Welcome to Designing Your Conditioning Program- Fit to a T- Quick Starter Kit

No two conditioning programs are alike. If something "fits to a T" then it's perfect for your purpose and no one else. We have come up with a 7-T system to fit you to your T to get your athletes fit to perform at their best.

Soccer conditioning includes in the gym and on the pitch with and without the ball. Decisions of what to do are highly individualized based on time, facility and needs of the athlete.

We have selected articles based on club/high school* and collegiate/advanced play to help you get started now. These articles are select as examples; your job is to make them fit to your T. Twice weekly you’ll be receiving additional articles to add to your 7-T system library.

*Note: recently the United States Soccer Federation announced a new policy that will uncouple high school soccer and the training of top youth players. While we take no position on this policy, weight room access to club players will be more on a limited basis since many club facility don’t have a fully equipped weight room that is found in most high schools across the United States.

T-1 Training Age/History

This T is to avoid doing too much or the wrong thing. All too often advanced programs are prescribed to young, developing athletes. All information present is assigned a training age beginning, intermediate and advanced.

Training age is defined as:

- **Beginning-Level** athletes with training age of 0 to 2 years
- **Intermediate-Level** athletes with training age of 2 to 4 years
- **Advance-Level** athletes with training age of over 4 years.

Training age year is continuous year-round conditioning beyond just playing soccer.

Training history is the summary of training age experience. If your athletes have trained on their own or with another coach it’s important to learn what they have done. This will allow you to establish training age, habits, needs etc. Also history should include injuries and the response to rehabilitation.

# Understanding the Development of Soccer Players

*Don Kirkendall*

Developing soccer athletes is a complex issue with multiple factors that interrelate. Presented below is a list of developmental factors coaches need to be aware of when planning the development of their athletes. This is not a comprehensive list but rather provides important areas for future discussion and emphasis.

**#1 To Train for Soccer, Know the Game of Soccer**

In training for soccer the most obvious place to start is training for the game—one needs to know the game. This is in relation to the physical requirements and how tactics of the game may affect the physical aspect of the game. This formulates the design of what the coach wants to accomplish with his/her athletes. It may seem like an obvious statement but there are coaches who have not grown up with soccer and are unaware of the specific demands and requirements of the game. For example, around 90% of all sessions in soccer are of 4 players and 3 passes or less so there is some logic for training 4v4; it’s the essence of the game.

Once the concept of the demands are established, the next step is to try and come up with activity during practice that will get the coach into the direction of meeting the demands of the game. Lack of skill development also goes hand in hand with the lack of physical development—the two are connected. As a personal philosophy, I don’t like the canned approach many coaches use in their approach to conditioning training. I feel coaches need to know and understand the concepts first and then develop a program based on needs of the athletes and use of their coaching imagination, experiences and instincts.

**#2 To Develop Right, Eat Right**

For some reason athletes in individual sports have embraced the concept of nutrition whereas in team sports, such as soccer, nutrition, to a great extent, is ignored. Twenty-five years ago you could find a research abstract that indicated soccer players aren’t getting enough carbohydrates. Today you can find research abstracts that indicate soccer players aren’t getting enough carbohydrates. Nothing has really changed in this regard. After physical training, the thing that contributes most to performance is sound nutritional practices.

**#3 Injury—Work Toward Prevention**

The first aspect of injury prevention is to know how the injury happens. Coaches need to educate themselves on root causes so that prevention strategies can be implemented. In observing soccer played below the collegiate level, lack of the proper concepts...
The English, Brazilians, Argentineans, Germans have an identifiable way of development; our’s is evolving. This may be good because what it means is that one gets a melting pot of many soccer cultures combined to create great soccer players. The English, Brazilians, Argentineans, Germans have an identifiable way of development; our’s is evolving. This may be good because what it means is that one gets a melting pot of many soccer cultures combined to create great soccer players.

Another aspect of this storm that has contributed to a perfect storm is the lack of general play. Kids used to go out and play in their neighborhoods. Today everything is organized. Monday and Wednesday are soccer. Tuesday is for piano lessons and so on. This has limited the opportunity for free play. Kids spend their free time (what little they do have) in front of their computer, TV or other sedentary distraction. In this country one’s skill teacher is the coach—in Italy or Brazil the skill teacher is one’s older brother, father, uncle and the kids they play with. There’s a big difference between the multi-coach approach of soccer nations and the unicoach approach to skill development we have here.

I remember hearing a college coach talk about taking a group of U-14 to Mexico where they trained for a week with a local team. The coach said the U.S. kids where bored to death. This was because the training session would start with warm-up and the next hour of a 90-minute session would be devoted to skill development. At the end a pick up game would occur. In the U.S. it’s just the opposite. A practice consists of 15 minutes of skill development and the rest of the time devoted to play and small group activity. When the kids in Mexico got into game situations, they would win easily because of their superior skills, especially their first touch and pace of passing. Two ways of preventing injury according to research is to be in good condition and be more skilled—the more highly skilled players have fewer injuries.

#5 Overplay and It’s Influence on Underdevelopment

Research has shown that the lowest rate of injury occurs when the ratio of weekly training to matches is four- or five-to-one (that is training for four to five units of time and compete for one unit of time). This research was done following the Korea-Japan World Cup. In the month leading up to competition, when the amount of play increased and training decreased, the rate of injury increased and the level of play decreased. In this country the ratio is one-to-one or two-to-one at best. If a tournament is played on the weekend, the training-to-play ratio goes down substantially. The groups of soccer athlete that come close to ideal are high school players who play two games a week and have three training sessions, but that is still substantially below the more ideal 4-5:1 ratio. In football, because of nature of the sport, play is only once per week with four practice sessions during the week. This is more toward the ideal.

It is my opinion that soccer coaches understand this inverted pyramid of play to training and development; however, it comes back to the decision makers as to how many games the kids are going to play. I don’t bemoan a club for hosting a tournament; this is a way they make some of their operating budget. But the question is, how many games does a team have to play? I know of teams that play upwards of 140 refereed games in a calendar year. These may be abbreviated games (25-minute halves) with three games on Saturday and two on Sunday, but the volume of annual play is unbelievable. The result of this is that soccer athletes must learn to pace themselves. They can’t create or try new skills/tactics because they haven’t spent enough time training to be comfortable enough to use their new lessons in a competitive match for fear of failure. Development is about training, not about competing.

Additional problems occur with knowing how to eat and rest to recover in order to have something in the tank for the next game. If you’ve been to a Hispanic tournament, the day is an entire event. Here you play, go back to the hotel and then go back and play again. There’s a disconnect in that players lose the opportunity to observe and learn. Exposure to the game they get is much different then what our kids get.

In Holland, the entire developmental system is to teach young kids to play like the national team does. It needs to be pointed out that the Dutch have a playing culture that everyone buys into. The U.S. doesn’t have a culture that uniquely identifies us as U.S. The English, Brazilians, Argentineans, Germans have an identifiable way of development; our’s is evolving. This may be good because what it means is that one gets a melting pot of many soccer cultures combined to create great soccer players.

I was in Florida in January and saw the U-23 and U-17 play each other. As you might expect the U-23 won easily but I came away impressed. They have 40 kids in the program comprised of multiple races and nationalities. This flies in the face of the typical demographics we see in soccer today in this country. Hopefully, this diversity is a very healthy thing for future development of soccer in our country.

#4 The Perfect Storm of Under Development

A perfect storm is an occurrence, cataclysmic in nature, which happens because several independent, seemingly benign factors come together at the same time. This analogy can be used in looking at the way young athletes face challenges of proper development. In soccer development, this perfect storm started to happen when Title IX took effect in the 70s, which expanded women’s opportunities in sports.

The second event, which happened around this time, was the substantial elimination of physical education within school systems around the country due to budgetary constraints and other factors. The results were kids coming into sports without the necessary motor developmental opportunities that lead to natural progressive development and maturation. Kids haven’t learned basic movement skills such as hopping, skipping and jumping. Consequently, the foundation of an injury prevention program needs to start with learning and developing basic motor skills and motor control.

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B. Time available on a daily basis.

In soccer, practice time is limited and therefore much of the strength and conditioning activity must be done as part of warm-up or the practice session itself. This circumstance changes through the year.

Start with a calendar and mark your off-season, pre-season, in-seasons. This calendar is unique to your program. Next fill in your Competitions/Practices/Conditioning/Recovery schedule for each season/week/day. Be sure to include and how much time you can devote to conditioning. If conditioning is part of practice be sure to put this in. Don’t forget recovery days!

To start a program here is a great overview to get stated.

Ajax Cape Town Football Club Youth Academy - Physical Development Program
Craig Von Wielligh

Here is Craig’s person mission statement: I hope to continuously develop and improve myself in every aspect and learn as much as I can from the exposure of working in this wonderful industry of professional football, and from interacting with the people and experts in it.

Ajax Cape Town Football Club in South Africa is made up of the 1st Team (playing in the Premier Soccer League) and the Youth Academy (6 teams). We are affiliated to Ajax Amsterdam, and through this relationship, have had 5 players go to Amsterdam over the past 10 years. Three of these players came through our youth development system, namely Steven Pienaar, Stanton Lewis and Daylon Claasen, while Benni McCarthy and Eyong Enoh also made the move to Holland. We currently have about 80 players playing professional soccer around the country and the rest of the world that have come through this same system.

Our Youth is a massive priority for us, and we make every effort to ensure their potential is fully developed and nurtured. We have 6 teams – U/12, U/13, U/14, U/15, U/17 and U/19. Each of these teams plays league matches in the age group above theirs. We focus on specific conditioning with each of these age groups and are constantly improving our methods. Over the course of the last 2 seasons the conditioning protocols have gone as follows:

Starting at the Beginning - the Importance of Flexibility/Mobility, Motor Skills and Coordination in the Development of the Young Soccer Athlete and Matching It with Growth

Our junior youth teams (U/12, U/13, and U/14) do gymnastics, rope skipping and Capoeira with the emphasis on mobility, fundamental motor skills and co-ordination. The reason that we included these programs into our youth training schedule is for a number of reasons. We feel that co-ordination and multi-skills are especially important for our U/12 players because they are still at the age where they can quickly learn new motor skill patterns, and with exposing them to as many different skill aspects as possible, it will greatly add to their holistic development as an athlete and ultimately aid their progress as soccer players.

I have firsthand experience of how much individual attention is required for new academy players to improve co-ordination at U/17 or U/19 level when it is evident that they haven’t been exposed to different sports or a basic multi-skills programming at a young age. So start young.

In terms of flexibility/mobility; we closely track the growth rates of our Youth Academy players and when they are at the stage where they reach their Peak Height Velocity (the point where they will grow the most) it is vitally important that they are doing sufficient flexibility/mobility exercises. At this time it is critically important to limit the number of games played at this stage of development so as to limit chances of injury. This maturation process is monitored by quarterly tests and data capturing where we get results such as Predicted Height, Peak Height Velocity and Development Type (Early/Normal/Late).

Gymnastic, Rope Skipping and Capoeira Exercises

At the moment we have external individuals coming in to run the multi-skill programs.

Gymnastics – includes skills such as trampoline jumps with landing, hand stands, cartwheels, balance beams, etc.

Rope Skipping – includes teaching the players various types of skipping techniques from basic to advanced.

Capoeira – they are taught the basic stances and movements of capoeira as well as various kicks. The movements are varied from ground to crouched to squatting positions.

Editor’s Note: Capoeira is a Brazilian art form that combines elements of martial arts, sports, and music. It is known by quick and complex moves, using mainly power kicks and quick leg sweeps, with some ground and aerial acrobatics, knee strikes, take-downs, elbow strikes, punches and headbutts.

Ball Work and Match Play

The junior youth teams train 3 x per week (for 90 minutes), and play one match. Within these 3 training sessions, they have 1 x 30 minute session for capoeira and 1 x 30 minute session for gymnastics/rope skipping. It is always the best case scenario if balls can be included with everything that they do, however the emphasis is on learning skills other than soccer and there are only having two multi-skill sessions per week. This means that they will have 1 full 90 minute soccer training session and 2 training ses-
sessions split by the multi-skill program.

All our youth training sessions are outlined in the Ajax method and therefore involve a lot of ball, including many technical and tactical drills.

Sample Program Outline

<table>
<thead>
<tr>
<th>Time</th>
<th>Monday</th>
<th>Wednesday</th>
<th>Friday</th>
<th>Saturday</th>
</tr>
</thead>
<tbody>
<tr>
<td>16h30 – 17h00</td>
<td>U12 GYM/ROPE</td>
<td>FULL TRAINING</td>
<td>U13 CAPOERIA</td>
<td>10H40 MATCH</td>
</tr>
<tr>
<td>17h00 – 17h30</td>
<td>U13 GYM/ROPE</td>
<td>FULL TRAINING</td>
<td>U12 CAPOEIRA</td>
<td>11H40 MATCH</td>
</tr>
<tr>
<td>17h30 – 18h00</td>
<td>U14 GYM/ROPE</td>
<td>FULL TRAINING</td>
<td>U14 CAPOEIRA</td>
<td>12H40 MATCH</td>
</tr>
</tbody>
</table>

Senior Youth Considerations

Our senior youth teams follow a strength training curriculum that we have developed. They train 4 times per week for 90 minutes (excluding match), while the squad strength training program takes place 2-4 times per week. Here U/15’s start with very basic technique training of most of the strength exercises they would do throughout the Strength Curriculum, with some Olympic lifting techniques.

Once they reach U/17, they would know the techniques well and would gradually increase the weight of the exercises they do. Our U/19’s is the age group that we focus most of our strength training on. They would have up to three strength sessions and one power session in a week.

Their season runs for 9 months (similar to PSL) and therefore we can plan for a phase of hypertrophy, max strength and then maintenance. During all of this we do periodize the speed and stamina of each team, but give the responsibility of this to the coach to include specific drills into their training sessions. We also track the Height and Weight of each youth player every 8-12 weeks. We use this information to estimate each player’s Peak Height Velocity or PHV a period of time where the athlete has the most growth. During a player’s PHV, he will be pulled out of strength training and will do more coordination and running mechanics training.

I hope this gives you some information about my role and the Medical Departments role within the Youth Academy.

Planning the Off-season

Club/Off-season

Design and Implementation of an Off-Season Conditioning Program for U-14 Soccer Athletes

Jason Rutkowski

Prior to writing an off-season conditioning program for U-14 soccer athletes, I thought it was important to re-examine the physiological demands of the game itself. This mental exercise helped me to develop a conditioning program that makes sense. The process whereby a coach assesses the physiological demands of the sport is sometimes called a “needs analysis”. Fortunately, sports scientists have analyzed the demands of soccer and have determined the typical activity profile of the game. Understanding the activity profile of soccer allows the coach to answer questions such as “How far does a soccer player run in a game?” or “How often does a soccer player sprint in a game?” More importantly, this knowledge allows the coach to design a fitness program that will target the physiological attributes most important to the game of soccer with the goal of enhancing the athlete’s performance. Some important information that I gathered about the activity profile of soccer included the following: 2/3 of the distance covered in a soccer game is performed at a walking or jogging pace and sprint distances rarely exceed 40 meters (i.e. 10-30 meters on average).

Aside from a needs analysis, it is important to also consider the athlete when developing a physical training program. In my case, it was necessary to consider the growth and maturation of a 13 year old athlete and his or her physiological readiness to perform a physical training program. In my opinion, the overall goal of physical training at this age should be to establish a solid foundation. In other words, as a coach, I was not simply concerned with preparing our young athletes for the upcoming season, but rather for long term success and enjoyment of the sport. I tried to establish sound training principles and exercise techniques early on making sure kids mastered basic movements and drills first, allowing for plenty of repetition, before progressing to more advanced movements. From there, we were able to incorporate new drills and exercises into the program to further challenge our athletes.

Overview and Goals of the Training Program

Based on prior year’s experience and the needs of our soccer athletes, I decided to establish four basic goals to guide the design and implementation of our off-season conditioning program. The goals of the training program were as follows: improve work capacity/endurance, increase core strength and stabilization, enhance footwork, balance and coordination and reduce injury risk. A number of questions came to mind when considering the training goals, but foremost was the following: “How can we best accomplish these goals, both from a program design standpoint (i.e. program structure, exercise selection, duration of work bouts etc.) and
Design and Structure of the Training Program

I decided to structure the training program using a loose form of circuit training. My objective was to create a training environment that utilized favorable work and rest periods while maximizing the efficiency of our time. Each training session began with a 15-20 minute warm-up phase which served a number of purposes. First, it provided an opportunity to teach our athletes a series of fundamental movement skills that would elevate their muscle temperature and physically prepare them for more intense exercises and drills. My goal was to have them use this warm-up regimen consistently in the competitive season prior to practices and games. Second, it also provided an opportunity to practice technical ball skills such as foot and thigh juggling. Following the warm-up phase, the training session progressed to a circuit training format incorporating drills and exercises that addressed our training goals.

Training Variables

In designing the training program, I considered a number of training variables, those components of the training program that a coach can manipulate to bring about a desired training effect. In particular, when considering the goal of increasing work capacity, I was most concerned with the duration of work and recovery bouts. Keeping in mind the activity profile of soccer, I wanted to train my athletes to perform short (i.e. 15-20 sec) duration bouts of high intensity activity separated by periods of either active or passive recovery. I also wanted the high intensity activities to be “purposeful work” meaning those movements and skills that would benefit a soccer player. In keeping with purposeful work, exercise selection was another training variable critical to addressing the training goals. For example, when considering the goal of improving core strength, I wanted to implement exercises that would teach trunk stabilization and also exercises that would strengthen the muscles of the hip. Exercise selection was a key component of the training program, but also important was the order of performing those exercises. Again, this goes back to the use of a circuit-training format to alternate movements that tax different muscle groups giving our athletes adequate recovery and maximizing the quality of work performed and efficiency of time. Keeping in mind the age of my athletes and the goal of establishing a foundation for future success, proper exercise progression was also a key training variable when designing the program. My focus was to give our U-14 athletes time to master a particular exercise, both from a physiological sense (i.e. gain in strength) and a technical sense (i.e. motor skill development) before progressing to more physically demanding or complex drills.

For recovery and work ratios my goal was to allow for adequate rest, use our time efficiently and allow for high quality work bouts. With some exercises, like hurdle hops or box shuffles, I would have the kids perform 2-3 sets before moving to the next exercise. For the exercises emphasizing work capacity and injury prevention, three stations were set up for on average 9-10 athletes. Therefore, the kids would perform 12-14 landings of hurdle hops or a 15-20 second bout of box drills and then passively rest for the time that it took two other athletes to perform the drill. During this time I would make coaching points in between sets that would give the athletes a bit more time for recovery. Based on these considerations our work to rest ratio was 1:3-4 work. This aspect of the program is always a challenging thing for me, considering the number of athletes I'm working with and my focus on technique and managing the training session. In other situations, like strength training, we might go from one exercise to the next incorporating an active recovery component (i.e. a lunge followed immediately by a bridge or sit-up). The conditioning term for this is super setting and is an effective way of managing limited time.

Off-Season Training Program

Table A provides the 5-week off-season conditioning program developed for our U-14 level soccer athletes with the prescribed exercises for each session as well as planned training volume (i.e. number of sets and repetitions, duration of work bouts). The exercises or drills were typically performed in a circuit type fashion in the order presented, however the actual training volume varied from the planned training volume due to time constraints, the athletes progress and changes made by the coach during the training session. Table B provides a detailed description of each exercise used in the training program and the training goal (i.e. work capacity, core strength etc.) addressed by the exercise.

Transition into the In-Season

From my experience as a conditioning coach with a youth soccer club, the challenge is to determine the best way to transition physical training into the in-season practice schedule. My goal, with in-season training, is always to build on the foundation developed in the off-season training program. However, the reality is, there is much less time to work on physical skills since the focus now shifts to technical and tactical training. It becomes very important to communicate with the coaching staff the physical training goals and determine how much time will be allotted for physical training. Since there are time constraints, the conditioning coach must plan creative ways to train physical skills developed in the off-season. Proper planning and field set-up before practice sessions is critical to accomplishing these training goals. I like to incorporate three basic components into the on field practice sessions including warm-up, injury prevention training and endurance/work capacity training. Because of the change in the training environment (i.e. from gymnasium to soccer field) endurance work can now take on the form of short sprints (i.e. 10-40 m) arranged as Fartlek (speed play in which the athlete sprints and jogs at various intervals) or shuttle runs. Again, it is important to remember the activity profile...
of soccer when designing physical training drills.

Another factor to consider when transitioning physical training into the in-season is fitness testing. The fitness component that I have been most concerned with testing is endurance. Results obtained from endurance testing can provide the coach with valuable information concerning the athlete’s physical capacity and can also be used as a means to track improvements in fitness as well as provide feedback and motivation to the athletes. This year, I tested the endurance of our U-14 athletes using a well established and reliable test of soccer specific fitness known as the Yo-Yo Intermittent Recovery Test. My goal is to repeat this test at mid-season to see how the kids have progressed and evaluate the conditioning program.

