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SPRING SPORTS CONDITIONING: A BALANCED APPROACH

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One of the most difficult things about attempting to provide proper advice for sport season preparation is the simple fact that so many sports are involved. Many well-intentioned individuals feel that all seasonal preparation is ***"sport specific"***. Invariably this results, with respect to spring sports, in track athletes working on their legs, field athletes doing endless sets of bench presses, and baseball players swinging weighted bats and perform ing wrist curls and wrist extensions. Little attention is paid to training all the major muscle groups in a balanced and comprehensive manner.

Clearly, preparation for spring sports begins long before the season begins in terms of establishing a meaningful base level for strength. For those athletes not involved in winter sport, this preparation should consist of strength training all the major muscle groups approximately three times per week while attempting to attain an aerobic or ***conditioning*** level that will allow the athlete to perform the desired activity without undue fatigue at the outset of the season. It is important to remember that the less time an athlete spends on getting ***"in shape"*** once the season starts, the more time he or she can spend on skill development and team-oriented activities.

In terms of strength training, the formula is really quite simple. Train all the major muscle groups (chest, upper back, shoulders, hips, legs, abdomen and arms) using one to three sets of exercise for each group. If the sets are performed with sufficient intensity (i.e., reaching momentary muscular failure with each set), this will provide the necessary stimulus for the muscles to increase their strength. And by allowing sufficient recovery time in between each strength training session, the athlete will find that lifting every other day will offer the greatest amount of improvement in the shortest amount of time.

In terms of conditioning, running provide's the easiest way of establishing an aerobic base upon which the athlete can depend for the rest of the season. Since most spring sports involve plenty of running, it is generally the aerobic activity of choice. However, any activity that produces a heart rate response within the target heart rate ***"training zone"*** for a period of at least fifteen to twenty minutes will improve the cardiovascular efficency of that athlete.

The training zone for target heart rate is estimated by subtracting one's age from 220 and multiplying the result by .60 and .90. The resultant numbers represent 60 to 90 percent of one's predicted maximum and is the target heart rate training zone. Any activity that elevates the heart rate into this training zone can be considered to have a conditioning or training effect. However, choosing a conditioning activity that basically uses the same energy systems as well as the same major muscle groups as the activity for which the athlete is preparing will result in the greatest conditioning effect. In other words, a sprinter would not necessarily spend all of his or her preseason training time doing large amounts of distance work (although some work would be desirable early in training) nor would much time be profitably spend using a stationary bike in order to achieve the desired heart rate training response zone.

Competitive Season

Once the season begins, a change in the training methodology becomes necessary. However, the change need not be very dramatic. Here's why: Even though the body will still respond to a training stimulus during the given sport season, it will require a longer recovery period in between the strength training workouts due to the extra demands being placed on it by the rigors of the competitive season, particularly those sports that involve contact and/or involve frequent games or contests. For this reason, the frequency of the strength training

In This Issue

sessions need to be reduced (but not eliminated). Wherever possible, try to leave as much as 48 to 72 hours in between strength training sessions and competitions to allow the body to properly recover.

Additionally, it is important to remember that strength training throughout the season the will not only help to maintain a higher level of performance, but can greatly diminish the possibility of injury and indeed greatly decrease rehabilitation time should an injury occur. It is not unusual for an athlete to lose as much as 15 to 20 percent of his or her pre-season strength levels as a result of discontinuing strength training during the season. This is not only unnecessary but foolish, since preseason strength levels can easily be maintained by training only once or twice a week during the season. Remember to maintain the same intensity in the weight room during the season but reduce the frequency to allow sufficient recovery time.

By training all the major muscle groups and not just those involved in a *specific sport movement*, the athlete can expect to see continued improvement in performance in his or her chosen sport (provided of course that they receive the proper coaching and instruc tion) as well as a reduction in in-season injury levels. Brief bouts of intense but meaningful exercise during the sport season will maintain preseason strength levels and allow the athlete to improve his or her performance to a greater degree. ***Spring training doen't just mean getting ready..... it means staying ready!***

Recovery: A Requirement for Muscular Growth

By Matt Brzycki, Strength Coach
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For muscular growth to occur, a muscle must be stressed with a resistence *(or work load)* that is progressive from one workout to the next. Often overlooked, however, is the fact that a muscle must also be given sufficient recovery in order to adapt to those demands. Assuming that the body receives adequate recovery *(and proper nourishment)*, a muscle will then increase in size and strength as a function of its genetic potential. This article will address this factor that is usually neglected: the recovery process.

The Recovery Factor

Believe it or not, muscles do not get stronger while you work out-- they get stronger while you *recover* from working out. When you your muscle tissue breaks down, and the recovery process allows the muscle time to rebuild itself. Think of this as allowing a wound to heal. If you had a scab and picked at it every day, you would delay the healing process, but if you left it alone, you would permit the damaged tissue time to heal. A period of at least 48 to 72 hours is necessary for muscle tissue to recover sufficiently from a strength workout. A period of at least 48 hours is also required to replenish depleted carbohydrate stores. Therefore, it is suggested that you lift three times per week on nonconsecutive days. Performing any more than three sessions a week can be counterproductive due to a catabolic effect. This occurs when the demands you have placed on your muscles have exceeded your recovery ability.

