

## ***Sarcopenia, the term for age-related muscle loss, is largely avoidable***

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If you're over the age of 30, there's something you ought to know about your muscles: They're probably shrinking.

Once most adults pass the physical prime of their teens and 20s, they lose an average of 10 ounces of lean body mass a year, mostly in the form of muscle tissue.

It's a process more insidious and crippling than osteoporosis, but few people notice until they realize it's getting difficult to climb the stairs or heft themselves off the sofa. Unchecked, the gradual erosion of muscle strength is the major reason elderly Americans are forced to move into nursing homes.

It wasn't until a few years ago that medical experts put a name to the phenomenon: sarcopenia, derived from the Greek words for vanishing flesh. In the mid-1990s, several labs across the country launched the first major studies of the subject.

Today, a new understanding of age related muscle loss is beginning to emerge, along with some hopeful indications. Far from being as unavoidable as gray hair and wrinkles, sarcopenia can be reversed or slowed significantly by strength-training exercise.

While it's best to start exercising early, several studies show it's never too late to regain some muscle strength.

"It's not an inevitable consequence of aging," said exercise physiologist Michael Hewitt. "It's an inevitable consequence of disuse."

Hewitt is director of health and healing for Canyon Ranch, an exclusive health spa in the Tucson foothills where guests pay upward of \$5,000 a week to be pampered and coached in healthy living.

But it doesn't take a trust fund or even a health club membership to learn four simple exercises that can stave off the ravages of sarcopenia, Hewitt said during a recent Seattle conference on aging.

"It only takes five to eight minutes, twice a week," Hewitt said. "No one can say: I don't have time for that."

These strength-training exercise, or others like them, should be a part of any fitness regimen, said Hewitt and other exercise experts.

While many people focus their workouts on jogging, stair climbing or other aerobic activities, that doesn't help counter the gradual deterioration of muscle strength, said Larry Woodward, occupational therapist for a YMCA.

"Since we don't work in the fields like we used to, we don't go hunting, we're more sedentary; we need to exercise those muscles," he said.

At the same time muscle begins vanishing from our bodies, fat begins accumulating. Few people actually lose 10 ounces of weight every year. Most adults gain about a pound a year - nearly all in

the form of fat, which masks the loss of lean tissue.

"It's such a slight loss yearly that we just don't notice it until 10 or 12 years have gone by," Woodward said. "If you don't do something, it really sneaks up on you."

The higher the proportion of fat in your body, the lower your metabolism, which exacerbates the problem of muscle loss by making it more difficult to be active and shed fat, Hewitt said.

Irwin Rosenberg coined the term "sarcopenia" and leads the Human Nutrition Research Center on aging at Tufts University in Boston, where many of the ongoing studies are centered. In 1997, the National Institutes of Health began a broad-based research program on the phenomenon, which can be devastating to the elderly.

Not only does loss of muscle mass lead to frailty and helplessness, it also contributes significantly to life threatening bone breaks.

"The weakness that results in imbalance that results in falling is a very important element, along with low bone mass, in the high incidence of hip fractures," Rosenberg said.

So far, studies show that even people in their 90s can improve their muscle function through strength training exercise, he said. And for people who begin exercising earlier, the news is even better.

"If you take people that have maintained physical activity from early on, and you compare them to ones that haven't, at the age of 70 or 75 there's a striking difference," Rosenberg said.

"Not only do the ones who have been physically active and have done resistance training have more muscles, but they also have less fat in their muscles."

Often, people in their 30s and 40s are so busy with their careers and families that they neglect their bodies, Woodward said. It's not until they have an injury or get a warning from their physician that they're jolted back into activity.

By then, their muscle loss can be significant. And while they can make up some of the difference, it's harder.

"If you don't get started and stick with it, it only gets tougher on your body," Woodward said.

Age does bring some inevitable, physical losses, Hewitt pointed out. It's entirely possible for a fit 70-year-old to have more muscle mass than she had at the age of 30. But it's not possible for her to develop more muscle in old age than she could have had in her 30s, had she been in tip-top shape.

Still, even a slight increase in muscle strength at any age can significantly improve quality of life--and stave off the frailty that used to be considered a normal part of getting old.