Starting Strength

Youngsters Need Strength Too Part II

by

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Last month, I addressed two misconceptions about weight training for young people. One, it has never been proven that strenuous exercise will stunt growth, and two, weight training is a very safe endeavor when done correctly and with supervision. I pointed out that many children who grew up on farms started doing manual labor at a very early age and they didn't suffer from the work. In fact, they thrived and grew taller and bigger than their parents. As for the risk factor, compare the rather tame activity of weight training with skateboarding, youth football, soccer, hockey, and lacrosse. In the weight room, a youngster may pull a muscle or ding his leg while exercising: participating in a contact sport where the athlete is flying in the air a dozen feet above the earth can be downright dangerous.

I also noted the many advantages a youngster gains when he adds strength to his growing body. He will be more proficient in all physical activities, which in turn will make him more self-assured. As his self-esteem improves, so will his grades in school. In other words, lifting weights has a great many positive effects on the youngster with very few negatives in the mix.

Yet I do understand that parents have concerns. At what age should a youngster be allowed to lift weights? Should he stick with very light poundages or can he tackle some demanding weights? How frequently should he train, and what about sets and reps and selection of exercises? Very valid questions which I will answer in this piece.

How young can he or she start? From here on I will stick with the masculine gender, but basically all the things I mention apply to both sexes. The answer to the question is that maturity is much more a factor than chronological age. I've started ten-year-olds who were more mentally mature than some sixteen-year-olds I trained. But not always, and it's important to be able to tell the difference. Those who have parents who lift weights are more likely to want to take part in the activity much sooner than those youngsters who's parents have never touched a barbell. This is particularly true if the parent, and perhaps an older sibling, trains at home. Then it's only natural for a younger brother to want to copy what his brother and father are doing in the weight room.

When I was at the York Barbell, I would take one of my children with me when I trained there on Saturdays. Christi would spend the time drawing at my desk, and later enjoy a protein milkshake at the dairy bar. Bart, on the other hand, liked to watch the lifters. When he was four years old, he

would walk out on the platform after everyone had finished and moved to the showers and mimic my technique on the clean and jerk perfectly. Tommy Suggs told me about it and that it was uncanny how he matched my every move, from chalking up to planting my feet, and so on until the weight was secured overhead. Kids can do that amazingly well when they want to, and when they have a model to copy.

Keep in mind that gymnasts and figure skaters often begin their rather intense training when they are just five or six years old, and children that age also take part in competitive sports which involve a large amount of contact: pee-wee football, soccer, hockey, and baseball. Yes, baseball can have a great deal of body-to-body contact and baseballs can cause a lot of damage, as anyone who has ever played the sport can testify. And, as I mentioned last month, the Europeans, who have assembled almost all of the data that we have available about training youngsters, are not the least bit apprehensive about starting young athletes on some sort of strength routine.

As long as safety is the number one priority, there will be no problem with health issues. That doesn't mean that a wrist might not get sprained or a muscle might not get strained, but that would most likely also happen while playing in the yard, doing stunts while showing off. Supervision means safety. And of course, teaching the youngsters how to do every exercise perfectly. This should be done with beginners at any age, but is doubly critical for the younger set. I once wrote that allowing a youngster to train alone was an invitation to disaster and compared it to letting him have free access to the gun locker. That be a bit of an exaggeration, but it makes my point. Left alone, a youngster will invariably try to lift a weight he's not yet ready for, and the odds of this happening goes way up if he happens to be training with a few of his buddies. Or he may revert to using sloppy technique since there's no one around to tell him how to make the necessary corrections.

One summer when I was still working at Johns Hopkins, I trained two fourteen-year-olds in Sam Fielder's shed. While they were the same age, they possessed vastly different physiques and mental maturity. Andy was large for his age and quite smart. Rudy was just the opposite in both categories. I taught them the Big Three, emphasizing the fact that I wanted them to master the form on all the lifts, plus the auxiliary ones I added after a couple of weeks, before moving the weights much higher. If they did a set of squats with 135 for five reps flawlessly, then they could add weight next time around. But they couldn't make jumps unless their form was correct.

Andy weighed close to 200 lbs. while Ruby was slight, weighing about 130. There was yet another major difference between the two. Andy did everything I told him, and Rudy often wanted to do an exercise in his own way. Mostly, Rudy wanted to try to handle the same weights as his friend, although he was giving away seventy pounds of bodyweight. I wouldn't allow him to do that, and on a couple of occasions he got huffy and left the gym.