Table A

<table>
<thead>
<tr>
<th>Week 1</th>
<th>Exercise / Drill</th>
<th>Prescribed Sets / Repetitions / Duration</th>
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</thead>
<tbody>
<tr>
<td>Session 1</td>
<td>1. Foot Ladder Drills - Basics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quick Feet, Side Step, Icky Shuffle, In and Out Box Shuffle</td>
<td>5 yd ladder - varied no of sets</td>
</tr>
<tr>
<td></td>
<td>2. Bridging</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plank Position (teach abdominal hollowing)</td>
<td>2 sets x 20 sec each</td>
</tr>
<tr>
<td></td>
<td>On Side (teach abdominal hollowing)</td>
<td>2 sets x 20 sec each</td>
</tr>
<tr>
<td></td>
<td>3. Step Forward Lunge</td>
<td>2 sets x 10 reps each leg</td>
</tr>
<tr>
<td></td>
<td>4. Lateral Box Push-Offs (6&quot; box height)</td>
<td>6 sets x 15 sec</td>
</tr>
<tr>
<td>Session 2</td>
<td>1. Foot Ladder Drills - Basics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quick Feet, Side Step, Icky Shuffle, In and Out Box Shuffle</td>
<td>5 yd ladder - varied no of sets</td>
</tr>
<tr>
<td></td>
<td>Carioca, Crossover Shuffle</td>
<td>5 yd ladder - varied no of sets</td>
</tr>
<tr>
<td></td>
<td>2. Bridging</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plank Position</td>
<td>2 sets x 20 sec each</td>
</tr>
<tr>
<td></td>
<td>On Side</td>
<td>2 sets x 20 sec each</td>
</tr>
<tr>
<td></td>
<td>3. Box Shuffles (6&quot; box height)</td>
<td>2-4 sets x 15 sec each</td>
</tr>
<tr>
<td></td>
<td>4. Reverse Sit-Up</td>
<td>2 sets x 20 reps</td>
</tr>
<tr>
<td></td>
<td>5. Lateral Hurdle Hops (6&quot; hurdle)</td>
<td>2-4 sets x 14-16 landings</td>
</tr>
<tr>
<td></td>
<td>6. Step Forward Lunge</td>
<td>2 sets x 10 reps each leg</td>
</tr>
<tr>
<td></td>
<td>7. Single Leg Squat w/ forward reach</td>
<td>1 set x 12 reps each leg</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Week 2</th>
<th>Exercise / Drill</th>
<th>Prescribed Sets / Repetitions / Duration</th>
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</thead>
<tbody>
<tr>
<td>Session 3</td>
<td>1. Foot Ladder Drills</td>
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<tr>
<td></td>
<td>Quick Feet, Side Step, Icky Shuffle, Side R/L In</td>
<td>5 yd ladder - varied no of sets</td>
</tr>
<tr>
<td></td>
<td>Carioca, Crossover Shuffle</td>
<td>5 yd ladder - varied no of sets</td>
</tr>
<tr>
<td></td>
<td>2. Side Bridge</td>
<td>2 sets x 20 sec each</td>
</tr>
<tr>
<td></td>
<td>3. Box Steps (6&quot; box height)</td>
<td>2 sets x 15 sec each</td>
</tr>
<tr>
<td></td>
<td>4. Reverse Sit Up</td>
<td>2 sets x 20 reps</td>
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<tr>
<td></td>
<td>5. Forward/Backward Hurdle Hops (6&quot; hurdle)</td>
<td>2 sets x 14-16 landings</td>
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<tr>
<td></td>
<td>6. Step Back Lunge</td>
<td>2 sets x 10 reps each leg</td>
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<tr>
<td>Session 4</td>
<td>1. Foot Ladder Drills</td>
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<tr>
<td></td>
<td>Quick Feet, Side Step, Icky Shuffle, Side R/L In, Slalom Hop, Crossover Shuffle</td>
<td>5 yd ladder - varied no of sets</td>
</tr>
<tr>
<td></td>
<td>2. Single Leg Squat w/ hip rotations</td>
<td>1 set x 10-12 reps each leg</td>
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<tr>
<td></td>
<td>3. Ball Drill</td>
<td></td>
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<tr>
<td></td>
<td>Lateral Shuffle and Passing</td>
<td>2 sets x 45-50 sec each</td>
</tr>
<tr>
<td></td>
<td>4. Birddog (teach abdominal hollowing)</td>
<td>1-2 sets x 8 reps each leg</td>
</tr>
<tr>
<td></td>
<td>5. Bridging On Side</td>
<td>2 sets x 20 sec each</td>
</tr>
<tr>
<td></td>
<td>6. Hurdle Hops (6&quot; hurdle)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Forward/Backward</td>
<td>2 sets x 12 landings</td>
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<tr>
<td></td>
<td>Lateral</td>
<td>2 sets x 12 landings</td>
</tr>
<tr>
<td></td>
<td>7. Russian Hamstring</td>
<td>2 sets x 10 reps</td>
</tr>
<tr>
<td>Week 3</td>
<td>Exercise / Drill</td>
<td>Prescribed Sets / Repetitions / Duration</td>
</tr>
<tr>
<td>--------</td>
<td>------------------</td>
<td>-----------------------------------------</td>
</tr>
<tr>
<td>Session 5</td>
<td>1. Foot Ladder Drills w/ ball skills</td>
<td>Quick Feet, Icky Shuffle, Side Step 5 yd ladder - varied no of sets</td>
</tr>
<tr>
<td></td>
<td>2. Side to Side Box Shuffle (6-12&quot; box)</td>
<td>2-4 sets x 15 sec each</td>
</tr>
<tr>
<td></td>
<td>3. Eccentric Push-Ups</td>
<td>10 reps x 5 sec lowering phase</td>
</tr>
<tr>
<td></td>
<td>4. Step Forward Lunge</td>
<td>2 sets x 10 reps each leg</td>
</tr>
<tr>
<td></td>
<td>5. Supermans</td>
<td>1-2 sets x 10 reps</td>
</tr>
<tr>
<td></td>
<td>6. Hurdle Hops (6&quot; hurdle)</td>
<td>Forward/Backward 2 sets x 12 landings</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lateral 2 sets x 12 landings</td>
</tr>
<tr>
<td></td>
<td>7. Side Bridge</td>
<td>2 sets x 20 sec each</td>
</tr>
<tr>
<td></td>
<td>8. Partial Sit-Ups</td>
<td>2 sets x 20 reps</td>
</tr>
<tr>
<td></td>
<td>9. Single Leg Hops (hold landings)</td>
<td>3 sets x 5 each leg</td>
</tr>
<tr>
<td>Note:</td>
<td><strong>Session 5 was cancelled due to weather conditions</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Session 6</th>
<th>Exercise / Drill</th>
<th>Prescribed Sets / Repetitions / Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Foot Ladder Drills</td>
<td>Quick Feet, Side Step, Icky Shuffle, Side R/L In, Slalom Hop,</td>
<td>Carioca, In and Out Shuffle 5 yd ladder - varied no of sets</td>
</tr>
<tr>
<td>2. Bridging</td>
<td>Plank Position</td>
<td>2 sets x 20 sec each</td>
</tr>
<tr>
<td></td>
<td>On Side</td>
<td>2 sets x 20 sec each</td>
</tr>
<tr>
<td>3. Forward/Backward Hurdle Hops (6&quot; hurdle)</td>
<td>4 sets x 12 landings</td>
<td></td>
</tr>
<tr>
<td>4. Step Forward Lunge</td>
<td>2 sets x 10 reps each leg</td>
<td></td>
</tr>
<tr>
<td>5. Reverse Sit-Up</td>
<td>2 sets x 20 reps</td>
<td></td>
</tr>
<tr>
<td>6. Russian Hamstring</td>
<td>2 sets x 10 reps</td>
<td></td>
</tr>
<tr>
<td>7. Ball Drills</td>
<td>Ball Weaves 2 sets x 30 sec each</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dribbling In Place</td>
<td>2 sets x 30 sec each</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Week 4</th>
<th>Exercise / Drill</th>
<th>Prescribed Sets / Repetitions / Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session 7</td>
<td>1. Foot Ladder drills</td>
<td>Quick Feet, Icky Shuffle, Slalom Hop, Crossover Shuffle, SL Hop 5 yd ladder - varied no of sets</td>
</tr>
<tr>
<td></td>
<td>2. Box Shuffles (6&quot; box)</td>
<td>Forward/Backward 2 sets x 15 sec each</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lateral 2 sets x 15 sec each</td>
</tr>
<tr>
<td></td>
<td>3. Full Sit Ups w/ ball overhead</td>
<td>2 sets x 20 reps</td>
</tr>
<tr>
<td></td>
<td>4. Supermans</td>
<td>1 sets x 10 reps</td>
</tr>
<tr>
<td></td>
<td>5. Ball Drill</td>
<td>Lateral Shuffle and Passing 2 sets x 45-50 sec each</td>
</tr>
<tr>
<td></td>
<td>6. Walking Lunge</td>
<td>2 sets x 8-10 reps each leg</td>
</tr>
<tr>
<td></td>
<td>7. Eccentric Push-Ups</td>
<td>10 reps x 5 sec lowering phase</td>
</tr>
<tr>
<td></td>
<td>8. Single Leg Hops (hold landings)</td>
<td>3 sets x 5 each leg</td>
</tr>
<tr>
<td></td>
<td>9. Soccer game - scrimmage</td>
<td>10-15 minutes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Session 8</th>
<th>Exercise / Drill</th>
<th>Prescribed Sets / Repetitions / Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Foot Ladder drills (from varied starting positions w/reaction)</td>
<td>Quick Feet, Side Step, Icky Shuffle, Carioca</td>
<td>In and Out Shuffle, Side R/L In, Backwards Icky Shuffle 5 yd ladder - varied no of sets</td>
</tr>
<tr>
<td>2. Bridging</td>
<td>Plank Position</td>
<td>2 sets x 25 sec each</td>
</tr>
<tr>
<td></td>
<td>On Side</td>
<td>2 sets x 25 sec each</td>
</tr>
<tr>
<td>3. Hurdle Hops (6&quot; hurdle)</td>
<td>Forward/Backward</td>
<td>4 sets x 12 landings</td>
</tr>
<tr>
<td></td>
<td>4. Reverse Sit-Up</td>
<td>2 sets x 20 reps</td>
</tr>
<tr>
<td></td>
<td>5. Ball Drills</td>
<td>Ball Weaves 2 sets x 30 sec each</td>
</tr>
<tr>
<td></td>
<td>Dribbling In Place</td>
<td>2 sets x 30 sec each</td>
</tr>
<tr>
<td>6. Step Forward Lunge</td>
<td>2 sets x 10 reps each leg</td>
<td></td>
</tr>
<tr>
<td>7. Russian Hamstring</td>
<td>2 sets x 10 reps</td>
<td></td>
</tr>
<tr>
<td>8. Single Leg Squat w/forward reach</td>
<td>1 sets x 12 reps each leg</td>
<td></td>
</tr>
<tr>
<td>Week 5</td>
<td>Exercise / Drill</td>
<td>Prescribed Sets / Repetitions / Duration</td>
</tr>
<tr>
<td>--------</td>
<td>------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>Session 9</td>
<td>1. Foot Ladder drills (from varied starting positions w/reaction)</td>
<td>5 yd ladder - varied no of sets</td>
</tr>
<tr>
<td></td>
<td>Quick Feet, Crossover Shuffle, Backwards Icky Shuffle,</td>
<td>1 yd ladder - varied no of sets</td>
</tr>
<tr>
<td></td>
<td>SL Hop, Side R/L In</td>
<td>10 reps x 5 sec lowering phase</td>
</tr>
<tr>
<td></td>
<td>2. Eccentric Push-Ups</td>
<td>2-4 sets x 15-20 sec each</td>
</tr>
<tr>
<td></td>
<td>3. Lateral Hurdle Hops (minimizing GCT) (6&quot; hurdle)</td>
<td>2 sets x 20 reps</td>
</tr>
<tr>
<td></td>
<td>4. Full Sit-Ups w/ball overhead</td>
<td>4 reps x 40 yards</td>
</tr>
<tr>
<td></td>
<td>5. Ball Drills</td>
<td>2 sets x 8-10 reps each leg</td>
</tr>
<tr>
<td></td>
<td>Shuttle Run w/ball</td>
<td>3 sets x 5 each leg</td>
</tr>
<tr>
<td></td>
<td>6. Walking Lunge</td>
<td>10-rep set</td>
</tr>
<tr>
<td></td>
<td>7. Single Leg Hops (hold landings)</td>
<td>3 sets x 5 each leg</td>
</tr>
<tr>
<td></td>
<td>8. Soccer game - scrimmage</td>
<td>15-20 minutes</td>
</tr>
<tr>
<td></td>
<td>9. Russian Hamstring</td>
<td>3 sets x 5 each leg</td>
</tr>
<tr>
<td></td>
<td>10. Single Leg Squat w/forward reach</td>
<td>1 set x 12 reps each leg</td>
</tr>
</tbody>
</table>

### Table B

<table>
<thead>
<tr>
<th>EXERCISE</th>
<th>DESCRIPTION</th>
<th>TRAINING GOAL ADDRESSED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ball Weaves</td>
<td>The athlete starts the drill by moving one foot in a circle like pattern around a ball and then quickly switches to the other foot, repeating this cycle for a specified time.</td>
<td>Work Capacity</td>
</tr>
<tr>
<td>Ball Taps</td>
<td>The athlete starts the drill with one foot on top of a ball and the other foot on the floor and quickly shuffles the feet back and forth touching the top of the ball.</td>
<td>Work Capacity</td>
</tr>
<tr>
<td>Dribbling in Place</td>
<td>The athlete quickly dribbles the ball in place for a specified time.</td>
<td>Work Capacity</td>
</tr>
<tr>
<td>Shuttle Run with Ball</td>
<td>The athlete performs a shuttle run while retrieving soccer balls, dribbling and passing to a partner.</td>
<td>Work Capacity</td>
</tr>
<tr>
<td>Lateral Shuffle and Passing</td>
<td>The athlete shuffles back and forth quickly between cones while returning passes fed by a partner.</td>
<td>Work Capacity</td>
</tr>
</tbody>
</table>
### Box Drills

<table>
<thead>
<tr>
<th>EXERCISE</th>
<th>DESCRIPTION</th>
<th>TRAINING GOAL ADDRESSED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Box Steps</td>
<td>The athlete performs quick steps between a 6” box and the floor reversing the foot pattern for each set.</td>
<td>Work Capacity</td>
</tr>
<tr>
<td>Forward/Backward Box Shuffles</td>
<td>The athlete starts the drill with one foot on top of a 6” box and the other foot on the floor behind the box. The athlete quickly shuffles the feet back and forth pushing off the box. Figure 1</td>
<td>Work Capacity</td>
</tr>
<tr>
<td>Lateral box Shuffles</td>
<td>The athlete starts the drill with one foot on top of a 6” box and the other foot on the floor to the side of the box. The athlete quickly shuffles the feet from side to side moving across the top of the box. Figure 2</td>
<td>Work Capacity</td>
</tr>
<tr>
<td>Lateral Box Push-Offs</td>
<td>The athlete starts the drill with one foot on top of a 6” box and the other foot on the floor to the side of the box. The athlete pushes off the foot on top of the box trying to attain as much height as possible while moving across the box and landing with the feet in the reversed position.</td>
<td>Work Capacity</td>
</tr>
</tbody>
</table>

### Bridging

<table>
<thead>
<tr>
<th>EXERCISE</th>
<th>DESCRIPTION</th>
<th>TRAINING GOAL ADDRESSED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plank Position</td>
<td>The athlete starts the exercise in the prone position with the elbows directly beneath the shoulders and feet together. The athlete pushes off the ground supporting the body weight on the forearms. The athlete holds this position making sure to contract the abdominal muscles and maintain a flat back posture. Figure 3</td>
<td>Core Strength and Stability</td>
</tr>
<tr>
<td>On Side</td>
<td>The athlete starts the exercise lying on the side on leg on top of the other and the elbow directly beneath the shoulder. The athlete pushes off the ground supporting the body weight on the forearm. The athlete holds this position making sure to contract the abdominal muscles and keep the body in a straight line from the hip to the shoulder. Figure 4</td>
<td>Core Strength and Stability</td>
</tr>
<tr>
<td>Birddog</td>
<td>The athlete starts the exercise in a quadruped position with the hands placed directly beneath the shoulders. The athlete extends one leg and the opposing arm (i.e. right arm and left leg or vice versa) The athlete holds this position making sure to contract the abdominal muscles and maintain a flat back posture. Figure 5</td>
<td>Core Strength and Stability</td>
</tr>
<tr>
<td>Eccentric Push-Ups</td>
<td>The athlete starts the exercise in a quadruped position on the hands and feet. The athlete bends the elbows lowering the body slowly (i.e. over 5 seconds) to the floor making sure to contract the abdominal muscles and maintain a flat back position from start to finish.</td>
<td>Core Strength and Stability</td>
</tr>
<tr>
<td>Reverse Sit-Up</td>
<td>The athlete starts the exercise in a supine position with the feet off the ground and the knees bent at a 90 degree angle. The athlete extends and lowers the legs making sure to contract the abdominal muscles and maintain a flat back position before pulling the knees back towards the chest.</td>
<td>Core Strength and Stability</td>
</tr>
<tr>
<td>Full Sit-Up w/ ball overhead</td>
<td>The athlete starts the exercise in a supine position with the feet on the floor close to the hips and flat back position. The athlete holds a soccer ball directly behind the head slightly off the ground. The athlete performs a full sit-up making sure to keep the ball directly above the head with the arms extended. The athlete holds at the top position and slowly lowers the body to the floor before repeating the next repetition. Figure 6</td>
<td>Core Strength and Stability</td>
</tr>
<tr>
<td>Supermans</td>
<td>The athlete starts the exercise in the prone position with the arms extended in front of the body and legs straight. The athlete lifts the arms, chest and legs off the floor and holds this position for a designated period of time. Figure 7</td>
<td>Core Strength and Stability</td>
</tr>
<tr>
<td>Russian Hamstring</td>
<td>The athlete starts the exercise kneeling with the arms crossed in front of the chest and upright posture. A partner is positioned behind the athlete and firmly holds the ankles. The athlete leans forward making sure to maintain a flat back and a straight line between the hip and knee. The athlete pulls back to the starting position and repeats.</td>
<td>Core Strength and Stability</td>
</tr>
<tr>
<td>Step Back Lunge</td>
<td>The athlete starts the exercise with the feet in a hip width stance, hands behind the head and upright posture. The athlete steps back with one leg while single leg supported on the opposite leg. The athlete bends the knee of the front leg and lowers the knee of the back leg towards the floor. The athlete pushes aggressively off the front leg extending the hip and knee and returning the back leg back to the start position. The drill continues alternating legs.</td>
<td>Core Strength and Stability</td>
</tr>
</tbody>
</table>
### Step Forward Lunge
The athlete starts the exercise with the feet in a hip width stance, hands behind the head and upright posture. The athlete steps forward with one leg while single leg supported on the opposite leg. The athlete bends the knee of the front leg and lowers the knee of the back leg towards the floor. The athlete pushes aggressively off the front leg extending the hip and knee and returning the front leg to the starting position. The drill continues alternating legs. Figure 8

<table>
<thead>
<tr>
<th>Exercise</th>
<th>Description</th>
<th>Training Goal Addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step Forward Lunge</td>
<td>The athlete starts the exercise with the feet in a hip width stance, hands behind the head and upright posture. The athlete steps forward with one leg while single leg supported on the opposite leg. The athlete bends the knee of the front leg and lowers the knee of the back leg towards the floor. The athlete pushes aggressively off the front leg extending the hip and knee and returning the front leg to the starting position. The drill continues alternating legs.</td>
<td>Core Strength and Stability</td>
</tr>
<tr>
<td>Walking Lunge</td>
<td>The athlete starts the exercise with the feet in a hip width stance, hands behind the head and upright posture. The athlete steps forward with one leg while single leg supported on the opposite leg. The athlete bends the knee of the front leg and lowers the knee of the back leg towards the floor. The athlete pushes aggressively off the front leg extending the hip and knee while stepping forward again with the trail leg. This sequence is repeated for a designated number of repetitions or distance.</td>
<td>Core Strength and Stability</td>
</tr>
</tbody>
</table>

### Foot Ladder Drills

<table>
<thead>
<tr>
<th>Exercise</th>
<th>Description</th>
<th>Training Goal Addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quick Feet</td>
<td>The athlete runs through a 5 yard ladder using a foot pattern of one foot in each block and making sure to keep the feet low to the ground. Figure 9</td>
<td>Footwork, Balance and Coordination</td>
</tr>
<tr>
<td>Side Step</td>
<td>The athlete side steps thru a 5 yard ladder placing both feet in each block and making sure to keep the shoulders square and hips low. Figure 10</td>
<td>Footwork, Balance and Coordination</td>
</tr>
<tr>
<td>Carioca</td>
<td>The athlete starts this drill by standing sideways at one side of the ladder. The athlete moves laterally with alternating cross-steps of the right foot in front and behind the left leg with an emphasis on hip rotation. The drill is then repeated with the opposite foot pattern. Figure 11</td>
<td>Footwork, Balance and Coordination</td>
</tr>
<tr>
<td>Icky Shuffle</td>
<td>The athlete performs the lateral step with the right foot into the first square and the left foot follows. The athlete moves the right foot outside of the ladder and advances the left foot forward to the next square. The athlete brings the right foot into the same square as the left foot. The athlete performs a lateral step with the left foot outside of the ladder and advances the right foot to the next square. The sequence is repeated thru the 5 yard ladder. Figure 12</td>
<td>Footwork, Balance and Coordination</td>
</tr>
<tr>
<td>Backwards Icky Shuffle</td>
<td>The athlete performs the same foot pattern sequence as the &quot;Icky Shuffle&quot;, but moves backwards.</td>
<td>Footwork, Balance and Coordination</td>
</tr>
<tr>
<td>In and Out Box Shuffle</td>
<td>The athlete starts the drill by standing sideways to the ladder and behind the ladder. The athlete steps with the left foot into the first square and follows with the right foot into the square. The athlete steps back and diagonally with the left foot until it is in front of the second square and the right foot follows. Each foot hits every square. This sequence repeats thru the 5 yard ladder. Figure 13</td>
<td>Footwork, Balance and Coordination</td>
</tr>
<tr>
<td>Crossover Shuffle</td>
<td>The athlete starts the drill by facing forward and standing to the left side of the ladder. The athlete performs a crossover step with the left foot into the first square and then moves the right foot to the right side of the ladder followed by the left foot. The athlete quickly reverses the sequence performing a crossover step with the right foot into the second square and then moving the left and right foot to the left side of the ladder. This sequence is repeated through the 5 yard ladder.</td>
<td>Footwork, Balance and Coordination</td>
</tr>
<tr>
<td>Side R In/Side L In</td>
<td>The athlete starts the drill by standing sideways to the ladder and behind the ladder. The athlete steps with the right foot into the first square and immediately steps forward with the left foot over the first square to the other side of the ladder. The athlete steps laterally with the right foot into the second square and steps backward with the left foot over the ladder until it is in front of the second square. The athlete steps laterally with the right foot into the third square and repeats this sequence through the 5 yard ladder.</td>
<td>Footwork, Balance and Coordination</td>
</tr>
<tr>
<td>Slalom Hop</td>
<td>The athlete hops in a diagonal pattern with one foot inside the square and one foot outside the same square. As the athlete advances thru the ladder, the foot landing inside and outside the box alternate. Figure 14</td>
<td>Footwork, Balance and Coordination</td>
</tr>
<tr>
<td>Single Leg Hop thru ladder</td>
<td>The athlete performs a single leg hop thru the 5 yard ladder landing on each square trying to minimize ground contact time.</td>
<td>Footwork, Balance and Coordination</td>
</tr>
<tr>
<td>EXERCISE</td>
<td>DESCRIPTION</td>
<td>TRAINING GOAL ADDRESSED</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>Forward/Backward</td>
<td>The athlete performs two feet hops forward and backward over a 6 inch hurdle making sure to land in a stable position.</td>
<td>Injury Prevention</td>
</tr>
<tr>
<td>Lateral</td>
<td>The athlete performs two feet hops laterally over a 6 inch hurdle making sure to land in a stable position.</td>
<td>Injury Prevention</td>
</tr>
<tr>
<td>Single Leg Hops over barriers</td>
<td>The athlete performs single leg hops over cone barriers holding each landing and making sure to land in a stable position.</td>
<td>Injury Prevention</td>
</tr>
<tr>
<td>Single Leg Squat w/ forward reach</td>
<td>The athlete performs a single leg squat while reaching forward to touch the floor with a soccer ball.</td>
<td>Injury Prevention</td>
</tr>
<tr>
<td>Single Leg Squat w/ hip rotations</td>
<td>The athlete performs a single leg squat followed by an external rotation of the opposing hip.</td>
<td>Injury Prevention</td>
</tr>
</tbody>
</table>

**Figure 1**

**Figure 2**

**Figure 3**

**Figure 4**

**Figure 5**

**Figure 6**

**Figure 7**

**Figure 8**

**Figure 9**

**Figure 10**

**Figure 11**

**Figure 12**

**Figure 13**

**Figure 14**
My primary duty as soccer conditioning coach at the University of South Carolina was to design and execute the summer off-season conditioning program. This is a 10-week program with work on the field done three times a week and strength training on non-training days (Wednesday and Saturday). The athletes generally play soccer on their own in a fun, recreational environment during the off-season. The goal of the off-season program is to enhance soccer specific strength, mobility, flexibility and soccer endurance.

Pre-season at the collegiate level is very short—10 days before the first competition. In physiological terms 10 days isn’t enough to do anything. If the players don’t report in good physical condition the program is that much behind. It can make for a very long season. This program can be adapted to many off-season to pre-season situations based on the needs of the program.

Testing

As a measure of physical abilities coming into pre-season and to gauge the effectiveness of the off-season program, we implement a series of tests for the players. In this way, we have instant feedback to know if the players are in shape to take on the very demanding pre-season. The athletes are expected to run two consecutive six-minute mile runs with a six-minute rest between the two runs. This tests aerobic capacities at high intensities and, more importantly, ability of the athletes to recover. We also test speed and power in the form of vertical jumping.

The results of these tests gives us a good measure so we know that we can focus on developing the speed, power and technical/tactical aspects of soccer without being too concerned with the athletes’ ability to recover. This allows us to focus during the pre-season on building soccer athletes and not having to spend time on base training.

Strength Training

With regard to strength training, the college environment is based on muscular development. This is great for football players who to a certain extent need to develop larger muscles to withstand the physical demands of football. However, in soccer, body building is not the goal. My fear is that many collegiate soccer programs are adapted from American football. This is wrong and may actually have a negative impact on soccer skill techniques. Of course this is an individual outcome but it is important in my opinion that strength training for soccer has to complement the game of soccer, not football. It is more important to place the technical development of soccer athletes over the muscular development. This is not to be confused with athletic development such as power, speed and agility—soccer players need to develop these attributes along with technical abilities. Athletic qualities improve technical qualities. It’s a complex issue but important to understand the differences.

