

GEARING UP FOR THE GAME “Youth resistance training”

*Ian Hasegawa, CSCS*D*

In an era emphasizing health and fitness, participation in sport has become an increasing trend among today's youth. With that said, resistance training (free weights, machines, bands, etc.) as a means for enhancing one's performance on the court has seen the same popularity. However, in regards to the youth population there has been much debate between strength & conditioning, health and fitness, and medical professionals.

One point of contention deals with the presumed high risk of injury. “Weight training will stunt your growth” is a common statement heard in regards to youth (adolescent and preadolescent) participation. Fractures to the epiphyseal plate (growth plate) of bone have been a major reason for avoidance even though no scientific data is available to validate this concern. It is important to note that of the few documented bone-related injuries, the weight training session was unsupervised. In fact, musculoskeletal demands while jumping, landing, cutting, and diving during a game of volleyball may be greater than those observed during a supervised weight training session.

Another point of contention deals with the ability of youth populations to actually develop muscular strength. Traditionally it was believed that this was not possible during preadolescence because of insufficient hormone levels. However, recent research suggests that training-induced (strength) gains above those of normal growth may occur in preadolescent individuals in as short as 6 weeks. Furthermore, it seems as though these gains in strength are associated with increased neuromuscular (coordination, motor unit synchronization, proprioception, etc.) characteristics rather than muscle hypertrophy.

Over the past decade there has been a growing body of evidence that supports properly supervised weight training as a safe, effective, and enjoyable activity for children. The benefits of engaging in such a program far exceed gains in muscular strength: increased bone mineral density, motor skill performance, coordination, self-achievement, and body composition among others.

So at what age can one begin to participate in a resistance training program? Many fitness institutions advocate the age of 18. However, in my experience as a strength & conditioning coach I have had athletes as young as 8 years old properly and safely perform weightlifting type movements (snatch, clean & jerk). In fact, the ages found most effective for movement patterning appear to be 9-12 years old. Although, there is no minimum age requirement, a certain level of emotional maturity in order to listen to and follow directions is essential.

In conclusion, the literature points to youth resistance training as safe, effective, and fun. Under the direct supervision of a trained professional, a properly designed youth resistance training program can be a viable method for increasing both sport performance and general activity levels.

References

1. Avery D. Faigenbaum and Jaynie Schram. 2004: Can Resistance Training Reduce Injuries in Youth Sports?. *Strength and Conditioning Journal*: Vol. 26, No. 3, pp.16-21.
2. Avery D. Faigenbaum, Wayne L. Wescott, Lyle J. Micheli, A. Ross Outerbridge, Cindy J. Long, Rita LaRosa-Loud and Leonard D. Zaichkowsky. 1996: The Effects of Strength Training and Detraining on Children. *The Journal of Strength and Conditioning Research*: Vol. 10, No. 2, pp.109-114.
3. G. Gregory Haff. 2003: ROUNDTABLE DISCUSSION: Youth Resistance Training. *Strength and Conditioning Journal*: Vol. 25, No. 1, pp.49-64.