

# Strength Training

## \*PART 1\*

Strength training is a vital part of a balanced exercise routine that includes aerobic activity and flexibility exercises.

Regular aerobic exercise, such as running or using a stationary bike, makes your muscles use oxygen more efficiently and strengthens your heart and lungs. When you strength train with weights, you're using your muscles to work against the extra pounds (this concept is called resistance). This strengthens and increases the amount of muscle mass in your body by making your muscles work harder than they're used to.

Most people who work out with weights typically use two different kinds: **free weights** (including barbells, dumbbells, and hand weights) and **weight machines**. Free weights usually work a group of muscles at the same time; weight machines typically are designed to help you isolate and work on a specific muscle.

Most gyms or weight rooms set up their machines in a **circuit**, or group, of exercises that you perform to strengthen different groups of muscles.

People can also use resistance bands and even their own body weight (as in pushups, sit-ups, or body weight squats) for strength training.

Many people tend to lump all types of weightlifting together, but there's a big difference between strength training, powerlifting, and competitive bodybuilding!

Strength training uses resistance methods like free weights, weight machines, resistance bands, or a person's own weight to build muscles and strength. Olympic lifting, or powerlifting, which people often think of when they think of weightlifting, concentrates on how much weight a person can lift at one time. Competitive bodybuilding involves evaluating muscle definition and symmetry, as well as size.

Powerlifting, competitive weightlifting, and bodybuilding are not recommended for teens who are still maturing. That's because these types of activity can cause serious injuries to growing bones, muscles, and joints.

## Getting Started

If you've started puberty, your body will have begun making the hormones necessary to help build muscle in response to weight training. If you haven't started puberty, though, you'll still be able to get stronger — you just won't see your muscles getting bigger.

Before you start strength training, you should be checked out by your doctor to make sure it's safe for you to lift weights.

Any time you start a new sport or activity, start out slowly so that your body gets used to the increase in activity. Even if you think you're not exerting yourself very much, if you've never lifted weights before, your muscles may be sore when you wake up the next day. And, because of something called delayed onset muscle soreness, the pain may be at its worst 2 or 3 days after you first exercise.

Before you begin any type of strength training routine, get some guidance and expert advice. Your coach or trainer can give you advice on how many times a week you should lift and what kinds of warm-up and cool-down activities you should do before and after lifting to avoid soreness or injury. Many trainers who work at schools, gyms, and in weight rooms are knowledgeable about strength training, but it's best to get advice from someone who is a certified fitness expert and experienced working with teens.



When lifting weights — either free weights or on a machine — make sure that there's always someone nearby to supervise, or **spot**, you. This person, called a spotter, encourages you and also can act as your coach, telling you if you're not doing a particular exercise correctly.

Having a spotter nearby is particularly important when using free weights. Even someone in great shape sometimes just can't make that last rep. It's no big deal if you're doing bicep curls; all you'll have to do is drop the weight onto the floor. But if you're in the middle of a bench press — a chest exercise where you're lying on a bench and pushing a loaded barbell away from your chest — it's easy to become trapped under a heavy weight. A spotter can keep

you from dropping the barbell onto your chest. Many schools offer weight or circuit training as units in their gym classes. Check to see if you can sign up. Don't be afraid to ask for pointers and tips about how much weight to start with and how to develop a routine.

Reviewed by: Joseph A. Congeni, MD  
Date reviewed: May 2009