Stretching your legs may help prevent diseases such as heart diseases and diabetes

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New research published today in the *Journal of Physiology* shows that 12 weeks of easy-to-administer passive stretching helps improve blood flow by making it easier for your arteries to dilate and decreasing their

stiffness.

Passive stretching differs from active stretching in that the former involves an external force (another person or gravity) stretching you, whereas active stretching is performed on your own. The changes they observed in blood vessels could have implications for diseases, including the number one global killer, heart disease.

Researchers at the University of Milan assigned 39 healthy participants of both sexes to two groups. The control group didn't undergo any stretching. The experimental group performed leg stretches 5 times a week for 12 weeks. Researchers evaluated the effect of passive stretching on the blood flow locally and in the upper arm. They found that the arteries in both the lower leg and upper arm had increased blood flow and dilation when stimulated, along with decreased stiffness.

Both of these changes may have implications for diseases such as heart disease, stroke and diabetes as they are characterized by changes in blood flow control, due to an impaired vascular system.

If this study is replicated in patients with vascular disease, it could indicate whether or not this training method could serve as a new drug-free treatment for improving vascular health and reducing disease risk, especially in people with lower mobility.

Moreover, stretching may also be used during hospitalization or after surgical interventions, in order to preserve the vascular health when patients have low mobility. It can be also performed at home by carers or family members.

Emiliano Ce, an author on the paper said:

"This new application of stretching is especially relevant in the current

pandemic period of increased confinement to our homes, where the possibility of performing beneficial training to improve and prevent heart disease, stroke and other conditions is limited."

More information: A. V. Bisconti et al, Evidence for improved systemic and local vascular function after long-term passive static stretching training of the musculoskeletal system, *The Journal of Physiology* (2020). DOI: 10.1113/JP279866

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