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Opinion Article

Long-Term Aerobic Exercise for Strong Muscles

Fung Fai Guo*

Department of Anatomy, The University of Hong Kong, Hong Kong, China

DESCRIPTION

Muscle mass refers to the amount of muscle tissue in the body. It is important for maintaining overall health and functionality, playing a vital role in movement, stability, and metabolism. As we age, muscle mass naturally decreases, a process known as sarcopenia. This decline can lead to reduced strength, mobility issues, and an increased risk of falls and fractures. Preserving muscle mass is essential for maintaining quality of life, especially in older adults. Aerobic exercise, also known as cardiovascular or endurance exercise, involves continuous, rhythmic physical activity that increases heart rate and breathing. Common examples include walking, running, cycling, and swimming. Aerobic exercise is widely known for its benefits to cardiovascular health, weight management, and overall fitness. However, its role in preserving muscle mass is equally significant but often overlooked.

Aerobic exercise preserves muscle mass

Aerobic exercise improves cardiovascular function, which enhances blood flow to muscles. Increased blood flow ensures that muscles receive adequate oxygen and nutrients necessary for maintenance and repair. This improved circulation supports muscle health and helps prevent muscle atrophy. Mitochondria, the powerhouses of cells, play a critical role in energy production. Aerobic exercise stimulates mitochondrial biogenesis, the process by which new mitochondria are formed. Healthy mitochondria are essential for muscle endurance and function, helping to sustain muscle mass over time. Regular aerobic exercise can reduce the rate of muscle protein breakdown. It achieves this by improving the body's metabolic efficiency and reducing the overall stress on muscles. With lower rates of protein degradation, muscles can maintain their mass and strength more effectively. Aerobic exercise positively influences hormonal balance, particularly by increasing the levels of growth hormone and testosterone, which are vital for muscle maintenance and growth. These hormones help stimulate muscle protein synthesis, counteracting the natural decline in muscle mass that occurs with aging. Chronic inflammation is a common factor in muscle degradation and sarcopenia. Aerobic exercise has anti-inflammatory effects, reducing the levels of inflammatory markers in the body. Lower inflammation helps protect muscle tissue from damage and preserves muscle mass.

Benefits of preserved muscle mass

Maintaining muscle mass through long-term aerobic exercise offers numerous benefits, include, muscle tissue is metabolically active, meaning it burns calories even at rest. Preserving muscle mass helps maintain a healthy metabolism, aiding in weight management and reducing the risk of obesity-related diseases. Muscle mass is directly linked to strength and mobility. By preserving muscle mass, individuals can maintain their ability to perform daily activities, reduce the risk of falls, and stay independent as they age. Muscle health and cardiovascular health are interconnected. Strong muscles support cardiovascular function, and aerobic exercise that preserves muscle mass also improves heart health, reducing the risk of heart disease and stroke. Preserving muscle mass contributes to a longer, healthier life. It improves physical and mental well-being, allowing individuals to enjoy a higher quality of life and engage in a wide range of activities.

Practical tips for incorporating aerobic exercise

To preserve muscle mass through aerobic exercise, engage in aerobic activities that you enjoy, such as walking, cycling, swimming, or dancing. Enjoyable activities are more likely to be sustained in the long term. Aim for at least 150 minutes of moderate-intensity aerobic exercise per week. Consistency is essential for reaping the long-term benefits of aerobic exercise. While aerobic exercise is beneficial, combining it with strength training exercises can provide even greater muscle-preserving benefits. Strength training helps build and maintain muscle mass directly. Pay attention to your body's signals and avoid overtraining. Rest and recovery are important for muscle repair and growth.

Correspondence to: Fung Fai Guo, Department of Anatomy, The University of Hong Kong, Hong Kong, China, E-mail: fufagi@sina.com

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CONCLUSION

Long-term aerobic exercise is a powerful tool for preserving muscle mass and maintaining overall health. By enhancing blood flow, promoting mitochondrial health, reducing muscle protein breakdown, balancing hormones, and reducing inflammation, aerobic exercise supports muscle maintenance and function. Incorporating regular aerobic activity into your routine can lead to improved metabolism, strength, mobility, and quality of life, especially as you age. Make aerobic exercise a consistent part of your lifestyle to enjoy these enduring benefits.