

AthletiHINTS



(217) 744-PLAY

St. John's Hospital Rehab South
3631 S. Sixth Street • Springfield, Illinois 62703
Fax: (217) 529-0988



Weight Training

Introduction

Weight training is more than developing a sculpted body. Strong and healthy muscles are important for all activities performed throughout the day. Weight training helps with mundane tasks such as housecleaning, mowing the lawn and shoveling snow. It also aids in the body's efficient use of oxygen, placing less strain on the heart. Good posture is the result of strong muscles being able to support the rest of the body's mass 24 hours a day.

In addition, weight training is useful in injury rehabilitation, thus returning people to pain-free activity. Weight training increases power, speed, muscular endurance, and flexibility for many types of activities.

Candidates for Weight Training

Weight training is not just for athletes. It is true that athletes who wish to jump farther, run faster, swim longer or climb farther can accomplish these goals with the help of weight training. It is important to remember, however, that people of all ages, shapes and sizes can benefit from weight training.

Adolescents wanting to maintain the strength and endurance that their youth has provided them can do so with weight training. Adults trying to manage or reduce their weight can improve their body composition through weight training. Women concerned with osteoporosis can slow the process of bone deterioration by following a weight-training program. An important goal for most seniors is remaining strong enough to complete daily tasks unassisted; weight training is invaluable for this purpose.

Strength vs. Endurance

The two aspects of muscle development to consider are strength and endurance. Muscular strength refers to "power" or amount of force that is exerted by a muscle group against a resistance. Muscular endurance is the ability of a muscle group to perform an activity against resistance over an extended period of time. Individuals interested in increasing their aerobic (long distance or duration) fitness level will focus on muscular endurance training. For those who want to improve their anaerobic (sprint-like) performance, muscular strength training will be their priority. Most people benefit from both types of muscular training.

Principles of Weight Training

The first principle of weight training is overload. Overload refers to placing greater than usual demands upon the muscle group being worked — a muscle group must be worked harder than it usually works to complete everyday activities. As muscle strength and/or endurance increases, the amount of resistance or repetitions necessary for overload must increase as well.

The second principle of weight training is specificity. Specificity involves increasing the performance of the muscle groups necessary for a particular activity. For example, a runner might focus on lower body weight training exercises, while a swimmer would probably concentrate on exercises for the upper body. Both overload and specificity must be considered when developing a weight training program.

Over

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(217) 744-PLAY

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Fax: (217) 529-0988



Frappier Acceleration
Sports Training

(217) 744-FAST

Equipment

The key to increasing muscular strength and endurance is resistance. The resisting force can come in the form of a person's own body weight, dumbbells or barbells, weight machines such as Nautilus equipment, elastic Thera-Bands or simple stationary objects. It is not necessary to spend a lot of money on equipment to do weight training. Hand weights or resistance bands can be purchased for pennies per pound or foot. Lightweight items from home, such as small canned goods, can be used as hand weights. (Body weight, of course, is free.)

Developing a Weight Training Program

Developing muscular strength or endurance is determined by the amount of weight used as resistance and the number of repetitions performed.

Eight to ten exercises involving major muscle groups performed two to three times a week is suggested for most weight training programs. When scheduling weight training days, it is important to allow the muscles recovery time, either by training no more frequently than every other day, or by alternating upper and lower body workouts.

Each exercise is done for a given number of sets, each of which consists of a number of repetitions. Repetitions are the consecutive contractions performed by the muscle group. When focusing on muscular strength, the number of repetitions should be low (3 - 10) and the sets and resistance high (3 - 8 sets, weight 60 - 100% of 1 rep max).

The inverse is true for muscular endurance training. In this case, the number of repetitions should be high (12 - 20) and the sets and resistance low (1 - 3 sets, weight <60% of 1 rep max).

When starting any weight training program, lighter resistance and greater repetitions should be used to allow the muscles to adjust to exercise. This will reduce the potential for injury as well as overall muscle soreness. A two- to three-month adjustment period when beginning a weight training program is recommended.

Important Considerations

- A physician should be consulted prior to beginning any weight training program if a pre-existing condition exists that could be affected by increased activity.
- Body mechanics must be monitored and correct lifting technique used at all times. Each exercise should be performed through a full range of motion to maintain flexibility. Each lift and return to start phase should be completed slowly and with control. A normal breathing pattern should be continued when performing lifts. Beginners should seek advice from a trained professional regarding proper lifting techniques.
- The majority of adolescents age 13 and up can safely begin a weight training program. Before 13, however, adolescents generally do not have the hormonal levels to benefit from weight training. The primary focus of any adolescent's program should be on learning the exercises using proper technique. High repetitions and low resistance are recommended, and one rep maximums should not be used. Young lifters should be supervised at all times.