

Newsletter

Stay Strong — Combating Muscle Loss with Aging

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There is no doubt that, for many, our fathers have been a symbol of strength. But, the reality remains, that for many fathers aging may take its toll on their musculoskeletal (MSK) system. So, this year, how about treating your father with the gift of health? Talk about the importance of strength training and exercise at keeping physically fit so that he can stay healthy and happy for years to come.

As you can imagine, the MSK system is a complex and linked arrangement of bones, muscles, and connective tissues, and related to the neurological system. So, if one part of the system is deficient, others tend to be impacted too. As we age, we naturally start losing muscle mass. For some, this process can start as early as 30s.¹ At first, the difference in muscle mass is barely noticeable, but in the long-term it can lead to loss of function, and even an increased risk of injury, like a fall never too late to take measures to slow down the process of muscle loss and mitigate related risks.

Natural muscle mass loss should not be confused with other types of muscle loss, which may be linked with certain conditions or diseases, recovery from surgery, from neurogenic atrophy which occurs when there is injury or malfunction of the nerve that supplies a muscle.

For most people, muscle atrophy happens due to disuse from lack of (or greatly reduced) physical activity, or from one's natural aging process. According to the American College of Sports Medicine,¹ *sarcopenia*, a loss of skeletal muscle mass, results in a decrease in muscle size and its functional strength. The changes in muscle size ultimately, its strength levels are related to the shrinking and loss of muscle fibres.

Fortunately, studies have shown that older muscles can adapt and increase in capacity with specifically designed training programs, resulting in gains in both strength and muscle size regardless of age or gender.²

There are certainly steps that you can take regardless of your age to improve your muscle and MSK health. Strength training is one of the keys to healthy aging. Here are some reasons why²:

- **Avoid Muscle Loss:** Adults who do not strength train lose between 2.2 kg (4.9 lbs) and 3.2 kg (6.6 lbs) of muscle every decade.
- **Avoid Metabolic Rate Reduction:** Muscle tissue helps maintain a higher metabolic rate. Research indicates that an average adult experiences a 2% to 5% reduction in metabolic rate every decade of their life.
- **Increase Muscle Mass:** Research shows that a standard strength training program can increase muscle mass by about 1.4 kg (3.1 lbs) over an eight week training period. This is the typical training response for men and women who do 25 minutes of strength exercise three days per week.
- **Increase Bone Mineral Density:** The effects of progressive resistance exercise are similar for muscle tissue and bone tissue. The same training stimulus that increases muscle strength also increases bone density and mineral content.
- **Reduce Risk of MSK Injury:** Research conducted by the University of Florida Medical School has demonstrated that strong musculature, including of the back muscles, can help prevent injuries like low back pain.

References

¹ American College of Sports Medicine. "Strength Training for Bone, Muscle, and Hormones." <https://blogs.umass.edu/bodyshop/files/2009/07/strengthtrainingfort>

² Edwin Cowan University ECU Sports. "10 Reasons to Strength Train." https://www.ecu.edu.au/fas/sport/newsletter/Articles/Reasons_to_strength_trainOLD.pdf