VASCage Research Center of Excellence in Vascular Ageing - Tyrol
Programm: COMET – Competence Centers for Excellent Technologies
Programmlinie: K-Projekte
COMET-Einzelprojekt, Laufzeit und Projekttyp:
VASCage, 10/2014 – 09/2018, multi-firm

Improving the health of Tyrolean adolescents – EVA successfullly started

Myocardial infarction and stroke are among the leading causes regarding international mortality rates. So far atherosclerosis is the most common risk factor for cardiovascular disease and may even start very early in life according to recent findings. The Early Vascular Ageing (EVA) study aims to assess the vascular health of Tyrolean adolescents and wants to improve their health behaviour. Therefore, a health intervention programme spe-

Early Vascular Ageing

Life style factors such as obesity, low physical activity and smoking have a negative impact on vascular health, contributing to the onset of diseases like stroke and myocardial infarction. Even though stroke and myocardial infarction are both diseases mainly known to affect elderly people, current findings suggest that pathologic vascular changes may start early in life. The objective of the Early Vascular Ageing (EVA) study is to assess the vascular health of Tyrolean adolescents in order to
identify pathologic vascular changes at an early stage. By implementation of an adequate prevention programme, the vascular health of future generations shall be promoted in the long-term.

**Examination and intervention**

1500 students and trainees will be examined with regard to vascular health in their respective schools and companies. The examination scopes measurement of body weight, body length as well as waist and hip circumference. A blood sample will be taken to evaluate for example blood lipid profiles. As a marker for vascular changes the intima-media sickness of the common carotid artery will be assessed using a high-resolution sonography. Furthermore, the pulse wave velocity will be measured. In order to assess life style factors such as diet, physical activity and smoking a questionnaire will be provided. Afterwards each participant receives a detailed report about their respective health status by the medical staff.

Apart from the medical examination, an additional objective of the EVA-project is to sustainably strengthen the youngsters’ awareness of a healthy lifestyle. Therefore an interdisciplinary team of IT-specialists and public health care experts is involved in this project. In cooperation with the IT-company InfPro a mobile app is currently being developed, specifically designed for the young target group, that will promote a better health condition. Furthermore, health care experts of the Tiroler Gebietskrankenkasse will provide support for the participating schools regarding health promotion at site. Another aspect of this project is offered by Milchhof Sterzing, giving the youngsters the opportunity to get involved in the creation of a new healthy and appealing yoghurt. Recently a video was shot to provide information about the EVA-project and the importance of vascular health. [https://www.youtube.com/watch?v=DkOQhbGFzRc](https://www.youtube.com/watch?v=DkOQhbGFzRc)

**Figure 1: Measurement of intima-media thickness of the common carotid artery via high resolution sonography**

**Impact of the project**

So far 157 adolescents of 6 schools were included in the study. Regarding preliminary results a health intervention programme is clearly required as for example 30 % of the adolescents state to be smokers. The purpose of the EVA project is to enhance early recognition of risk factors and to raise the awareness of health issues in adolescents. Thereby the vascular health of Tyrolean adolescents will improve which might reduce the risk for cardiovascular disease in adulthood. Right now EVA was well received among the participants. On a long-term perspective this project shall reduce the socioeconomic burden caused by cardiovascular disease.
Contact and Information

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Project Partners

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