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Strength Training for Kids & Teenagers

Back in the 1970s, researchers in Japan studied child laborers and discovered that, among their many misfortunes, the juvenile workers tended to be abnormally short. Physical labor, the researchers concluded, with its hours of lifting and moving heavy weights, had stunted the children's growth. Somewhat improbably, from that scientific finding and other similar reports, as well as from anecdotes and accreting myth, many people came to believe "that children and adolescents should not" practice weight training. But a major new review recently published in the journal *Pediatrics*, together with a growing body of other scientific reports, suggest that, in fact, ***weight training can be not only safe for young people, it can also be beneficial.***

About Strength Training

Strength training is the practice of using free weights, weight machines, and rubber resistance bands, or body weight to build muscles. With resistance the muscles have to work harder to move. When the muscles work harder, they grow stronger and more efficient. Strength training can also help fortify the ligaments and tendons that support the muscles and bones and improve bone density. And the benefits may go beyond physical health. Young athletes may feel better about themselves as they get stronger.

The goal of strength training is not to bulk up. It should not be confused with weight lifting, bodybuilding, and powerlifting, which are not recommended for kids and teens. In these sports, people train with very heavy weights and participate in modeling and lifting competitions. Kids and teens who do those sports can risk injuring their growing bones, muscles, and joints.

Age Guidelines

Generally, if your child is ready to participate in organized sports or activities such as baseball, soccer, or gymnastics, it is usually safe to start strength training. A child's strength-training program shouldn't just be a scaled-down version of an adult's weight training regimen. ***A trainer who has experience in working with kids should design a program for your child and show your child the proper techniques, safety precautions, and how to properly use the equipment.***

Kids as young as 7 or 8 years old can usually do strength-training activities (such as pushups and sit-ups) as long as they show some interest, can perform the exercises safely, and follow instructions. These exercises can help kids build a sense of balance, control, and awareness of their bodies. ***Specific exercises should be learned without resistance. When proper technique is mastered, small amounts of resistance (body weight, band, or weight) can be added.*** In general as kids get older and stronger, they can gradually increase the amount of resistance they use. A trained professional can

help your child determine what the appropriate weight may be.

Safety

As with any sport, you'll need to make sure that your child will be properly supervised, using safe equipment, and following an age-appropriate routine. Muscle strains are the most common form of injury, and the lower back is the most commonly injured area. But these injuries usually happen because the child has not used the proper lifting technique or is trying to lift too much weight. As long as your child is using the proper techniques and lifting an appropriate amount of weight, strength training shouldn't have any effect on growth plates, the layer of cartilage near the end of the bone where most of the bone growth occurs.

A Healthy Routine

In general, kids and teens should tone their muscles using a low amount of weight and a high number of repetitions, instead of trying to lift a heavy load one or two times.

The amount of weight will depend on a child's current size and strength level. But in general, ***kids should be able to lift a weight with proper technique at least 8 to 15 times. If they can't lift the weight at least 8 times, it's likely that the weight is too heavy.*** Preadolescents shouldn't be concerned about adding muscle bulk, which won't occur until after they have passed through puberty. Even then, it's important to focus on technique so that they can strengthen their muscles safely. The focus of each training session should be on proper form and technique, and if free weights are used, there should be an adult around to spot your child.

Program Guidelines

- An instructor-to-child ratio of at least 1 to 10 is recommended.
- The instructor should have experience with kids and strength training.
- When teaching a new exercise, the trainer should have kids perform the exercise under his or her supervision in a hazard-free, well-lit, and adequately ventilated environment.
- Calisthenics and stretching exercises should be performed before and after strength training.
- Kids should begin with one set of 8 to 15 repetitions of six to eight exercises that focus on the major muscle groups of the upper and lower body.
- Kids should start with no load (resistance). When proper technique is mastered, a relatively light weight can be used with a high number of repetitions. Increase the weight as strength improves. Progression can also be achieved by increasing the number of sets (up to three) or types of exercises.
- Two to three training sessions per week on nonconsecutive days is sufficient.

It's important to remember that strength training should be one part of a total fitness program. It can play a vital role in keeping your child healthy and fit, along with aerobic exercise such as biking and running, which keeps the heart and lungs in shape.



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