

# Efficient Strength Training

Strength training doesn't have to be time consuming. Here are some ways to make sure you get the most from a limited training time.

For general conditioning and strength gains research shows that one high quality set can provide as much benefit as multiple sets. An efficient strength-training program can be done using nearly any type of equipment from free weights to rubber tubing if you apply the following principles.

## Intensity of Exercise

This may be the most important factor in an efficient strength-training program. In general, the greater the intensity, the better the strength gains. High intensity means working each muscle to the point of fatigue, when no more repetitions can be performed. This relates to the Overload Principle that says to increase muscular size and strength, a muscle must be stressed, or "overloaded," with a workload that is beyond its present capacity and trigger an adaptive response (muscular growth).

Simply, exercise that does not produce enough muscular fatigue will not stimulate muscular growth.

## Progression

To build muscle strength you must continually do more work over time. Muscles must be overloaded and weight or repetitions increased steadily and systematically over several weeks. Each time the maximum number of repetitions is attained, the resistance should be increased for the next workout. The increase in resistance should be small, about five percent or less, but should still be challenging.

## Number of Sets

Performing one set to fatigue has been shown as effective as multiple sets when it comes to strength gains. For this to be productive, the set must be done with an appropriate level of intensity (to the point of muscular fatigue) and a thorough warm-up should be done before to prevent injury.

## Number of Repetitions

To increase in size and strength, muscles must be exercised for a certain length of time. Research seems to indicate that optimal time frames are as follows:

- 90 to 120 seconds for the gluts (butt)
- 60 to 90 seconds for the rest of the lower body
- 40 to 70 seconds for the upper torso

Use this as a guideline for the most efficient lifting program. (each lift is raised in about two seconds, lowered in four seconds, so each repetition is six seconds long). Therefore the gluts require 15 to 20 reps, the lower body 10 to 15 reps and the upper body about six to 12 reps.

These guidelines are for healthy adults. For children, teenagers, the elderly or anyone with medical conditions, higher repetitions with lighter weight is advised. \*\*Consult a physician prior to beginning a strength-training program.

## Proper Lifting Technique

When lifting weights use slow, controlled movements and never jerk the weight. It should take about 2 full seconds to move through the full range of motion. Pause for a second and slowly lower the weight with a slow, gradual movement to increase efficiency. It should take about four seconds to lower the weight back to the starting position.

## Exercises Performed

A solid strength training routine can be done with as little as 7 exercises. The major muscle groups should be targeted: the gluts, hips, quads, hamstrings, calves, biceps, triceps, abdominals and lower back. The shoulder joint can be effectively worked with two exercises each for the chest, the lats and the deltoids. Start with the largest muscle groups first.

## Frequency

Efficient strength training includes intense exercise coupled with rest. During workouts muscle tissue is broken down. It is the recovery phase that allows the muscle to rebuild itself and get stronger. About 48 to 72 hours is a good recovery phase timeframe.

If you want to maximize strength gains and minimize time spent in the gym, use these tips and focus on quality of training rather than the quantity. You may find that strength gains come quickly when you use your time wisely.