Split Routines

Okay, time for a pop quiz:

Which of the following best describes the term " Triple Split"?

A. A bowling dilema in which the 1, 7, and 10 pins are left standing.

B. A football play in which 3 wide receivers line up on one side of the formation.

C. A situation where your Inzer Blast Shirt blows out in three places.

D. A slice of Bananna with scoops of vanilla, chocolate, and strawberry ice cream

E. None of the above

The correct answer, of course, is "E". A Triple Split was recently described in a popular bodybuilding magazine as a type of training that involves three daily workouts " in which one body part is trained -- but no longer than 45 minutes to one hour. " That's right three *daily* work outs each lasting 45 minutes to an hour. The article went on to state that the Triple Split "has evolved as the ultimate system for bodybuilding. Each brief but intense session stimulates secretion of growth hormone without suppressing testosterone production. And interspersing these brief sessions with numerous high quality meals, naps meditation,massage, and other mental and physical techniques to promote recuperation completes the winning program." Is this a reasonable training technique?

The so called *" Split Routine "* has been a popular method of training for both bodybuilders and recreational lifters. Traditionally, this type of routine is one in which you work out on concecutive days but exercise different muscles. For example , you might exercise your lower body on Mondays and Thursdays and your upper body on Tuesdays and Fridays. More recently, lifting enthusiasts have been introduced to to the idea of the aformentioned " Triple Split," which is essentially three workouts throughout the day that involve three different muscles (i.e. morning, afternoon, and evening sessions).

It's true that a person utilizing a split routine doesn't usually exercise the same muscles two days in a row.Remember however that it takes a minimum of 48 hours in order for the body to resynthesize its stores of carbohydrates. So if you worked your lower body on Monday you depleted your carbohydrate stores and therefore, even if you train different muscles on Tuesday, you have not had the necessary 48 hours to fully recover those stores.

Granted, there may be individual variations in recovery ability. However, Split Routines are generally inappropriate, inefficient and unreasonable for the majority of the population. And what about the Triple Split? Yeah, right. Who's got time for three daily work outs, "numerous small meals," naps, meditation, massage, and other assorted " mental and physical techniques"? I dunno about you guys, but I gotta have time to do other things during the day like, going to work for example. In short, Split Routines -- or any variation ---simply aren't practical for us working stiffs. Leave the Split Routines for the professionals bodybuilders.

Strength Training In-Season

Some research has indicated that the muscle will begin to lose size (atrophy) and strength if it isn't exercised within 96 hours of its previous workout. That is why it's important to continue strength training even while in-season or while competing. However, you will need to reduce your workouts to twice a week due to the increased activity level of practices and meets. One session should be done as soon as possible following the competition and the other no later than 48 hours before your next competition. So if you compete on Saturdays, you should train on Sundays (or Mondays) and Wednesdays (or Thursdays -- providing it is 48 hours prior to your competition).

How do you know if you've had sufficient recovery time? You should see a gradual improvement in the amount of weight and/or the number of repetitions that you are able to do over the course of several weeks. If not, then you're probably not getting enough of a recovery between workouts. ***Remember, if you want a muscle to get larger and stronger, you must stress it, feed it, and rest it!***

SKILL ACQUISITION PART I EXPLOSIVE TRAINING: FACT VS. FICTION

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The facts concerning explosive training originate from feats of strength performed during the mid-nineteenth century by certain legendary circus sideshow strongmen. Some of these names, if not all (unless you are a strength history buff), you may never have heard of. Names like Eugene Sandow, Dr. George Barker Windship, Maxick (referred to in the USA as Max Sick), and Louis Cyr were world-reknown for their **"one arm clean and press".** The method in which these gentlemen performed the clean and press was in the continental style, the barbell being raised in two or more movements. Cleaning, as it is performed today (taking the weight to the shoulders in one movement) was practiced in France at the turn of the century. It was through the Ametuer Athletic Association (AAU) to compete on a international level that they adopted this throwing technique in order to qualify for the International Weightlifting Federation (Federation International Halterophile) during the 1920's. A brief definition of halterophile lends a better perception of our topic historically as well as literally. Halterophile, loosely translated: The love of jumping/throwing weights. The Greeks in their original Olympics jumped and swung weights as part of drills that they coordinated with music to create a cadence of repetition. Probably the best analogy to relate this activity to modern standards would be an aerobics dance class where weights are coordinated to the music of the day. From that definition is where the fiction of explosive training is derived. As far as the strongmen are concerned a certain amount of practice would go into their final performance of the aforementioned strength feat. Nothing much is mentioned of their development of strength, unless you bought one of their mail-order exercise programs. And many of the programs these people sold were not the same ones they followed anyway. With this a semantic somehow filtered into the current sports specific protocol. This semantic was the idea that