

Publication

Carotid stiffness and physical activity in elderly : a short report of the SAPALDIA 3 cohort study

JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)**ID** 3136015**Author(s)** Caviezel, Seraina; Dratva, Julia; Schaffner, Emmanuel; Schindler, Christian; Endes, Simon; Autenrieth, Christine S.; Wanner, Miriam; Martin, Brian; de Groot, Eric; Gaspoz, Jean-Michel; Künzli, Nino; Probst-Hensch, Nicole; Schmidt-Trucksäss, Arno**Author(s) at UniBasel** [Dratva, Julia](#) ; [Schaffner, Emmanuel](#) ; [Schindler, Christian](#) ; [Autenrieth, Christine](#) ; [Künzli, Nino](#) ; [Probst Hensch, Nicole](#) ;**Year** 2015**Title** Carotid stiffness and physical activity in elderly : a short report of the SAPALDIA 3 cohort study**Journal** PLoS ONE**Volume** 10**Number** 6**Pages / Article-Number** e0128991**Mesh terms** Adult; Aged; Aged, 80 and over; Carotid Artery Diseases, epidemiology; Cohort Studies; Cross-Sectional Studies; Exercise; Female; Humans; Incidence; Male; Middle Aged; Prognosis; Risk Factors; Switzerland, epidemiology; Vascular Stiffness

Regular physical activity has been shown to reduce cardiovascular disease risk in the general population. While smaller studies in specified groups (highly trained versus untrained individuals) indicate a certain dose-dependent effect of physical activity on the reduction of carotid stiffness (an indicator of subclinical vascular disease), it is unclear whether this association is present in a representative sample. Thus, we investigated this question cross-sectionally in participants from the population-based Swiss Cohort Study on Air Pollution And Lung and Heart Diseases In Adults (SAPALDIA).; Self-reported total, moderate and vigorous physical activity and distensibility as a measure of local arterial stiffness among 1636 participants aged 50 to 81 years without clinically manifest diseases were evaluated. Mixed regression models were used to examine associations of physical activity intensity with distensibility.; Vigorous physical activity, but not total nor moderate physical activity, was significantly associated with increased distensibility (= reduced carotid stiffness) in univariate analyses (percent change in the geometric mean and 95% confidence interval per 1 standard deviation increment in vigorous physical activity = 2.54 (0.69; 4.43), $p > 0.01$; in total physical activity = 1.62 (-0.22; 3.50), $p = 0.08$; in moderate physical activity = 0.70 (-1.12; 2.56), $p = 0.45$). These associations disappeared when we additionally adjusted for age.; After adjustment for the most important confounders and risk factors, we found no evidence for an association of physical activity with carotid stiffness in the general middle aged to elderly population.

Publisher Public Library of Science**ISSN/ISBN** 1932-6203**edoc-URL** <http://edoc.unibas.ch/dok/A6390992>**Full Text on edoc** Available;**Digital Object Identifier DOI** 10.1371/journal.pone.0128991**PubMed ID** <http://www.ncbi.nlm.nih.gov/pubmed/26035590>**ISI-Number** WOS:000355699100063**Document type (ISI)** Journal Article, Randomized Controlled Trial