

The influence of physical exercise on arterial stiffness

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Abstract

The artery structure modifies with aging involving internal and external factors.

The term “arterial stiffness” has been defined as a resistance to dilatation (diameter variation) caused by a force (contraction of the heart) exerted on an elastic body (arterial vascular wall).

Vascular stiffness appears as atherosclerosis and its occurrence may be regarded as one of the major cardiovascular risk factors; arterial stiffness is characterized by the augmentation index (Aix), pulse wave velocity in the aorta (PWVao), central aortic systolic pressure from emerging (SBPao). Each of these parameters represents independent predictors of cardiovascular morbidity and mortality.

Currently, many methods are being used to measure arterial stiffness.

TensioMed™ arteriography enables determining such indices of cardiovascular prognosis, a new non-invasive method oscillometric.

Functional hemodynamic parameters listed above can thus be evaluated and followed over time on the arteriograma of patients with major cardiovascular events (stroke, MI) hospitalized in clinical recovery units and subject to complex specific treatment, adapted to their pathology.

Physical exercise favourably modulates several expressions of arterial stiffening, thus preserving vascular function and possibly reducing the risk of cardiovascular disease.

Keywords: arterial stiffness, arteriograph, cardiovascular risk, physical exercise.