Atherosclerosis is a complex, chronic vessel wall disease that often leads to severe and acute cardiovascular diseases (CVD), such as myocardial infarction and stroke. The atherosclerotic process is slow, starts already in childhood, and develops over decades. CVD are the most common cause of death, both globally and in Sweden. Since most of the risk factors for atherosclerosis are preventable, it is of great importance to highlight the benefits of a healthy lifestyle to young adults who are about to create their own habits.

A general concern about physical inactivity, low cardiorespiratory fitness (CRF), and high body mass are supported by reports of an increased incidence and prevalence of obesity worldwide. In addition to this, the proportion of Swedish adults with low CRF almost doubled the last 20 years and the decline in CRF is more pronounced in the youngest age group.

The scientific work presented in this thesis was carried out to investigate the impact of different lifestyle related factors on vascular status, especially arterial stiffness, in young Swedish adults. In total 840 young adults in the age range 18-25 years were recruited to the cross-sectional Lifestyle, Biomarkers, and Atherosclerosis (LBA) study, to examine vascular status, biomarkers, and lifestyle related factors.