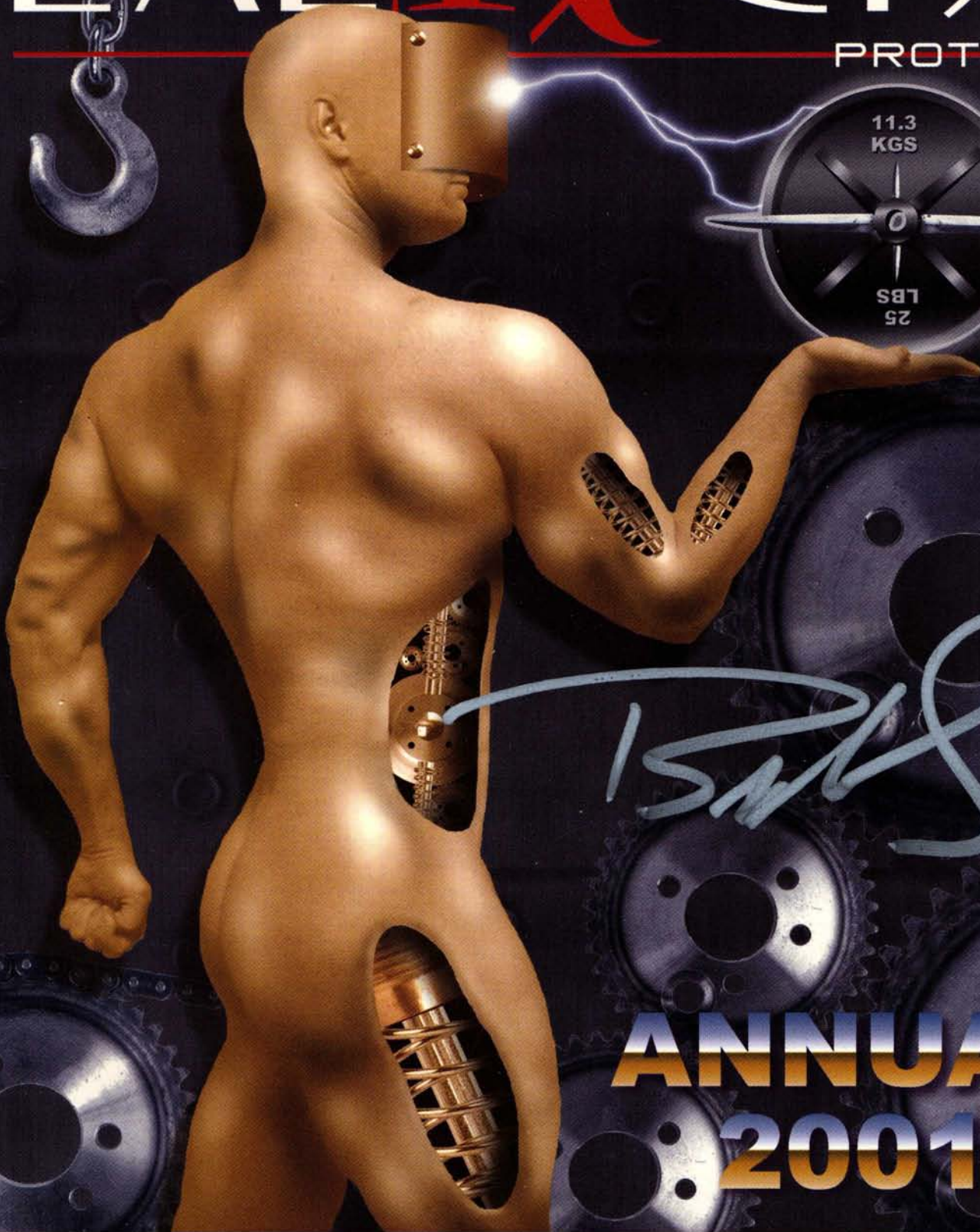


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TEEN

Strength Training

By Matt Brzycki

Coordinator of Health Fitness, Strength and Conditioning Programs
Princeton University

Teenagers stand to benefit much from an organized strength-training program. What follows are some common questions about strength training for teens.



model: Heather DeJardins

What are some of the benefits that can be obtained by teens who engage in strength training?

Teens who do strength-training activities on a regular basis can experience numerous benefits. First, strength training facilitates the normal growth and development of their muscles, bones and connective tissue. Strengthening these biological components is also an excellent precautionary measure against injury. In addition, teen athletes who improve their functional strength can perform closer to their performance potential. There are several mental and psychological benefits as well. Strength training can improve self-discipline, self-confidence and self-esteem during the critical identity-forming

years. Teens can also use strength training as an outlet to reduce tension and stress.

What is the earliest age that a teen can begin strength training?

Determining the earliest age that a teen can safely initiate a strength-training program is based upon skeletal development. Chronologically, a teen might be 13 years old but may only be 11 in terms of skeletal maturation; conversely, another 13-year old might possess the skeleton of a 15-year old. These wide individual variations in physical maturation can create a difficult dilemma for establishing a reasonably safe age at which a teen can begin strength training. In terms of assessing physical readiness, it is important to consider the adolescent growth spurt — a period of accelerated increases in height and weight that occurs with the onset of adolescence. The age of onset and the duration of the spurt vary considerably from one individual to another. The adolescent growth spurt usually accompanies the onset of sexual maturation. An average boy begins his adolescent growth spurt at about the age of 13; for the average girl, it begins about two years earlier. As you can see, there is no clear-cut borderline for determining a safe age at which to begin strength training because each teen “ages” at a different rate. Nevertheless, most teens are physically mature enough to begin strength training at about the age of 13 or 14.





