Misconceptions abound over the safety and effectiveness of strength training for children. In the past it was thought that resistance exercises were dangerous for the immature bodies of children and early teens. It was suspected that this could damage the growth plates of the long bones resulting in deformity or developmental damage. Others held to the belief that, since children’s bodies change so quickly strength training was a waste of time as children would naturally get stronger as they grow. While it is true that there is some inherent risk with participation in strength training, a well supervised program does not impose any greater risk than does participation in youth sports or recreational activities. Limited evidence of apophyseal injuries in skeletally immature individuals does exist but these injuries are uncommon and can be prevented by using proper lifting technique. There is no evidence that strength training programs have a negative effect on long bone growth. In short, there is now good evidence that supports the use of well designed strength training programs for children and adolescents.
The American Academy of Pediatrics Committee on Sports Medicine and Fitness recommends a medical exam prior to beginning a strength training program to identify possible risk factors. A training program must be designed so as not to put undue stresses on the growth plates before skeletal maturity. Properly designed training programs will take these factors into consideration. It should be noted that studies have shown that compared to the total number of injuries to children as reported by physicians, relatively few occur to the growth plates.

The National Strength and Conditioning Association current position on “Youth Resistance Training” states:

1. “A properly designed and supervised resistance training program is safe for children.”
2. “A properly designed and supervised resistance training program can increase the strength of children.”
3. “A properly designed and supervised resistance training program can help to enhance the motor skills and sports performance of children.”
4. “A properly designed and supervised resistance training program can help to prevent injuries in youth sports and recreational activities.”
5. “A properly designed and supervised resistance training program can help to improve the psychosocial well-being of children.”
6. “A properly designed and supervised resistance training program can enhance the overall health of children.”

Other organizations that have issued position statements in support of or offering guidelines for strength training and youth are: The American College of Sports Medicine, The American Academy of Pediatrics, the American Orthopedic Society for Sports Medicine.
It is clear from the literature that properly designed and supervised strength training programs are safe for children and for teens. These programs may include the use of free weights, strength training machines (weight stacks and cables or plate loaded), elastic tubing and bands, medicine balls and body weight exercises. The fact that children exercise is not new… they do now and always have through play and sport either organized or at the “sand lot”. Today’s society provides far more opportunity for exercise and, unfortunately, for lack of exercise than any other time in our history. In many cases the challenge is not to protect children from too much exercise but rather to get them to exercise at all.

In Part II of this series I will discuss the benefits of strength training and its role in injury prevention and weight management. In future articles program design and implementation will be discussed.

References


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