

How much exercise is required for elderly to gain 250g more muscle?

## In just 8 weeks, users showed 252g increase in skeletal muscle mass when using **BIXEPS**

a patented technology by



Starting around age **40**, muscle mass **decreases** by about **8% per decade**

After **70**, muscle mass **decreases** by about **15% per decade**

Muscle mass plays a key role in our health. Muscle plays a vital role in regulating our metabolism, regeneration and even immune response.

Muscle loss is a natural part of ageing, largely accelerated by inactivity. Regular exercise is the best way to reduce muscle loss. Maintaining healthy levels of muscle mass can help to maintain activeness, independence and quality of life in seniors as they age.

## It becomes **harder** to build muscle **with age**

Interventions for muscle loss focus on increasing physical activities. However, many elderly and frail individuals may find these challenging due to age-related impairments and muscle weakness.

K. Åhlund, B. Öberg, N. Ekerstad, and M. Bäck, "A balance between meaningfulness and risk of harm – frail elderly patients' perceptions of physical activity and exercise – an interview study," BMC Geriatrics, vol. 20, no. 1, p. 490, Nov. 2020, doi: 10.1186/s12877-020-01868-2.

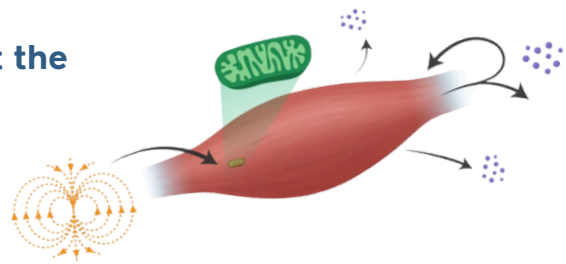
This device is intended to improve general wellbeing and to maintain a healthy lifestyle. It is not intended to be used for any medical purpose, management or treatment of any medical condition or disease. Please consult a physician for any medical advice required.

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## How does BIXEPS help ?

BIXEPS activates muscle mitochondria **without the physical movement or strain**, helping to

- Increase energy production in muscle
- Promote muscle regeneration
- Reduce deconditioning



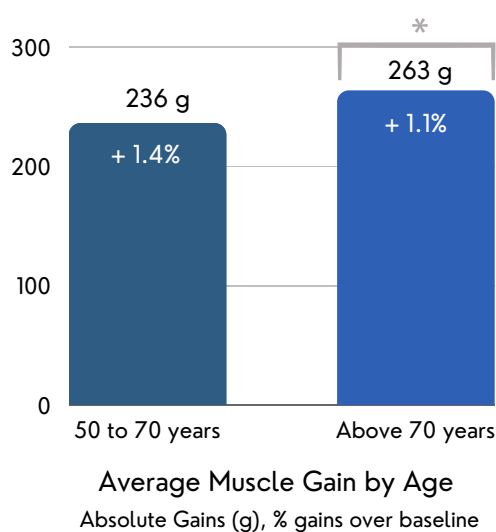
Yap, J.L.Y., Tai, Y.K., Fröhlich, J., Fong, C.H.H., Yin, J.N., Foo, Z.L., Ramanan, S., Beyer, C., Toh, S.J., Casarosa, M., Bharathy, N., Kala, M.P., Egli, M., Taneja, R., Lee, C.N. and Franco-Obregón, A. (2019), Ambient and supplemental magnetic fields promote myogenesis via a TRPC1-mitochondrial axis: evidence of a magnetic mitohormetic mechanism. *The FASEB Journal*, 33: 12853-12872. <https://doi.org/10.1096/fj.201900057R>

In 2022, QuantumTX evaluated the changes in Skeletal Muscle Mass of 33 users in a pilot study and showed that weekly 10-minutes BIXEPS sessions helped slow the loss of muscle mass.

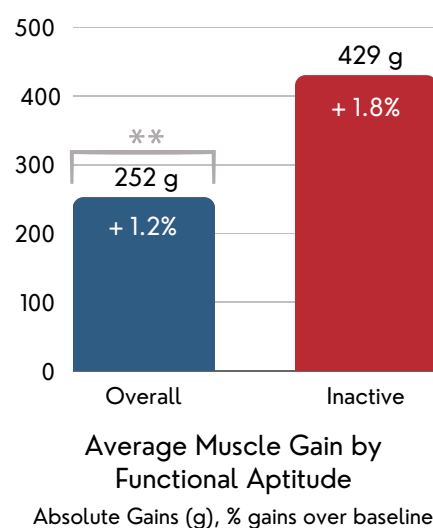
**After only 8 Weeks of BIXEPS, users on average experienced 252g increase in Skeletal Muscle Mass**

The average gains in muscle mass corresponded to an **increase of 1.2%** from baseline. Furthermore, the gains were affected by users' age and functional aptitude.

### Older seniors gained more muscle mass



### Inactive individuals gained more muscle mass



\* p < 0.1, \*\* p < 0.05



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