

What Every Parent and Youth Coach Needs to Read!

The information in this piece is powerful and for most readers, unknown. This paper is a compilation of scientific studies of what we believe to be some of the leading research in the industry today. As parents and coaches of young children we want to deliver this critical developmental information in a concise and easy-to-understand format. We at the Connecticut Speed School believe whole-heartedly in this approach to training young athletes based on our own empirical results. We have seen the improvement in our athletes as young as 5 years old! Please read this piece carefully and with an open mind.

Long Term Athlete Development (LTAD) Model

The Long Term Athlete Development (LTAD) model is a specific framework for an optimal athletic training schedule for youth through stages of their childhood and adolescence. In many countries the principles of this research have been adopted for the proper management of youth and adolescent growth and development processes. The LTAD model identifies critical periods of accelerated adaptation to training. These periods of development represent the time when children are ready and able to develop fundamental athletic skills and abilities such as running, jumping, accelerating and decelerating. Developing relative body strength and explosive strength are also critical components of what we call our "foundation of fundamentals." In addition children are able to improve their speed, agility and balance.

Did you know there are two important windows of opportunity to develop speed, with boys and girls being different? The first window for boys is between the ages of 7-9, for girls 6-8. The focus at this stage is agility, quickness, change of direction, linear, lateral and multi-directional speed. The second window of opportunity for boys is between 13-16 and girls 11-13.



Mobility and flexibility is another important component in our "foundation of fundamentals." Research shows the optimal time for both boys and girls to begin mobility and flexibility work are between the ages of 6-10, then again during what is called peak height velocity (for girls 12 years old and for boys, it's 14).



Now research shows that during these windows of opportunity children can actually "convert" "intermediate" muscle-twitch fiber into fast-twitch muscle fiber. Apparently children are born with a certain amount of intermediate muscle twitch fiber. This intermediate muscle fiber will eventually turn into either fast- or slow-twitch fibers. Based on a child's training, if any, the intermediate fibers can be transformed into fast- twitch as opposed to slow-twitch. Obviously genes play a major role in a child's ultimate muscle-twitch makeup but proper training at the appropriate times can make a significant impact on the longer term athletic development of children.

Do you know any young athletes that spend hours upon hours in a batting cage but have poor relative body strength, poor work capacity and/ or lacks proper running form? Be honest! Our society is putting the horse before the cart as the saying goes. The strong emphasis on outcome (winning) as opposed to process (skill development) should be seen as a shortcoming IN YOUTH SPORTS. There is an enormous void in today's development of young athletes. Here is an example, your son (who you know after reading this piece is lacking the foundation of athletic fundamentals) gets a single to win his 8-year old baseball game. By all accounts it is a great feat and one that he'll remember for a long time! As his parent do you help him to address his weaknesses and to properly develop that foundation or do you celebrate the win as the ultimate outcome goal and continue to put your child in a position where he may not develop his athletic potential to the best of his ability?

The Connecticut Speed School developed age-appropriate athletic development programs that coincide with our children's accelerated adaptations to training, or in other words their windows of opportunity to improve speed and overall athleticism. The bottom line is that our "foundation of fundamentals" should be developed early on and throughout a child's life to put them in the best possible position to reach their full athletic potential. The main premise of the Connecticut Speed School is to put our student-athletes in the best possible position to take advantage of life's opportunities!