



Youth Sports Training – Flaws and How to Fix Them

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As a Strength and Conditioning Specialist, I am a firm believer in the benefits associated with a sports performance program (strength, speed, agility, power, and flexibility) for youth athletes. However, many youth athletes today are receiving inadequate training. I am not speaking about the youth athletes who receive zero sports performance training, which is a high percentage of young athletes. Instead, I am referring to those youth athletes who are training with programs that are full of flaws. For youth athletes, an inappropriately designed training program could be potentially more harmful than no training program at.

Let us start with a classic example. When I was training in the San Diego area, I spoke with a high school coach who told me he was not interested in the training services from a professional strength and conditioning coach because his varsity athletes were following the same program that USC football implements. This was interesting to me: Young developing athletes were using the same strength training program as some of the most athletic men in this country. The program USC strength coaches develop is intended for grown men. Most, if not all, recruits coming into a school like USC have a well-developed strength training base. Common sense should tell you that a young 15-18 year old athlete could not handle the same workload as an 18-24 year old athlete. The weights were obviously different but the structure of the program (exercises, progressions, and volume of work) was identical according to the coach. Here is another thing to think about - every Division I college hires a strength and conditioning coach whose primary job is to make athletes bigger, stronger and faster. They have the knowledge and practical experience to teach athletes complex movements and minimize injury. Many high school coaches have some background in sports performance from when they played sports, but more than likely they don't have the same education and credentials as a strength and conditioning coach. The main point is that these high school football athletes need a program specific to their goals and these needs might not be addressed by training with a program intended for college athletes.

Many youth athletes are participating in cookie cutter programs that are very generic and may not address the specific needs of every athlete. Coaches that implement these programs usually take ideas straight from another source without considering whom these programs are designed for. Certain exercises may be creating further muscle imbalances and can lead to injuries down the road. A great example of this is all the advanced lower body strength training exercises coaches prescribe because they read about them on a website or in a book. However, most youth athletes cannot execute perfect body weight squats. These advanced exercises, if not preceded by basic movement patterns, may alter lower body mechanics that are crucial for sports actions such as decelerating and changing direction. The lack of movement pattern preparation is one reason for all of the knee (ACL, MCL, and Meniscus) injuries in youth athletes these days.

Take home message: At the younger levels, basic movement patterns should make up the majority of the training program. At the more elite levels, it is appropriate to incorporate more complex and integrated movements. Finally, coaches and parents need to make sure they are implementing safe and effective exercises for their athletes.

Part II

In the second part of this article, I will address factors that must be considered when designing and implementing a sports performance program for youth athletes.

Sports Performance Programs Should be Based on:

○ Training Age of the Athletes

- Young athletes who are just starting a lifting program need to develop a structural base. It would be appropriate for beginner athletes to learn simple movement patterns in the weight room such as squatting, pushing, pulling, and rotating. Once these movements have been adequately developed, the training program should become progressively more difficult.
- Example 1: Start with body weight squats and make sure the athlete is able to control their body through the full range of motion. Next, incorporate dumbbells to movement, this will provide an added stimulus but not load the spine like a bar resting on your shoulders. Then you can move to barbell exercises such as front squats, overhead squats, and back squats.
- Example 2: An athlete should be able to do push ups with good form before they are allowed to do chest press exercises such as barbell bench press and dumbbell bench press.
- Example 3: A boys freshmen basketball team should have different strength training goals compared to the varsity boys basketball team. Even though both teams are comprised of male basketball players, there is a dramatic difference in the physical make up of freshmen players versus varsity players.

○ Specific Goals

- Each athlete and team should have specific training goals that would enhance performance in their sport if these goals were accomplished. Goals may change during the course of a training period. In fact, programs need to have built in variation and training blocks that have specific goals within each block of training.
- Example: A major goal for most field/court sport athletes is to increase their power output. During a specific block of training (4 weeks of the total 12 week training program), it would be appropriate to address this specific training variable. This “power” training block may include the addition of Olympic lifts, plyometrics, and other high velocity movements such as medicine ball work. It is important to blend in other training variables into this specific block also such as stability and mobility. The goals from each training block should work cohesively together to produce a more efficient and successful athlete on the court or field.

○ **Sport**

- Before a sports performance program is developed, the specific sport should be analyzed. It is important to know what the predominate movements are within the sport, so that the training program can optimize each athlete’s potential with each specific movement. However, it is important to note that specific sports movements should not necessarily be replicated in the weightroom. Instead, the training program should only include exercises with the greatest transfer to a particular sports movement.
- Example: If I am going to train volleyball athletes, I need to realize there is a lot of overhead hitting in the sport and I should design a program to enhance that particular skill. I would include exercises to strengthen the connection between the powerful legs and core, shoulder girdle, and arm. However, one exercise that would be inappropriate to implement in the weight room would be to have athletes take light dumbbells and mimic their hitting stroke. The kinematics and kinetics between hitting a volleyball and mimicking a volleyball hit with a dumbbell are vastly different. Instead, it would be more beneficial to include a dumbbell snatch or barbell jerk to increase hitting power.

○ **Weakness/Strength of Athletes**

- If an athlete wants to excel at his/her sport it is important to improve their weaknesses. This is the same case when designing a sports performance program. If an athlete were really strong but not as quick and explosive, it would be more beneficial for this athlete to incorporate drills and exercises to improve their power output.
- Example: Most short distance track athletes are extremely fast and powerful. However, a limiting factor for a track athlete may be their lack of flexibility. It would be extremely important to incorporate dynamic mobility exercises into their sports performance program, even if that means cutting back on some of the strength training exercises.