

A MOVEMENT TO SUPPORT HEALTHY AGING

by Karlie Intlekofer, Ph.D.

If you're like a lot of older adults, there's a good chance that you don't work out as much as you intended to. However, recent studies have shown that maintaining an active membership at a fitness facility supports the bodily movement that preserves your muscle strength as you age. Read on to discover how you can turn intent into exercise, and to find out how maintaining your physical fitness can help you keep doing the things you love.

An Active Intent

In a 2022 study out of Denmark, 41% of those surveyed said they "never" or "seldom" exercised, and only 11% exercised regularly. Of those who were currently inactive, most said they wanted to be more physically active. This is where fitness facilities come in, helping you close the gap between your intentions and your actions. Fitness facilities offer a wide variety of options to satisfy different preferences, no matter what your individual goals. They also eliminate your excuses not to exercise due to inclement weather. Ultimately, by helping you stay active and social, the research suggests that health clubs offer "the best opportunities for a healthy lifestyle."

Maintaining Muscle Mass Matters

Our muscle loss is often unnoticeable during mid-life but accelerates in older adults. Until age 45, the average adult loses about 0.4% of their muscle mass annually. By age 75, however, that loss is almost 10-fold higher, with the elderly losing 4% of their muscle mass with each passing year. Although it is tempting to blame your accelerated losses on age, it is mostly a reflection of being less active. Without enough activity, you can lose the connections within the spinal cord that help execute movement. Both inactivity and age are also associated with a loss of connections between your nerves and muscle cells. As these connections between your nervous system and muscles are eliminated, muscle cells shrink, weakening your body. Yet despite the fact that aging is inevitable, losing your muscle function is not. Using and challenging your muscles on a regular basis help them retain their ability to regenerate, even in advanced age.



PEOPLE 75+
LOSE 4%
MUSCLE MASS
PER YEAR
DUE TO INACTIVITY



Active Encouragement

To support healthy aging in your own life, be sure to lead an active lifestyle. Though this doesn't necessarily have to involve a membership at your local fitness facility, such a membership can motivate you to get active and stay active, no matter what the weather outside or the time of day. With all today's fitness facilities offer — both in terms of training variety and social support — they can be an invaluable tool for you when it comes to staying strong, healthy and able to do the things you love.

3 MONTHS OF INDOOR CYCLING

13% INCREASE IN FITNESS

Activating Satellite Cells

Whether your fitness facility visit involves strength training or cardiovascular exercise, challenges to your muscles activate special stem cells. These stem cells divide to create satellite cells that help your muscles adapt and grow. By activating your satellite cells, regular exercise maintains your muscle regeneration capacity and improves your muscle function. Studies have shown that only three months of strength training for those 70 and older increased their number of satellite cells, bolstering their strength by up to 30% and enhancing their muscle size by up to 9%. Additionally, three months of endurance training using an indoor cycle for the same age group was sufficient to increase their number of satellite cells and improve their overall fitness by around 13%.

3 MONTHS OF STRENGTH TRAINING

30% INCREASE IN STRENGTH

9% INCREASE IN MUSCLE SIZE



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Dr. Karlie Intlekofer is a neuroscientist who focuses on the benefits of exercise for brain health and well-being. She has a background in research and teaching at the university level and focuses on exercise motivation and brain areas involved in stress, learning and memory. Her passion in this field is bolstered by experience working with a wide range of ages and abilities as a personal trainer and group exercise instructor. As the Global Wellness Researcher at Matrix Fitness, Karlie integrates evidence-based practices into exercise programming and develops initiatives that support an enduring habit of physical activity.

References:

Castro et al. Aging alters mechanisms underlying voluntary movements in spinal motor neurons of mice, primates, and humans. JCI Insight 2023; 3(9): e169448. https://doi.org/10.1172/jci.insight.168448

Charifi et al. Effects of endurance training on satellite cell frequency in skeletal muscle of old men. Muscle Nerve 2003; 28(1): 87-92. https://doi.org/10.1002/mus.10394

Gonzalez-Freire et al. The neuromuscular junction: Aging at the crossroad between nerves and muscle. Front Aging Neurosci 2014; 11(6): 1-11. https://doi.org/10.3389/fnagi.2014.00208

Mitchell et al. Sarcopenia, dynapenia, and the impact of advancing age on human skeletal muscle size and strength; a quantitative review. Frontiers in Physiology 2012; 3. https://doi.org/10.3389/fphys.2012.00260

Soendenbroe et al. Preserved stem cell content and innervation profile of elderly human skeletal muscle with lifelong recreational exercise. J Physiol 2022; 600(8): 1969-89.
https://doi.org/10.1113/JP282677

Rasmussen et al. An explorative evaluation study of the mechanisms underlying a community-based fitness centre in Denmark – Why do residents participate and keep up the healthy activities? Health and Social Care 2018; 26(6): 898-907. https://doi.org/10.1111/hsc.12614

Shephard & Aoyagi. Seasonal variations in physical activity and implications for human health. European Journal of Applied Physiology 2009; 107: 251-71. https://doi.org/10.1007/s00421-009-1127-1

Verdijk et al. Skeletal muscle hypertrophy following resistance training is accompanied by a fiber type-specific increase in satellite cell content in elderly men. J Gerontol A Biol Sci Med Sci 2009; 64: 332-9. https://doi.org/10.1093/gerona/gln050

Percentages retrieved from: https://www.euronews.com/next/2023/03/05/exercise-in-europe-which-countries-do-the-most-and-least-physical-activity