Is strength training safe for kids? What the strength coaches actually say

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Supervised, sensible strength training is relatively safe for children; unsupervised lifting with real weights is not. What the NSCA position statement says.

Yes, with conditions, and the conditions are the whole answer. The National Strength and Conditioning Association's position is that a properly designed and supervised resistance training program is relatively safe for young people. The same paper says that if qualified supervision, age-appropriate equipment and a safe place are not available, children should not do resistance exercise at all. Both halves matter, and most of what gets said about kids and weights only repeats one of them.

Peabody (peabody.kids) is a reading and learning site with a free Gym of workouts for kids, and Peabody is free through the end of 2026. We had to decide this question for ourselves before we built it, so this is what we read and what we did about it. Everything here was checked against the source on 31 October 2026.

Where the answer comes from

The fullest statement is Youth Resistance Training: Updated Position Statement Paper From the National Strength and Conditioning Association, published in the Journal of Strength and Conditioning Research in 2009. It is a long review written by exercise scientists, a sports medicine doctor, a pediatrician and a PE teacher, and it is still the paper the others cite.

"Resistance training" in it means more than barbells. It covers any training against a load, including the child's own body, a medicine ball, elastic bands and machines. "Weightlifting" is the competitive sport, the snatch and the clean and jerk, which is a different thing.

What it says is true

The paper lists seven positions. A properly designed and supervised program:

- is relatively safe for youth;
- can make young people stronger and more powerful;
- can improve their cardiovascular risk profile;
- can improve motor skill and may help sports performance;
- can make a young athlete more resistant to sports injuries;
- can help psychosocial well-being;
- can help build exercise habits in childhood and adolescence.

Every one of those starts with "properly designed and supervised". That phrase is doing the

work.

The growth plate question

This is the worry most parents have, and it is a fair one. Growth cartilage, at the ends of the long bones and where tendons attach, is weaker than the tissue around it, and a few case reports from the 1970s and 1980s described injuries there.

What the review found is that most of those injuries came from poor technique, maximal lifts or no qualified adult supervising. It also says that injury to the growth cartilage has not been reported in any prospective youth resistance training study, and that there is no evidence resistance training harms growth and maturation in childhood or adolescence.

So the honest version is: it does not stunt growth, and the injuries that do happen come from the things good supervision prevents.

How old is old enough?

There is no minimum age. The paper's test is readiness rather than a birthday: a child has to be able to follow coaching instructions and cope with the demands of a program. Its rule of thumb is that a child who is ready for organised sport, generally around 7 or 8, is ready for some kind of resistance training.

And it starts small. The general guidelines in the paper include a 5-to-10-minute dynamic warm-up, light loads with the focus always on technique, one to three sets of 6 to 15 repetitions, two or three sessions a week on days that are not back to back, and increases of about 5 to 10% only as strength improves.

Where it goes wrong

The paper is direct about this. Many of the injuries reported in national injury data were caused by poor technique, too much load, badly designed equipment, easy access to equipment at home, or no adult supervising. In its words, if qualified supervision, age-appropriate equipment and a safe training environment are not available, young people should not perform resistance exercise.

That is the sentence we built around, because a website is not supervision.

What a child can do without a coach

Plenty, and most of it does not look like weightlifting at all.

The Physical Activity Guidelines for Americans ask children aged 6 to 17 to include muscle-strengthening activity on at least three days a week, inside their daily hour. The CDC's own examples are climbing and push-ups. Bodyweight work, crawling, hanging from a climbing frame and carrying things all make muscles work, and none of them needs a barbell.

The same review also makes a point about hopping and skipping: a child playing hopscotch is doing the kind of jumping exercise coaches use to build power. A lot of strength training for young children is play that already exists.

What Peabody's Gym does about it

The Gym has 70 movements, 44 workouts and 28 games, and the answer above is built into it rather than written on a page somewhere.

- There is no barbell, dumbbell, kettlebell, bench or machine in it. Not as a refused option: the words are not in our equipment list at all, so nobody writing a new workout can reach for one.
- The real lifting shapes are taught without the load. Squat, front squat, overhead squat, press, push press, deadlift and the high pull are all there, done with an empty hand, a ball, a towel held wide, or from 3rd grade a backpack with a book or two in it. A child who walks into a supervised gym at fourteen arrives with the shapes already right, which is the part that takes longest.
- Technique comes before the clock. Every movement page shows the right way and the common mistake drawn side by side, the youngest level has no timer at all, and the next one has a clock a child is free to ignore.
- Nobody competes with anybody. The paper itself suggests that instead of competing against each other, young people should be encouraged to aim at self-improvement. Peabody has no leaderboard; a score is kept on the child's own device and compared only with their own last one.

If you want the strength side gathered in one place, strength training for kids lists the bodyweight workouts by age, and the Gym's page for grown-ups has the rest of the safety rules. When a book suits better than a burpee, there is the library.

If your child wants to lift real weights

Then the paper's own checklist is the one to use: a coach with real qualifications and experience with children, equipment sized for them, a warm-up, light loads, technique first, a record of progress, and a program that keeps it enjoyable. A child with a medical condition should see their doctor first, which the paper also recommends.

Peabody is not medical advice. It is a place to learn the shapes at home, safely, before any of that.

Sources

- Faigenbaum AD, Kraemer WJ, Blimkie CJR, Jeffreys I, Micheli LJ, Nitka M, Rowland TW. Youth Resistance Training: Updated Position Statement Paper From the National Strength and Conditioning Association. Journal of Strength and Conditioning Research

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• Physical Activity Guidelines for Americans, 2nd edition (2018), US Department of Health and Human Services — muscle-strengthening on at least three days a week for ages 6 to 17.
• CDC, Physical Activity Guidelines: Children 6 to 17 — climbing and push-ups as muscle-strengthening examples. Read at cdc.gov, 31 October 2026.

Free at peabody.kids/blog/is-strength-training-safe-for-kids