

Publication

Long-term physical activity is associated with reduced arterial stiffness in older adults : longitudinal results of the SAPALDIA cohort study

JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)**ID** 3433260**Author(s)** Endes, Simon; Schaffner, Emmanuel; Caviezel, Seraina; Dratva, Julia; Autenrieth, Christine S; Wanner, Miriam; Martin, Brian; Stolz, Daiana; Pons, Marco; Turk, Alexander; Bettschart, Robert; Schindler, Christian; Künzli, Nino; Probst-Hensch, Nicole; Schmidt-Trucksäss, Arno**Author(s) at UniBasel** [Schaffner, Emmanuel](#) ; [Dratva, Julia](#) ; [Autenrieth, Christine](#) ; [Schindler, Christian](#) ; [Künzli, Nino](#) ; [Probst Hensch, Nicole](#) ;**Year** 2016**Title** Long-term physical activity is associated with reduced arterial stiffness in older adults : longitudinal results of the SAPALDIA cohort study**Journal** Age and ageing**Volume** 45**Number** 1**Pages / Article-Number** 110-5

longitudinal analyses of physical activity (PA) and arterial stiffness in populations of older adults are scarce. We examined associations between long-term change of PA and arterial stiffness in the Swiss Cohort Study on Air Pollution and Lung and Heart Diseases in Adults (SAPALDIA).; we assessed PA in SAPALDIA 2 (2001-03) and SAPALDIA 3 (2010-11) using a short questionnaire with a cut-off of at least 150 min of moderate-to-vigorous PA per week for sufficient activity. Arterial stiffness was measured oscillometrically by means of the brachial-ankle pulse wave velocity (baPWV) in SAPALDIA 3. We used multivariable mixed linear regression models adjusted for several potential confounders in 2,605 persons aged 50-81.; adjusted means of baPWV were significantly lower in persons with sufficient moderate-to-vigorous PA (i) in SAPALDIA 2 but not in SAPALDIA 3 ($P = 0.048$) and (ii) in both surveys ($P = 0.001$) compared with persons with insufficient activity in both surveys. There was a significant interaction between sex and the level of change in PA concerning baPWV ($P = 0.03$). The triples of parameter estimates describing the association between level of PA change and baPWV were not significantly different between the two sex-specific models ($P = 0.07$).; keeping up or adopting a physically active lifestyle was associated with lower arterial stiffness in older adults after a follow-up of almost a decade. Increasing the proportion of older adults adhering to PA recommendations incorporating also vigorous PA may have a considerable impact on vascular health at older age and may contribute to healthy ageing in general.

Publisher OXFORD UNIV PRESS**ISSN/ISBN** 1468-2834**edoc-URL** <http://edoc.unibas.ch/41974/>**Full Text on edoc** No;**Digital Object Identifier DOI** 10.1093/ageing/afv172**PubMed ID** <http://www.ncbi.nlm.nih.gov/pubmed/26764400>**ISI-Number** WOS:000369089700021**Document type (ISI)** Journal Article, Multicenter Study