

Elderly can get fit in 60 seconds

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The health of OAPs can be dramatically improved with high-intensity training (HIT), a new study has shown.

Scientists here at Abertay University, who specialise in exercise and the [ageing process](#), put a group of pensioners through the exercise regime - a population group on which HIT had never been tested before.

They found that - in just six weeks - doing one minute of exercise twice a week not only significantly increased physical fitness and functional ability (the ability to get up out of a chair or carry shopping), but also significantly reduced blood pressure - a risk factor for cardiovascular disease (CVD).

These discoveries have important implications.

Currently, more than 10 million people in the UK are aged over 65, with this figure set to double in the next 30 years.

As people get older, muscles get weaker and smaller, and poor muscle function is a major health concern in the elderly.

The older population is also at greater risk of developing heart disease and type 2 diabetes and - together with frailty - these health issues cost the NHS in the region of £30 billion a year.

Although it is well-known that exercise can help reduce the effects of these age-related declines and can improve quality of life, the majority of older people find it difficult to meet the current exercise guidelines.

These consist of performing moderate to vigorous intensity physical activity - such as fast walking or running - several days per week.

Lack of time is reported as the most common barrier to meeting these guidelines, and the research team at Abertay believes that HIT offers an alternative to the current, unrealistic, recommendations.

Dr John Babraj explains:

"The ageing process is generally looked on quite negatively by society, with everyone knowing that you find it more difficult to carry out day-to-day activities like standing up from your chair, or carrying your shopping, as you get older.

"What we found with this study - which involves doing just one minute of exercise twice week - is that it not only improved the participants' physical health and ability to do these things, but also their perceptions of their own ability to engage in [physical activity](#). They enjoyed it, were delighted with the effects it had on their health and, on top of that, felt they could fit it into their lives, which is something they aren't able to do with current exercise recommendations.

"If people aren't meeting the targets, we need to find ways to work with them when it comes to exercise, rather than just persisting with something that isn't working. High-intensity training is an achievable alternative that could make a real difference to people's health and their quality of life.

"With the current increase in the number of retired people, it is important that we find new ways to keep them active that have a positive impact on their health and wellbeing.

"There is eight years of evidence which shows that HIT has a significant impact on obesity, diabetes and heart disease, and this study adds to that, showing that it is something that [older people](#) can benefit from too."

In the study participants were divided into two groups, with one acting as a control and the other required to take part in two sessions of high-intensity training per week.

Each session consisted of 6-second all-out sprints on an exercise bike, with each participant fitted with a heart rate monitor throughout.

The number of sprints in each session was progressively increased over the course of the trial from 6 x 6-second sprints to 10 x 6-second sprints.

A minimum of one minute recovery time was allowed between each sprint, and participants were not allowed to start sprinting again until their heart rate had gone back down to below 120bpm.

Dr Babraj concludes:

"When it comes to the sprints, you don't have to go at the speed of someone like Usain Bolt. As long as you are putting in your maximal effort - whatever speed that happens to be - it will improve your health.

"However, as with any type of exercise, it is important to consult with your doctor before you begin doing HIT, in case there are any underlying health issues."

More information: Adamson, S. B., Lorimer, R., Cobley, J. N. and Babraj, J. A. (2014), "Extremely Short–Duration High-Intensity Training Substantially Improves the Physical Function and Self-Reported Health Status of Elderly Adults." *Journal of the American Geriatrics Society*, 62: 1380–1381. [DOI: 10.1111/jgs.12916](https://doi.org/10.1111/jgs.12916)

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