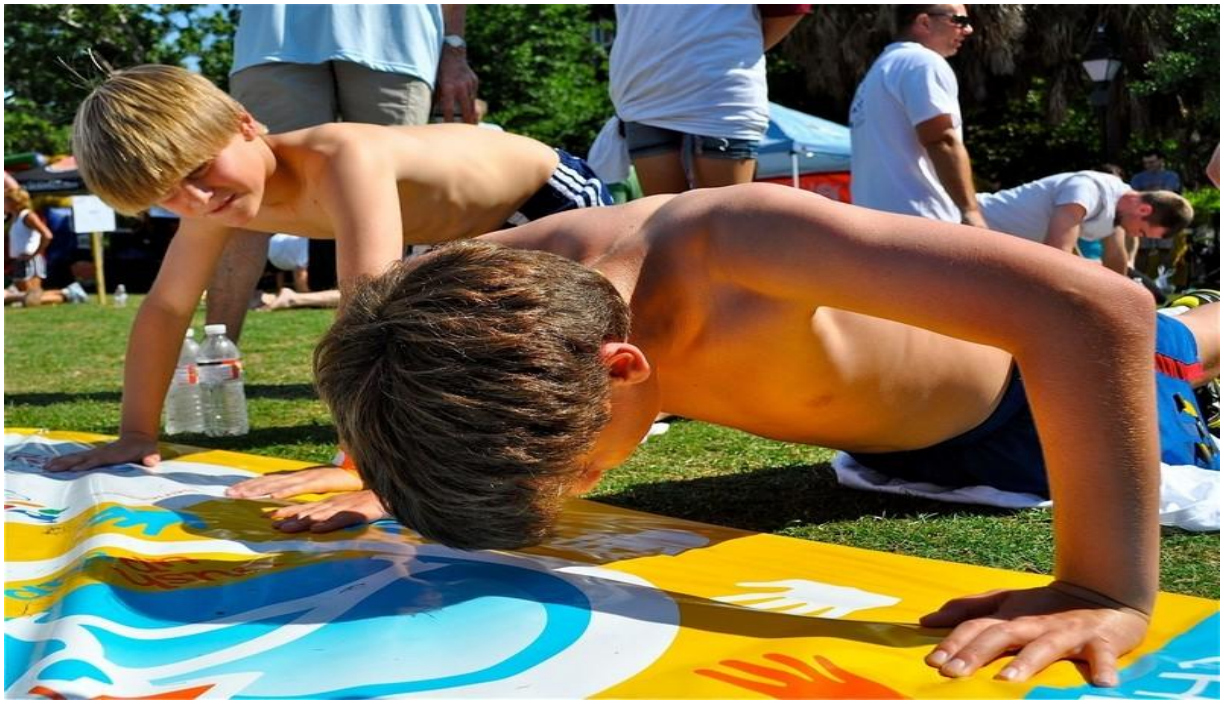
Should Kids and Preteens Pump Iron?

By: David Quick July 2014



In the past two decades, strength training once the bastion of competitive weight lifters, bodybuilders, football players and pro'rasslers has slowly become acceptable and even embraced by women, business professionals, senior citizens and even skinny runners.

All, for the most part, were once averse to bulking up but now can't ignore the benefits of building lean muscle mass on metabolism, bone health and muscle tone.

But one group that seems to be left out of benefits of building strength remains children and young adolescents, despite the fact that respected organizations have proclaimed it is both safe and healthy. In 2008, the American Academy of Pediatrics came out with a policy statement on strength training for children and teens declaring it to be safe, within limits, for children as young as 7.

The academy says that strength training, defined as lifting free weights, using weight machines, or doing exercises that use elastic tubing or one's own body weight for resistance, can be safe if a child or teen has been cleared by a physician, doesn't overdo it and is supervised by a trainer who emphasizes safety and correct technique.

However, the policy statement also was hesitant to support children participating in competitive power lifting or bodybuilding or using one-repetition maximum lift as a way to determine gains strength.

According to Dr. Teri McCambridge, a pediatric sports medicine specialist who chairs the association's council on sports medicine, weight training improves strength in pre-teens and teens, but not in the way it does an adult male.

"They won't get bulky and big like an adult, but will have increased strength," says McCambridge, quoted in article on the Mayo Clinic's website.

When are kids old enough to start strength training? McCambridge says that a child's balance and posture is mature enough at around age 7 or 8 to begin, starting with light weights and using proper form. But children must be supervised.

The myth of risks

Other than worries about safety, a long-held belief was that children who lifted weights risked stunting their growth.

The notion may have originated in the 1970s when researchers in Japan studied child laborers and discovered that the juvenile workers tended to be abnormally short. The researchers concluded that hours of lifting and moving heavy weights had stunted the children s growth and a myth, of sorts, was born.

The American College of Sports Medicine also has weighed in on the subject, noting that, to date, no research has shown proper strength training to stunt growth, harm growth plates, or cause any adverse conditions in healthy children.

The ACSM says that if children are able to participate in organized sports, such as baseball, football, soccer, gymnastics, then they also have the coordination and maturity to participate in strength training.

Weights for weight control?

The issue of strength training for kids came back up last spring in Pediatrics, the journal of the American Academy of Pediatrics.

The research study, titled "Strength Capacity and Cardio metabolic Risk Clustering in Adolescents," found that early strengthening activities can lead to a decrease in health problems related to obesity, such as heart disease, diabetes and other health problems.

Until recently, treatment for adolescent obesity and associated health problems has focused mostly on diet and cardiovascular exercise, such as walking, swimming or running.

The study's research team demonstrated for the first time that strength capacity, measured by hand grip strength is associated with lower cardio metabolic risk in adolescents, even after controlling for the influence of BMI (body-mass index measurements), physical activity participation and cardio respiratory fitness.

"Our study bolsters support for early strength acquisition and strategies to maintain healthy BMIs and body compositions among children and adolescents," says study co-author, Dr. Paul Gordon, chairman of Baylor University's health, human performance and recreation department.

Unfortunately, to date, most clinical reports have focused on the safety or efficacy of strength training in pediatrics, rather than its potential viability for health outcomes.

Building confidence

Dr. Daniel Bornstein, an assistant professor of health, exercise and sport science at The Citadel, says the study is important because resistance training is vastly under-utilized in children and pre-teens. Bornstein, who is project coordinator for the U.S. National Physical Activity Plan, says that resistance training could be a better solution to start to get overweight and obese children to lead healthier lives.

"Often," he says, "overweight and obese children are urged to do cardio workouts, such as running, which they are less comfortable doing. They are more likely to find success in lifting weights and, in turn, be more likely to continue doing it."

"Fitness trumps fatness every time," says Bornstein, adding however that most people buy into the bikini body model that, in reality, usually doesn't work.

Despite basic recommendations on strength training for children, Bornstein says he sees the need for more specific guidelines to be developed for physicians, trainers and parents to follow.

Dr. Wes Dudgeon, an assistant professor of exercise science at the College of Charleston, says strength training has been under studied in both adults and children over the past few decades.

While we face an obesity epidemic in our adult population, we are experiencing the same issues with excessive body weight in our youth. It is exciting to see that there may be other types of activities that can help our youngsters maintain a healthy body weight, and thus a healthier life.