



## Pump Up to Stay Fit

*Strength training boasts many fitness benefits without the bulk*

BY SUE DE PASQUALE

When most of us think of cardiovascular exercise, our thoughts turn to sports like running, swimming or tennis. Neal Pire would like to put another option on our heart-healthy radar: strength training.

“Resistance training has been shown not just to make you stronger and more able to take on the physical stresses of mowing the lawn and lifting your kids. It’s also been shown to enhance and maintain cardiovascular health,” notes Pire, a fellow of the American College of Sports Medicine (ACSM) who has worked as a personal trainer for 27 years.

Indeed, he says, the latest scientific evidence points to strength training as an important weapon in our battle to slow the effects of aging. In addition to strengthening the heart, regular workouts help build and maintain bone mass, preventing osteoporosis; increase metabolism, which can help with weight maintenance and loss; and improve strength and body tone, making it easier to stay active and perform our daily activities.

Strength training is often referred to as “resistance training” because it involves loading a muscle group with some form of resistance—provided by free weights, machines, bands/tubes or your own body weight (think pull-up). The goal, surprisingly enough, is to cause muscle overload—to actually damage muscle fiber, according to the ACSM. The damaged fibers send out substances that call for the arrival of cells to clean up the damage and then signal the production of new proteins to repair the muscles. This cycle of muscle damage/muscle repair over time leads to a buildup of muscle protein, which makes muscles bigger and stronger and able to handle more resistance.

Getting started on a resistance-training program is simple, says Pire, and it needn’t be an expensive undertaking. While many people opt to start working out at a gym or with machines at home, “gym membership isn’t mandatory,” he says. All you need is a few hand weights—even some weighted juice cans will do.

“The basic guidelines call for a minimum of one resistance-training exercise per major muscle group”—arms, shoulders, chest, abdomen, back, hips and legs, says Pire. But

one exercise can impact multiple muscle groups. Thus, an effective workout can be as simple as doing squats (for the quadriceps), push-ups (for the pectorals and triceps), arm raises (for the shoulder muscles), lunges (for the backs of thighs) and a curl movement (to flex the elbows).

Many novices, however, prefer to start their training at a gym or health club, where a trainer can create a personalized training regimen that utilizes the wide array of machines and free weights available.

A cautionary note from Pire. "It's important to be able to discern whether you're getting the right information and guidance." The surest way? "Look for a certified personal trainer."

Wherever you decide to train, and whatever "recipe" of exercises you decide to follow (and these are as varied as the experts who create them), there are general recommendations from the American College of Sports Medicine that can help you improve and maintain your health.

- Plan to work out two to three days per week, allowing a day between each workout to give muscles time to repair.
- Do a minimum of eight to 10 repetitions of an exercise (known as a "set") per muscle group. With each set, you want to push yourself to "volitional fatigue," the point where "you can't do the exercise correctly any more; your muscles are tired," Pire explains.
- As your muscles adapt and it becomes easier to do an exercise, "it's time to grab a heavier can of corn," says Pire. Adjust the level of resistance and add a set.
- Plan to rest one to two minutes between each set, or until your breathing has returned to normal.
- Cold muscles are more prone to injury than warm ones. Get the blood flowing by starting with five to 10 minutes of light aerobic exercise, then doing some warm-up sets, using lighter-than-usual resistance.

Worried about turning into an Arnold Schwarzenegger? You needn't be. The bulging muscles and rippling tendons you see on bodybuilders are the result of years spent lifting ever increasing loads of weight.

Studies have shown that most people are apt to stick with a resistance-training program if they limit workouts to 20 to 30 minutes, several times a week.

In his nearly three decades of experience as a personal trainer, Pire has found that novices begin to feel results within just two weeks. "Everything starts feeling a little tighter," he says. The visual payoff takes a little longer. But within six weeks, says Pire, you should be able to look in the mirror and see a new, toner you. ■



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