<table>
<thead>
<tr>
<th>Week</th>
<th>Day One</th>
<th>Day Two</th>
<th>Day Three</th>
<th>Day Four</th>
<th>Day Five</th>
</tr>
</thead>
</table>
| One  | Pro Agility (5)  
      | Zig Zag (5)  
      | Nebraska Agility (5)  
      | Build-Ups (3 x 100)  
      | Starts (6 x 10)  
      | 20’s (2)  
      | 30’s (2)  
      | 40 (1)  
      | Stadiums or Hills (6 x 10yds)  
      | 1:00 rest Between Reps  
      | 2:00 Between Sets | 35 min. continuous run. Record distance covered(Goal 6 + Miles) | OFF | Flying 20’s (4)  
      | 40’s (4)  
      | Colgate Agility (4)  
      | 4 Corners (4)  
      | Mirror Drill (2)  
      | 1:00 rest Between Reps  
      | 2:00 Between Sets | Two 12 min. continuous runs. 4 min. rest between runs. (Goal 2 miles each time) |
| Two  | Pro Agility (5)  
      | Zig Zag (5)  
      | Nebraska Agility (5)  
      | Build-Ups (3 x 100)  
      | Starts (6 x 10yds)  
      | 20’s (2)  
      | 30’s (2)  
      | 40 (1)  
      | Stadiums or Hills (6 x 10yds)  
      | 1:00 rest Between Reps  
      | 2:00 Between Sets | Same distance as last week but the goal is to reduce the time it takes to do it. | OFF | Flying 20’s (4)  
      | 40’s (4)  
      | Colgate Agility (4)  
      | 4 Corners (5)  
      | Mirror Drill (2)  
      | 1:00 rest Between Reps  
<pre><code>  | 2:00 Between Sets | Two 11min. continuous runs. 4 min. rest between runs. (Goal 2 miles each time) |
</code></pre>
<table>
<thead>
<tr>
<th>Three</th>
<th>Pro Agility (6)</th>
<th>Zig Zag (5)</th>
<th>Nebraska Agility (6)</th>
<th>Build-Ups (4 x 80)</th>
<th>Starts (8 x 10yds)</th>
<th>20’s (1)</th>
<th>30’s (1)</th>
<th>40 (1)</th>
<th>50 (1)</th>
<th>80(1)</th>
<th>Stadiums or Hills (10 x 15yds)</th>
<th>1:00 rest Between Reps</th>
<th>2:00 Between Sets</th>
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<td></td>
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<td>Two 18 min. continuous runs. 6 min rest between. Count total distance covered. (Goal higher total than last week)</td>
<td>OFF</td>
<td>Two 10 min. continuous runs. 4 min. rest between runs. (Goal 7+ laps each time)</td>
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<tr>
<td>Four</td>
<td>Pro Agility (6)</td>
<td>Zig Zag (5)</td>
<td>Nebraska Agility (6)</td>
<td>Build-Ups (4 x 80)</td>
<td>Starts (8 x 10yds)</td>
<td>20’s (1)</td>
<td>30’s (1)</td>
<td>40 (1)</td>
<td>60 (1)</td>
<td>80(1)</td>
<td>Stadiums or Hills (10 x 15yds)</td>
<td>1:00 rest Between Reps</td>
<td>2:00 Between Sets</td>
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<td>Two runs x the same distance as last week. 6 min. rest between runs.</td>
<td>OFF</td>
<td>Two 9 min. continuous runs. 4 min. rest between runs. (Goal 6+ laps each time)</td>
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<tr>
<td>Five</td>
<td>Pro Agility (6)</td>
<td>Zig Zag (6)</td>
<td>Nebraska Agility (6)</td>
<td>Build-Ups (5 x 60)</td>
<td>Starts (8 x 10yds)</td>
<td>20’s (1)</td>
<td>30’s (1)</td>
<td>40 (1)</td>
<td>60 (1)</td>
<td>80(1)</td>
<td>Stadiums or Hills (10 x 15yds)</td>
<td>:45 rest Between Reps</td>
<td>2:00 Between Sets</td>
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<td>Two 16 min. continuous runs. 5 min. rest between runs. Count distance covered.</td>
<td>OFF</td>
<td>Two 8 min. continuous runs. 4 min. rest between runs. (Goal 6 laps each time)</td>
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<tr>
<td>Six</td>
<td>Pro Agility (6)</td>
<td>Zig Zag (6)</td>
<td>Nebraska Agility (6)</td>
<td>Build-Ups (5 x 60)</td>
<td>Starts (10 x 5yds)</td>
<td>30’s (1)</td>
<td>40 (1)</td>
<td>60 (2)</td>
<td>80(1)</td>
<td>Stadiums or Hills (10 x 15yds)</td>
<td>:45 rest Between Reps</td>
<td>2:00 Between Sets</td>
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<td></td>
<td>Two runs x the same distance as last week. 5 min. rest between runs.</td>
<td>OFF</td>
<td>Two 7 min. continuous runs. 4 min. rest between runs. (Goal 5+ laps each time)</td>
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<td>Seven</td>
<td>Pro Agility (7)</td>
<td>Zig Zag (6)</td>
<td>Nebraska Agility (6)</td>
<td>Build-Ups (5 x 60)</td>
<td>Starts (10 x 5yds) 30’s (1) 40 (1) 60 (2) 80(1) Stadiums or Hills (10 x 15yds) :40 rest Between Reps 2:00 Between Sets</td>
<td>Two 14 min. continuous runs. 4 min. rest between runs. Count distance covered.</td>
<td>OFF</td>
<td>Two 6 min. continuous runs. 4 min. rest between runs. (Goal 4+ laps each time)</td>
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<tr>
<td>Eight</td>
<td>Pro Agility (7)</td>
<td>Zig Zag (6)</td>
<td>Nebraska Agility (6)</td>
<td>Build-Ups (5 x 60)</td>
<td>Starts (10 x 5yds) 30’s (1) 40 (1) 60 (2) 80(1) Stadiums or Hills (10 x 15yds) :40 rest Between Reps 2:00 Between Sets</td>
<td>Two runs x the same distance as last week. 4 min. rest between runs.</td>
<td>OFF</td>
<td>Three 5 min. continuous runs. 4 min. rest between runs. (Goal 4 laps each time)</td>
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<tr>
<td>Nine</td>
<td>Pro Agility (8)</td>
<td>Zig Zag (6)</td>
<td>Nebraska Agility (8)</td>
<td>Build-Ups (6 x 40)</td>
<td>Starts (12 x 5yds) 40 (1) 60 (2) 80(2) Stadiums or Hills (10 x 15yds) :35 rest Between Reps 2:00 Between Sets</td>
<td>Two 12 min. runs. Count the distance covered. 4 min. rest between runs.</td>
<td>OFF</td>
<td>Four 4 min. continuous runs. 4 min rest between runs. (Goal 3 laps each time)</td>
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<tr>
<td>Ten</td>
<td>Pro Agility (8)</td>
<td>Zig Zag (6)</td>
<td>Nebraska Agility (8)</td>
<td>Build-Ups (6 x 40)</td>
<td>Starts (12 x 5yds) 40 (1) 60 (2) 80(2) Stadiums or Hills (10 x 15yds) :35 rest Between Reps 2:00 Between Sets</td>
<td>Two runs x same distance as last week. 4 min. rest between runs.</td>
<td>OFF</td>
<td>Three 1-mile runs. 4 min. rest between runs. (Objective run the fastest pace you CAN KEEP each time)</td>
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**Agility Drills**

**Pro Agility**

(5-10-5yds - Sprint-Sprint-Sprint) Mark off 10 yards, making lines at 0, 5 and 10 yards. Straddle the middle (5yd) line with feet hip-shoulder width apart and a lowered center of gravity. Turn and Sprint to the right 5yds, touch the line with your right hand, turn back and Sprint 10yds, touch the line with your left hand, turn back and Sprint through the line you started at (Pretend you are running on a straight line).

**Nebraska Agility**

(5-5-5yds - Figure 8-Sprint-Backpedal) Set up 2 cones 5yds apart from each other. Start on the right side of the first cone, Sprint to the left side of the other cone, put your right hand down on the ground and pivot around the cone till you are facing the first cone, Sprint to the right side of the first cone, turn, and sprint back through the line you started at.
cone, put your left hand down on the ground and pivot around the cone till you are facing the second cone (You have now completed the "figure 8"), staying on the same side you are on and staying close to the cones, Sprint to the line the second cone is resting on, then Backpedal to the starting line.

Colgate Agility
(10-10-10-10-10 - Sprint-Shuffle-Sprint-Backpedal-Sprint) Mark off 10yds, you will run a total of 60 yards. Sprint 10yds, turn either way and Shuffle back 10yds, turn and Sprint 10yds, then turn the opposite direction of your original turn and Shuffle back 10yds, Backpedal 10yds, then Sprint through the starting line.

Four Corners
(Sprint-Shuffle-Backpedal-Carioca) Sprint to the first cone, do an inside pivot around the outside of the cone (should be facing opposite direction), Shuffle to the next cone, do an inside pivot around the outside of the cone (should be facing opposite direction), Backpedal to the next cone, do an inside pivot around the outside of the cone (should be facing opposite direction), finish with a Carioca to the first cone.

Comeback
(Backpedal-Comeback-Backpedal-Comeback) Backpedal to first cone, plant outside the cone and Sprint diagonally to next cone, plant outside the cone, Backpedal to next cone, plant outside the cone and Sprint diagonally to the first cone.

Drop
(Sprint-Drop Sprint-Sprint-Drop Sprint) Sprint to first cone, plant outside the cone and Drop Sprint (head should be "on a swivel" looking back) diagonally to next cone, plant outside the cone, Sprint to next cone, plant outside the cone and Drop Sprint diagonally to the first cone.

Football Performance Agility
(5x7yd box, 2 yds deep for arc - 1 set = 8x, alternate directions) - Using 5 cones, make a 5x7yd box with the fifth cone bisecting the 7yd distance and being 2yds outside the box. From a standing start at cone 1, Sprint the arc around cone 2 to cone 3, make cut inside of cone, Sprint diagonally over plyo-hurdles (12" high) to cone 4, turn and Sprint back over the hurdles to cone 3, make cut inside cone, Sprint to cone 5, make inside cut (speed cut works well here), then Sprint to the finish at cone 4.

Mirror
(Takes 2 people) Have a 5yd wide lane for specified distance, Facing each other, start at one end and run to the other end of the lane. The object is for the "offensive" player to make the defender work extremely hard by making lots of cuts, jukes and moves at full speed. If the offensive player gets past the defender the defender shoulder turn and sprint to cut him/her off and the offensive player should let them catch them and then continue to try to get past them.

Zig-Zag Drills
Using 8 cones set up a course like the ones in the diagram. You can combine any of the below drills (I.e. Sprint + Shoulders Square + Outside the Cones + Choppy Steps). When setting up your course make your cone placement sporadic rather than exactly 1x5 yards apart from each other.
Inside the Cones
Make cuts inside the cones

Outside the Cones
Make cuts outside the cones

Choppy Steps
When making cuts use steps that are short and choppy

Plant Step
When making cuts plant on the outside foot

Sprint
Sprint from cone to cone

Forward Shuffle
Shuffle from cone to cone facing forward

Backward Shuffle
Shuffle from cone to cone facing backward

Shoulders Square
Keep shoulders square with the course

Inside Hand Down
Place inside hand down during cut

Speed Development Sprint Drills

Starts
Sprints focused on the starting acceleration. Directly behind the starting line, place the foot of your non-dominant leg (To help you decide your dominant leg, while standing with your feet together have someone push you from behind. Whichever leg you step out with is your dominant leg so it should go behind). Place the knee of your dominant leg at the instep (middle) of your front foot and place the hand of the dominant side leg down behind the line. Maintaining your foot placements, raise your hips up as high as you can, roll forward over your shoulders (Your hips should be higher than your shoulders and all your weight should feel like it is leaning forward on the ball of your front foot - heal should not be touching the ground). Cock back your free arm as far back as you can and flex the front leg so that it is ready to extend. Explode out with a forward lean in a "Pumping" (See Sprint Technique Drills - Pump) action.

Position/Standing Starts
Sprints focused on the starting acceleration, begin in whatever starting position your sport or position starts in

Build-Ups
Gradually increase speed over the specified distance reaching maximum speed at the end, slow down over the next 20yds. This should resemble a car with an automatic transmission - The speed change should be gradual and not visible at any one point.

Hollow Sprint
While sprinting, vary your speed back and forth from 85% to 100% within the specified distances. This should resemble a car when shifting gears - The speed change should be immediate and visible at each point.

Backpedal
See Sprint Technique Drills - Backpedal

Hill (Resistive)
Find a hill long enough to meet the prescribed distance, the hill should have approximately a 15 degree angle or greater

Downhill Sprint (Over-Speed)
Find a hill long enough to meet the prescribed distance, the hill should have approximately a 5 degree angle or less. This drill should only be done if you have been faithful and consistent with all of your training because there is a high risk for hamstring injury to those who are not prepared for it.
Flying Sprints (Flying 10/20/30's)
Run as you would a Build-up for first 30 yards, then hold maximum speed for the specified distance (See diagram).

Planning the Pre-season Conditioning Programming

A Comprehensive Look at Pre-Season Conditioning

Paul A. Cacolice

Team Profile: Connecticut Cuervo Women's Soccer Club
Age/Gender: Women's Amateur Open Team
Training Age: Intermediate
Time of Year: Spring Outdoor Pre-season, non-competitive week
Competitive Year:
- Indoor: January-Early March, September-Mid November
- Outdoor: Late April-July

Coaching Profile:
- Soccer Coach: Billy Coleman 1993 USSF Region I Coach of the Year
- Strength and Conditioning Coach: Paul A. Cacolice A.T., C; C.S.C.S.

Program Objectives:
- Tactical: Reintroduction to full field space
- Strength: Explosive hip and leg extensors
  - Spinal strength and stabilization
  - Upper extremity stabilization
- Conditioning: Taper short term burst capacity recovery periods (CPK) from indoor season
  - Increase sustained high intensity capacity
  - Increase aerobic capacity (Kreb's/O2) for recovery capability
  - Increase reliance on active recovery for repeated bouts
- Injury Prevention: Trunk and hamstring muscular strength
  - Scapular (shoulder blade) stabilization for effective upper extremity use
  - Strong concentration on total body developmental flexibility both statically and ballistically

Rationale for Program:
This article represents a one week slice of a seven week pre-season program. This program should not be used for the entire seven weeks to supply all the pre-season needs of a soccer player. It will allow a solid conditioning base to be developed for a team whose conditioning program has had indoor soccer as its sole staple. Those involved with teams in the north are familiar with this situation. This one week program is repeated for three weeks, then a more traditional pre-season program using soccer balls for both skill and conditioning work (lasting four weeks) is engaged.

One of the immediate concerns with this type of program is that the skills (especially the individual and small side skills) which are identified and refined during the indoor season may be lost with three weeks of minimal ball utilization. The patterns of nerve and muscle signals which are the physiological reasons for better ball skills will not be lost with three weeks of minimal ball utilization. The one time per week intense game will ensure that there is no nerve tissue degeneration (and thus skill loss) during this period. The unique demands of the older and possibly detrained player require, I believe, a more focused conditioning aspect to compete with teams from regions without an inclimate weather bias. This program is the author's answer to that situation.

The pre-season schedule is:

- Indoor: » March 13
- Conditioning pre-season: » April 4
- Traditional pre-season: » May 2
- Outdoor season: » May 2

Conditioning Notes:
Although the team profiled in this program is based on ex-college players age 24 through 29, this broad-based program may have greater applications for teams at an intermediate (two to four years) training age. The reason is two-fold. One, the athletes
involved have other time constraints (career, etc.) which make training such as is common with advanced players impractical. Second, many of the athletes have had mild to moderate detraining of up to five years and have immediate physiological and conditioning concerns which place them at this level.

Soccer conditioning is unique in that this sport requires players to perform in varying intensities and conditions. Soccer players use their energy stores in "short, but intense" bouts for 50-50 balls and sustained bursts to break free of a mark. They use their aerobic capacity to play a full game and allow the body to recover from such repetitive, short and intense bouts. The body uses its energy sources inefficiently in the low to mid-trained athlete or in the detrained athlete. The most efficient players, from a conditioning standpoint, are those who can most effectively use their energy sources. Known data on the body's utilization of energy sources allow for set recovery rates between repeated bouts of activity to help increase the body's energy efficiency. They are outlined as follows:

<table>
<thead>
<tr>
<th>Duration of Activity</th>
<th>Type of Activity (Energy system used)</th>
<th>Recovery Ratio (Rest to Work)</th>
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<tbody>
<tr>
<td>0 to 15 sec.</td>
<td>Short, very intense Creatine Phosphokinase (CPK)</td>
<td>3:1</td>
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<tr>
<td>30 sec. to 120 sec.</td>
<td>Sustained burst Pyruvate/Lactate</td>
<td>2:1</td>
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<tr>
<td>&gt; 180 sec.</td>
<td>Aerobic capacity Kreb's Cycle/O2</td>
<td>1:1</td>
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For chronologically younger athletes, recovery periods can initially be greater than those mentioned above with tapering to these ratios.

The equipment needed for this program, in addition to field space, includes: several "Training Sticks", four foot pieces of surgical tubing tied to the ends of 1/2 inch diameter wooden dowels, and weighted medicine balls.

**Practice Week: March 13-19**

NOTE: During repeated bouts of activity the athletes continually walk or jog. They never simply stand. This is known as "active recovery". Standing can be classified as "passive recovery" and it allows blood to settle in the limbs.

**Monday**

Recovery  Run (on own). 10 minutes at 50 percent capacity, 5 minutes at 75 percent capacity, 10 minutes at 50 percent capacity. All capacities are based on the athlete's judgment/perception.

**Tuesday**

8:30 p.m. 10 minute warm-up with 2x1's, close, rapid passing, dribbling in close quarters
8:40 p.m. Static Flexibility/Ballistic Flexibility
9:10 p.m. Station Rotation (0:10 each)
   a) Speed base work
   b) Scapular stabilization
   c) Spinal stabilization
9:40 p.m. Anaerobic Conditioning Work
   a) (2) Seven-Ups using 5 meter distance (ie: sprint 1 length, walk 1 length, sprint 2, walk 1, sprint 3, etc. up to sprint 7, walk 1)
   b) 10 repeat 35 meter sprints emphasizing technique
10:05 p.m. Change of direction development
10:20 p.m. Warm down

**Wednesday**

Off

**Thursday**

On own 10 minute jog at 50 percent capacity
Static Flexibility/Ballistic Flexibility

**Friday**

8:30 p.m. 10 minute warm-up with 2x1's, close, rapid passing, dribbling, in close quarters
8:40 p.m. Static Flexibility/Ballistic Flexibility
9:10 p.m. Station Rotation (0:10 each)
   a) Scapular stabilization
   b) Spinal stabilization
c) Speed base work
9:40 p.m. 25 minutes 4x4 indoor game, intense play
10:15 p.m. Warm down

Saturday
Off

Sunday
1:00 p.m. Indoor Game lasting 2 x 50 minute halves at game intensity, physically and mentally.

Injury Prevention Activities
Anecdotal evidence acquired by the author and colleagues indicates that a percentage of preventable soccer injuries occur in three areas frequently overlooked: scapular (shoulder blade) stabilizers which can cause other shoulder injuries, the spine and the hamstrings. The exercises involved in treating these areas are therefore included. They have an added benefit in that stabilization of these areas allows for improved performance of other connected body segments by providing stable bases for function (i.e., stable scapulae allow for better and stronger shoulder function).

The author believes that no player should be cleared for spring outdoor play until completing 10 conditioning-based practices. This helps assure a proper conditioning base upon the transfer from the indoor game to the outdoor field. For this reason there is very little soccer skill work designed into this program.

Activity Description:
Static Flexibility Exercises:
1) Kneeling quadriceps
2) Hamstrings - modified Hurdler's
3) Gluteals
4) Hip flexors
5) Gastroc/soleus
6) Hip adductors/groin
7) Anterior shoulders/posterior shoulders
8) Lumbar spine
9) Cervical spine

Dynamic Flexibility Activities:
1) Heel/toe walk
2) Walk and knee to chest
3) Hip rotations- maximal flexion with adduction
4) Butt kicks -forward
5) Butt kicks -backward
6) Arm pumps
7) High skip with forward arm circles
8) High skip with backward arm circles
9) Carioca
10) Walk lunges

Change of Direction development
1) Wildly rapid carioca in place for approximately 10 seconds and sprint to point on coach's command.
2) Box Cuts- in a 10 meter by 10 meter box with 18 players, begin by running at 25 percent without contacting teammates. The key is cutting and accelerating away while anticipating contact. Progress to 50 percent speed, 75 percent and then 100 percent speed.
3) Atomic Bomb- the entire team performs rapid vertical jumps in close proximity to each other in the center of a 10 meter by 10 meter box for 10 seconds. Do as though jumping for a header, including contact with teammates. On the coach's command, the players stop jumping and immediately accelerate to get out of the nearest side of the box. The key is forcing the players to lose location awareness from the repetitive contact and then forcing rapid decision making and implementation.

Scapular stabilization activities
1) Push-ups with a "plus"- a slow push up is performed. When the arms are fully straight, the shoulders are pushed forward as far as possible.
2) Standing rows with surgical tubing- Attach each end of a 4 foot piece of surgical tubing to a 1/2" thick dowel three feet long. Attach the middle of the piece of tubing to a sturdy object (such as a goal post) and grab the bar as though it were a barbell. Pull with both arms toward the chest bringing the thumbs to the arm pits. Focus on getting the shoulder blades to touch in the back.
3) Scaptions- Without weight in the hands and with the back flat against a kickwall or backstop, bring both arms up to eye level.
Turn the hands thumbs down and halfway out to the side. Slowly lower them to your sides.

**Speed/Plyometric Activities**

1) Fast foot taps- Standing with one foot in front of the other, tap the toe as rapidly as possible for 15 seconds. Alternate feet and repeat.
2) Skip and reach- Skip with high thigh and in mid step, slowly reach the lower leg straight out and lower to the ground.
3) Straddle squat butt kicks- In a shoulder width split leg stance, jump for height and kick both heels against the buttocks while in the air. Land with opposite leg forward.

**Spinal stabilization exercises in pelvic neutral position**

1) Pelvic neutral bridges- 3 second counts each as the hips are lifted off the ground and lowered in pelvic neutral position.
2) Supermans- In kneeling position, 3 second count raise one arm and opposite leg, and then 3 second count lower. Repeat for opposite arm/leg.
3) Dead bugs- On back with knees bent with legs and arms raised, touch arm to alternate leg and return. Repeat with opposite arm/leg.

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**Club/High School**

**High School Issues-Summer Conditioning Packet**

*Jay Wood*

At the end of our school year, we present our soccer athlete’s with a packet that outlines their summer conditioning responsibilities. We present to you the content of this packet to help you with your summer plans.

Before the athletes leave for the summer, we establish goals for them using the following form:

**Individual Summer Goals--2004**

May 18, 2004 Name:

Answer the questions below thoughtfully and then return to Coach Wood before exams begin. Please fill in your results from the May Testing (if you recall the results accurately). Coach Wood will fill in your fitness goals for August. After he makes a copy of your completed Summer Goals Sheet, Coach Wood will return this sheet to you. This goal sheet will be the first piece we’ll review when we meet during the week of tryouts.

**Fitness Goals:**

- Beep Test (May) = Goal for August 20 =
- Dips Max (May) = Goal for August 20 =
- Squat Max (May) = Goal for August 20 =
- Juggling Max (May) = Goal for August 20 =
- 40 Best (May) = Goal for August 20 =
- Speed Dribble Best (May) = Goal for August 20 =

**Fitness Program you will follow this summer (to help you achieve your goals):**

**Specific Skill You Plan to Improve:**

**Specific Scoring-related Skill you plan to Improve:**

**Number of times per week you plan to play soccer:**

**Identify the specific ways you’ll be playing soccer over the summer (e.g., 1v1, pick-up at Mary Munford, CVSA, Super Y, Club team, Camp, etc.)**
This packet contains five components. First, a letter from the coaches. Second, a summary of results from last year's season. Third, a playing/practicing program that includes an index of footwork drills, feinting moves, dribbling moves, and heading drills. Fourth, your summer conditioning program. Fifth, a copy of next year's schedule. In addition, you will receive a separate Summer Fitness Calendar for Soccer.

Dear Prospective STC Varsity Soccer Player,

As the spring turns toward summer, so do our thoughts turn toward the fall soccer season. Your coaches are eager to work with you in setting realistic goals (short- and long-term) and helping you work to achieve those goals. Below appears a number of points with which you should familiarize yourself if you intend to tryout for the 2004 varsity soccer team:

SUMMER PRACTICE

All players who wish to make the squad should attend all preseason practices and scrimmages, fully equipped with running shoes, cleats, and shin guards. Summer Practice will begin at 8 AM on Friday, August 20 with the Yo-Yo Intermittent Recovery Beep Test. Standard practice times are listed below. With the advent of faculty meetings during the second week, morning practices will begin and end earlier. We will likely play about five or six scrimmages before our first game against a high school opponent. In scheduling these scrimmages, we are interested in playing teams of any age with whom we will be competitive; if you know of a club team or group who would like to scrimmage us, please give me a call. Expect the time for evening sessions to start and finish later on days we have a scrimmage (in which case the times run approximately 4:30--7:30 PM). During the first week of practice you'll receive a specific calendar covering the times and dates of our scrimmages.

PREPARATION FOR SUMMER PRACTICE

Physical preparation for the season should begin not just at the start of summer practice, but rather during the summer. Typically, players boast to their peers in May of noble intentions to follow the fitness program and return in great shape. Far too often though, most of these same players lose focus and determination when they're alone over the summer and do either nothing or too little adequate training. We should all remember the wisdom of American inventor Thomas Edison who noted, "Genius is one percent inspiration and 99 percent perspiration. I never did anything worth doing by accident, nor did any of my inventions come by accident; they came by work." You are encouraged to articulate your "genius" in soccer. To do so, you'll not only need to make specific intentions, but to act on them with the necessary "perspiration"—regularly. If you simply sit back and wait, any improvement will be left to "accident." Each of us must be willing to invest the necessary effort individually and probably by ourselves during several of our workouts. Unlike the inventor, however, we can help each other achieve our individual and collective "genius" by trying this summer to do as much of the running and lifting as possible in informal groups. In this way, you can get your running in and kick around with a teammate afterward. If you're in town, make an effort to stop by school and get together with whatever group of guys can make it.

What's the easiest way to get in shape for the season? Simple. Play competitive soccer and train with a team over the summer. The next best option would be to follow the attached summer conditioning program, the purpose of which is twofold: one, to lay a solid cardiovascular base; and two, to replicate the kinds of stresses your body will bear when you play competitive soccer. We've designed the program so that you can complete your running anywhere. Simple but effective, the summer conditioning program is not intended to rule or ruin your free time. Rather, it is designed so that you can achieve—in as few minutes as possible (e.g., maximum running time allocated = fewer than 24 minutes/three to four days a week)—the designated benefit of taxing your body in a way similar to what you can expect from seasonal play.

Competitive athletes find a way to prepare properly, leaving little to chance. Naive athletes wait until August 5 or preseason itself to begin training. If you're committed, you'll make time even if you have a full time job, or work at a summer camp. Strive to Find a Way. Winners are ordinary people with extraordinary determination. To do so simply takes prioritization and desire. We exhort you to start the running and lifting program on June 9 and stick to it for the summer. It will take a few hours per week, will increase your speed, and will enable you to play with greater confidence. Remember, players who let their attention to the fitness program...
slide by will be functionally no different at summer practice from those players who deliberately decided not to workout. Passive in-
action yields the same result as actively deciding not to workout. Keep in mind this basic formula: Summer Preparation = Fall Success. Find a way to follow the guidelines of this packet. Practicing the Fast Footwork will help you improve your ball skills; you don't need anything but a ball and desire. Through the running program—one that can be run anywhere—you can improve your speed, fitness, and lay the proper foundation necessary to prevent injury and steel your body for the fall season.