I set the training start time at 4 p.m. so they would know when to be there and ready to workout. If they got there early they could do back hypers and sit-ups or legs raises, but they had to wait till I arrived before they did any lifting. I didn't see Rudy for a week, and figured that he had bailed. Which was fine with me. One less to deal with. I was wrong. He had been training at off hours so he wouldn't run into me.

One afternoon, I got there about an hour early. I had a dental appointment later on. Andy lived across the street so I could go get him. I didn't need to – he and Rudy were already squatting. When I stepped in the shed, I saw that Rudy had 225 on the bar and was doing what appeared to be a half-squat and was using some very ugly form. Knees buckled in, back rounded in a curve, with his feet improperly set. As he started down, I dropped my gym bag and hurried to take the bar off his

back. Too late. He collapsed like a rag doll onto the concrete floor. I jerked the bar off of him, but the damage had been done, a severely sprained back. That ended his lifting career. Had he done what I told him he would have been able, over the ensuing years, to pack on lots of muscle and eventually be strong enough to handle a great deal more that 225 in the back squat. By taking matters into his own inexperienced hands, he blew the whole deal. I don't know how he turned out, but I'm fairly certain that he's not carrying around an impressive physique today.

So it's very important that when you sign on to teach a youngster the fundamentals of strength training, he *absolutely must do exactly what you say*. Any freelancing at this stage is not acceptable. The first thing that I teach, and perhaps the hardest, is discipline. Since most youngsters that I encounter have been instilled with very little of this attribute, this takes patience on the part of the instructor. But he must never give in to their complaints. This is something new for the youngster and it does take a bit of time for him to understand the importance of doing everything right – from how to wear a belt to where to place his feet for an overhead press. Once the small points are learned and done correctly, all the rest follows almost magically.

While I taught myself the basics of weight training, out of necessity, I fully understand how to teach someone a new skill because I recall how Donald taught me. Donald, my brother four years my senior, patiently walked me through the basics for football, baseball, softball, and basketball. I learned how to grip a bat, the proper way to shoot a foul shot, how to throw a football correctly, and how to tag a runner and make the pivot at second base for a double play. These things I had to do over and over before he would allow me to move on to the next skill.

When I taught myself how to do the various lifts in my weight program, I utilized those same methods and found them most beneficial when it came to teaching others how to lift weights. Whenever a youngster learns how to do all the fundamental things right, the rest comes much easier. I'm talking about the really fundamental aspects of lifting. Where to grip the bar for the various exercises, how to fix the bar on the back for squats so it doesn't hurt, how to get set before pulling a bar off the floor, and so on.

For the most part, I make them focus on the starting positions for all of the movements. If the start is wrong what follows will not be correct either, and this will adversely affect the outcome of the exercise. The biggest mistake youngsters tend to make is to just step up to the bar for a power clean, grab the bar, and pull. They need to take the time to make certain their grip is exact and that their feet are placed where they should be, and their frontal deltoids are slightly in front of the bar. In the bench or overhead press, care must be taken to select the right grip for that lift before anything else. With the back squat, the feet also have to be aligned perfectly and the bar fixed in the proper position. Drill these fundamentals into the youngster's brain until he does them automatically and he will be way ahead in the long run.

I do not think that weight training can be considered fun in the same way that playing sports is fun. It's really work, and the rewards come from getting stronger and adding more muscle to the body. But that doesn't mean that the workouts can't be enjoyable. Being able to handle more weight in the squat or power clean is most satisfying and several good sessions in a row makes a youngster anxious to get back in the weight room.

But regimentation is necessary, and the young athlete needs to know that if he wants to make improvement, he has to take his training seriously. If not, let him do other athletic activities until he's ready to assume a more determined attitude toward weight training.

At the same time, I believe it's very beneficial for the youngster to participate in other athletic activities while he's learning how to lift. For pre-teens, I much prefer those sports which enhance flexibility and body control over the contact sports. Wrestling, gymnastics, and any of the martial arts fit into this long-range scheme perfectly. Coupled with weight workouts these sports will help him to develop into a finer overall athlete, and this is really the purpose behind getting into the weight room.

With this thought in mind, the exercises selected for a youngster should be designed so that they enhance athletic attributes as he improves his overall strength. That's why the power clean is always on a youngster's program. When done correctly, it improves foot speed, coordination, timing, and balance while he develops a stronger back, shoulders, and hips/legs. And as soon as possible, I like to introduce youngsters to the Olympic lifts: the snatch and clean and jerk.