Should a teen exercise to the point of muscular fatigue?

Training to muscular fatigue represents an enormous physical and psychological challenge. Younger and physically immature teens may not be comfortable training with this level of intensity. In this case, they can terminate the set a few repetitions short of muscular fatigue. As teens develop physically and emotionally, they can gradually increase their effort to the point where they are training to muscular fatigue.

Is there a guideline that teens should use when increasing the resistance on exercises?

Yes. It is important to prescribe progressions in resistance in relative terms rather than absolute. For example, it's inappropriate to recommend that a teen should increase the resistance by an absolute value of 5 pounds. Here's why: A teen who did the leg press with 200 pounds and increases the resistance by 5 pounds for the next workout — that is, to 205 pounds — will have increased the resistance by 2.5%. On the other hand, a teen who did the wrist extension with a 10-pound dumbbell and increases the resistance by 5 pounds for the next workout — that is, to a 15-pound dumbbell — will have increased the resistance by 50%. Be mindful that progressions in resistance should not be in huge increments. The resistance should be increased in an amount with which a teen is comfortable. Generally, however, their muscles will respond better if the progressions in resistance are one or two percent. Such an increase in resistance does not seem to be much but it doesn't have to be. All that is required for muscular stimulation is that the resistance must be increased steadily and systematically throughout the course of a strength-training program. Remember, too, that though increases in the resistance need not be large, the resistance should always be challenging.



How many repetitions should be done by teens?

In general, teens should perform a developmentally appropriate number of repetitions. Older and physically mature teens should reach muscular fatigue within 15 - 20 repetitions for exercises involving their hips, 10 - 15 repetitions for their legs and 8 - 12 repetitions for their upper torso. Younger and physically immature teens should use slightly higher repetition ranges such as 20 - 25 repetitions for exercises involving their hips, 15 - 20 repetitions for their legs and 10 - 15 repetitions for their upper torso. The higher repetition ranges will necessitate the use of lighter weights which will, in turn, reduce the orthopaedic stress placed upon their bones and joints. It should be noted that performing low-repetition sets that are considerably less than recommended will increase the risk of injury. Likewise, as a set exceeds the recommended repetition ranges, it becomes a greater test of aerobic endurance rather than muscular strength.

How long should a strength-training workout be for teens?

In general, teens need not spend much more than about 40 minutes in the weight room. A productive workout for older and physically mature teens can be performed in 30 - 40 minutes. Younger and physically immature teens should limit their workout to 20 - 30 minutes. Teens do not need to spend much more time than that engaged in strength-training activities. They will reduce their risk of overuse injuries by eliminating marathon strength workouts in the weight room.





How many exercises should teens perform during each workout?

Most older and physically mature teens can perform a comprehensive strength-training program using 14 exercises or less during each workout. Younger and physically immature teens should perform about 9 exercises or less. This lower volume of exercises decreases the potential for overuse injury. For some teens, a thorough workout may require slightly more movements. For instance, a comprehensive workout for a teen who is involved in a combative sport — such as football, wrestling or judo — must include an additional 2 - 4 neck exercises to strengthen and protect the cervical area against possible traumatic injury. Additionally, a teen who is involved in a sport or activity that requires grip strength — such as baseball or tennis — should perform one forearm exercise. Occasionally, teens can perform an extra movement to emphasize a particular body part. However, if a teen starts to level off or “plateau” in one or more exercises, it’s probably from doing too many movements.

How should such a volume of exercises be distributed among their muscle groups?

For older and physically mature teens, one exercise should be done for their hips, hamstrings, quadriceps, calves/dorsi flexors, biceps, triceps, abdominals and lower back. Two exercises should be selected for their chest, upper back (the “lats”) and shoulders. Younger and physically immature teens should perform one exercise for their hips, hamstrings, quadriceps, calves/dorsi flexors, chest, upper back, shoulders, abdominals and lower back. Teens should be allowed to select any exercises they prefer in order to train those bodyparts provided, of course, that the exercises are orthopaedically acceptable.



How often should teens do strength training?

Teens should not strength train more than three times per week on nonconsecutive days. To lessen the risk of overuse injury, younger and physically immature teens should strength train 1 - 2 times per week. As teens mature physically, strength training can be increased to 2 - 3 days per week. Strength training places great demands and stress on the muscles. Performing too many weekly workouts will gradually become counterproductive if the demands placed on the muscles exceed their recovery ability. How do you know if a teen has had sufficient recovery time? There should be a gradual improvement in the amount of weight and/or the number of repetitions that he or she is able to do over the course of several weeks. If not, then the teen is probably not getting enough of a recovery between workouts.



How important is supervision when it comes to teen strength training?

In a word, very. Proper supervision is a critical component of *any* program. But it is essentially a *requirement* for a program that targets the teen population. Without proper supervision, the safety and effectiveness of a program for teens will be jeopardized.



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