Expect nothing less than a demanding two weeks of two-a-day preseason practices. If you arrive in shape, you will still be
fatigued by the end of each day; however, if you arrive in shape, you can prevent a nagging and early injury. Let's please divorce ourselves from the unpopular (and always unintended) tradition of risking injury during preseason by arriving without having done enough (or appropriate) running over the summer. The best preparation is pure and simple: if you want to stay healthy throughout the season, run and play throughout the summer. Please don't make the other fatally stupid mistake of thinking that procrastinating for eight weeks and then training hard with running/ball work the final two weeks of summer will prepare you as well as someone who trained consistently throughout the summer. Be realistic. Remember, during preseason we will be both evaluating the talent pool and setting our line-up for the season. Don't hope to be competitive by "playing your way into shape" over preseason; if you do, expect to live with the consequences.

Please understand the motivation for our emphasis on fitness preparation over the summer. The more fit we are in August and September, the less practice time we need to allocate to conditioning, and the more practice time we can devote to skill or position work. Because improving skills looms more difficult and proves less quantifiable, we should all focus on improving our fitness. Cardiovascular fitness can be measured, and it improves with work and regular sweat. Finally, the prescribed conditioning program will complement well any off-season work you wish to do for another sport.

COMPETITIVE TRY-OUTS

We will look to keep a roster of about twenty players. With graduation, we will lose eight players—six starters. Thirteen
players return; five of these were regular starters in 2003. Accordingly, with 30+ guys trying out, competition for spots on the 2004
roster and for starting spots should be fierce. In this way, you are encouraged to prepare yourself over the summer so that you can
beat your peers for a place on the roster and possibly a starting spot.

We will test again in the seven areas you already tested in January and May (juggling, vertical jump, dips, 40, STC speed dribble,
IRT-1 Beep, and squat). In both May and August we will rank all players who have tested within each category and then generate an
overall matrix ranking. In August, we will have additional matrix testing components in the following areas: 2-mile run, push-up
max, speed run, 1v1, shooting, and others. Again, you will be measured and judged in August; you should aim to improve your own
results in each category of testing and try to climb higher in the rankings. Commit yourself over the summer to ensure that you’ll be
competitive in August and throughout the fall. As we have for several seasons, in our first August scrimmage we will start the top 11
matrix players. The safest course to earn a starting spot during the regular season is to finish in the top 11 on the August matrix
testing!

HEALTH FORMS

In order to compete on the first day of summer practice, you must have already submitted your school health forms for the
'04-'05 academic year. The school's insurance policy stipulates that you will be forbidden to practice at all without a health form
completed and signed by your physician, and on record at school. You will not be allowed to practice (or run) without this health
form; please don't test this procedure; be sure to attend to any related medical appointments before you zoom off to whatever you
have planned for the summer. To help ensure that you get this detail taken care of, you will each be mailed a duplicate health form
with the Captains’ letter in early July. (While our school nurse will make these duplicate copies available to help facilitate your sub-
bmitting one in a timely fashion, she would much prefer that you use the original, mailed to your home at the start of the summer).

ASSESSING TALENT NEEDS FOR NEXT YEAR

Last season, we scored few goals and gave up too many. We need to score more goals in 2004. Last season, our top three
scorers combined for 28 of the team's 44 goals; two of these players will return. Clearly, we will need at least four or five more of
you to step up into the roles of scorers. Simply put, we need to score more goals overall and look to achieve balance in team scoring.
To this end, every player should work to become a new scorer. If eight (or more) players return in August capable of creating scoring
opportunities. Practice the sequence you'll rely on in a game. In this vein, keep in mind these Three Cardinal Virtues whenever you prac-
tice:

1) Because you rarely kick a still ball in a game, shoot and kick only moving balls in practice;
2) Work on heading the ball down;
3) Take pride to trap/play/pass the ball directly to the ground.

Increased attention as a team to these three key practice tips will collectively make us a better team.

SUMMER SOCCER CAMP

If you already have made plans to attend a summer soccer camp, please let the coaches know—we want to keep an accurate
list. If you need either guidance or information about which camps are recommended, ask either coach before school is dismissed
for the summer. About 15 guys will attend the UR Team Camp July 18-22.

CVSA SUMMER LEAGUE AND SCRAMMAGING AT STC

For a number of years, we have fielded a team in the 7-a-side CVSA summer league. Depending on which division we’re grouped with, we will play either Monday/Wednesday nights or Tuesday/Thursday nights. Though there are plans for a High School Division in this summer’s CVSA, we’ll play in the men’s Division II. We’ll be playing on Tuesdays and Thursdays. Game times are 6:10 and 7:10 PM; games are two 25-minute halves. The games are played at a host of fields around Richmond. For us, the season will begin Tuesday, June 22 and will conclude the week of August 8 (depending on how we do). Shin guards are mandatory equipment for all players. The registration fee per player is $50.00. Registration has already begun; it will end Monday June 7. Coach Wood will register whoever is interested, fills out the proper forms in a timely fashion, and pays the fee up front. If you are interested in summer league pick up the forms as soon as they are available and return them to Coach Wood promptly. Further information about the CVSA Summer League can be accessed at cvsasoccer.org.

Over the past several years we have had occasional issues regarding player behavior. In a nutshell, if you are signing up to play, you are expected to be at any game on a date you’re in town. Our forfeiting games because of lack of attendance will not be tolerated and will jeopardize our fielding teams in the future. In addition, all participants on the school team will be expected to play and behave responsibly, helping to police each other.

Summer league play is highly recommended, even if you'll be away for some portion of the season. Remember: if you don't register right away and pay up front, you can't play. Regardless of your participation in summer league, we want to practice incorporating dribbling skills in lightly competitive, free play when the outcome is of little interest. We want to encourage guys to come to school, lift together, and play together. When you come to run or workout with coach, bring a ball. Before and after summer league play, we should plan on getting together Tuesday and Thursday evenings at school for informal scrimmaging at 6:30 PM.

WHO'S IN TOWN AND WHEN

Before school is dismissed for the summer, we'll give everyone a list of when folks plan to be in town. If someone's in town, give him a call and get together to run or kick or go out—especially if he's someone you don't know well. Let's try to workout together in informal groups at school as much as possible; after a run we can kick around.

ASSISTANT COACH

We are currently in need of at least one assistant coach for one of the younger teams in '04. If you know of someone who might be qualified or is interested, please let us know right away. Ask around; check with your (former) club team coaches.

COACHES' SUMMER PLANS

After the Junior Trip to Europe in mid-June, Coach O'Donnell will be in town most of the summer, working at both St. Christopher's Lacrosse Camp and Summer Experience, with a few out-of-town trips anticipated. Coach Wood will be in town and around school just about all summer except for the first week of August. If you need to reach either coach, their home addresses, phone numbers, and e-mail addresses appear below:

COMMUNICATION--PLAN AHEAD

If you have any changes of plans regarding your attendance at preseason practices, please put it in writing (i.e., do not leave a voice mail about your planned absence). Send Coach Wood an e-mail stating the dates of conflict; use the address above. Regardless of what other verbal agreements you may have already reached with us about your individual schedule, e-mail Coach Wood a note outlining any dates in conflict. Unless we receive (again) an e-mail or other writing from you, we will expect you at all the practices and scrimmages. As we've exhorted many of you—and will continue to—please keep us informed by communicating early and in advance your thoughts about any conflicts or problems. If you plan to miss any of the preseason sessions, you'll be expected to perform the fitness test work from the session(s) you'll miss before your vacation. Talk with a coach to set up a time to get this work done.

SET GOALS FOR SUMMER + SEASON

We're excited for the upcoming season. With proper physical preparation, the varsity can field an excellent team. We urge you to consider now and write down both your individual goals for the summer and your individual and team goals for the '04 season. Be specific in what you hope to improve and achieve. To help clarify our goal setting, each player will fill out his goals for the summer on the handout given at the Spring Meeting. After testing is completed, Coach Wood will make a copy and hand you back the original; in this way he can help keep an eye on how you're progressing.

In addition to your individual goals, here are our goals for each member of the team:

1) arrive at practice on August 20 in excellent shape. (Remember, expect the Yo-Yo Intermittent Recovery Beep Test);
2) learn and perfect one new dribbling move; and
3) work to become a scorer.

If each individual strives to reach these three team goals for the summer, we can tap more of our potential once the season begins. If you have any questions or problems concerning any of the information detailed in these pages, call one of us, a captain, or a more experienced player. Enjoy the summer and take care of yourselves; and remember—what you do or don't do over the summer
will impact our season.

Provided to the prospective players with the letter are the varsity soccer schedule, Virginia Independent Schools Soccer Association (VISSA) State Tournament results, final standings, last seasons team roster with statistical information [Ed.]

**PLAYING/PRACTICING PROGRAM**

**Purpose:** To sharpen your skills, speed your decision-making, improve your first touch, and develop your confidence.

**Goal:** To create a schedule of playing and practicing that will allow you to start the season “game ready.”

**Scrimmaging**

Again, each week you should be spending at least two days scrimmaging. (The more the better!) Clearly, if we are to improve as a soccer team, we need to play soccer. Scrimmage in pickup games as frequently as you can—at STC or anywhere. If you can play 5v5 hard for 45 minutes, you'll likely be fit! A short series of 1v1 contests against anyone is a great method of improving your game. Three 4-minute 1v1 games with rest in between is an excellent model. If your opponent is superior, let him attack a very small goal and give yourself a bigger goal to score on. If you are superior, do the same in reverse.

Remember, we are counting one day of scrimmaging per week towards your weekly running tally. Try to play at least twice a week! Even though we spend a great deal of time measuring your progress through more easily quantifiable fitness standards, never lose sight of this basic dictum: THE BALL IS MOST IMPORTANT. Your skill, confidence, and efficiency with the ball (or around it) will be the elements that will get you on the field.

As the summer progresses, your stamina should increase so that you can handle active dribbling and fast footwork exercises (the most stressful demands on your legs) at increasingly long intervals. As a rough gauge, by the end of the summer you should be able dribble actively for 25-30 minutes.

**Ball work**

Here’s a planned 35-minute workout you are encouraged to do twice a week:

<table>
<thead>
<tr>
<th><strong>Agility</strong></th>
<th>5 min.</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-8 exercises; each done 2x (agility ladder, skipping rope, or wheel drill)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Coerver</strong></th>
<th>5 min.</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-8 exercises; each done 30-60 seconds each</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Juggling</strong></th>
<th>5 min.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vary the intent (e.g., feet only; left thigh only; head-thigh-foot [repeat] only)</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Dribbling</strong></th>
<th>5 min.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cone-to-cone; place two markers 15 yards apart. Use the inside of both feet for 6 Figure Eights, then the outside of both feet for 6 Figure Eights; rest by walking around for 30 seconds. Then use your right foot only (inside and outside) for 6 Figure Eights; then your left only (inside and outside). As you dribble around one marker, accelerate to the other marker as if you were beating an opponent. As you round the marker, use quick touches to improve technical speed.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Striking &amp; Receiving</strong></th>
<th>15 min.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Either with a partner or against a board. Repetition of the same quality movement is critical in order to harness a new move or technique. When you train, you should pinpoint the skill you’d like to improve and then set about giving yourself several hundred repetitions at that movement over the course of a couple of weeks.</td>
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</tbody>
</table>

**Index of Fast Footwork/Dribbling Moves & Drills**

Practicing the moves and drills indexed here will help you improve touch and dribbling dexterity. If you are interested in competing for a spot on the 2004 Varsity squad, or you hope to field a winning team, you should work at these training skills—most of which you can do by yourself with one ball.

**Fast Footwork**

<table>
<thead>
<tr>
<th>Foundation</th>
<th>Side-to-side/Push Forward</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulling the V</td>
<td>Step-on</td>
</tr>
<tr>
<td>Roll Behind the Leg</td>
<td>Step-over</td>
</tr>
<tr>
<td>Push Forward/Pull Back</td>
<td>Side Roll</td>
</tr>
<tr>
<td>Full Sole Role</td>
<td>The Garrincha</td>
</tr>
<tr>
<td>The Chapmien</td>
<td>Creativity Set</td>
</tr>
<tr>
<td>Inside Roll</td>
<td>Outside Roll</td>
</tr>
<tr>
<td>Inside Chop</td>
<td>Step-over/Pull Through</td>
</tr>
<tr>
<td>Juggling</td>
<td>Balancing Ball</td>
</tr>
</tbody>
</table>

**Feints**

<table>
<thead>
<tr>
<th>Let It Run By</th>
<th>Come Off</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kick Up Knee</td>
<td>Step Over</td>
</tr>
</tbody>
</table>
The Cruyff Pull Behind
Feint Kick or "Dummy" The V
Roll in Front The Cap

STC VARSITY SOCCER 2004 SUMMER CONDITIONING PROGRAM

Training begins when you are tired.

Because we are all busy, we need to prioritize our objectives in working out. Here they are (in order of priority): Play, run, lift, skill work.

Assuming you will take one week off after commencement, you will then have 68 days of summer in which to frame your summer conditioning program before we’re back for summer practice (i.e., June 14-August 20).

You’ll find that the DOUBLE-UP APPROACH IS EFFICIENT. For example, instead of viewing a Monday as your “run” day, view it instead as a day for a run and a scrimmage, or a run and a lift, or a run and a ball workout. All of the workouts indexed in this handout are short; if you build two together in an afternoon, you can get two quality things done in about an hour! That’s great efficiency. Remember, training begins when you are tired. Please don’t stop after 30 minutes of activity and consider that a sufficient day of training. For example, playing a portion of a CVSA game on a given day is okay, but if that play is coupled with another activity—now you’re training!

We want you to train with intensity for sessions that last less than an hour and fifteen minutes. Your intensity in training will enable you to be the potential margin of victory in a tight game. Get after it! Below are the models for ideal weeks of training for players who:

1) are not training with a club team over the summer;
2) play another sport competitively; and
3) want to be compete for a starting spot on the Varsity Soccer team:

<table>
<thead>
<tr>
<th>Ideal Week</th>
<th>Weeks 1-4</th>
<th>Weeks 5-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 1:</td>
<td>Run &amp; Ball Work</td>
<td>Run &amp; Ball Work</td>
</tr>
<tr>
<td>Day 2:</td>
<td>Lift &amp; Scrimmage</td>
<td>Lift &amp; Scrimmage</td>
</tr>
<tr>
<td>Day 3:</td>
<td>Rest</td>
<td>Rest</td>
</tr>
<tr>
<td>Day 4:</td>
<td>Lift &amp; Scrimmage</td>
<td>Lift &amp; Scrimmage</td>
</tr>
<tr>
<td>Day 5:</td>
<td>Run &amp; Cross-Train (i.e., your “other” sport)</td>
<td>Run &amp; Cross-Train</td>
</tr>
<tr>
<td>Day 6:</td>
<td>Cross-Train</td>
<td>Run</td>
</tr>
<tr>
<td>Day 7:</td>
<td>Team Lift &amp; Ball Work</td>
<td>Team Lift and Ball Work</td>
</tr>
</tbody>
</table>

We are fortunate as a team to have a core of guys who are still active with club or Super Y play over the summer; these guys are getting plenty of play and practice (for them our concern is fitness!). Most of us need to be more intentional toward training for soccer if we are to make a good stride forward in our strength, stamina, speed, and skill. Consider the “ideal” schedule above as a check-sheet against which you can measure your own level of activity.

Again, if you employ the DOUBLE-UP APPROACH, you can complete several quality activities in just one week, working out about an hour a day. (Think of how much less time that is per day than the time you spent in your spring sport!) If you follow the schedule above, in one week at the start of the summer you will have accomplished the following activities: played (2x), done ball work (2x), run (2x), lifted (3x), and cross trained (2x).

Running, lifting and agility work—all of these exercises boast significant complementary skills, which will benefit you in your preparation for other sports, too. Again, following the “ideal” schedule (above) will help you with more than just soccer preparation.

Many of you will not be able to adhere to such a schedule because of conflicts from work, travel, or other sport commitments. We give this detailed schedule to you as a benchmark against which to measure your own fitness preparation. If you follow a different program because of your commitments to other sports, that’s fine. Just be honest with yourself that you are indeed improving yourself over the summer in terms of strength, speed, stamina, and skill.

The Conditioning Program portion of the summer packet covers two areas: the Running Program and Strength Training.

Running Program

Purpose: To enable you to return to preseason in excellent shape, strengthen your legs, prevent preseason injuries, and build confidence; to create match-like movement/running patterns.

Goal: Short term—to increase your aerobic threshold by improving your time and stamina in short sprints, intermediate sprints, and longer road runs; and to increase your leg strength through repetition in exercises that feature both deceleration and change of direction. Long term—to harden your legs to the kinds of stresses they’ll face in match conditions and to improve your maximum run on the Yo-Yo Intermittent Recovery Beep Test on the first day back.

Overview: In weeks 1-4, we’ll run 3 times a week; in weeks 5-10, we’ll run 4 times a week. The longest runs will last up to 24 minutes. Each week we are counting one day of scrimmaging as a “run.” Each run should be preceded by an appropriate warm-up and stretch. The sequence of running work appears on the separate calendar pages. Below is an index to the runs and exercises we’ll do.
3 Mile Run—To build a cardiovascular base, run 3 miles at a conversational pace (8 minutes per-mile).

Beep Test—The Yo-Yo Intermittent Recovery Test is what we have been calling the “Beep Test.” This test focuses on the ability to recover after intense exercise. Between each exercise (5-15 seconds) there is a pause for 10 seconds. The test lasts for between 2 and 15 minutes. The test is particularly suitable for sports in which the ability to perform intensive exercise after short recovery periods can be decisive for the outcome of the competition, such as soccer. Sometimes a sprint or an intense exercise period is required shortly after a previous one. It is, therefore, necessary that the participants in soccer have a good ability to recover rapidly after hard exercise.

We will be offering the Beep Test in the Field House at 5:30 PM on the dates indicated on the summer fitness calendar. If you are unable to run a Beep Test on the days indicated, then you should substitute a Shuttle Run.

UR Run—This fitness run is based on a program from the UR Soccer Team. You will need both a watch and a track. For the shuttle portion of the program, you’ll need either cones or shirts to mark your course; mark this course before you begin the track work.

<table>
<thead>
<tr>
<th>800 m</th>
<th>3 min</th>
<th>90 sec rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>400 m</td>
<td>78 sec</td>
<td>90 sec rest</td>
</tr>
<tr>
<td>6-12-18-40 shuttle</td>
<td>35 sec</td>
<td>1 min rest</td>
</tr>
<tr>
<td>repeat</td>
<td>35 sec</td>
<td>2 min rest</td>
</tr>
<tr>
<td>800 m</td>
<td>3:10</td>
<td>2 min rest</td>
</tr>
<tr>
<td>400 m</td>
<td>82 sec</td>
<td></td>
</tr>
</tbody>
</table>

This running program will last approximately 18 minutes. Keep track of your times, especially in the longer runs. Be sure to adhere to the scripted rest interval; do not take more time to rest even if your running times exceed the listed parameters. With repetition, you will begin to meet the required times.

Shuttle Run—This run has two components—run a sub-six minute mile; rest 35 seconds; run a program based on the shuttle portion of the UR Run (6-12-18-40 in less than 35 seconds with a 1-minute rest between each set). As with the UR Run, set up the shuttle course before you begin your longer run. The fitness calendar indicates the designated number of repetitions (a figure that increases as our stamina and strength do); nonetheless, be sure to run a sub-six minute mile before starting the designated number of shuttle runs. This exercise will offer repetitions in deceleration and change of direction to build stronger legs. If you cannot make it to school for a Beep Test on the days indicated over the summer, then you should substitute a Shuttle Run, as indicated on the calendar.

Two Mile Interval Run (2 MIR)—Run two miles without stopping. For every minute you run, sprint 15 seconds, jog 45. Be sure that your "sprint" is all that you have and remains noticeably faster than your jog—which can be as slow as you like—just be sure to keep moving faster than a walk when you slow down to catch your breath. In this run it is better to run as fast as you can and then jog very slowly until the next sprint than it is to run the whole distance at a faster jog with less obvious transitions in speed. Again, you circumvent the benefits of the run if you jog faster and sprint slower. Be sure that your sprint form simulates the kind of sprinting you would be doing in a game: pump the arms and knees--this is imperative!

Cross-Train—Do something different that you enjoy. Play your “other sport,” swim, ride a bike, etc; just be sure that you are doing something active. Cross-training does not mean take the day off!

Agility Ladder Work—In addition to harnessing the range of Fast Footwork and Dribbling Moves, one of the best ways to improve footwork, coordination, and balance is through routine use of an agility ladder. Players should seek to use the agility ladder two times per week, doing 5-8 drills at the start of the practice/lifting session. In addition to offering a nice warm-up, routine use of an agility ladder will offer players a dramatic increase in the speed of their “quick feet.” Below appears a partial list of drills that everyone should be able to perform:

I. BASIC FOOTWORK DRILLS
   1. Forward One-in
   2. Forward Two-in
   3. Half-Carioca
   4. Lateral One-in
   5. Lateral Two-in
   6. Forward Shuffle

II. PROPRIOCEPTIVE COMBINATIONS
   7. Two-in Ali Shuffle
   8. One-in Ali Shuffle
   9. Backward Shuffle
   10. Two-in Ali Shuffle (under/in)
   11. One-in Ali Shuffle (under/in)
   12. Two-in Ali Shuffle (over + under/in)
   13. One-in Ali Shuffle (over + under/in)

III. CHANGE OF DIRECTION FOOTWORK DRILLS
14. Forward Cross-Step
15. Backward Cross-Step
16. Forward Same-in
17. Backward Same-in
18. Forward Shuffle Bound

These drills are listed in the following sequence, from easy and simple to hard and complex. See Coach Wood or O’Donnell for more drills. Assimilate each of the drills by the following strategy: learn the drills quickly (by watching someone else do them); then practice them slowly. Once you’re competent at the movement, then increase your speed. Be sure not to confuse rhythm with tempo. Get the rhythm, hear the rhythm, and then push the tempo once you get the drills down. Don’t be afraid to fail on drills; furthermore, don’t be embarrassed about not being able to do it right away. Just be sure to do these drills.

Wheel Drill
Doing this exercise routinely will help you build strength, lateral speed, and agility, thereby allowing you to start and stop quickly and change direction quickly. Because your feet are always moving during play, it is important to train your body to be able to change directions quickly even with your feet in different positions when you take your first step in a new direction; this drill is especially good for this purpose.

Set-up: Position nine markers in a wheel (eight points/spokes with a center marker) with a diameter of 24 feet.
1. Start in the middle of the wheel, in an athletic stance, touching the center marker with one hand. Choose which of the starting positions you will practice (see list below).
2. Work around the wheel in a clockwise fashion for the right foot (counter-clockwise for the left).
3. Begin drill by stepping with right leg at spoke #1. Get to the marker as quickly as you can, touch the exterior marker, and get back to the center marker as quickly as you can.
4. Go as quickly as your can!
5. When you get back to the center marker, take a drop step and repeat the movement up the other spokes, in sequence.
6. You will make two trips around the wheel, using the same starting foot position for each set.
7. After each set (i.e., two trips around wheel with same starting position), rest for one minute by walking around.
8. Do 3-5 sets (i.e., 3-5 different starting positions) per training session.

Starting Positions and Movement:
- Stride Right: Right foot forward, left foot back
- Stride Left: Left foot forward, right foot back
- Parallel Stance: Both feet parallel, shoulder-width apart
- Landing from a jump: Land in any of the three previous positions
- Pivot and Turn: Turn and start both right and left
- Prone Position: Scramble up to a starting position

Strength Training
Purpose: Strengthen shoulders and upper arms needed to win loose balls; strengthen abdomen and increase flexibility needed for heading and kicking; strengthen legs—the most important muscle group to soccer players.

Goal: To improve your max in dips, the squat, and vertical jump by working out with Coach Blanton regularly (Mon/Wed/Fri 9:30-11:30 AM, Mon/Wed 3:30-8 PM, Tue/Thu 4-8 PM, Fri 3:30-6 PM, Sat 10 AM-12 PM, and Sun 5-6:30 PM) on whatever program he designs. To get stronger, you need to lift three times a week (twice a week will maintain but not increase your strength). When you’re in town, be sure to come to the team lift on Sundays at 5:00 in the weight room. Develop a routine of playing after you lift—you’re already at school. If you can’t workout in a proper weight room, at the very least do the following exercises every day as a Suggested (minimum) Daily Routine in AM:

30 pushups
30 dips
30 abdominal crunches
30 oblique crunches

Gentlemen, this summer conditioning program is designed for you. If you do not follow the specifics of this conditioning program, be sure that what you are doing is simulating the same kinds of stress and physical demands. Do not assume, for example, that playing a summer league baseball game once a week or that running two miles at an eight minute pace three times a week are comparable workouts. Be realistic and train appropriately.

Keep track of this thought should you consider bagging a particular workout because of the heat, fatigue, or lack of motivation. Slacking off from the program and choosing not to do anything to prepare are functionally the same thing. Find a way. Remember, you help yourself and the team when you run. This running program will develop your confidence as you practice going hard (a capacity that doesn’t just happen on game day). Dare to come back on August 20 in great shape.

