

Never too late: Reaping the benefits of exercise in early postmenopause

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A snapshot of 12-week training regimen of pre and postmenopausal women who participated in the study. Credit: Dr. Michael Nyberg

Women recently postmenopause have similar or improved benefits from physical activity, in terms of muscle and blood vessel function, as those premenopause. Therefore, early postmenopause might be a time when women can gain increased benefit from physical activity to oppose negative effects of oestrogen loss and aging.

This research, published in the *Journal of Physiology*, was conducted by Professor Hellsten and her team at the University of Copenhagen.

Postmenopausal women are deprived of oestrogen, a hormone with a strong positive effect on muscle and blood vessel function. Previous research had shown that the beneficial impact of physical activity is reduced or absent in [postmenopausal women](#).

This research suggests that the effects of different stages of menopause on physical exercise cannot be lumped together.

The participants were 36 middle-aged pre and postmenopausal women only a few years apart in age. After a 12-week training regimen of high intensity cycling, Professor Hellsten and her colleagues determined the effect of training on the women's muscles and blood vessels using a series of physiological tests. To look at molecular changes, they took tissue samples from thigh muscles.

Less invasive tests in larger and more diverse populations will be important in order to confirm these findings.

Elaborating on the findings, first author Michael Nyberg said,

'The present study pinpoints a possible signalling pathway at the cellular level that may underlie the higher sensitivity to [physical activity](#) in recent postmenopausal women. Future studies should, therefore, further explore this pathway in both animal and human models.'

More information: *Journal of Physiology*, [DOI: 10.1113/JP273871](https://doi.org/10.1113/JP273871)

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