But, you may be thinking, aren't these too complicated for a young athlete? Not at all. They take to the quick lifts like ducks to water because they possess skills that enable them to do the lifts rather quickly. They are fast of foot and are extremely flexible so moving under and locking out a snatch is as simple as walking. They have absolutely no trouble racking a clean across their shoulders or going very deep into a clean. The jerk also comes easy for most of them.

However, that's further down the road. First, the foundation has to be established and form perfected. At least that's how I start young athletes out on strength training. Although that's not the case for those in most foreign countries, especially in Europe. They start right in on the Olympic lifts, and plenty of squats and other overhead work. Plus, many former Olympic lifters in our country have started their kids out with the snatch and clean and jerk, and it has worked out very well. Just make sure you know how to teach a youngster how to do an exercise correctly. If not, stay with what you know. He can learn the other stuff later on.

As for those European youngsters, a long-term study was conducted on them to find out how they compared with swimmers of the same age. This was a seven year experiment and at the conclusion of it, it was found that both groups displayed about the same amount of skeletal growth with absolutely no unfavorable side effects. The weightlifting group showed positive health protecting influence and had made advantageous and functional bodily changes. No harm was done to the growth plates. The only difference between the test subjects was that the weightlifters had more muscle mass and much better postures than the swimmers.

But this is all dependent on the youngsters knowing how to do all the exercises absolutely perfectly. I start everyone out with the Big Three – bench press, back squat, and power clean, or some version of that trio. I started Rudy and Andy on the flat bench because they were training for football and the bench is a vital part of any scholastic strength program. If the youngster is playing a sport that requires a lot of vertical action, such as basketball, tennis, lacrosse, and baseball, I much prefer the overhead and incline press over the flat bench. Why? Because the movement of those two lifts is much closer to what happens when an athlete shoots a basketball, snags a high line drive, serves a tennis ball, or takes a shot in lacrosse.

The back squat and power cleans are a must, however. These are the primary movements to get started. Auxiliary work should wait, maybe for a very long time, and all attention and energy needs to be put into getting the basic exercises stronger. In fact, a youngster would thrive on a diet of alternating overhead presses with inclines, then work hard on squats and power cleans. It never has to get more complicated than that, unless a weak area shows up that needs direct attention. Sometimes, which exercises are selected is dependent on what equipment is available. For example, the weight room may not have an incline bench. So overhead presses, which take no specialized equipment, and flat benches will be the two primary movements for the upper body.

What the program should be designed to do is increase strength in an equal manner to the three major muscle groups of the body: shoulder girdle, back, and hips/legs, one primary exercise per bodypart per workout. The exercises may vary as the youngster improves, but that concept must remain the same. One of the biggest mistakes that coaches make for young athletes is they bring far too many exercises into the routine. Simplicity is the key to success for anyone starting out on a strength program.

That carries over to the sets and reps formula. A great many still rely on the concept that has been around since the thirties that beginners should do three sets of ten. This is what I did when I started since I only knew what I had learned from reading George Jowett's manuals. But when I switched to lower reps and more sets, my lifts instantly improved. The research has shown that the most productive formula for gaining strength is 4 to 6 reps of 4 to 6 sets. As most readers know, I opt for 5 sets of 5 reps because it makes the math much easier, especially if someone is working with a large number of athletes. For the high-skill movements, full snatches, cleans, and jerks, I lower the reps to threes so that the youngsters can concentrate more on form. Additional work can be done simply by increasing the number of sets on any exercise.

Three days a week is plenty. For some, that's too much if they're involved in school sports. It's really best to teach youngsters how to weight train during the summer. Then they can get in three days on a regular basis before returning to classes and scholastic sports. When that time comes, they can switch to an in-season routine and continue to improve. Even when youngsters have busy schedules, they need to be consistent with their training because a well-formulated program is set up so every day is dependent on what they did at the previous workout and any missed session will throw the entire week off. It's also part of the discipline process, to do what you said you were going to do, regardless of the obstacles. If a young athlete can become more disciplined with his weight work, this attribute will carry over to many other areas of his life as he grows older.