JUNE 14-AUGUST 20 = 68 DAYS
MAKE ‘EM COUNT
SEE YOU ON AUGUST 20
<table>
<thead>
<tr>
<th>Week 1</th>
<th>June 14</th>
<th>Week 6</th>
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<td>Beep or Shuttle Run (8) &amp; Cross-Train</td>
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<td>Cross-Train</td>
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<td>Preseason Begins: Beep Test (etc.)!</td>
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**Preseason: 1st Week August 23**
- Daily: 8-10:00 AM
- 3:15-6:00 PM

**Preseason: 2nd Week August 30**
- Daily: 7-9:00 AM
- 3:15-6:00 PM

Double up, be efficient, and you can prepare effectively.
With effective scheduling, you can create
- = 35 RUNS
- = 30 LIFTS
- = 40 SESSIONS WITH A BALL
- = 13 CROSS-TRAINING SESSIONS
- = 10 REST DAYS

SEE YOU ON AUG. 20TH
A FEW DATES TO KEEP IN MIND:

**Friday**  **August 20**  **8 AM**
Preseason Practice Begins: Vertical Jump, Juggling, Beep Test

**Monday**  **August 23**  **8 AM**
Speed Dribble and 40

**Tuesday**  **August 24**  **8 AM**
Dips and Squat

**Thursday**  **August 26**  **8 AM**
Two Mile Run

**Friday**  **August 27**
Cuts announced

**Monday**  **Sept. 6**
Practice held; Time TBD by captains

Summer conditioning is completed with a preseason interview with athletes reviewing their training history for the past season. This interview is done prior to the August matrix testing. The following template will give you an idea of the information we want to know.

1) What you did this summer:(work/travel/fun)
2) Family info: Parents names (provide titles); list siblings in order of age.
3) Fitness Testing Info
   - Juggling:
   - Vertical Jump:
   - Dip Max:
   - 40-Yard Dash:
   - STC Speed-Dribble Test:
   - Yo-Yo IRT Beep Test:
   - Squat Max:
   - Spring Matrix Testing Rank:
4) Running You Actually Did over Summer:
   - Total # of times you ran
   - Distance(s)
   - Pace
5) Strength Training You Actually Did over Summer:
   - Total # of days you worked out
   - exercises you performed
   - number of reps per set
6) Soccer You Actually Played over summer:
   - Total # days you played
   - Methods of Play over summer (circle each as appropriate) League / Camp / Team / Small-sided Game / Solo
   - Skill you improved most over the summer (Indicate playing method to improve)
7) Preferred Position this season:
8) Your Preseason goals for you as an individual:
9) Your Season goals for you as an individual:
   - Skills to improve:
   - Dribbling move(s) to improve:
10) Your Season goals for the team:
11) Top 4 College choices as of today:
   - Any plans to play intercollegiate soccer?

**Collegiate/Advanced**

Getting Ready for the MLS Combines in Six Weeks - Case Study

*Steve Chapman*

Carson White is a 25-year-old soccer player who attended North Carolina State University. There he was twice MVP and team captain. After his senior year he joined the Raleigh Flyers A League professional soccer team. In his first year Carson had
Finding Out Where to Start-Testing

The first thing that a soccer conditioning coach must do is find out where the athlete is today so you can get them to where they want to be on February first. Start by asking questions. What are you doing, what have you been doing, when is the last time you did anything? After the last day of the season, which in this case was September fourth a lot of players have a tendency to sit on their posterior and do nothing. This "detraining" is doubly unfortunate because not only do you lose the conditioning level you had achieved at the end of the season, but it takes valuable time to get back to the end-of-season level. Carson didn't allow this to happen. He played some pick up and some indoor. But, it's hard to train as a professional when there's no paycheck attached to it.

The dedicated professional must understand that the next season starts the day after this season ends. When you go from training five days a week with two matches, to one day jogging you've completely lost that match play fitness level. So, we started from ground zero. We wanted to know where we were, so we tested the 300 yard shuttle; 10 yards-back-20-back 30-back-40-back and 50 back, hoping to get into the range of 45 to 52 seconds. We also did the wagon wheel, which is starting at the center and running 10 meters out and back in five different directions. At about every 71° (approximate distance of spokes on a wagon wheel) a flex stick is placed so that the athlete runs, touches the stick and comes back to center, runs to the next stick, touches and so on until all five points are touched. This is to test forward, back and lateral speed with direction change (Figure 1). We also do a standing broad jump. This is done in place of a vertical jump because in soccer you don't have the equipment to measure the vertical jump on the soccer field. We also did a 40 meter sprint test. This gives us some base measurements and guides us to where we want to be at the end of the session.

Program Design

A lot of the program design came from knowing the athlete. You can observe how an athlete performs throughout the test and if they struggle. In this case we observed Carson as being fit but not match fit. The 300-yard shuttle is a good indicator of match preparedness. You need that sprint endurance to play three matches in four days at MLS combines.

Based on these results and the principle of program design: one, it needs to be progressive; two, it's goal oriented including the prevention of injury, third, it must be specific to soccer. Then we set out to accomplish the task at hand. We divided the six weeks into three phases.

Phase one-Two Weeks

We start with aerobic base training. The important thing here is to remember specificity to the game of soccer. So, rather than doing five mile distance runs, which are not specific to the game of soccer. We did fartlek training (Swedish speed play) where the intensity of the run, which is continuous, changes from jogging to striding to sprinting just as in the game of soccer. For an easy day Carson did three mile runs at a relatively slow pace, but the three- days-a-week training program was progressive and soccer specific. One problem we faced was the fact that during this phase we started training at 4 pm during the winter. It would be dark by the time we finished. The temperature would drop rapidly. Because of this a complete warm-up with dynamic flexibility was very important. We had to establish joint and muscle fitness for the work at hand in the next phases. This is very important for preventing injuries. On the first training day we split it up into 80-120 meter runs. At the 80 meter distance we would run at 80% intensity and jog the 120 for recovery. We did six laps around a 400 meter track using this protocol. The total distance is 2400 meters. It takes approximately 10 minutes to do with five minute recovery. This comes out to about a 2 to 1 work-to-rest ratio. The recovery is skips, hops and a little dynamic stretching. You can do ball skill work as well, but of light intensity just to get back to almost full recovery. Using this protocol we did a set of four repetitions and then a set of two repetitions. The other two training days flip-flop the intensity of the runs and distance so that the next day we did the 120 hard and the 80's at a jog. The third day we added an additional set. This was done on Monday, Wednesday and Thursday. We had to do these back to back, Wednesday and Thursday, because of Carson's schedule. It would be more ideal to do Monday, Wednesday and Friday, but in some cases you play games on back-to-back days so this type of scheduling is really not out of the ordinary. Tuesday is a recovery day, with an easy jog or bike. Friday and Saturday are his days for ball work and individual work.
In week two we simply increased the volume and intensity. On day one our volume was 6,000 meters. By the end of the second week we are at 9,600 meters. We are doing about six miles and doing it in about one hour. This is the advantage of fartlek training, a fast/recovery sequence allowing for high intensity, soccer-specific training.

**Phase two-Two Weeks**

We now start looking at more soccer-specific activity. We have an aerobic base; now we are starting to add movements, such as starting and stopping, with an introduction of change of direction lateral movement. Within this we start to get into plyometrics. As part of warm up we did fartleks, only instead of 80-120's the distance is cut to 40-60's. We then move to shuttle runs using flex sticks in the ground to measure distance. We do 10 yards straight forward, back pedal 10 yards, sprint 15, back pedal 5 yards and sprint 20 yards (Figure 2). That's one repetition. Walk back for recovery and start repetition two. We are doing a set of six for two sets. The intensity level is around 90 to 95%. Rest to work ratio is three to one. We will also monitor the heart rate after each set. Carson's max heart rate is 195, so we want to stay below this level. It's a good way of measuring whether we are at 90 to 95 percent which in Carson's case would be around 185.

As we work through the two weeks we hope to see his heart rate go down while performing the same work. This indicates improved physical conditioning.

We then go to banana steps (Figure 3). We space 8 bananas 4 feet apart in line. We do seven different activities. We start with two foot touches over each banana forward, then two touches backward. We then progress to one touch forward and one back. Then facing sideways two touches starting with the left foot, then reverse to the right foot.

Progress to one touch. This is actually a cross over step which is specific to defender play on the soccer field. This really works the hips. We then do a forward and backward slalom, hopping over randomly placed bananas. We then place the bananas perpendicular to each other in a three step sequence; hop over an Ali shuffle (1-2-3) hop over (1-2-3) etc. This is light plyometrics. To finish the session we will do more intense plyometrics. We start with jumping from the ground and then progress by adding one 12 inch box. By the end of the two weeks we have two boxes. We do forward two foot bunny hops, then lateral two- foot hops, then we do a one foot power jump. We do jumping on and off the boxes for 30 seconds. We start with two sets with the plyometrics and progress to four sets.

**Phase three-Two Weeks**

The fartlek training as part of warm-up is down to 30-50's meter distance. These are high in intensity, 90-95%. Note that we make sure the athlete is fully warmed up before going to this level. Since the muscles have been conditioned we add a lot more change of direction exercises. During this phase we eliminate the shuttle flex stick running and introduce a lot of pattern running, such as bent runs to the right and left. An example might be a defender who sprints 15 yards to the ball and back tracks at a 45° angle. Using a crossover or shuffle step the opponent my try to outrun him. Then he has to sprint ahead to a specific cone. We add the ball at this time.

We then do the same routine of shuttles and banana work, but we add the ball to these. For example, we might be doing the Ali shuffle and have to volley a ball served. We add more speed work. One most effective exercise is doing harness resistive running over a 15 meter distance with the partner applying resistance from behind. We also do the German speed sled training. The sled is a flat piece of metal on two rails. The flat surface, about 18 to 24", square has a post where barbell plates can add resistance. Another plyometric exercise that we introduce starts with one 12 inch box in the middle. To the right, eight yards out, is a flex stick. Eight yards to the left is another flex stick. Start at the left flex stick, sprint over to the box, jump up on the box, jump down and sprint to the second stick and repeat in the opposite direction. Do four repetitions. To increase the intensity you can raise the height of the box or do one touch on and off the box. You can add a second box or land on the box with only one foot. You can land and do an explosive jump off the box. You can also run sideways as a shuffle. Coming back you can do a cross over step. You can add soccer skills by controlling a ball received immediately off the box with a single touch. The variations are endless.

After six weeks we were able to bring Carson to a level of conditioning which gave him confidence entering the combines. This program may be used in many preseason situations where preparation time is short. It is important to adjust the intensity,
volume and selection of exercise to make it specific to the level of your athletes. Carson is a mature, adult high-performance athlete. Remember that children are not miniature adults and should not be trained that way.

Planning the In-season

**Soccer Roundtable: Ask the Experts Conditioning and How It Fits into Your In-season Program**

Q—What are your overall goals toward conditioning during the season? How much time do you spend during a competitive week of on-field conditioning and off-field conditioning? (Please give weekly schedule including “conditioning homework” you give your players.)

Our main conditioning objective during the season is to maintain the fitness levels that we developed during the off-season and pre-season. In some cases, some of our athletes are still making improvements because they did not do much in the off-season or are transferring from a sport with different conditioning parameters. Because we compete at the high school level, we will play anywhere from one to three games per week, with two games being the norm. Games typically fall on Tuesday and Friday. Our weekly fitness schedule goes something like this: Monday, speed and agility work with ball; Tuesday game; Wednesday, aerobic recovery and strength maintenance; Thursday, speed and agility work; Friday game; Saturday, aerobic recovery and strength maintenance; and Sunday, rest. The actual amount of time during a training session is 15-20 minutes during the in-season.

Michael Thyron

We consider physical conditioning to be one of four primary areas of preparation for soccer players at the University of Pittsburgh, the others being technical, tactical and psychological. From a purely physical standpoint, general athletic skills such as strength and power, flexibility/mobility, recovery/endurance and agility are very important to overall soccer performance. However, players must couple such physical abilities with technical and tactical proficiency to compete successfully at the highest levels. As a general rule, the greatest improvements in conditioning (strength, power, aerobic and anaerobic fitness) as well as technical (skill) ability should occur during the off-season, the time between our last regular season game and the start of the following season. During the actual playing season our strength and conditioning goals shift from development/improvement to maintenance, and more time is spent preparing the team tactically and psychologically for optimal performance.

Joseph A. Luxbacher

Q—On a percentage basis, how much emphasis do you place on the following athletic skills: power, flexibility/mobility, strength/balance, recovery/endurance, footwork/agility?

As far as the athletic skills are concerned, we try to incorporate all of them into our training program. For example, we stretch daily during and after our warm-up period. Power we try to improve in the weight room and sometimes on the field. Almost everything we do is mobility/agility oriented, because it happens to be the nature of our sport. Recovery is performed after hard workouts and games. Percentage wise, speed and agility are the components that we emphasize the most. We spend close to 30 percent-40 percent of our total conditioning training in this area.

Michael Thyron

With regard to strength and power, our primary in-season objective is to maintain levels that have been developed through off-season and pre-season training. During the off-season our players typically strength train three or four times per week with a day off between sessions. In contrast, players switch to a maintenance program during the season. This usually consists of two strength-training sessions per week. All strength training, both in- and out-of-season, is accomplished outside of normal practice time.

Players are also expected to develop a sound aerobic/anaerobic fitness base during the off-season. This is accomplished through individual work with and without the ball, as well as through specific workouts designed by our strength and conditioning coaches. Players mesh lower-level aerobic fitness activities (quantity training) with higher-intensity anaerobic running (quality training), plyometrics, and agility/mobility exercises. As is the case with strength and power training, during the actual playing season less time is devoted to pure fitness training because the primary objective shifts from development to maintenance.

Joseph A. Luxbacher

Q—What drills/exercises do you do on field that keep players game fit during the season?
We use a multitude of drills ranging from Coever ball handling drills to running drills found in high school track and field programs. We try to emphasize explosive movements and make sure that the athletes get full recovery before their next repetition.

Michael Thyron

Virtually all of our in-season fitness training is anaerobic, and is accomplished “with the ball” during normal practice time. The objective is to combine fitness training with technical and tactical training to make the most economical and efficient use of practice time. We use a variety of drills that require players to execute technical/tactical aspects of play under the physical stressors encountered in highly competitive match play. In total, in-season training is designed to get players “game-fit” in all aspects of soccer performance.

Joseph A. Luxbacher

Club/High School Conditioning

Youth Conditioning - Integrating Speed, Agility, Strength and Fitness Training into Practice

Jim Liston

With players at age six, seven and eight we look at motor development for players. It is difficult to separate players based on their athletic ability. In our programming recommendations we try to make it easy for the coaches. The terms agility, strength, power, balance, speed and acceleration may not be day to day considerations for the soccer coach. Yet, coaches realize the importance of these components to the game of soccer. With the younger players many coaches rely on playing the game as a means to develop these athletic skills. But there are some things that a coach can organize right on the field that are easy to do, don't take much time and offer dramatic improvement of the athletic abilities of their players. This program doesn't take a lot of physiology knowledge to plan. A simple speed and agility program is a great place to start.

Time is always a consideration, with some club teams coming together only a few times a week. The coach has a lot to worry about. For coaches pressed for time, make speed and agility part of your warm up routine. Here's a progression that you can use.

Speed and Agility Program Considerations

Start with a general warm up such as jogging. Have the players line up at the sideline and do a march using a high knee action with the lead leg and coming on to the toe with the trail foot. Once they reach the other sideline have them do a skip on the way back. Repeat this activity. If the athletes are able have them skip backward on their return. As they progress you can do a march with a skip included.

For the older kids, around age 10, you can do the march and skip and do it for height, really emphasizing high knee action. You can also march and skip for distance.

After marching and skipping, the next activity is doing the front shuffle (see figure 1). Start by turning the hips at a 45° angle to the left. The shuffle is performed with a skip. Feet are placed slightly wider than shoulder width with heel-to-toe stance. Lift the left leg and skip with the right. Land on the left foot and repeat, then swivel the hips around 90 degrees so they now are going to the right, pushing off the left leg for two steps. Swivel hips 90 degrees again and repeat the original pattern moving down the field.

The next activity is the back shuffle. This simulates defensive movement. We have the athletes avoid having their heels click. This happens even on the professional level. Athletes let their feet cross which is poor defensive positioning. Remember, what you practice is what is going to end up on the field. It's the same pattern in reverse of the front shuffle, with the athlete moving backward.

The next activity is butt kicks, where the heels hit against buttocks. We then go to high knee running. We preach only two things; keep your hips low and don't click the heels. This keeps it simple and avoids confusion by overloading the athletes with too much information.

We then move into more agility movements starting with the carioca both ways and side shuffles. Finally, end with a little stretching. You are now ready for practice. This is a general program that can be done two to three times a week.

If a coach sees a player four to five times a week as is the case with many club teams the agility work can become more specific.

Adding Strength and Balance

The next progression is a hop and stick program to improve strength, stability, power, balance and coordination. These
simple activities don't really need to be coached; the coach doesn't have to explain why they are being done. They're that simple. Young soccer players need to learn to control their bodies. Once control is established the skill and techniques become more powerful and fluid. The player gains confidence as their level of play elevates. There are some activities that can be done right after the warmup.

**Hop and Stop**

At this age of body control, skill development is strongly emphasized, as it should be. But, body control is an important element to introduce early. A simple activity is having your athletes jump on two legs as far as they can and stick the landing. The landing is most important. It's a good indicator of how much body control the athlete has. When they land, do they fall forward or to the side? Are they forced to take a step? If so, this is something they need to work on.

The test becomes the exercise. Have the athletes progress to hopping and sticking the landing five times in succession. Have them do it laterally, backward and diagonally. This develops good body control. As they become more stable and stronger, increase the tempo of the jumps. As they develop you can do these activities on one leg and then the other. This is a good way of seeing if there are imbalances between the right and left side of the body. The player may be able to stick their dominant side but have trouble with their non-dominant side. The hop and stick is only one example of many things the coach can do to develop strength and stability.

Hop and stick can be done by doing ten jumps in a row. If they have problems doing it, cut back on the number of repetitions.

**Progression**

Obviously, this routine is progressive and cannot be mastered all at once. So, do the activities the athletes can accomplish and add activities as they progress. This program should take about 20 minutes for older players, but can be shortened to 15 minutes for younger athletes.

**Working Fitness with the Obstacle Course**

In preparing for the season many coaches still utilize long slow distance running as a means of training for soccer endurance. This type of training is not specific to the game of soccer. An alternative is obstacle course training that trains endurance more specific to the game of soccer by incorporating the movement on the field and with the ball, as well as the intermittent pace of the game. This program can be used in the off-and pre-season.

Start the older players with a three minute course right on the soccer field (Figure 2).

**Sequence #1:** Start on the endline and accelerate in a run to midline where a pair of cones are set up five yards apart. At the first cone the athlete side shuffles five yards to the right, sprints forward, side shuffles to the left, sprints forward and repeats the right/left shuffle, turns and back pedals to the endline.

**Sequence #2:** Carioca facing the field to a cone 10 yards away. For 20 yards do a march with a skip. Then do three full broad jumps and accelerate to the 18. At this point do a back shuffle to the endline.

**Sequence #3:** Perform an all out sprint to the 18 and then hold that speed to the other 18. This works acceleration and speed endurance. End the sequence by jogging to the endline and carioca 10 yards facing away from the field.

**Sequence #4:** Pick up speed running forward to about 10 yards beyond the 18 where eight flags are placed one meter apart and
shuffle laterally through the flags as fast as possible. Coming out of the flags do three side shuffles, pushing off the right foot and then three side shuffles pushing of the left foot all the way to the endline. When doing the shuffle threes they should never close their body. This is another common mistakes players make. Stay low and don't let the players cross feet when they switch from right to left, left to right. Open the leg up so they are facing the opposite direction.

Sequence #5: Set up cones 10 yards apart and at a 45 degree angle to each other. Players side shuffle to the 18, then sprint looking over their right shoulder, get to the first cone, turn and look over the other shoulder and continue sprinting. After two sequences they come to a series of cones, pick up a ball, dribble around the cones and shoot at a makeshift goal at the endline.

Sequence #6: The player runs to the 18 and performs a one legged hop doing five on each leg (this activity is for the older, stronger player). After the hops finish with a sprint to the endline.

After this first series the player rests three minutes and returns in the opposite direction doing the same activity. We give them three minutes so they are fresh for the next series. If you rest only a minute the quality of the activity will suffer and you might as well organize the players in groups of six and have them go through long slow distance running. We say garbage in, garbage out.

I want the directional changes to be sharp, the sprints intense. The three minute recovery should be active. They can pass the ball to each other or juggle the ball. We do this six times. The total time of the program is 36 minutes. You can do this activity of 36 minutes or run continuously for 36 minutes. The results of the obstacle course will be far greater, the players more enthusiastic. After the conditioning session you can do some ball activity to finish up.

Collegiate/Advanced

Clemson University - In-season Strength Training for Soccer

John T. Allaire

(Editors note: The program described is for a male or female soccer player at the collegiate level. Please understand that the design of such a program is based on the following considerations: NCAA legislative rules; Clemson University’s soccer teams access to a staff of highly qualified conditioning coaches used as a resource for teaching exercise techniques and providing close supervision; access to a state of the art strength and conditioning facility equipped with a full complement of free weights, lifting platforms and machines which allows performance of the exercises suggested. This program can be modified for any in-season period for club and/or high school players based on facility access, supervision, training age, individual needs of the athlete and the competition schedule.)

Peak performance is difficult to maintain for more than a few weeks. A long competitive period (10-16weeks) presents unique challenges in training program design. We use a cycle that peaks the athlete for the most critical contests. This does not imply that the athlete will not be in good condition for the other events; rather that the shifts in volume and intensity reflect greater intensity and less volume for the most critical events. Communicate with the coaches and the athletes during the in-season to determine when the athletes should be peaking and training at low volume/high intensity.

Clemson soccer athletes strength train two or three times per week. Three workouts have been designed for the athletes. Workout one is an upper body lift - chest, shoulders and triceps; workout two is a lower body lift - legs, back and biceps; workout three is a total body lift hitting all body parts on the same day. The lower body lift is usually performed the day after a game. The upper body is trained about two days before a match, and the total body lift is used when there is a four day rest period between games. The in-season has no concrete strength training schedule; that is why it is so important to communicate with the coaches to determine their weekly schedule. Then, the strength training program for that week can be designed.

Example of in-season strength training:
Wednesday - game
Thursday - lower body lift  
Friday - upper body lift  
Saturday - no strength training  
Sunday - game  
Monday - lower body lift  
Tuesday - upper body lift  
Wednesday - total body lift  
Thursday - no strength training  
Friday - game  

Sample lower body lift  
- Leg sled (core lift)  
- Lunge walks  
- Leg extensions  
- Pull-ups  
- One-arm dumbbell row  
- Hyperextensions  
- Preacher curl  
- Dumbbell hammer curl  

Sample upper body lift  
- Bench press (core lift)  
- Incline dumbbell press  
- Chest fly  
- Dumbbell shoulder press  
- Up right row  
- Lateral shoulder raises  
- Triceps push downs  
- Dips  

Sample total bodylift  
- Step-ups  
- High lat pull down  
- Incline dumbbell bench press  
- 3-way shoulder raises  
- Triceps push downs  
- Dips  
- Preacher curl  
- Cable biceps curl  

I change the exercises each week to add variety and keep the program fresh. See the How-to Exercises Techniques section.

Example: 10 week in-season training program for core lifts

<table>
<thead>
<tr>
<th>Week 1</th>
<th>Week 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 set* of 10 reps at 75% of 1RM</td>
<td>1 set* of 5 reps at 85% of 1RM</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Week 3</th>
<th>Week 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 set* of 3 reps at 92.5% of 1RM</td>
<td>1 set* of 1 rep at 102%-105% of 1RM</td>
</tr>
</tbody>
</table>

Critical Competition (peak)

<table>
<thead>
<tr>
<th>Week 5</th>
<th>Week 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 set* of 5 reps at 85% of 1 RM</td>
<td>1 set* of 3 reps at 92.5% of 1 RM</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Week 7</th>
<th>Week 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 set* of 1 rep at 102%-105% of 1RM</td>
<td>1 set* of 5 reps at 85% or 1RM</td>
</tr>
</tbody>
</table>

Critical Competition (peak)

<table>
<thead>
<tr>
<th>Week 9</th>
<th>Week 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 set* of 3 reps at 92.5% of 1RM</td>
<td>1 set* of 1 rep at 102%-105% of 1RM</td>
</tr>
</tbody>
</table>

*Does not include warm-up sets.

How-to Exercise Techniques

Triceps push downs

Why do it: Aids slightly in extending arm in holding off opponents in contact play.

Start:
- Grab bar with palms out grip, shoulder width.
- Pull bar to chest level, holding elbows tight against side.
- Back flat, feet shoulder width apart, looking straight ahead.

Coming down:
- Exhale pushing the bar down under control in arching motion elbows tight against side.
- Continue until elbows are fully extended and bar is at approximately mid thigh.

Going up:
- Inhale while raising bar with control until arms are fully flexed.

Tips:
- Elbows should remain motionless through the entire exercise.
- Avoid leaning over the bar with shoulders.
**Dumbbell hammer curl**

**Why do it:** Forearm development.

**Start:**
- Stand erect in a shoulder width stance.
- Grab two dumbbells with an underhand grip.
- Place elbows tightly against each side of body.
- Touch dumbbells lightly to front of thigh with both arms fully extended.
- Palms should face each other and wrists slightly flexed.

