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TITLE

PHYSICAL EXERCISE, FITNESS AND DIETARY PATTERN AND THEIR RELATIONSHIP WITH CIRCADIAN BLOOD PRESSURE PATTERN, AUGMENTATION INDEX AND ENDOTHELIAL DYSFUNCTION BIOLOGICAL MARKERS: EVIDENT STUDY PROTOCOL

COUNTRY

Spain

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KEYWORDS

KEYWORD 1: Arterial stiffness KEYWORD 2: Blood pressure KEYWORD 3: Lifestyles

TYPE OF ABSTRACT

RESEARCH PROJECT

THEME

CLINICAL: Cardiovascular risk factors: High blood pressure, dislipidemia

ONLINE ABSTRACT

AIM(S) OR PURPOSE

Healthy lifestyles may help to delay arterial aging. The purpose of this study is to analyze the relationship of physical activity and dietary pattern to the circadian pattern of blood pressure, central and peripheral blood pressure, pulse wave velocity, carotid intima-media thickness and biological markers of endothelial dysfunction in active and sedentary individuals without arteriosclerotic disease.

DESIGN & METHOD

Design: A cross-sectional multicenter study with six research groups.

Subjects: From subjects of the PEPAF project cohort, in which 1,163 who were sedentary became active, 1,942 were sedentary and 2,346 were active. By stratified random sampling, 1,500 subjects will be included, 250 in each group.

Primary measurements: We will evaluate height, weight, abdominal circumference, clinical and ambulatory blood pressure with the Radial Pulse Wave Acquisition Device (BPro), central blood pressure and augmentation index with Pulse Wave Application Software (A-Pulse) and SphymgoCor System Px (Pulse Wave Analysis), pulse wave velocity (PWV) with SphymgoCor System Px (Pulse Wave Velocity), nutritional pattern with a food intake frequency questionnaire, physical activity with the 7-day PAR questionnaire and accelerometer (Actigraph GT3X), physical fitness with the cycle ergometer (PWC-170), carotid intima-media thickness by ultrasound (Micromax), and endothelial dysfunction biological markers (endoglin and osteoprotegerin).