hip flexor stretch

3. Strengthening:

- Walking lunges (20 yards × 2 sets)
- Nordic hamstring (3 sets × 10 reps)
- Single toe-raises (30 reps on each side)

4. Plyometrics

(20 reps each):

- Lateral hops over 2-6-inch cone
- Forward/backward hops over 2-6-inch cone
- Single leg hops over 2-6-inch cone
- Vertical jumps
- Scissors jump

5. Agilities:

- Shuffle run with forward/backward running (40 yards)
- Diagonal runs (40 yards)
- Bounding run (45–50 yards)