**Going up:**
- Flexion occurs only at the elbow as one dumbbell is raised with a controlled movement (2-3 seconds) to slightly above the chest until elbow is fully bent.
- Elbow remains stationary by sides throughout.
- Uninvolved arm remains still.
- Exhale during ascent.

**Coming down:**
- With control (3-4 seconds) lower the involved arm and dumbbell to the start position until elbow is fully extended.
- Maintain correct body position.
- Inhale during descent.
- Hold for one second and then begin ascent with opposite arm.

**Tips:**
- Only one arm moves at a time.
- Don't swing dumbbells upward.
- Don't bounce or jerk dumbbell at completion of descent.

**Dumbbell shoulder press**

**Why do it:** Provides additional developments of shoulder muscles.

**Start:**
- Grab dumbbells with overhand grip.
- Lift dumbbells to shoulder level keeping back straight.

**Going up:**
- Begin with elbows bent, dumbbells slightly below ear level and slightly wider than shoulder width apart.
- Press dumbbells upward and together (utilizing the arms and shoulders) directly overhead with control.
- Exhale during ascent.

**Coming down:**
- Lower the dumbbells back to slightly below ear level, slightly wider than shoulder width with control.
- Inhale during descent.

**Tips:**
- Never perform exercise without a spotter.
- Keep back straight throughout the exercise.

**Pull-ups**

**Why do it:** Develops shoulder and back muscles used in throw-ins.

**Start:**
- Support body weight by grabbing an overhead bar with an overhand grip.
- Relax the legs and keep them straight.
- Arms straight, looking straight ahead.

**Going up:**
- Lift body weight under control by flexing the elbows raising chin until it clears the bar.
- Exhale during ascent.

**Coming down:**
- Lower body weight under control by extending the elbows until they are fully extended.
- Hold for one (1) second before beginning next repetition.
- Inhale during descent.

**Tips:**
- Do not allow legs or body to swing. A spotter can help here.
- Be sure arms are fully extended at the start and finish.
- Don't jerk or lunge at the bar, stay under control.
**Dips**

*Why do it:* Aids slightly in stabilizing the upper body in contact play.

**Start:**
- Support body weight by grabbing parallel bars with an overhand grip, palms facing each other.
- Relax the legs.
- Arms straight, looking straight ahead.

**Coming down:**
- Lower body weight under control by bending the elbows until the top of the triceps are slightly below parallel to the ground, pause.
- Inhale during descent.

**Going up:**
- Lift body weight under control by extending the elbows to starting position.
- Hold for one (1) second before beginning next repetition.
- Exhale during ascent.

**Tips:**
- Do not allow legs or body to swing. A spotter can help here or cross your legs at the ankles, knees slightly bent.
- Be sure arms are fully extended at the start.
- Don't jerk or lunge coming up, stay under control.

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**Preacher Curls**

*Why do it:* Balances triceps development.

**Start:**
- Adjust preacher bench so that your chest and arm pits fit comfortably against the pad.
- Grasp E-Z curl bar with palms out, hands 6-12 in. apart.
- Sit on bench, with chest and arms against the pad. Feet flat on the floor, looking straight ahead. Elbows flexed holding the bar.

**Going down:**
- Inhale extending the elbows to full extension under control.
- Keep wrist slightly flexed.

**Coming up:**
- Exhale bending at the elbows under control until elbows are fully, flexed bringing the bar to under your chin.
- Keep elbows stationary.

**Tips:**
- Don't twist body on the ascent. Keep buttocks in contact with the seat at all times.
- Don't let the elbows go beyond full extension (hyperextension position).

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**Cable biceps curl:** Same as hammer curl only keep palms facing up. If you do not have a low pulley cable system, dumbbells can be used.

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**Recovery**

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"Regen Day" and Other Methods of Recovery/Regeneration During a MLS Week

Kevin Christen & Tyson Pace

As I look back on the past two to three seasons of Real Salt Lake soccer and the successes and failures we have experienced there have been a lot of aspects of prevention and care of athletic injuries to evaluate and attempt to improve. One of those aspects has been our ability to recover and prepare physically for matches that don’t follow the monotonous Saturday to Saturday schedule generally accepted in MLS regular season format. Even this format is being challenged by the increasing number of clubs within the league and the increased success these clubs are having within tournaments such as CONCACAF Champions League, SuperLiga, U.S. Open Cup, etc… Games are often within three to four days of each other and this frequency of play has very real implications and outcomes on physical readiness even for the elite players in our league. This run of play has proven to be very challenging to the Athletic Training personnel as well as the players themselves. More maintenance and recovery routines are being implemented and required. These routines and themes are what we will discuss throughout this article. Regrettably the time needed to turn some of these routines into evidence based results with validity around the globe has escaped many Athletic Trainers and other medical professionals within our sport, but are widely accepted as effective techniques for recovery and prevention of injuries.
I will begin by stating that the format created and used by Real Salt Lake soccer is a great collaboration between a number of people throughout the organization. Athletic Training Staff, Massage Therapists, Team Physicians, Strength Coach and Coaching Staff all came together in a concerted effort to provide a structured maintenance program focused on recovery, mental well being, and peak performance. With each staff member bringing an individual touch to the recovery process. Previously I mentioned about the high demand put upon each athlete to perform as we made a run through the CONCACAF tournament, with league games Saturday and tournament games Wednesdays we found it important to establish a recovery regimen. With each series and week being vastly different due to travel and training availability I feel that it would be difficult to give the full scope of Real Salt Lake soccer’s recovery plan, thus, I will focus on a typical MLS week with the thoughts that the same time frame and rest periods be implemented into a multiple game week schedule.

Gameday at RioTinto begins with the typical gameday routines, reserve athletes arrive at the stadium for a fairly intense and challenging cardiovascular session with members of the coaching staff roughly 4 hours prior to kickoff. This training session will consist of a small technical session followed by a thirty to forty five minute interval running session on the field, all athletes with Real Salt Lake soccer wear heart rate monitors which are continuously monitored during training sessions by Strength and Conditioning Coach Dan Barlow. Heart rates are to reach and be maintained at 85%-95% during these particular sessions. Gameday proceeds typically with no real focus on recovery or maintenance, as we want each athlete to be mentally focused on the task at hand, however, following the game is when the recovery regimen is put into place. We found our athletes rarely followed a structured post game pattern, there was no real emphasis placed on beginning the recovery process, yet it is a vital time. The larger emphasis was on exiting the facility. As a training staff we implemented a 10 minute post game dynamic and static stretching program which occurs as athletes enter the locker room post match, this seems like a simple and trivial task yet we believe it engrains the recovery philosophy into our athletes minds.

Sundays are known as a Regen day (Regeneration), it is a day that has a soul purpose on creating the optimal environment for the recovery process to take place. Athletes are allowed to make themselves available between a scheduled 3-hour period in the morning, upon arrival at the stadium they have a detailed list of activities to perform. All athletes are to follow the following schedule.

Contrast Bath 12 min (2 min Cold / 2 min Hot)
Bike 20 min (Low Resistance)
Foam Roller/Static Stretching 10 min (Focusing on LE- lower extremity- muscle groups)
Vibra Plate stretching 10 min (Focusing on LE muscle groups)
Muscle Activation Weight Training (3 to 5 exercises focused on low weight and rep for Core and LE)
Massage Therapy 30-min sessions (Focusing on lymphatic drain and Flushing of the LE)

As training and coaching staff we found that it was important to address the recovery process as quickly as possible following matches, the theme from post match continues by making this Sunday session monitory, not allowing athletes to squander this precious recovery time with remedial tasks.

A unique aspect of the recovery and maintenance process for Real Salt Lake Soccer happens Sunday mornings on away trips. The Athletic Training Staff guides all athletes through a Pool Regen session. This session consists of the following items, with the athletes being broken up in three groups to perform these tasks. Each station is performed for two minutes while being rotated through twice.

Hot Tub
Dynamic Stretching (Focusing on all major muscle groups)
Static Stretching (Focusing on LE muscle groups)

We have found that inserting this particular Regen into our recovery and maintenance regimen has played a vital role in reducing the amount of fluid transfer during flight as well increasing the energy levels and recovery of athletes following road trips.

Mondays are given to the players as off days, with the exception to those on a rehabilitation schedule with the Athletic Training Staff. This is a day were athletes are reminded to make healthy and professional decisions while being able to mentally recover and prepare for the upcoming training sessions.

Tuesday begins the training session portion of the week, Wednesdays are similar in the demands placed on the athlete thus I will combine the two days. Athletes begin the days with the option to partake in a 30 min massage performed by our team’s massage therapist, as well as the use of a team chiropractor who focus on muscle energy techniques not all athlete take advantage of these services. However, we as a training staff strongly suggest to our athletes that they take part of these services. Training sessions will typically run between an hour and half to two hours these two days are highly challenging and competitive training sessions. Once again heart rate monitors are used by every athlete to track and monitor heart rates during training, this information is downloaded into our computer program following training to help monitor and track individuals rate of cardiovascular recovery and endurance as well as to determine which athletes may need more recovery time. We found that following these hard training sessions athletes wanted to linger and work on individual drills, as a staff we determined that it was important to keep the athletes
on a strict time frame in regards to extra work. We do not want the athletes to push themselves to a point where “overtraining” becomes an issue. 15 minutes is now given to all athletes following training with a mandatory stretching program of 10-min following individual work. These along with mandatory 8-minute ice baths are ways we have tried to manage and promote recovery on intense training session days.

The athletes are then once again given the opportunity to recover mentally and physically by being given Thursday’s off. Once again athletes are reminded of the importance of this day; at home stretching, foam rolling and cryotherapy are suggested to all athletes. Any athlete who has rehabilitation needs is asked to report to the facility to work with the Athletic Training Staff.

Friday typically lends itself to be a lighter technical session at RioTinto Stadium, athletes will report to the stadium once again with the option of massage therapy. Training sessions will typically run for an hour or less, the protocols for a Friday training session is the same as a Tuesday and Wednesday training session, with the focus on getting the athletes off the field as quickly as possible, mandatory dynamic and static stretching followed by mandatory ice baths.

I have shared a very small sample of a typical week with Real Salt Lake Soccer, in no way do have specific data to back our current maintenance and recovery program that we have established. However, I can say with strong conviction that as the season has progressed and as the demands on our athletes to perform at an elite level have increased, we as a staff strongly feel we have implemented important recovery routines that have aided our athletes in quicker recovery and helped to maintain the competitive edge that is so strongly desired.

**T-3 Tools**

The type of equipment you have to condition with is unique. It will determine if you use a weight room, the soccer field or a combination of the two.

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**Jumping on the Heavy Band Wagon: 30-Minute Mobility, Horizontal Speed and Strength/Stability Program for Female Athletes**

_Ed Dudley_

I originally got into 'bands' for rehab. Two players that I coached came back from ACL injuries to be even faster then they were pre-injury. Then once I noticed what they did for speed and athleticism, I became a believer. I've invested over $7000.00 in bands!!

**Not Your Mother's Tubing**

This program uses heavy bands with resistance, not tubing. It involves giant rubber bands, which makes a big difference. Tubing has several issues, including the fact that they break easily and don't offer enough resistance to improve speed/strength/mobility and create a time effective conditioning program. The big bands vary in resistance from 10 to 140 pounds, and size providing athletes with all the work they need to improve horizontal speed and strength and, most important in female athletes, prevention of ACL injuries.

In past issues of Performance Conditioning, I presented a three-part series on a dumbbell matrix. I am NOT anti free weights; it's just that as a coach I've evolved and found that there's just no need to train FEMALE athletes to be weight lifters. We rarely touch a weight anymore; consequently 80% to 90% of the work is done with bands. One can't lift weights horizontally; however, bands allow horizontal resistance in a positive and negative motion. They take away the deceleration forces that cause injuries so you can constantly train speed and explosiveness and then train how to decelerate properly and SAFELY in the negative motion.

Bands offer a great way to condition. My point of training high school athletes all season with bands was to show that RUN-
NING, which coaches equate to 'fitness', is NOT the best way to train athletes and in my opinion, running IS NOT a great exercise (at least to extreme) and causes many of the repetitive injuries that WOMEN are so prone to sustaining. That's all my State Championship team did for conditioning through the season. As a result they were in better shape, were faster and quicker than with conventional 'conditioning' (running). These bands provide a very efficient way to train as well-no need for a weight room. All you need is open space. Two athletes per band provide built-in recovery because one will perform the exercise while the other acts as the "donkey" holding the band.

**Hip/Ankle Mobility Program**

We begin every game, practice and training session with this program starting at the ankles. The program then goes up the kinetic chain ending with the hips. Note: all exercises are repeated on the opposite side. Wrapping the band around the fat part of the foot we apply resistance with the band flexing, extending and rotating the ankle (Figure 1). Force is applied (pulled) in the opposite direction of the ankle movement.

In the next exercise (Figure 2) the athlete raps the band around the small part of the foot, leans back and pulls the foot toward the head stretching the hamstring and providing resistance as the foot is pulled forward.

In the next exercise (Figure 3) the band is looped around the foot. Shoulders are on the ground, leg is thrust forward and down to the side and then cross to the opposite side at the hips.

The athlete flips over to her stomach (Figure 4 on next page) and pulls on the bands bringing the quad up and, while hold the band, straightens the leg forward with steady tension. She then lifts the leg off the ground as high as she can. Finally (Figure 5 on next page) the athlete completes the sequence going to her side, pulls back and kicks as high as possible. Then, with leg straight, swings the leg forward at the hip.

The athletes do eight repetitions each side in a total time of about five minutes. After this routine the players will perform a brief warm-up prior to the heavy band routine.

The first heavy band exercise, which is part of warm-up, is the lateral monster walk in both directions with a band above the knees (Figure 6). Next comes the up and back carioca (Figure 7) followed by a long lunge (Figure 8) that provides hip activation. (Some people might not feel comfortable with the stretch so in that case I remove from the routine). It's important to note that these are exercises we do from a list of exercises and we vary the exercise selection based on the time of year and level of the athletes, etc. to keep things fresh. We end with an Achilles stretch. (Figure 9).
Here the athletes shift their weight forward. That's it, 10 minutes total time. Now the athletes are ready for the heavy band work.

Next issue we'll provide you with the heavy band workout, followed by a strength/power development routine and finally a cool down stretch. Don't miss it!

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**T-4 Teaching**

The exercises you select must be taught using perfect technique whether you teach it or have outside assistance.

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**Introducing the Power Pull: Enjoying the Benefits of Explosive Lifting for Soccer Without the Risks and Hassles**

*Harvey S. Newton*

The explosive lifts, more commonly known as Olympic-style weightlifting, are important to the development of any power/power endurance athlete. This includes baseball, softball, soccer and volleyball players. Why? Because they are all ground-based sports. Players' need for ground-based strength training movements is based on the conditioning principle of specificity; they should train like they play. Their sports are explosive and we believe that explosive lifting has good transfer similar to these sports in the execution of the “triple extension.” This refers to the simultaneous extension of three joints: the ankle, knee, and hip. Traditional weightlifting (Olympic-style) lifts require this same explosive extension, with resistance; so again, the lifts are specific training for these sports. However, these lifts are advanced, not introductory lifts that may create teaching challenges for the coach.

**Coaches’ Hesitation About Explosive Style Lifts**

Given the positive results these lifts bring, it’s important to explore what coaches need in order to proceed. First is flooring/facility concerns related to dropping barbells, as done in weightlifting halls. This is the #1 reason clubs don’t want this type of lifting. But don’t worry, there is no need for athletes from other sports to drop weights. For the most part, these athletes are not aspiring to become Olympic weightlifters. Since these athletes do not aspire to become competitive weightlifters, they will NOT be lifting maximum weights so there is little need for concern over flooring issues. That said, athletes must be taught to properly lower weights and some sort of platform area is needed just in case of missed lifts. Proper weightlifting equipment minimizes many concerns. The biggest expense is good bars and this is where one should NOT scrimp. Use of rubber bumper plates is recommended, but not absolutely necessary. Some form of squat rack/power rack is helpful. Most high school PE facilities today include the necessary gear.

A major concern is having access to a qualified weightlifting instructor to teach these exercises. Sports where overhead skills are preformed such as volleyball, soccer and baseball/softball, coaches might be reluctant to have their players do full Snatch and Clean-and-Jerk lifts. The primary concerns are possible stress on the shoulder with the barbell overhead and stress on the elbow joint in racking the power clean. Non-weightlifting coaches often state these are the major concerns, especially with heavy loading.

A final concern involves the time needed to master the full competitive lifts with a fair degree of efficiency, which is often well beyond the scope of most programs. There just isn’t enough time to properly teach this supplemental activity to athletes focused on their chosen sport.

**The Dumbbell Solution**

Some conditioning coaches advocate the substitution of dumbbells in place of barbells when doing explosive lifting. Use of dumbbells can address muscle imbalances and should not present much of a problem for most athletes. Nevertheless I can’t think of too many good reasons to use dumbbells for the snatch or clean-and-jerk exercises. One concern is the difficulty in controlling both arms against separate loads. This can be a challenge and will not make for a better athlete. Another problem with dumbbells is the usual failure to produce triple extension benefits. Dumbbells do not give themselves well to the ‘double knee bend’ technique needed to maximize the benefits available from these lifts, if performed with a barbell.

While dumbbells are fairly inexpensive, a team would require many dumbbell sets of near-similar weights. There is little...
differentiation between players’ level of strength. Depending on the number of athletes being trained at the same time, a coach might need as many as 10 to 12 pairs of dumbbells at the same or close to the same weight.

Most dumbbells today are not adjustable and few, if any, have revolving sleeves. This makes dumbbell application for the quick lifts very limited.

Dumbbell use has some application, but perhaps mostly in assistance movements. They can be a fun diversion but the classic lifts should be taught and primarily performed on a barbell. Dumbbells can create false hopes and expectations.

The Sub-Maximal Effort Solution

Many sport coaches advocate the use of explosive style lifts but only with sub-maximal resistance. Sub-max is absolutely necessary for learning technique. Technique cannot be learned with heavy weights, so for drilling technique, light weights and fairly high (5) reps make sense. Many reps does NOT translate to maximum strength and power results. Most athletes who use these lifts are shot putters or football players, so moderate weights are the order of the day and may benefit women and juniors; however, power production is lessened with sub-max loads, depending on the exercise. Traditional explosive lifts are designed to be performed with moderate to heavy loads. This can be a problem for coaches of juniors and women, due to popular misconceptions explained later.

What is a sub-max load? Sub-max load is normally anything under 90% of 1-RM. Let’s assume non-weightlifter or combative athletes will never need to know their true 1-RM, so any lift will most likely be sub-max. Sub-max loads CAN produce more power (and limited pure strength improvement) if the object of the sport is light (volleyball, baseball/softball, soccer). Sports requiring heavy objects or strong opponents require nearer to max loads, at least some of the time. For our purposes, maximal load performed at maximal speed will develop the greatest amount of power. The question becomes, how much is necessary based on the demands of the sport and level of athletes? This can be tricky. Determining the right load to use is difficult.

Getting Started

There are six things that need to be addressed to start an explosive lifting program: knowledge, equipment, teaching skills, a program, confidence and support.

Knowledge

As with any sport or activity for athletic improvement, at least the coach (if not the athlete) needs to totally immerse him or herself in learning the nuances of the sport. Many so-called ‘experts’ are not that knowledgeable and far too many certified fitness professionals know little, if anything, about this form of lifting. Knowing what is best for your athletes is most important. Coaches must either learn a great deal about this form of training before using it with their team OR they must secure a well-qualified person to teach the lifts.

Equipment

As discussed above, it’s best to have the team train at a location that has the necessary equipment. This may be a high school or college weightroom or something like a sports performance training center.

Technique Teaching Skills

Whole lift technique must be taught first and it may be months before anything other than technique is taught. This presents a problem in terms of keeping athletes motivated. It also can present an unbalanced program. It is necessary to include other significant strength-building exercises at the same time one teaches advanced (explosive) lifting techniques.

Beginning Training Program

The following exercises can be safely introduced to athletes with a solid foundation of strength training behind them. Advanced exercises should NOT be introduced to total novices. Some of these exercises (with heavier intensities) make up a more advanced program as well.

Overhead Squat
Press/Push Press/Power Jerk
Snatch Pull (high blocks)
Power Snatch (high blocks)
Possibly other variations
Other necessary S&C exercises

There is no program that will address all needs and all scenarios.

This is ONLY for a beginner learning Olympic-style explosive lifts. This player is assumed to have done at least six months of preparation work, with myriad exercises for total development. Special consideration has been given to upper body pushing and pulling (multiple joint), squats, front squats, lunges, back extensions and abdominal exercises. When learning explosive lifts, reps are max of 5; sets can be multiple up to 7-8. Not all exercises are used in all workouts. Resistance is minimal with proper technique usually taught with broomsticks, dowels or empty light bars. When learning the lifts, 3X weekly is appropriate, with additional ‘shadow’ lifting at home on off days.
Confidence/Support

One must have a long-term approach to learning and training the explosive lifts. These are complex, highly coordinated sports skills that need to be properly learned. Non-weightlifter athletes’ motivation may be quite low for this type of training as their training priority is usually their sport.

“Can I teach this?” This is a necessary question with no easy answer. It is possible, but somewhat unlikely that an average coach can effectively teach Olympic-style lifts in the proper way. Most sport coaches need to enlist solid support. First, become educated. Second, create a total sports performance program that addresses your needs. Third, create a means for having the lifts effectively taught and supervised. This probably means finding someone well qualified (no easy task). These lifts are highly complex and it’s beyond me how so many novices seem to think they know how to properly teach the lifts. Teaching the lifts improperly greatly reduces their value and may introduce safety issues. Athletes of coaches reading this article should NOT get hurt in the weightroom. Similarly, they should not waste time and effort attempting advanced lifting techniques half-heartedly. Don’t attempt to teach that which you do not understand. Get outside help!

Program Considerations

Depending on the age and development of the athletes (this varies tremendously and all scenarios require different training contingencies), one should:

- Set a base (during which explosive technique MAY be taught).
- Develop appropriate strength and power in order to be able to adequately execute advanced moves.
- Use explosive lifting at the appropriate time of the year (need for a periodized program).
- For established athletes, use explosive lifting as their primary, year-round approach to strength and conditioning training.

This procedure with a young player could take several years to accomplish. With a senior athlete or college student, adequate time to both prepare properly and learn technical skills is seldom available. Properly learning explosive lifts prior to reporting to college can be a blessing, for coaches and athletes alike.

A Simple Solution—The Power Pull

Implementing the full snatch and clean-and-jerk lifts for non-weightlifters, although potentially very beneficial for many, is a huge challenge and a big gamble. If you look at the starter program it can be a very intimidating proposition—one that is best left to the major college strength program with a wealth of teaching resources and equipment. But the benefits of these movements are just too great to ignore. What is the coach to do?

Some strength and conditioning coaches will advocate the hang power clean with or without finishing with a rack of the bar with the elbows. Others may use only a high pull type of movement from the floor, hang, or blocks (rack). This lift does not include the final receiving position of the bar on the shoulders. Lifting from the hang (not the ground) has its own problems, namely a lot of stress on the lower back due to fatigue.

Well-intentioned coaches quite often teach the hang position improperly. This causes all sorts of technique and efficiency problems that can lead to poor results or injury for non-weightlifter athletes.

The solution is to focus on one exercise that gives you the most bang for your buck. Something that is easy to learn, produces the most absolute power, is safe for all athletes to do, doesn’t require a lot of equipment and can be done with heavy loads—the power pull. Athletes don’t have to lift catch the bar, which puts stress on their elbows or push the bar overhead (snatch) or catch the barbell on the shoulders (clean).

The bar only needs to travel a short distance. Blocks or a power rack eliminate the concern of having the weights damage the gym floor. The environment is controlled and safer. For the purpose of this sport it’s not necessary to pull the weight into a rack position or overhead. Now all we will do is simply execute an explosive triple extension with the near simultaneous firing of the muscles that extend the hip, knee and ankle. The bar only needs to travel a short distance.
Learning the Power Pull

The movement is simple with two basic things to remember. 1) Jump explosively with the barbell and 2) don’t use your arms. The starting position is an athletic “power position,” ready to jump. The positions to consider are two: from the clean position and from the snatch position. In the snatch position a lighter weight is used and the bar is in a high position at the start. The bar starts near the crotch or top of the thighs. After an explosive vertical jump, the bar ends up just below the chest bone (sternum). The arms are not involved—the athlete is taking advantage of the lighter weight and the momentum generated with the jump. The explosive jump will cause the bar to rise this high, but don’t have athletes focus on a big arm pull….this needs to be a big jump.

In the clean position the bar is at mid-thigh because of the narrower grip, which also allows more weight to be used. After the explosive triple extension as one jumps the bar travels only to about navel height. Again, don’t emphasize a big arm pull.

In either case, if your athletes can pull the weight higher than the stated target zone, the weight is probably too light. As far as loading is concerned, a general guideline to use is that if the athletes can pull the weight to the sternum or above, the load is too light. If they can’t pull it to the navel or slightly above, it’s too heavy. This makes determining how much weight to use a simple task.

All lifters will benefit from using pulling straps. These require a little instruction, but they are necessary in order to lift appropriate resistance and gain the proper benefit.

