Ideal Cardiovascular Health and Arterial Stiffness in Spanish Adults?The EVIDENT Study

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Background: Studies concerning ideal cardiovascular (CV) health and its relationship with arterial stiffness are lacking. This study examined the association between arterial stiffness with ideal CV health as defined by the American Heart Association, across age groups and gender. Methods: The cross-sectional study included 1365 adults. Ideal CV health was defined as meeting ideal levels of the following components: 4 behaviors (smoking, body mass index, physical activity, and Mediterranean diet adherence) and 3 factors (total cholesterol, blood pressure, and glycated hemoglobin). Patients were grouped into 3 categories according to their number of ideal CV health metrics: ideal (5-7 metrics), intermediate (3-4 metrics), and poor (0-2 metrics). We analyzed the pulse wave velocity (PWV), the central and radial augmentation indexes, and the ambulatory arterial stiffness index (AASI). Results: The ideal CV health profile was inversely associated with lower arterial radial augmentation index and AASI in both genders, particularly in middle-aged (45-65 years) and in elderly subjects (>65 years). Also in elderly subjects, adjusted models showed that adults with at least 3 health metrics at ideal levels had significantly lower PWV than those with 2 or fewer ideal health metrics. Conclusions: An association was found between a favorable level of ideal CV health metrics and lower arterial stiffness across age groups. © 2018 National Stroke Association

Ambulatory arterial stiffness index

Health behaviour

Health factors

Pulse wave velocity

cholesterol

glycosylated hemoglobin

cholesterol

glycosylated hemoglobin

hemoglobin A1c protein, human

adult

aged

arterial stiffness

Article

augmentation index

blood pressure

body mass

cardiovascular system

cholesterol blood level

cross-sectional study

female

health

hemoglobin blood level

human

lifestyle

male

Mediterranean diet

middle aged

physical activity

priority journal

pulse wave

smoking

Spaniard

age

blood

cardiovascular disease

clinical trial

comorbidity

diabetes mellitus

dyslipidemia

exercise

health status

healthy diet

healthy lifestyle

hypertension

ideal body weight

metabolism

multicenter study

pathophysiology

predictive value

protection

psychology

pulse wave

risk factor

risk reduction

sex factor

Spain

very elderly

Adult

Age Factors

Aged

Aged, 80 and over

Blood Pressure

Cardiovascular Diseases

Cholesterol

Comorbidity

Cross-Sectional Studies

Diabetes Mellitus

Diet, Mediterranean

Dyslipidemias

Exercise

Female

Glycated Hemoglobin A

Health Status

Healthy Diet

Healthy Lifestyle

Humans

Hypertension

Ideal Body Weight

Male

Middle Aged