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Consults

Experts on the Front Lines of Medicine

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Stairs as Fitness Tool?

By HARVEY B. SIMON, M.D.

Elizabeth K. Bristow One of the best-kept secrets in preventive medicine is the staircase.

New York Times reader David Frank of Clayton, Mo., asks the *Consults* blog:

While everyone knows there is benefit in walking up the stairs rather than using the elevator, is there a worthwhile health benefit from walking down stairs?

Dr. Harvey Simon, associate professor of medicine at Harvard Medical School, responds:

You're right about climbing stairs; in fact, walking up stairs is one of the best-kept secrets in preventive medicine.

Coaches, cardiologists and housewives have long been in on the secret. Many football coaches "ask" their players to charge up flight after flight of stadium steps to get in shape, and other competitive athletes put gymnasium stairwells to similar use. In the days before stress testing held sway, doctors would often walk up stairs with their patients to check out cardiopulmonary function. Even today, cardiologists tell heart patients they are fit enough to have sex if they can walk up two or three flights comfortably, and surgeons may clear patients for lung operations if they can manage five or six flights. As for housewives, taking care of a two- or three-story home is one reason American women outlive their husbands by an average of more than five years.

What's so special about climbing stairs? Researchers in Canada answered the question by monitoring 17 healthy male volunteers with an average age of 64 while they walked on the level, lifted weights or climbed stairs. Stair climbing was the most demanding. It was twice as taxing as brisk walking on the level and 50 percent harder than walking up a steep incline or lifting weights. And peak exertion was attained much faster climbing stairs than walking, which is why nearly everyone huffs and puffs going upstairs, at least until their "second wind" kicks in after a few flights.

Because stairs are so taxing, only the very young at heart should attempt to charge up long flights. But at a slow, steady pace, stairs can be a health plus for the rest of us. Begin modestly with a flight or two, and then add more as you improve. Take the stairs whenever you can; if you have a long way to go, walk part way, and then switch to an elevator. Use the railing for balance and security, and don't try the stairs after a heavy meal or if you feel unwell.

Even at a slow pace, you'll burn calories two to three times faster climbing stairs than walking briskly on the level. The Harvard Alumni Study found that men who average at least eight flights a day enjoy a 33 percent lower mortality rate than men who are sedentary — and that's even better than the 22 percent lower death rate men earned by walking 1.3 miles a day.

Since every little bit of exercise is a step forward on the long road to health, walking down stairs is also a plus. But while gravity makes walking up tough, it makes walking down easy on the heart.

Since you'll burn less than a third as many calories going down a flight as going up, don't count on walking down to build fitness or shed fat. Still, you use different muscles going down, and they contract differently at that, so going down does make a contribution to your legs. It may also improve balance, but since many older people are a bit challenged in that department, it's wise to use the railing, or at least be railing-ready.

Want to stay well? Step right up — and, perhaps, down.

Dr. Simon is also on the health sciences technology faculty at the Massachusetts Institute of Technology and founding editor of the Harvard Men's Health Watch.