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## Guide to starting a strength training program

*Building muscle is essential for men to compensate for age-related muscle loss. And it's never too late to begin.*

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By **Matthew Solan**, Executive Editor, *Harvard Men's Health Watch*

Reviewed by **Howard E. LeWine, MD**, Chief Medical Editor, Harvard Health Publishing;  
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Most men will lose about 30% of their muscle mass over their lifetimes, a natural process known as sarcopenia.

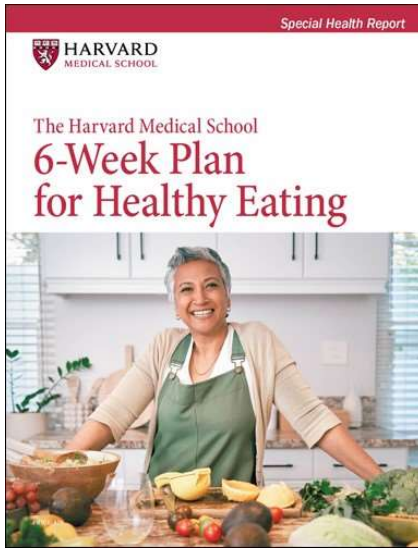
But the good news is that no matter your age, there is still time to build and maintain muscle. The key is strength training (also known as weight training).

It consists of upper- and lower-body exercises using free weights (like dumbbells, kettlebells, or barbells), weight machines, resistance bands, or body weight. Strength training challenges muscles, damaging its fibers, which the body then repairs, increasing the muscle's size.

## Big muscles, big gains

Bigger muscles have numerous benefits. "Greater muscle mass usually means increased strength and improved mobility, balance, and joint health, all of which can help add years to one's life," says Dave Granito, director of Injury Prevention and Recovery with Harvard-affiliated Massachusetts General Hospital.

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Working your muscles is also good for the brain. Research has shown that engaging in strength training is associated with maintaining brain functions like memory, attention, and concentration.

A study published online Jan. 14, 2020, by *NeuroImage: Clinical* found that six months of strength training in older adults with mild cognitive impairment was linked to less shrinkage of the hippocampus (a brain region crucial to learning and memory) on MRI scans compared with similar adults who didn't do strength training.

Whether you are new to strength training or returning after a break from exercise, there are specific steps you should follow. First, always check with your doctor before embarking on any strength training routine. Once you get a medical green light, Granito recommends investing in sessions with a licensed and credentialed personal trainer.

"They can design a personalized program and, most important, teach you proper form and technique, which can help avoid injuries," says Granito.

Check with your local gyms for referrals and seek out trainers who have experience working with older adults. Also, look for trainers with accreditation from the National Strength and Conditioning Association (NSCA). Even if you can't afford regular training sessions, signing up for a consultation and a few workouts can enable you to learn the basics so you can then work out on your own. (Many trainers also offer virtual workouts.)

The specifics of a strength training program vary depending on a person's current health, muscle strength, and goals. But a basic plan focuses on the main muscle groups: chest, back, arms, shoulders, core, and legs.

"While all muscle groups are important, strong leg muscles are especially vital for older adults, as these are involved in many daily functional movements like squatting and climbing stairs," says Granito.

That means paying particular attention to the quadriceps and hamstrings (in the thighs), the gluteals (in the buttocks), and the calf muscles.

## Increase daily protein

Evidence suggests that the combination of higher protein intake and strength training can build muscle mass. The goal of daily protein intake when strength training should be 1 to 1.2 grams per kilogram (kg) of body weight per day. So, a 175-pound man (about 80 kg) should aim for about 80 to 95 grams of protein daily. Divide protein intake equally among your meals, but consume 20 to 40 grams within an hour after a workout to help with muscle fiber repair. Good protein sources include

- whey- or plant-based protein powder (check the label for serving size and protein content), stirred into oatmeal, a smoothie, yogurt, or a glass of water
- 3 ounces lean chicken (24 grams)
- 6 ounces plain Greek yogurt (17 grams)
- 2 eggs (13 grams)
- 1 cup nonfat milk (9 grams).

# Know the basics

Here are some other basics a successful strength training program follows.

**Reps and sets.** Do eight to 12 repetitions ("reps") of an exercise at a level of difficulty that makes the final two reps challenging. Use a heavier weight if you can continue beyond 12 reps, and use a lighter one if you can't do at least eight. "Your muscles need to be stressed to grow," says Granito.

When using resistance bands, adjust the tautness to make movements more or less difficult. You can even adjust the challenge of body-weight movements. For example, do a push-up from your knees or against a counter if a traditional push-up is too demanding; to increase resistance, elevate your feet.

Each group of eight to 12 reps is called a set. Granito suggests beginning with two sets for each exercise. As you progress, you can add a third. "Make sure to rest in between sets for anywhere from 30 seconds to two minutes, or longer if needed, to help you recover," he says.

**Two days at first.** "Two days a week of full-body training can produce measurable changes in muscle strength," says Granito. You will likely notice results after four to six weeks of consistent training.

**Take a rest.** Rest at least 48 hours between sessions, and wait three to four days between workouts for a particular muscle group. For instance, if you exercise your legs on Monday, wait until at least Thursday before doing another leg-focused workout. "But always listen to your body and take off extra time if needed," says Granito.

**Track your progress.** Keep a log of your workouts, noting what exercises you did, including the weight and number of reps. Check your progress monthly. "Small gains are hard to see, but writing down your results can help you track improvement, which increases motivation," says Granito.

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## About the Author

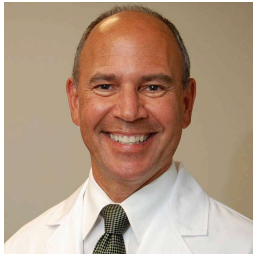


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