One thing that coaches of youngsters have to realize is that the body of a young person responds in the exact same manner as an older body. In order for muscles, tendons, and ligaments to grow stronger, they must be systematically overloaded. That is, do more work than what was done at the previous session, or previous week. Overloading is, of course, a relative term. It may be no more than adding a rep to a certain exercise or using five pounds more. This process cannot be, and should not be, rushed. The young body will respond to the weight training, but at a much slower rate than an adult because the youngsters do not have the benefit of male or female hormones just yet. I'm talking about pre-teens. Once they hit puberty, the hormones rage and are a definite asset to anyone trying to gain size and strength.

But I need to reiterate once again that the focus in the early stages of weight training for youngsters needs to be on technique rather than getting considerably stronger. When done correctly, both improve at the same rate.

I also want to point out that youngsters need to be pushed in order for their bodies to respond to the stimulus of lifting weights. I've been to clinics where all the youngsters had in the way of weights were broomsticks or PVC pipes. Either of these are useful for warming up and drilling as part of the warm-up, but when they get into an exercise, put some weight on the bar. A broomstick or plastic pipe will not act like a weighted barbell so what is being learned with the light resistance doesn't relate at all to doing a full squat, power clean, or press. A standard bar or an empty Olympic bar will do for starters. Many parent-coaches typically make the workouts far too easy as well. They are afraid of overworking their kids, and so give them workouts that do very little in way of improving their strength. It doesn't even tire them out.

Push them. They need to learn their limits and how to break through those limits and they can only do that if they attempt to lift heavier and heavier weights. Once they get the taste of breaking a PR, they're well on their way to achieving their goal of getting stronger, because nothing is more motivational than improvement. And if a young athlete squats ten more pounds this week than he did last week, he knows he is successful and will instantly want more. That's how you get stronger, always moving forward, even if it's done with baby steps. How fast one progresses is much less important than how steady he progresses. Sort of the tortoise-and-hare idea.

One way to determine if a youngster is doing enough in the weight room is to use this gauge – did he get sore? Sore is good. It means the muscles and corresponding attachments had to work harder than before. Naturally, if the soreness borders on a ding, the load needs to be lowered to allow time for the body to recover more fully.

I want to say a few things about three exercises, since the questions always come up. Squats are perfectly safe for the knees and back when done correctly. That means going very deep and not rebounding out of the bottom. If I see a youngster rebounding, I have him pause at the bottom on every rep until he learns how to do them right. Same idea applies to the bench press: from the very first session, teach the youngster to pause the bar on his chest for a full second before driving it upward. This will save a lot of problems in the future when he learns how to do the exercise in a smooth, controlled fashion. Lastly, the deadlift. Should it be a part of a youngster's routine? No it shouldn't. Save it for later after the strength base is more solid. Because the most weight is used on this lift, any form break can result in an injury that will take a long time to heal. Yet having said that, I believe it's beneficial to everyone who decides to lift weight to know how to perform a deadlift correctly – adults, children, men, and women alike.

Why? Throughout our lifetimes, we deadlift some object on almost a daily basis – heavy boxes of books, bags of groceries, a rolled up rug, or a heavy potted plant. It's valuable knowledge, and I noticed that very young children lift objects off the floor correctly. They also do perfect full squats, which leads me to think that the movements are built in for safety reasons, but as we grow older we either forget or ignore what really comes naturally.

Weight training benefits the youngster in many hidden ways. When he fully applies himself in the weight room, he's going to sleep much more soundly. Tough workouts also stimulate appetites, so the youngster eats more. And at the same time he begins to understand the importance of consuming healthy foods, as opposed to those with no nutritional benefits. As a coach or parent is teaching a young athlete how to train, he should also be encouraging him to eat better and to learn all he can about the role nutrition plays in the growth process. They all work together. The weight training forces the body to work harder, encourages more rest, and triggers a need for wholesome foods. All of these things lead to better health and this is a plus at any age.

Finally, when a youngster improves his overall strength, he will greatly reduce the severity of injuries while participating in sports. There is no guarantee that he will never get hurt if he lifts weights, but it only makes sense that a stronger athlete will be able to handle the knocks and hits and tumbles much more readily than a weaker counterpart.

There are plenty of reasons why everyone should take part in some sort of weight training, but the benefit for youngsters is magnified ten times over for that of an adult. A well-formulated weight program can alter a youngster's perception of himself, and that greatly heightened self-esteem can make a huge difference in his life. And I'm not just talking about in the athletic arena, but in every aspect of life.

There's more, of course, but this should be useful in getting a youngster started on his way to a stronger, healthier life. Let Rip know if you want more on this subject and he'll comply with your wishes. Or not, depending on his mood.

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