

Club Sports Condundrum

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The current climate of club sport, in combination with school sport, in Southern California is one in which the majority of athletes are being placed under a degree of physical stress that their bodies are unsuited to handle.

The common scenario is one in which the calendar year is constituted by the sequential practice, competition, and camp periods of club and school sport. As a result, the opportunity for a general preparation stage is obviated and, consequently, only the most genetically gifted players are capable of experiencing significant advancement of sport skill.

The majority of youth sport competition results hinge heavily upon the physical preparation of their players. For this reason, a young athlete with a high all around level of physical preparation, who has never played a particular sport, possess the prerequisites to quickly become the most skilled player on the team (particularly regarding land based sports) after participating in only a moderate amount of skill practices. This comes much to the dismay of the lesser physically prepared athletes who diligently hammer away at their, what in reality exists as, self-limiting skill practice.

The lesser physically prepared athletes actually, and ironically, further diminish their potential to advance their skill the more they practice it. Technical-tactical skill is only as good as its supporting physical preparation. In short, it doesn't matter how much you practice regardless of how high you can't jump or how fast you can't run. Furthermore, the repetitive practice of sport maneuvers that are not executed with mechanical efficiency only serve to further stress the structures of the body that are already ill prepared to handle the load placed upon them.

Consider girls volleyball, soccer, and water polo:

A multitude of physically underdeveloped young athletes participate in yearlong sequences of club and school practice and competition calendars. Most plateau very quickly because as soon as they become proficient in the basic skills from a technical standpoint, any further improvement is hindered by their lack of general preparation. As time moves forward the stress of repetitive technical maneuvers outshines their physical structure's ability to sustain the load placed upon it and injuries are soon to follow because:
In girls volleyball:

- The muscles of the legs are not developed enough to sustain against the impact of multiple jumps, landings, and acceleration/deceleration in general
- The muscles constituted by the shoulder external rotators become lax and weak due to the excess volume of shoulder internal rotation and superior rotation of the scapula associated with serving and hitting

In soccer:

- Similar to volleyball, leg and hip girdle development is insufficient to handle the stress of running, cutting, and changing direction (all aspects of acceleration and deceleration) and sooner or later the existing level of physical preparation yields to the stress placed upon it.

In water polo:

- The degree of shoulder internal rotation and superior scapular rotation is more prevalent in comparison to volleyball due to the added dimension of free style swimming.

- In addition, the abundance of time spent training hard in the water creates instability particularly around the hip girdle. In this way, a multitude of lumbar spine issues are common amongst the water polo community and are entirely preventable.

The problem in all cases is that it becomes very difficult to advance the physical preparation of the athletes because they have no off-season. They are practicing their sports nearly 12 months a year and the degree to which they physically adapt and develop based upon the participation in sport alone is directly linked to the genetic material they received from their parents.

The human organism physically adapts to stress as a defense reaction. The body is always seeking balance (homeostasis) and when it is challenged to endure a load that is greater than its existing capacity it adapts in order to survive. The ability for the body to adapt to the load placed upon it is finite, however. Meaning, it can only handle so much and the degree to how much it can handle is based upon a host of factors specific to each individual.

Preparation for sport may be illustrated by a pyramid. The apex is characterized by psychological preparation, the infrastructure by technical-tactical preparation, and the foundation by physical preparation. Like any architectural structure, the height of the apex is limited by the dimensions of its foundation.

General preparation characterizes the foundation of the pyramid and is constituted by the abilities which represent the prerequisites for sport skill acquisition and development:

- Speed
- Reactive/elastic ability
- Power
- Strength
- Balance/coordination/rhythm/relaxation/timing
- Mobility
- Stamina
- Suppleness

When an athlete develops a strong foundation of general physical preparation he/she is at a great advantage to quickly learn the technical-tactical skill of a new sport. For this reason, pre-school and early elementary school athletes who participate in youth gymnastics and swimming, and later in track and field, are exposed to the full spectrum of physical skills and become well equipped to succeed in many other sports.

Technical-tactical skill is developed through special physical preparatory training and in this way the training is more specifically directed towards the dynamics of the sport. Thus, the special physical preparation training for sports is constituted by the further and directed training of elements of general preparation that most closely relate to the structure of a particular discipline. This type of training is constituted by the drills performed in practices, as well as special strength training, which serve to enhance the athlete's skill of playing the game.

The problem with youth athletes participating in the overload of practicing and playing the same sport throughout the year is that the gross majority of them do not yet possess a sufficient degree of general preparation to tolerate, let alone develop from, the frequency and volume of practice.

The worst case scenarios exist as the knee ligament, lumbar disc bulges and herniations, and shoulder labrum and/or rotator cuff injuries that are prevalent among young teenage athletes; all of which are symptomatic of illogical physical loading and most of which are preventable.

The athletes who break even and the ones who are fortunate enough to go uninjured, demonstrate moderate improvement in sport skill, yet are outshined by their physically superior teammates who possess equal technical-tactical skill yet have superior physical ability.

The select few who are the recipients of the requisite genetic material passed on from their parents are the ones who demonstrate substantial skill improvement season after season even if their only physical training is the practice and competition of the sport itself.

In all cases, however, no single population is above benefiting from, and all are in dire need of, a general preparation stage and properly loaded special physical preparatory training.

The root of the mismanaged process of youth athlete development exists as the disappearance of comprehensive physical education programs in our schools and the lack of sufficient coaching and physical preparation qualification standards in the continental United States.

Coaches, physical educators, strength and conditioning coaches and private trainers alike are uneducated in the areas of sport physiology primarily because this area of study is, on the wholesale, not present in the university setting in the US.

Athletes, then, are left to the skill set of their instructors and the absence of a comprehensive coaching qualification system renders long term athlete development a highly unstable process.

In the case of youth sports at the club and scholastic level, it doesn't matter how much or how frequently technical- tactical practice is executed if the athlete lacks a foundational level of physical preparation. Furthermore, even if the physical preparation is in place and/or the athlete is in debt to their parents for passing on the requisite genetic material, the utmost of sport results will not, and cannot, be achieved if the technical-tactical practice load is mismanaged.

The architecture of the athlete's bodies must be built to weather the storm of practices and competitions. The unfortunate reality is that the foundations of physical preparation are too unstable and the winds of the practice and game schedule are blowing too strong.

The solution to this problem will be discussed in part two of this article.