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Muscle strength can be maintained by eating healthy, exercising regularly

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THE muscles in our bodies are generally soft tissues and are essential tools to keep the body moving, whether you're doing regular exercises at the gym or running full marathons. Aside from physical activities, muscles are vital in moving and supporting various organs like the heart, for example, which is perhaps the hardestworking muscle that beats constantly so that humans survive.

The body's muscles are a complex setup made up of more than 600 ones, mainly made of thousands of small woven fibers. These fibers are stretched and pressed together to move the organs or the body so that it will function, while providing the strength and energy to support movement, stability, digestion, circulation, and many other bodily functions.

According to the Cleveland Clinic, a nonprofit multispecialty academic medical center that integrates clinical and hospital care with research and education, the muscles that move the body have two types of movements, voluntary and involuntary. Voluntary actions are movements that humans can control, where it can perform an action and the muscles move the body to make that action happen. Involuntary movements, on the other hand, are those that happen automatically without even thinking about them. The clinic says the beating heart and the muscles in the chest and back that move the ribs when breathing are examples of involuntary movements.

Using a combination of voluntary and involuntary movements, muscles help the body in terms of vision, hearing, breathing, speaking and swallowing, food digestion and eliminating body waste, movement, pumping blood through the heart and blood vessels, even giving birth, and stores and releases energy that the body uses as part of metabolism, the clinic pointed out.

Muscle wear and tear

HOWEVER, just like any complex machinery, the body's muscles also experience wear and tear due to constant use. Over a period of years, the muscle mass and strength may dissipate gradually, sometimes starting at the age of 30 years. However, this loss may also be because of a serious condition called sarcopenia, which is more common due to age.

According to the Asian Working Group for Sarcopenia (AWGS) sarcopenia is the "age-related loss of skeletal muscle mass plus loss of muscle strength and/or reduced physical performance without reference to comorbidity." Since October 1, 2016, the International Classification of Disease defines sarcopenia as a "disease, a major clinical problem that mostly affects older people with adverse outcomes, including poor quality of life, increases in falls, fractures, disabilities, institutionalization, and increased mortality risks."

Studies have also shown that there are many different factors that may cause sarcopenia, such as age-related changes, lifestyle factors, and chronic diseases.

According to Dr. Jose Dimaano, Jr., Medical Director for Abbott's nutrition business in Asia Pacific, muscles are the largest component of the total body lean mass, which is everything that makes up the body except for fat. "In fact, muscles usually account for 50 to 60 percent of our body weight. This is why healthy muscles are essential to a person's physical strength, organ function, skin integrity, immunity and wound healing."

Nutrition and exercise matters

DR. Dimaano pointed out that muscle health matters, more importantly for older adults who are vulnerable to involuntary age-related muscle decay. Starting around the age of 40, he said adults can lose up to eight percent of their muscle mass per decade, and this rate of loss almost doubles after the age of 70.

“As we age, muscle fibers shrink. Muscle tissues are also replaced more slowly, and often by tough, fibrous or fatty tissues that are rigid. And if you don’t meet your nutritional and exercise needs, your muscles will be less efficient in their ability to contract, leading to diminished strength and function,” said Dr. Dimaano.

Speaking of sarcopenia, Dr. Dimaano said it may affect nearly one in three people over the age of 50. Sarcopenia can significantly impact a person’s quality of life and drive health complications. He said drastic muscle decay can impede one’s ability to do simple tasks such as walking, climbing a flight of stairs or even standing up from a chair. The condition can also increase incidences of falls and fractures that can cause disability, hospitalization and loss of independence.

“Malnutrition is one of the many factors that can quicken muscle mass loss among older adults,” Dr. Dimaano added. “What’s tricky is that malnutrition is actually common but often goes undetected because it can be asymptomatic or dismissed as part of the aging process.”

To prove his point, Dr. Dimaano stressed the value of early detection and intervention to address nutritional gaps to prevent sarcopenia, adding that healthy eating and properly exercising daily are both critical elements in preventing and treating sarcopenia.

He said that by choosing a balanced diet full of vegetables, fruits, whole grains, healthy fats and key vitamins and minerals, like calcium and vitamin D, these can help protect muscle mass, while older adults should also look to protein and HMB (β -hydroxy- β -methylbutyrate), a small molecule found in the body after the amino and the leucine is metabolized. Protein, he said, found in protein-rich food types such as meat, fish, beans, soy and nuts, forms, builds and repairs the physical structure of every part of the body.

“We often don’t get the right amount of nutrients our body needs from our meals alone,” Dr. Dimaano pointed out. “That’s why Abbott develops sciencebased nutrition for people of all ages, including oral nutrition supplements with HMB to help Filipino adults stay strong and active.”

“What we want people to understand is that while aging is natural, age-related muscle decay doesn’t have to be inevitable. Eating healthier, engaging in physical activity and using HMB nutritional supplementation are the right steps toward preserving muscle strength,” he concluded.