Also, the term jump does NOT mean to come off the floor—we are NOT interested in losing contact with the floor. Jump violently (there’s no time to create any force production over time) and then rise on the toes and shrug the trapezius muscles of the upper back. The athletes should be able to hold a balanced, on ‘tip toes,’ position momentarily before lowering the weight in one smooth motion back to the pulling station.

Doing the power pull is a great alternative to Olympic style weight training.

Speed Training Exercise Techniques for Soccer Teaching Running Efficiency—The Rhythmic Stride Pattern Approach

Phil Rose

Rhythmic Stride Pattern Running is a simple approach to the study of soccer movement skills of individual athletes. Based on these initial skills, training of athletes to gain running efficiency on which to build soccer-specific speed is our mission.

In training soccer athletes there are only two things to consider: movement of the players with a ball and movement of the players without a ball. There are 22 players on the field and one ball. Movement training is the process of gaining efficiency based on either scenario; i.e., moving with or without a ball. The first thing soccer coaches should consider when developing speed skills of their players, is an assessment of how the players move. Movement incorporates many different things including running styles, turning techniques, first step footwork and the various parts of the body working in coordination to affect efficient soccer movement.

When assessing player movement, a challenge facing many coaches is having to change the way their players move. It is something I do on a regular basis. Until one addresses the way each player moves, it is difficult to achieve optimum result with the way the team moves on the field. From personal experience, I had a center/forward who wasn’t scoring goals and as a coach, I knew she wasn’t living up to her goal scoring potential. One of the first things I saw was that she was taking off on the wrong foot and her arms were always out like airplane wings. Over a period of several months, I changed her style of running by working on arm movement, balance and rhythmic stride. Now she generally scores two or three goals a game. Her running is more productive and she is more balanced and relaxed when in control of the ball.

Another challenge coaches’ face is trying to gather overall team information by observing the movement of the entire team. The technique I use is to single out one player at a time and take the time to analyze how that player moves, step-by-step. This takes focus and discipline on the coach’s part.

Soccer Movement Analysis Step-by-Step

Posture: The first thing to address is posture. Does the player run upright? Many players lean forward. Once the correct position is achieved the next consideration is getting into a lower “athletic” position.

Balance: Observe players. Are they balanced as they move? Can they recover onto the front foot quickly? Do they go to ground too easily after a tackle or challenge?

Core/Hip Position: This is related to posture. The athletic running position comes from a strong core. The pelvis needs to remain in a neutral position avoiding pelvis tilt. Hip alignment with the feet and shoulders is also important. Look at the players straight on. Where is the position of the feet in relation to the hips? Do they plant straight on or do they flair out to the side? The most important
aspect of good hip position is demonstrated when a player has to plant and go in a different direction—a common move in soccer especially for defenders having to make recovery runs. Poor hip position, as well as lack of core strength, will create two or three additional steps a player will make executing a turn.

**Foot Movement:** Here, distance of the stride and foot placement is important. Is the player landing on his or her heel or the toe?

**Arm Placement:** Incorrect arm position can mean a loss in movement power because the arms flaps in the air like sails in the wind.

**Shoulder Position:** Are the shoulders square? Some players will lead with one shoulder when leaning into the run.

**Head Position:** What I look for is a firm head. The face should be relaxed but the head should not be moving from side to side.

**Movement Changes**

Younger athletes with less ingrained motor skills will be easier to work with in correcting movement. Older athletes with years of doing it wrong will be more of a challenge. A lot of coaches will immediately start using training aids such as ladders. These devises are visual aids for the athletes; however, if you take away the ladder they have difficulty visualizing how they should run. These devises serve a purpose in learning new motor running skills but it’s important to transfer those running skills to soccer skills.

**Creating Efficient Running—Step Training Exercises**

The area that has the most immediate impact on improving soccer movement is teaching efficient running patterns. Efficiency can mean a lot of different things, but for our purposes it’s to get a rhythmic pattern to the run. Players will take different numbers of steps to complete a specific distance. This is arrhythmic running.

The step training exercises is designed specifically to increase rhythmic pattern efficient running. This exercise is done by placing markers or cones every 10 yards the length of a soccer field. Players work in groups of two. I try to pair up the players based on their physical stature so that the length of their legs is similar. Based on observation the players are assigned a specific number of steps to take between the cones. As the players become more efficient, the number of steps can be reduced accordingly. This efficiency also equates to energy savings while running. Irregular stride patterns and all that comes with those irregular patterns leads to an earlier onset of fatigue because of using too much energy to cover the distance.

Another dimension of step training exercises is to observe foot placement. Ideally, the players are landing with their feet straight; however, one will often see the feet flaring to the sides. Another variation of foot placement is to have the athletes land on their heels rather than toes every fifth stride.

Running efficiency leads to quick turning efficiency because the athlete avoid having to take an extra step or two to make a turn. For defenders, the resulting time wasted can mean not keeping up with a player; to a forward it means not getting to the ball to score a goal. I must emphasize that this is not a speed exercise nor is it designed to see how fast the players can run or determine their stamina. These qualities will be built later. Movement skills need to be as second nature to the players as striking a soccer ball or making a pass. With practice it becomes automatic. Priority is placed on movement skills. After the run exercises a ball is introduced at to keep player interest high.

**Program Considerations**

Since this program is such an important aspect of the development of soccer players we initially approach it as a separate activity as opposed to part of a practice session. In a club setting we would practice three times a week with one day devoted to movement training. The session, with warm-up, lasts one hour. As the season approaches the program is integrated into regular practice sessions and is done right after warm-up but before technical ball work.

For an hour-long session, recovery time is complete to insure quality work. This recovery time is reduced as the players start to gain a good running rhythm. The initial phase of the workout is having all 16 players (divided into two groups) jog around a 20 x 20 yard area. During this time, the players are counting their strides up to 10 and then repeat. It’s almost like we are up against a metronome with the players giving their own verbal cues. We work for two minutes at a time and rest by walking but still encourage the players to count their strides. Each subsequent two-minute workout is done with increased tempo.

To work on balance and control during the session I will tell the players to freeze. The athletes immediately stop and stand on one leg. The next time I tell them to freeze they have to stop and stand on the opposite leg. They hold this position for five or six seconds.

As the players progress, we introduce a ball in the training area and have them do two strides and touch the ball whilst dribbling. This gives an idea of the distance of the ball in relationship to the stride. We finish with the step training series described previously. Build up to gain speed.

**Age Considerations**

Training for younger athletes (8-11) is the same. Rhythmic stride pattern running is really not appropriate for this younger group but teaching good running technique is essential. At puberty, gender differences start to occur. Boys have a tendency to run as fast as they can to cover a distance without consideration for the amount of energy they are expending. With girls, arm movement is more inconsistent. They tend to have their arms out more. Girls are more open to the stride pattern rhythmic training than boys. With boys it’s hard to get across the logic that if you conserve yourself you can get to the goal just as quickly but will have more energy...
to perform the soccer skill necessary to make the play. Also at puberty, girls’ running form begins to change and that is when this type of training is really important.

In youth soccer there is a tendency to try to play soccer too fast. By doing rhythmic stride pattern training coaches will build a good foundation for progressive speed training specific to the sport of soccer.

**T-5 Testing**

Find out where your athletes are at and what they need to develop.

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### Soccer Roundtable: Ask the Experts

**Testing for Soccer**

Q—At what age do you recommend physical testing for soccer players, what are some of the things that you test for and what test do you use?

Speed tests at any age since it is such an important quality. When I say speed I mean a ten and twenty meter sprint both from a standing and a running start. The other tests should begin about the age of puberty with the realization that growth and development have a big effect. - Vern Gambetta

Personally, I think any age is fine, as long as the test administrator uses age appropriate tests and presents the administration of the tests in a non-threatening manner. For example, if a coach decides to assess the aerobic endurance capacity of his/her six year olds, and they decide to use the Cooper Test, (12 Minute Run Test), they might run into some motivation problems. But, if they use something, like the YO YO Test, for example, they will get the same information and have less difficulty from the participants. Most likely, the kids will want to do the test again right after they have finished to see if they can beat their previous score. The key ingredient to good test administration is having kids that want to take the tests.

We use the following tests to measure these components:

1. 10 Meter Dash for acceleration. (electronically timed)
2. 20 Meter Dash for soccer specific speed. (electronically timed)
3. Pro Agility Test to measure change of direction speed. (electronically timed)
4. Vertical Jump for lower body power. (Measured on Vertec)
5. 300 Yard Shuttle Run. We use the 12 X 25 yards, rest 2 minutes and repeat. This allows us to measure ones anaerobic endurance.
6. Yo Yo Endurance test to measure aerobic fitness. - Michael Thyron

Although physical testing can begin at any age, we generally begin at age 11. The tests are not overly intensive and we ensure that the tests are easily completed and standardized. We use the Legere-Boucher 20 metre shuttle run test for Maximum Aerobic Power (proven to be reliable and we like having a predicted VO2 Max); a 44 yard (width of 18 yard box) speed test where we measure the time at 12 yards (6 yard box), 22 yards (penalty spot), 32 yards (6 yard box) and 44 yards; and the box agility drill (forward 10 yards, side step right 10 yards, backward 10 yards, side step left 10 yards and then reverse to start-finish line).

We also begin to test maximum push ups to the pace of a two second metronome or count for general strength endurance. At 13 years of age we begin to use a five jump test (Pent-Jump) where we measure the distance covered after five consecutive two-footed jumps. This test provides us with a measure of the athletes lower body power. We also, at 13, begin to measure maximum tricep dips between two chairs. At age 15-16, we begin to use strength tests within the weight room determining the athlete's predicted 1RM's (one repetition max’s) using dumbbells. As the athletes become more experienced in strength training, at 19-20 years of age we begin to monitor strength exercises using barbell multi-joint exercises. Again, using predicted 1RM’s, we use such exercises as a power clean and the squat. - Neil Sedwick

Physical testing for athletes can become beneficial when the athletes reach an age where physical conditioning is an issue. I don't think that there is a specific age that applies across the board, but in general when a player reaches puberty is about the time where fitness training can help performance. There are many types of things that you could test with your players. I think the key is to make the tests repeatable so testing can be consistent for all players and for individuals from test to test. Aerobic fitness can be completed with a timed run, such as a twelve minute run for distance, or a distance run for time. My teams are tested in their time to run three miles. There are other ways to test your players aerobic fitness, such as a beep test. It is up to the coach to use the method that best suits the team.

Anaerobic fitness can be tested by performing repeated sprints with a rest period between each. Players can be graded on how many sprints they were able to complete in the time allotted for each. Skill testing is another form of measurement that can be performed, such as how many juggles a player can complete without the ball hitting the ground. Skill testing can be appropriate to motivate younger players. - John DeWitt
Q—What measures take you do to insure reliable results from your tests so that test results are consistent from testing period to testing period?

Have the same people administer the same tests at the same time in the training cycle on the same surface under the same conditions.-Vern Gambetta

To insure reliability, we always do all of the tests indoors, after a proper warmup using equipment designed to measure exactly what it is supposed to measure. For example, all of our tests use electronic timing devices to insure greater reliability when doing the tests. Finally, we always try to use the same test administrators to insure further accountability.-Michael Thyron

The 20 metre shuttle run audio tape has a calibration section that allows you to calibrate the tape speed to distance and/or the time. Other tests for aerobic power, such as the Yo-Yo Test, are becoming popular within the soccer community. However, long standing results have been achieved with the 20 metre shuttle run for all ages so we have stuck with it. We insure that the tests are completed on the same surface every time. The difference between grass, gym floors or wet asphalt can vary widely. We like the tests to be performed on dry artificial turf when possible. This allows for a good running surface without a loss of power or traction. We can also use the field markings for the 44 metre sprint across the 18 yard box. Our second choice is a dry track, dry asphalt or gym floors (however some gymnasiums become quite dusty). In the weight room or with tricep dips, we stop the test when technique is broken. In the weight room we use the number of repetitions completed perfectly as the number used in determining the predicted 1RM.-Neil Sedwick

For the fitness testing, all tests are completed at the same location. This ensures that the distance run is the same from test to test. Since all of the tests are time based, a stopwatch and a record of past results allows for consistency and quick interpretation.-John DeWitt

Q—How do you use the results and how do you share the information with your athletes?

To determine where I need to go with the training. The athletes need to know the results if they are going to give a good effort. Never use tests as a basis for team selection. Also, do not compare one player to another. Only use testing for intra-individual comparison in order to gauge improvement.-Vern Gambetta

We have developed an athletic index over several years so that we can attach points to all the tests and establish who is our fittest athlete, etc. We take all of the test scores and calculate the team averages and standard deviations for each test. Then, we calculate T-Score values for each score so that we can calculate an individual's total points based on his/her performances. For example, an individual may have scored 50 points on the 10 meter dash, 52 points on the 20 meter dash, 45 points on the pro agility, 51 points on the vertical jump, 56 points on the 300 yard shuttle, and 62 points on the YO YO test for a combined score of 315 points. After they receive their points, we show them how they compared with other athletes on these tests. Finally, we use these results to target strengths and weaknesses which enables us to individualize training to better meet personal and team goals.-Michael Thyron

We test for three reasons.
1. To motivate the athletes. By measuring against their own previous scores the athletes are able to set goals for themselves over the next training period and they are able to celebrate the gains that they achieved over the previous period.
2. To monitor their development over a number of years, which helps me better understand the effects of growth and development on the performance factors measured in the tests. It is important for we coaches to understand and recognize physical changes that occur throughout an athlete's development.
3. To monitor the effects of the programs that we implement with the athletes. Monitoring provides us with clues of success or failure. By examining how our programs impact the athlete’s development within specific physical factors, we are able to refine or change our planning of programs in future years.-Neil Sedwick

Since our tests are for fitness, the obvious answer is that the results are used to gauge how fit the players are with respect to themselves and to the rest of the team. Because our tests are done with the entire team present, we share the results with everyone, but we may have individual discussions with those who we are concerned about. Sometimes the results indicate that the individual needs to do more fitness work, in which case we may set up a different training plan to fit the individual's needs. I have found that the players tend to be more motivated for improvement when they know that their performance will be seen by their teammates.-John DeWitt

T-6 Total Workload

Determine your Total Workload to insure your athletes develop in a progressive fashion with adequate recovery by controlling practice/competition work with conditioning work. This is a challenge because of the business life athletes lead today. The ultimate responsibility of the strength and conditioning program must be that of the soccer coach. This is done by establishing your calendar (T-2) that identifies and integrates total work load based on competition, practice and strength and conditioning training. Competition
should include scholastic and club play. Practice should consider strength and/or conditioning activities done on pitch including warm-up and speed training etc. Strength and conditioning should include training with the school’s/club’s strength and conditioning coach and other training outside the soccer coach’s control such as at a private gym. In the case of a multi-sport athlete the soccer coach should have the additional task of communicating with other sport coach(s) as to the progress of the athlete. The final outcome is to provide adequate recovery based on total workload to allow the athlete to progress physically, improve soccer skills and reach their full athletic potential through this seamless integration process.

Seamless Series The Integration of Strength/Conditioning/Fitness with Soccer Practice/Competition in Designing a Winning Year Round Soccer Program at the University of Nebraska-Lincoln

John Walker, Wally Crittenden, and Brandon Rigoni

Objective: This seamless integration is achieved through the planning and communication between the soccer skills coach(es) and the soccer strength and conditioning coach and by the inter-education of each coach. The ultimate goal is a better performing, injury free soccer athlete and winning championships. Prior to the interview each participant has approved of the following definitions into order to create a "same page" environment of communications.

Strength/resistance training is defined as activity normally carried out in the weight room using external resistance including barbells/dumbbells/weight machines with the goal of increasing overall body strength and explosive power and prevents injury on a general basis. This training is dictated by the principles of periodization based on the competitive schedule of the team.

Conditioning (fitness) training- conditioning or fitness training is defined as the development of the player's athletic skills based on the soccer performance continuum. This continuum builds on strength/resistance training with athletic skills training including speed, agility power, strength, mobility and endurance and progresses to soccer skills. An example of this continuum might be to start with posture/stability training progressing to straight ahead and lateral speed training ending with progressively overloaded small sided soccer games. An important consideration of this training is the development of power-endurance to deliver the highest levels of soccer skills at the end of the half or game.

Program design is defined as the integration of strength/resistance training, conditioning (fitness) training to the soccer practice/competition schedule to develop soccer athletes, improve performance, reduce injury and win championships.

PC: I assume that you've read the definitions (above), are they acceptable?

All: Yes, they are fine with us.

PC: Please outline your training year divided into phases (i.e., pre, off-, in-seasons) and explain the goals and expectations of the athletes in each phase?

JW: Starting backwards, fall is mostly maintenance. Spring has a heavy emphasis on the individualization of training. In the old school model, "in the spring we all do this" is something we have made a conscientious effort to get away from. The reason for this is that although soccer is a team sport, every athlete is different and they each have different needs. In spring we have some core things we want to accomplish. Some athletes need agility work. Others need an aerobic base, which at the stage of development of our program really is a factor. Other athletes may have flexibility issues.

At the end of spring our goal is to have every athlete do high speed runs on a repetitive basis. This could be, for example, in the form of doing 20-yard sprints 20 times with the 20th at or near the 1st time in the run. This is how we play so this is what we want our athletes to be able to perform. After the spring period in late April is a down time as their bodies recover.

In May we revisit our aerobic base abilities to ensure the athletes are where we want them. In the summer we go back to the high speed running as we prepare to enter the fall season again. To sum up our goal is individualization and the replication of high speed running.

PC: During the summer will the athletes be playing competitive soccer?

JW: This is an interesting thing. Over the last few years we have had a good number go off and play in the W League while others play with their respective national teams. From a physical standpoint, I believe the athletes are better off here with supervised training lead by Brandon who knows each athlete and their specific needs. He knows what they look like and what we want coming into the
fall. It's the athlete's decision completely but for the most part, they are realizing that here is the best place for them to develop.

**PC: What is the role and responsibility of each of you during the various phases from a physical development standpoint?**

**JW:** What we are trying to develop here at Nebraska is to have a high performance team in terms of our support staff. This includes a nutritionist, an athletic therapist (trainer) as well as Brandon. This has become a strong point in our program. The reason for this is that our strength and conditioning coach Brandon, has really become more of an assistant coach. There is a consistency as the players see him every day and answer to him in terms of where they are at physically. This is the result of programs being individualized. It's no longer everyone go in the weight room and all lift together doing the same thing or all get on the line and run. One player may need to develop explosive power for five yards, another may have weak adductor muscles, a third could have hamstring muscle issues, while yet another's biomechanics for running are problematic. Each of these athletes are being served by our performance team and the right person within that team. If a player is not performing due to a physical deficiency, it's Brandon who the team member working with that athlete turns to in order to overcome the deficiency.

During the spring, all players meet with our nutritionist once a week. I meet with them as well. We talk with our athletic therapist as well as with Brandon and the coaches about aspects of each player. The high performance team model provides them with a clear role and puts everyone on the same page.

**PC: Assuming the fact that the performance team is continuous, how does this team work from a conditioning coach's prospective?**

**BR:** If you listen to the way John presents the performance team, his concern addresses the performance of his players on the field. This starts with an aerobic base and the ability to repeat bouts of speed over 20 yards or shorter. With performance as the bottom line, we don't get too caught up in body fat percentages or squat strength, etc. Our concern is the way the players look on the field. Our focus is to get what John wants on the field. For example, with our nutritionist we might deal with an athlete who needs adjustments in diet for body weight management purposes, but that is all related to movement on the field. We don't separate strength training from soccer fitness from body composition—it's all one. We have an "image and style" on the field that John wants and everything we do is related to that "image and style."

Something new we are evolving is what we call a Functional Screen. This is a process of applying a series of tests (some are more valid than others) to gather information relative to our "style" of play. The functional screen includes tests such as a flying 10-yard dash, 40-yard dash, vertical jump, broad jump and agility run etc. (see attachment). We see these as proxy variables for what happens on the field. So an athletes' scores on the tests don't concern us as much as what is happening on the field. Everything comes together to create an Assessment Profile for each athlete. From that we will determine the individual needs of each athlete and individualize the programs. See the Nebraska Soccer Strength and Conditioning Program Planning and Functional Screening Process document.

**PC: How does this Functional Screening relate to your benchmark tests?**

**JW:** In a recent study of the Premier League, it was found that running distance has not changed but the intensities of those runs have increased substantially. The idea of a 20 x 20 repeat is the concept of being able to do high speed runs over the course of a game. The distance is different based on player position but it's done over and over. On the flip side, we don't want players milling around performing at 60 percent speed. If a player is fatigued, then soccer skills begin to erode, which is something we try to avoid.

**WC:** To build on this with regard to keepers, there is something called pressure training. Pressure training is executing a set skill for 30 to 45 seconds. In a discussion with another keeper coach he asked me why I didn't do it. I asked him why he did. He said that by the 40 to 50 second mark the athlete's skill begins to erode so one can see where improvement is needed. My response to him was that I wasn't concerned about our keepers' techniques after 45 seconds of continuous work because in a game, you are only going to burst for 3 to 4 seconds, 10 seconds tops. This is a concept that reflects our approach to training as a team.

I want to address our roles as assistants, both myself and Michelle Demko. For the most part we are facilitators of the concept and ideas we want to see take place. Michelle is the facilitator on the nutrition side. Michelle, Brandon, John and I all give input to our nutritionist Lynsee on how we want to see this go and she and Michelle work to execute that. Michelle will help especially when we are on the road. My role in facilitation is to take all the feedback on what we train and want to perform and find out what equipment Brandon needs as well as what I need to do to help facilitate recovery on the road. For example, Brandon and I developed a pool program that we did to aid recovery before and after games. I execute this on the road.

In relationship to equipment, one of things we did was implement mobile heart rate monitors. The good thing about this is that we are starting to find out new information about where our training loads are and what our program profile is as compared to what Nebraska soccer demands are based on the way John wants to play, which is position specific. People may think this is something that can be done with one or two sessions, but what we are finding is that it may take as long as two seasons to collect the amount of data we need in order to get a useful performance profile as it relates to positional work. We keep data on performance but equally as important, we also keep data on recovery. As John and I discovered, what we thought was a Thursday pre game recovery session was, in fact, not. Did we really know what the demands were on the players? Now we have a better handle on things. If we want a

**PERFORMANCE CONDITIONING SOCCER - FIT TO A T QUICK STARTER KIT**

**PAGE 51**
recovery session, we don't want it anywhere near what the load might be for a match. This data helps us design a true recovery ses-

**JW:** In the use of heart rate as a workload indicator, we do know that soccer coaches generally underestimate what they are asking their players to do. We might think of a tactical session as light and see the players drag themselves off the field afterward. We don't want the players to think only about heart rate and forget about performance. It took us awhile to manage this and get the athletes to understand why we were doing this. It's only one tool for us.

**WC:** When we look at heart rate data it's not to the point that we look at the validity of the heart rate data as performance indicators. What it does do is allow us a benchmark based on one consistent technology. This way we can begin profiling our training sessions and our players.

**PC:** Let's talk about the communication process of this seamless integration of the performance team. How does it work?

**BR:** In this process everyone reports to John directly. The information we provide is a conglomerate approach in which Lynsee, Wally and I come to John with collective thoughts. We seek to present a comprehensive, goal-oriented strategy. We present and then John tweaks it.

**WC:** To add to Brandon's comments, we bring John an informative stage and raise it to a specific point. In this way we can help with the decision making process at the lower level. We bring in all the members of the performance team and discuss in a roundtable style so that all have input and the decision is agreed upon by the group.

**JW:** The first person I talk to in the morning is the athletic therapist. I find out who can or cannot practice and who is limited. Then almost everyday I meet with Brandon as to who needs what help in specific areas of development. This is a two-way dialogue because he is asking me as well. How is so and so moving, etc.? We have had some significant, positive performance changing based on physical breakthroughs as a result of this dialogue, which is what it's all about. We may have a small meeting about recovery coming off an injury. This includes the athletic therapist. We decide what is realistic to prevent injury again and what Brandon's role is going to be in that process. The meeting might be with Lynsee and Brandon about a nutritional issue as it may relate to performance. It all comes back to the individualization part and not treating all the players the same. They are the experts and have an idea of what we want on the field. We try to keep the line of communication as open as possible and that's a hard thing to do.

**PC:** To follow up on your term of physical breakthroughs, how do you identify these breakthroughs? Was it part of your Functional Screening process?

**BR:** It all starts on the field. If a player looks great on the field, we don't care what her Functional Screen looks like. We use the functional screen to identify limitations which are inhibiting performance on the field. The Functional Screen allows us to hone in on our problems. For example, a player might be great agility-wise, maybe one of the quickest on the team in terms of lateral speed and change of direction. But if the player lacks the ability to repeat these bouts we will be able to identify the problem as such using the functional screen rather than mistaking the issue for an agility deficiency.

**WC:** The thing that has excited me about all this is that Brandon and I have been talking about this since December of last year. Beyond the Functional Screening we wanted to create a more science-based approach to what we do. To be fair, all the programs I've been associated with there were tests at the start of the season that were nonfunctional. There were strength coaches in the past that were big on benchmarks in the weight room, some of which was transferable. What was missing was documented records and making decisions not just on observations and intuition, but also based on a scientific approach. What we have accomplished in the last six months with monitors, Functional Screening and individualized programming is tremendous. We may not have all the answers but we know a lot more about our kids and our program today than we ever have and we will know a lot more next August on the first anniversary date of this holistic approach. As we go into the preseason this year, we'll have a lot more documentation on demands we face and how to space these demands to max out every kids' performance. This takes a lot of the bias out of it, which is a result of using coaching intuition.

