

Lift weights to live longer, live stronger

Many people are living longer than previous generations. But longevity doesn't always include the best quality of life. If you are between the ages of 30 and 110 and would like to add quality to the length of life, this week's topic is especially for you.

One secret to maintaining quality of life in later years is to add a little more resistance to your life right now. Resistance exercise, also called strength training, becomes particularly important as you get older. Its value is not so much for "bulking up," but for building strength and maintaining muscle mass, among many other benefits.

A typical side effect of aging is loss of muscle mass. Typically, people lose muscle (and strength) and gain fat with age. People can weigh the same in their 50s and 60s as they did in their 20s but have a different body size and shape due to these typical changes in muscle and fat.

An immediate benefit from resistance exercise is that even at rest, muscles burn more calories than body fat. This means that building or maintaining muscle mass will help prevent the typical decline in calorie needs that occurs with age. More muscle translates into being able to eat more calories without

gaining body fat.

A long-term benefit of resistance exercise is the decreased risk of injury from falling as you grow older. And injuries due to falls and the inability to recover from these injuries often leads to loss of independent living or death in older people.

Weight lifting or any exercise that "works" a muscle or defined group of muscles at a high intensity is considered resistance exercise. Many types of exercise equipment have been designed specifically for strength training of target muscle groups, like arms and legs. The usual recommendation is to use a resistance (or weight) that allows you to complete an exercise 8 to 15 times. For those under 50 years of age, the recommendation is to use a weight or resistance that allows only 8-12 repetitions. For those over 50, the weight or resistance should be slightly less, allowing 10-15 repetitions.

With only 2 to 3 workouts a week, research has shown that even people in their 90's can build strength and muscle mass with proper strength training. So, it is never too late to start.

Another benefit of resistance training is helping to prevent and sometimes treat chronic low back pain. Strength training also helps to

strengthen the bones from exercises.

Should we replace our walking and jogging with weight training?

No. Regular aerobic exercises like walking, jogging and cycling help reduce the risk and developing chronic diseases such as heart disease and noninsulin dependent diabetes (adult onset). However, recent research shows that resistance exercise helps some aspects of these conditions as well.

Simple tasks such as carrying groceries or lifting boxes are common triggers of heart attacks. This is probably because lifting causes a rapid increase in blood pressure. People who are involved in a strength-training program generally have a smaller increase in blood pressure during lifting. This, in turn, places less stress on the heart and thereby reduces their risk of having a heart attack due to lifting.

It's a good idea to get your doctor's clearance before starting any exercise program including a resistance exercise program. And remember a strength training program should be developed gradually, giving the body time to adapt and strengthen. Ideally, get some professional guidance to do it right. And expect some sore muscles at first!

Alan Titchenal, Ph.D, CNS and Joannie Dobbs, Ph.D, CNS
are nutritionists in the Department of Human Nutrition, Food and Animal Sciences,
College of Tropical Agriculture and Human Resources, UH-Manoa.
Dr. Dobbs also works with the University Health Service.
