

# **STRENGTH TRAINING 101**

Much has been written about the benefits of cardiovascular training. Until recently, however, little attention has been given to strength training, an important component of a balanced fitness program.

You do not need to be a body builder to benefit from strength training. A well-designed strength-training program can provide the following benefits:

Increased strength of bones, muscles and connective tissue (the tendons and ligaments), decreasing the risk of injury.

Increased muscle mass. Most adults lose about one-half pound of muscle per year after the age of 20. This is largely due to decreased activity. Muscle tissue is partly responsible for the number of calories burned at rest (the basal metabolic rate or BMR). As muscle mass increases, BMR increases, making it easier to maintain a healthy body weight.

strength increases, the effort required to perform daily routines (carrying groceries, working in the garden) will be less taxing.

## THE CORE CURRICULUM

The box to the right includes exercises to work all the major muscle groups. Neglecting certain groups can lead to strength imbalances and postural difficulties. You may wish to consult with a certified fitness professional to learn safe technique before beginning a strength-training program.

One set of 8-12 repetitions, working the muscle to the point of fatigue, is usually sufficient. Breathe normally throughout the exercise. Lower the resistance with a slow, controlled cadence throughout the full range of motion. Lifting the weight to a count of two and lowering it to a count of three or four is effective. When you are able to perform 12 repetitions of an exercise correctly (without cheating), increase the amount of resistance by 5 percent to 10 percent to continue safe progress.

| Exercise       | <b>Muscle Group</b>  |
|----------------|----------------------|
| Leg Press      | quadriceps, gluteals |
| Leg Curl       | hamstrings           |
| Chest Press    | pectorals            |
| Lat Pull Down  | latissimus dorsi     |
| Lateral Raise  | deltoid              |
| Triceps Press  | triceps              |
| Biceps Curl    | biceps               |
| Curl-up        | abdominals           |
| Back Extension | erector spinae       |

## STAYING MOTIVATED

An encouraging aspect of strength training is the fact that you'll likely experience rapid improvements in strength and muscle tone right from the start of your program. Don't be discouraged, however, if visible improvements begin to taper off after a few weeks. It's only natural that, as your fitness level improves, improvements in strength and appearance will follow at a slightly slower pace. To help keep your motivation up, find a partner to train with you.

Aim to exercise each muscle group at least two times per week, with a minimum of two days of rest between

workouts. Training more frequently or adding more sets may lead to slightly greater gains, but the small added benefit may not be worth the extra time and effort (not to mention the added risk of injury).

#### VARY YOUR PROGRAM

Machines and free weights are effective tools for strength training, and a combination of the two is generally recommended. Utilizing both machines and free weights provides exercise variety, which is important for both psychological and physiological reasons. Variety not only reduces boredom, but also provides subtle exercise differences that will enhance progress.

The benefits of strength training are no longer in question. Research continues to demonstrate that strength training increases both muscle and bone strength and reduces the risk of osteoporosis. A safe strength-training program combined with cardiovascular and flexibility training will give you the benefits of a total fitness program.

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