**BR:** We are trying to make everything as objective as possible. We let the data speak for itself. Everyone on the performance team has access to the Functional Screening profile to insure the success of this non-biased holistic approach.

**PC:** This is cutting edge information. I thank you three for sharing your ideas. Any final thoughts?

**BR:** For other strength coaches who work with soccer at various collegiate programs you probably work with many other sports including the ever-dominate football. These "other" sports have to feel that you are giving them your undivided attention. The players see me here in the office working with John and Wally. It means a lot to them and how they respond. Also, as Wally says, the assistant coaches act as facilitators. The reality is that there will be obvious times when the strength coach can't be present but our assistants
Approach:
- Consistent communication among soccer coaches, strength coaches, sports medicine and nutrition
- Individualized training as determined by assessment profile
- Open communication with athletes in terms of program design and expectations
- Style specific training (e.g., fitness/repeatability)

Training Emphases:
- Acceleration
- Repeatability
- Agility
- Top-end speed
- Hip mobility

General Overview: Program Design by Phase *individualization results in great variability among players

Spring:
Pre-spring season (work capacity- hypertrophy)
Spring season (strength- power)

Summer:
Rest (Off)
Development (Work Capacity- Hypertrophy- Strength- Power)

Fall:
Pre-Season (Fitness/Repeatability)
In-Season (Maintenance)
Post-Season (Maintenance)
Off-Season (off)

The training year begins in January with a functional screen of each player.

Tests:
- Flying 10
- Flying 40
- Ability run
- Vert. jump
- Broad jump
- Back squat
- Hang clean
- Push-up
- Pull-up
- fitness
- Single leg vert jump
- Single leg repeated broad jump
- *core strength
- *balance
- *proprioception
- Body composition

*all of these are proxi-variables for on-field performance and are treated as such

On-field performance evaluations in combination with test results allow us to create an assessment profile for each player with input from soccer coaches, strength and conditioning staff, medical staff and the sports nutritionist. Long-term goals and short-term progress points are determined on an individualized basis and thoroughly discussed with each athlete to ensure understanding of expectations.

Re-test for progress end of February-early March, end of the spring semester, end of summer and on an as needed basis.
While a specific underline progression is in place in terms of program design, this periodization is meaningful for only for about half of the players as individualization is our focus.

Side Notes:
- We use a metabolic circuit to increase lean body mass
- We believe in single-leg exercises as most of the game is spent on one leg
- We believe in a full-body activation routine with an emphasis on glute activation and range of motion rather than a simple "warm-up" per se
- We use a treadmill for conditioning purposes, always in interval fashion
- We seek to improve upper-body strength to weight ratio rather than absolute strength
- We try to make training very organized, high in intensity and competition, and with as little time wasted as possible

Seamless Series: Integrating Plyometric Training to Improve Soccer Conditioning and Skills

Dan Minutillo, Head Coach, Leland High School

Having a conditioning coach who is intimately familiar with plyometrics and willing to work with the head soccer coach in order to integrate plyometric training seamlessly into the soccer program is no longer a luxury but a necessity if the goal is better player performance and injury prevention.

After 20 years of coaching soccer, without a doubt, I’m convinced that plyometrics is the most effective and efficient way to quickly increase power and explosive speed on and off the ball without risking player injury which often follows traditional weight training methods. The seamless integration of plyometric training into a soccer program at any level from youth to professional is simple so long as the strength and conditioning coach is familiar with various plyometric techniques FOR SOCCER PLAYERS and so long as that coach is willing to work to integrate these techniques into a head coach’s general soccer training program. Resulting integration requires COMMUNICATION, DEMONSTRATION, UNDERSTANDING, AGREEMENT, and then INTEGRATION.

The purpose of this article is not to lay out a plyometric program for soccer coaches but to show how a conditioning coach, familiar with plyometric training, may be able to seamlessly integrate plyometric training into a head coach’s chosen soccer curriculum.

What is plyometric training? Plyometrics are physical exercises designed to quickly enhance powerful, quick body movements and to improve the nervous system for the purpose of improving athletic performance. Plyometric movement forces muscle overload and muscle contraction using jumping, leaping, hopping and bounding using bodyweight as resistance. The dynamic power of the muscle is increased by lengthening (eccentric) and shortening (concentric) muscle contractions specific to the exercise used during plyometric training. The plyometric exercise chosen by the conditioning coach must be specific to soccer performance and integrated at the appropriate training interval (phase) for maximum player benefit.

Plyometric exercise involves three distinct phases of movement. One, the eccentric muscle movement stage, or push off at which time the muscle is lengthened and elastic energy is created and stored in the muscle exercised; two, the time between the end of this eccentric muscle action and the beginning of concentric muscle action (muscle stretch to muscle contraction called amortization); three, full muscle contraction. Simply put, the muscle explodes, holds, and contracts creating power while also training the applicable parts of the body’s nervous system.

COMMUNICATION, DEMONSTRATION, UNDERSTANDING, AGREEMENT, INTEGRATION

The first step to incorporating seamless integration of plyometrics into a soccer curriculum requires that the conditioning coach and the head soccer coach talk about the type of plyometric exercises to be used by the conditioning coach (intensity and efficiency issues); the best phase (pre-season, in-season, post-season) of the soccer program to utilize plyometric training and the best time during training sessions to use plyometrics (timing issues); and to come to an agreement and then work together to integrate plyometrics into the program curriculum.

How is this done? First, regarding intensity and efficiency. The conditioning coach merely instructs the head soccer coach and other relevant coaching staff by explaining and demonstrating the purpose behind each plyometric exercise to be used during various phases of the program. The conditioning coach explains how a certain plyometric activity works and how that activity will benefit individual and team performance during various phases of the season; and then demonstrates using live examples of the plyometric exercises to be used during the year. The conditioning coach explains the differences in intensity from one plyometric exercise to the other; the strategic purpose of each plyometric exercise; usual player improvement adaption time; and shows a normal plyometric progression over the course of a season or phase of a season.

At this point, the conditioning coach is teaching the other coaches by explaining and demonstrating so that all members of the staff can make an informed decision about which plyometric exercises to use during the season, during a phase of the season, or
at a particular training session. Prior to implementing plyometrics into the overall soccer program, there must be agreement on the plyometric portion of the program. This agreement cannot happen without an understanding of basic plyometrics by the head coach and, more importantly, by explanation of the conditioning coach’s vision of how a plyometric program will work into the head coach’s overall training regime.

To make sure that this point is clear, for example, some extremely intense but short duration plyometric exercises will create pure explosive speed on and off the ball in the well tuned athlete in-season while other moderately intense, longer duration plyometric exercises will have the same effect in the early stages of pre-season when the athlete is just starting to get into the rhythm of training and has more time to devote to plyometrics because the athlete does not have to be concerned with getting ready to play an important game on a certain day of the week. Shifts in plyometric intensity and duration of exercise will help ensure that an athlete avoids injury during different parts of the soccer season.

By explaining and demonstrating the different types of plyometric exercises and noting how various exercises can be used at different times during the season and the effect that various exercises will have on the athlete, an informed decision about which exercises to use when can be made by the head coach. More importantly, the head coach may want to change the type of plyometric exercises used during a season in order to fix one very specific physical issue experienced by the team or by one individual on the team. Those issues may change during the season meaning that the conditioning coach may need to use different types of plyometric exercises to accommodate the weaknesses pointed out by the head coach at different times during the year.

The more difficult part of seamless integration of plyometrics into a soccer curriculum relates to timing issues. I taper plyometric training during the “in-season” part of training and use it heavily during the pre and post season. I taper during “in-season” training so that I have time to incorporate anaerobic conditioning exercises in-season to easily maintain high fitness (conditioning) levels without injury. So, my preference is to use plyometrics in the pre-season and post-season. I ask my players to completely rest during the off-season which follows our post-season activities. A frank discussion among coaches will quickly resolve this timing issue without much argument so long as the conditioning coach has demonstrated, as mentioned above, that plyometric intensity levels vary from exercise to exercise and can be worked into different parts of the season depending on the desired results of the head coach.

Once the types of plyometric exercises to be used and the part of the season they will be used has been decided, then to the most difficult part of the integration process—will plyometric exercises be used at each training session, occasional training sessions, and at what part of the session to ensure minimal injury and adequate energy levels to not hamper the tactical and technical parts of the training session. To make these decisions and to ensure seamless integration into the soccer curriculum, all coaches must be involved in the discussion, head coach, assistant coaches, keeper coach and the strength and conditioning coach. These decisions will affect each part of the soccer program so each coach must be involved in the decision.

A few suggestions, if it is decided to use plyometric training as a small part of each and every training session and off the ball aerobic or anaerobic running is also used to condition your team, do plyometrics before the running to avoid an overload of lactic acid accumulation in the muscles during the running portion of training and to avoid injury, though your conditioning coach would know best. If the plyometric training will only take place at periodic training sessions, use longer more intense plyometric sessions at the end of the training session and avoid the off the ball running part of the training regimen on the training day chosen. In any event, allow the conditioning coach to choose the plyometric exercises to be used considering the head coach’s stated goals for such training.

I have seen coaches successfully interweave plyometric training at different times during a single training session like after a possession oriented small sided game but before a less intense shooting or finishing exercise, without tiring players to a point of degrading the intensity of the technical part of the session. Either way, you can seamlessly integrate the plyometric portion of training with the tactical and technical portion of the session but the conditioning coach and head coach must agree on when plyometric training will be used and the level of exercise intensity.

No matter how you incorporate plyometrics into the training session, the conditioning coach must be present and lead that portion of the session so that he or she can monitor progress and ensure that the players are not overworked considering what was done before the plyometrics portion of training and considering the existing fatigue level of the players based on work load, part of the season and other factors which will be obvious to the conditioning coach but possibly not so obvious to the head coach. The conditioning coach should design, monitor, record, start and conclude each plyometric session. The conditioning coach’s opinion about fatigue levels, progress and effectiveness of the plyometric training should take precedence over the opinion of the head coach or assistants.

If it appears that the players are not satisfactorily benefiting from plyometric training, at that time, the head coach and the conditioning coach need to discuss possible changes to the type of plyometric exercises used or the length of or intensity of that part of the training session. In other words, so long as the entire training session has seamlessly integrated the plyometric portion of the session into the entire session, the head coach can stay out of the process unless progress is too slow or injuries too frequent to the head coach’s liking. It should be clear at this point, why it is so important for the conditioning coach to take time before the season begins to explain plyometrics to the head coach as noted in the first part of this article.

In summary, it is important that the conditioning coach communicate with the head coach about plyometric technique; about the effects of plyometrics on the athlete; reach agreement with the head coach about the components of the plyometric program to be implemented; and then the seamless integration of a plyometrics program into the head coach’s general soccer program can follow.
**T-7 Team Position**

This T is for programs that are more advanced in their development. The training need of a keeper are different than the midfielder. The basic strength/power program is basically the same for all positions but variance occurs in movement patterns and the conditioning demands. This requires more specific training. This is a coaching choice based on the other 6-Ts.

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**Soccer Roundtable: Ask the Experts, Topics: Position Specific Selection, Conditioning**

Q—At what age, level of skill and/or physical abilities should a soccer player start to specialize in a specific field position?

Please give practical on the field indications of skills and/or physical abilities that would steer a player into a specific position. Please list for each position categories you look for based on your tactical beliefs.

It is important that we develop soccer players, and that young athletes become as competent with as many aspects of the game as possible. Therefore, during their formative (ages 13 and under) years, players should not be confined to specific positions, but rather get experience at the many different requirements and concepts of the game, including goalkeeping. This is not to say that a coach should rotate players to different positions game by game, but rather the coach should give all players the opportunity, through games and training, to learn and become experienced at the varying positions on the field.

I have had many players on my ODP Regional Teams and college teams who end up playing positions different from the position they played for their high school, club, and/or ODP state teams. It is this versatility that probably plays a part in them reaching the level that they have attained. Additionally, this versatility makes these players valuable assets to the teams they play for.

In terms of goalkeeping, I think that specialization can begin around 13-14 years of age, since the athletes are beginning to mature physically and mentally, and are gaining the strength and motor coordination required by the position. Although I think that the players should continue to gain experience at all of the positions on the field, I think that they could start settling into specific positions as they are reaching 15-16.

The positions on the field can be broken down into 4 basic categories: forwards, central midfielders, wide midfielders, and defenders. Forwards should be both-footed, good dribblers, players who are willing to take chances and shoot from any and all body positions, and are able to control the ball in tight spaces. They should also be skilled at playing with their backs to the goal. Central midfielders should be players who possess good vision and read the game well, are accurate passers and are good at turning with the ball. Central midfielders should also be players who are capable of moving forward and joining the attack. Wide midfielders should be players who are quick and have great stamina, can dribble well in the open field and are aggressive. Also, wide midfielders should be good at crossing the ball. Finally, defenders should be those players who can head the ball well, who are good at individual and small group defending and who will attack the ball. Height is a plus for defenders, as is the ability to create rather than just to destroy attacks.-John DeWitt

Six to ten year old soccer players have fun while developing their basic skills. Ten to fourteen year olds expand upon and enhance their basic skills. The fourteen to eighteen year olds focus on performance training while preparing themselves for college or professional play. Therefore, around the age of 14, coaches and players can begin to see where a player might best be suited. Although there no are hard and fast rules, there are physical performance tests that can be administered enabling the coach and the player to see where they might best be suited.

We use the following tests to measure athletic potential.

1) The ten meter electronically timed sprint test gives an indication of one’s acceleration or quickness to the ball. I also utilize the twenty meter sprint test, which gives a good look at one’s soccer speed. The twenty meter distance is the most common long distance sprint that players run in a game. Seldom do players have to run an all-out sprint further than twenty meters.

2) I also test agility using the 10 yard by 10 yard T-test drill. This measures forward, backward and lateral components which are all applicable to soccer.

3) To assess aerobic ability I use the YO-YO Test. I use the level one endurance test and see how far the athletes can run before they fatigue.

4) I use the vertical jump measured on a Vertec measuring device to assess leg power.

5) The last test that I administer is the 300 yard shuttle run. The athletes run it twice with a two minute rest between runs. I want to see how quickly they can perform it, what their average time is and their fall off from trial to trial. The 300 yard shuttle measures one's anaerobic fitness, which is important to soccer.

In addition to the fitness tests to measure athletic potential, I perform the following skills tests.

1) I conduct a slalom dribble test for time.

2) The athletes also perform a juggle test with head only and tally up their highest score in 2 minutes.

3) A passing test is given where an athlete must dribble the first of ten waiting balls, pass it to a target and run back for the second ball and repeat. Only 30 seconds are given to perform this test. I tally how many successful passes they make in the allotted time.
4) Finally, I conduct a shooting test for time with a server against a goalkeeper. The athlete receives 30 seconds to shoot as many passes as possible directly from a server. After all these tests have been given I do a 1:1 ladder. All players are randomly placed on a field to play against another player. If there are 30 players you need 15 fields. The games last one minute and the players rest three minutes before they play the next round. The winners move up the ladder, the losers move down. Eleven rounds are played and the wins and losses are tallied. If games are still tied at the end of one minute, players continue until the next goal is scored.

How do all these tests relate to positions? Players that score well on the skill tests are placed in the middle positions such as sweeper, central midfield and center forward. Players that are fast play in defense or the forward positions. Players that have good aerobic capacity play in midfield. These are generalizations, but they give us some indication where a player might best be suited. Finally, a lot depends on the personnel that you have. All things being equal, we look at skill first, with speed a close second. Aerobic and anaerobic fitness are the least of our concerns. Skill takes the longest to develop, and speed is something that you have or you don't. The other fitness parameters are highly trainable and can be markedly improved in a relatively short time. -Michael Thyron

Q—If a player is unsure that the position you have selected is right for them, what methods would you use to convince the player and their parents?

This can be a dilemma that makes life difficult for the coach and the player, since the coach is doing what he/she thinks is best for the player and the team, and there are times that the players and/or their parents will disagree. I would first suggest, assuming the player is mature enough, that the coach attempt to solve this problem in a one-on-one discussion with the player. Although it might be the parents who disagree with the coach's positional decision, if the player understands the coach's viewpoint, the coach's argument could become stronger. When speaking with the player, the coach might take one of the following approaches, or possibly both:

1) This is the best position for the player based on the player's strengths; or
2) This is the best position for the player based on the team's needs.

In situation 1, the coach is appealing to the player by explaining, in a positive manner, why the player should be playing the position. The coach could cite certain attributes that the player is very good at which makes him/her suitable for that position. The coach could also speak about how the player is the best on the team at those attributes which are important to the position. Finally the coach could explain how playing the new position will make the player a better and more versatile athlete.

In a variation to this approach, the coach could ask the player to explain what the position requires, and then ask the player what he/she excels at. Thus, the player may convince themselves that the coach has made a good decision. In approach two, the coach would explain that because of the needs of the team, it is best for the group that the athlete plays this position. It is important that the coach does not make it sound like it is a sacrifice for the player, but rather that in order for the team to function at maximum levels, we all have to accept our roles. Everyone's role, no matter what it is, is very important to the success of the team.

As I stated earlier, this can be a very difficult situation for the coach and the player, especially if the conflict is driven by the parents. No matter how the coach chooses to handle the situation, the one thing that I would recommend is that the coach be fair and open to the discussion about the issue, but also firm in his/her final decision. If not, the coach may find themselves in this situation with every player on the team. -John DeWitt

We use several methods. First, we show them how they compare with other athletes per position. We create a depth chart that ranks them with others per position. Last, we always give players an opportunity to play the position they really want, which gives them the opportunity to show us, as well as themselves, how they can perform. If they do well, and we like what we see, they will get a chance to play that position in a future game. -Michael Thyron

6 Principle of Keeper Conditioning and the Exercises to Improve

Tom DeNigris

Is the Coaching Director of the Colts Neck (NJ) Soccer Club, one of my duties is to run a training program for the club's goalkeepers, young boys and girls who range in age from 8 to 15. As the Director of the TSFT “High School Select” program, I also work with goalkeepers aged 15-18.

The only difference in the training of these two groups is the intensity that my staff and I expect from the individual players. We run the same drills for both but, obviously, require the older goalkeepers to do more repetitions and more sets. Admittedly, our goalkeeper training philosophy at Total Soccer Fitness & Training emphasizes technique above all else. Good technique can make up for a lack of tactical knowledge.

Still, we include fitness and endurance in our entire goalkeeper training. We have the Total Soccer Fitness & Training’s “6 Learning Principles of Goalkeeping” which we use as our guide to train all age groups.
The 6 Principles are:
1) HANDS (Technique): catching or deflecting the ball;
2) FEET (Fitness): lateral and linear movements; jumping;
3) BODY (Technique and Fitness): Diving, positioning;
4) THE GK AS FIRST ATTACKER (Tactical): distributing the ball;
5) THE GK AS THE LAST DEFENDER (Tactical): Facing the breakaway or the penalty kick;
6) ORGANIZING & COMMUNICATING (Tactical): setting the defense.

Because we believe in having players master the basic techniques, we always start a typical goalkeeping training program with a basic, easy warm up; generally, all the goalkeepers have a soccer ball and toss it in the air, jump up and catch it, all while hollering out “Keeper”! This would be followed by a fun three-drill stretch:

**Figure 8 Rolls on the Ground:** Goalkeepers spread feet wide apart and bend at the waist and then roll the ball on the ground around and through their legs in a Figure-8 fashion for 30-60 seconds.

**Figure 8s Above the Ground:** Again standing with their feet wide apart, the goalkeepers now move the ball around and through their legs with the ball above the ground.

**Drop-Catch-Switch:** With their feet now just slightly wider than hip width, the goalkeepers hold the ball with one hand in front of the body and the other hand behind the body. They then drop the ball and attempt to catch it with one hand while switching their hands (the hand in front moves to the back and the hand in the back moves to the front) and not letting it hit the ground.

We would now move into a more intense fitness activity, such as ladder, ring or hurdle runs. After “Hands” we think footwork is the next most important concept. And we like to have our Keepers do as much lateral movement as possible. Since keeping the body facing the field or centered to the point of attack is critical to good goalkeeping, emphasizing this during a lateral movement drill is important. For example, one of our warm drills is one we call, simply “Lateral Rings & Hurdles” (Figure 1).

This drill will properly warm up the players who would then move into a dynamic stretch routine.

Like with our field player training, we like to follow the “Warm Up” phase with a “Speed, Agility & Quickness” phase in our goalkeeping session. We design most of our drills to have the capability of being performed both with and without the ball. In the case with our Keepers, we will perform the drills first without the ball and then, if necessary, we will add the ball during the “Technical” phase.

Following are some examples of drills we use in this phase of our session. The “GK Small Box” Drill (Figure 2). Here the Goalkeepers have two different movements. The first is a basic forward/backward movement. One of the tactical points we emphasize is moving forward toward the ball when in a save position. This first run of the “Small Box” drill coaches that. The box, as you can see is small; only three yards by three yards. One Keeper starts in the center of two cones and at command steps forward and backward for a certain amount of time (generally 30-60 seconds). As mentioned before, we stress lateral movements with our Keepers so the second run in this drill requires side-to-side movement.

In keeping with the concepts of stepping forward and moving laterally, the “Explosive Movements” drill is one we use quite often in the off-season and quite frequently in-season. Similar to our “Quick First Step” drill, the “Explosive Movements” drill (Figure 3) can be one of the more intense drills depending on how many jumps or movements we require the Keepers to make.

Since jumping is a goalkeeping necessity, the “5-Hurdle Hop” drill (Figure 4), is an excellent way to get the Keepers to become more – and here is that word again –
As the season approaches and during the first half of the season, we like to combine technical aspects – catches, deflections, and dives – with fitness aspects. In other words, we take some of the drills we use in our “Speed, Agility and Quickness” phase and add a ball to the process. An example would be our “Pyramid” Drill (Figure 5). In the “Speed, Agility & Quickness” phase, we’d have the goalkeeper line up in the center of the goal and at the coach’s command, sprint straight out toward the coach, assume the proper Goalkeeping stance, slide four yards to the left, slide back eight yards to the right, backpedal back to the starting position. This sequence would be repeated for 60-90 seconds. Then the second goalkeeper would run the drill. For younger players we use no more than three Keepers at one time so the rest/work ratio is 2:1. With our older group, we use two goalkeepers.

Another way to run this without the ball, would be to have the goalkeepers start in the middle of the goal and then, at the coach’s command, sprint out diagonally right or left, along the cone line, stop, then slide right or left to the near post. Again, this would be done for 60-90 seconds.

The beauty of this drill is how easily we can add the ball to the process and make this a technical/fitness drill. (See Figure 5 for description on how to utilize the ball).

As with any intense drill, we always have the goalkeepers stretch after performing the entire drill. Even our Under-8s, Under-9s and Under-10s are required to stretch. It’s a good way to get them into the good habit of stretching.

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Figure 3

“EXPLOSIVE MOVEMENTS”

**STEP SEQUENCE**

Goalkeepers start in the proper stance, feet shoulder width apart, hands in ready position.

**STEP 1 -- Forward**
- Jump forward off left foot, landing with right foot first; stand in GK Ready position; push off right foot and land back in the starting position, landing left foot first. Repeat, this time pushing off right foot, landing left foot first and then back pushing off left foot, landing back at start with right foot. repeat this process for 10 total jumps.

**STEP 2 -- Laterally Left**
- Jump laterally left, pushing off left foot, landing on the right foot first. Emphasis should be on Goalkeepers facing forward at all times. When jumping back to start, push off right foot, land on left foot. repeat for 10 jumps.

**STEP 3 -- Laterally Right**
- Jump laterally right, pushing off right foot, landing on left foot first. Jump back to start by pushing off left foot and landing on right foot first. Repeat for 10 jumps.

**STEP 4 -- Putting Them All Together**
- Jump forward and back; to the right and back and to the left and back this equals one repetition. Do three sets of five reps, resting 60-90 seconds between sets.

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Figure 4

“5-HURDLE HOP”

**DRILL SET UP:**
- Place 5 hurdles as shown above.

**DRILL RUN:**
- Goalkeepers make five jumps as follows --
  - Forward
  - Right
  - Forward
  - Left
  - Forward
- Return (blue arrow) through the hurdles going forward, left, forward, right, forward.
- This equals one repetition.

**COACHING POINTS:**
- With young goalkeepers, allow them to pause between each jump.
- Under-15s and older should make all five jumps without a pause.

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Figure 5

“PYRAMID” DRILL

**DRILL SET UP:**
- Place Cones in an upside down pyramid formation as shown above, cones should be 1 yard apart, starting 2 yards from the goal line, extending out to the top of the 6-yard box.
- Goalkeepers start in the proper stance, feet shoulder width apart, hands in ready position, about 1 yard off the goal line.
- Coach has 8-10 soccer balls at the ready.
- At coach’s command (taps foot on top of ball), the first goalkeeper quickly steps forward in the “gorilla” stance, hands at the ready. Coach kicks ball at the last cone on either side. GK makes explosive lateral step or dives to get ball.
- Second GK moves into starting position as soon as first GK steps forward.
- Drill continues until each GK gets 4-5 attempts.