# PERFORMANCE SOCCER CONDITIONING

A NEWSLETTER DEDICATED TO IMPROVING SOCCER PLAYERS

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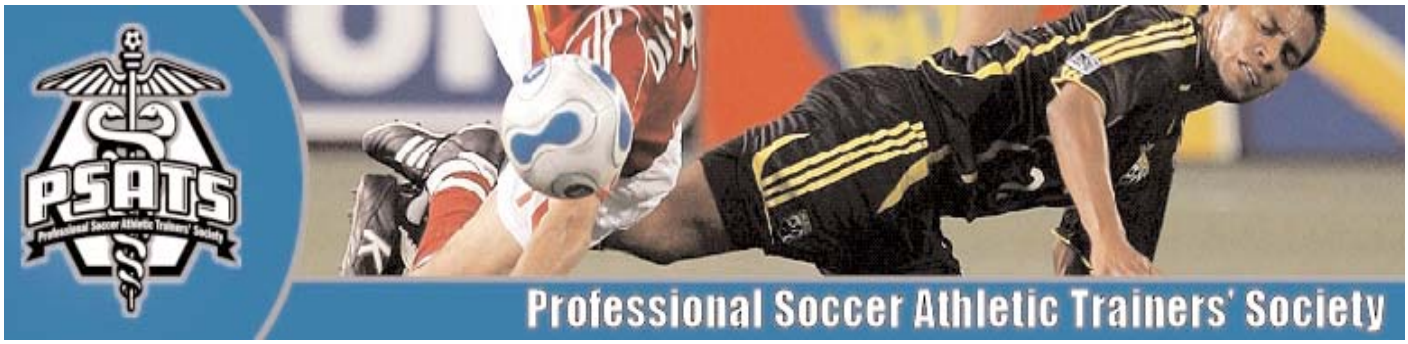


**Present:**

# Soccer Injury Prevention Strategies

*We welcome a new regular contributor the Professional Soccer Athletic Trainers Society (PSATS) to Performance Conditioning Soccer. Each submission will provide coaches, parents and athletes with the latest strategies in prevention injury and maintaining a healthy soccer lifestyle. The mission of the Professional Soccer Athletic Trainers Society (PSATS) is to serve as an educational resource for the Major League Soccer athletic trainers. PSATS serves its members by providing for the continuing education of the athletic trainer as it relates to the profession thereby improving the athletic trainers understanding of sports medicine as it relates to soccer. PSATS strives to improve the education of its members so that they may better serve Major League Soccer, their organizations, and the professional soccer players under their care. PSATS also serves as an educational resource for those outside of the professional soccer community to better educate them on the role of the athletic trainer within the sports medicine team. Thank you PSATS!-**ed***


Jason Mathews

## This Issue-
## Post Match REGENERATION STRATEGIES

Athletic performance can be affected by many factors. There is the general demand of training, travel, injuries, psychological stressors, and many more. As more athletes, coaches and teams rely on the administration of injury prevention and performance enhancement programs, all factors should be considered. An often overlooked area in the daily routine of athletes is recovery and regeneration. In this article, we will focus on recovery efforts immediately following a match and the day after, although these strategies can be applied as time allows during the weekly training program. Gambetta notes that proper regeneration assists in the adaptation to training (1). There are many considerations of recovery and this is one small part of the process. Nutritional considerations, hydration, availability of equipment, travel considerations, media obligations and lodging all can have an affect on the ability to recover from activity.

Bompa describes recovery and regeneration as a multidisciplinary response that is affected by both intrinsic and extrinsic factors (2). Some of these include; gender, age, environment, fitness level, skill level, type of energy system and exercise, psychological factors, and so on. Having a sound plan to address recovery needs will better serve your athletes.

Much information exists on different methodologies for recovery and regeneration. At the Columbus Crew, we have taken the approach that active recovery and regeneration strategies fit best into our performance philosophy. Studies have shown that continuous activity for 10-20 minutes post workout at 60% of max heart rate removes 62% (10 min) and 88% (20 min) of lactic acid (2). Due to time constraints, media obligations and so forth, we are generally not able to perform our regeneration until the following day. Anecdotally, our players report highly on the perceived benefit of performing the regeneration the day following activity. Below, you can see two different approaches to regeneration the day following a match.

**Regeneration #1: On field program**

This program generally lasts for 45-60 minutes. In this approach, we perform all of our activity on the field. Materials need-

ed are 24" and 40" hurdles, which can be cheaply made out of PVC pipe, foam rolls, or a soccer ball can be used for self myofascial release. Lastly, you need space to stretch and jog.

• 20 minute jog at 60% HR. This is generally a steady jog, although you can incorporate dynamic movement patterns and form running techniques during the jog.
• 8-10 minutes of hurdle activities. Any pattern to incorporate hip mobility is acceptable. We encourage keep a high posture, with hands behind head and chest open and upright. See below for examples.
• 8-10 Minutes of self myofascial release. Target areas include, hamstring, quad, IT Band, calves, glutes and lower back.
• 8-10 minutes of stretching. We vary this from active stretching to more static stretches, depending on the fatigue level of the players.

We have found this to be an effective method of regeneration. Players on daily intake logs, generally report a high level of performance readiness after the regeneration, as opposed to a low level prior to the activity. We are able to save some time by splitting into two groups and having them alternate the hurdle and foam roll stations.

**Regeneration # 2: Pool and weight room**

This program requires much more availability of equipment and space. Access to a pool of at least 3' depth and preferably 25 meters in length is preferred. Also, fitness equipment to reduce weight bearing stresses on players is needed. We utilize stationary bikes and elliptical trainers as a primary method. This program again lasts 45-60 minutes and is generally a more fun activity.

• 15-20 minutes on exercise machine at 60% HR max.
• 10 minutes of active stretching. Again, stretches are adjusted based on the needs of the players.
• 20-30 minutes in the pool. This generally begins with jogging, movement patterns and hip mobility exercises in the shallow end of the pool. The activity continues with different swimming strokes across the distance of the pool. If available, flotation belts are used in the deep end to simulate jogging activities.

Player self reporting of perceived exertion rate very high on days after the pool regeneration. Aside form the physiological benefits; psychologically it is a good break for the players.

As mentioned, there are multiple activities that can be performed for recovery and regeneration. The most effective method is what works for your coaches, medical staff, fitness staff, and players. Incorporating all facets of recovery, including proper sleep, nutrition and hydration should yield a more effective recovery and regeneration strategy for your team.

*Special thanks to Steve Tashjian, Columbus Crew fitness coach for constructing the hurdles and Caroline Lewis, student athletic trainer intern from Ohio State University for performing the activities.*

**References**:

*1. Gambetta, V. 2007. Athletic Development: The Art and Science of Functional Sports Conditioning. Human Kinetics. Champaign, IL.*
*2. Bompa, T. 1999. Periodization: Theory and Methodology of Training, 4th Ed. Human Kinetics. Champaign, IL.*


Start


Over


Squat Under


Toe Out


Knee Up