

Publication

Healthy lifestyle and heart rate variability in young adults

JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)**ID** 3643170**Author(s)** Aeschbacher, Stefanie; Bossard, Matthias; Ruperti Repilado, Francisco Javier; Good, Nathalie; Schoen, Tobias; Zimny, Matylda; Probst-Hensch, Nicole M.; Schmidt-Trucksäss, Arno; Risch, Martin; Risch, Lorenz; Conen, David**Author(s) at UniBasel** [Probst Hensch, Nicole](#) ;**Year** 2016**Title** Healthy lifestyle and heart rate variability in young adults**Journal** European Journal of Preventive Cardiology**Volume** 23**Number** 10**Pages / Article-Number** 1037-44

We aimed to determine the association of a comprehensive healthy lifestyle with heart rate variability (HRV), a validated measure of autonomic function.; This was a prospective cohort study.; A population-based sample of 2079 individuals aged 25-41 years without prevalent cardiovascular disease was investigated. The standard deviation of all normal RR intervals (SDNN) during 24-hour electrocardiography was used as main HRV marker. Healthy lifestyle metrics were summed to a validated lifestyle-score ranging from 0=unhealthy to 7=healthy. One point was given for each of the following items: never smoking cigarettes; consuming a healthy diet; performing moderate (≥ 150 /week) or vigorous (≥ 75 /week) physical activity; body mass index (BMI) $<25/\text{m}^2$; total cholesterol $<200/\text{dl}$; glycated haemoglobin A1c $<5.7\%$; and blood pressure <120 (systolic) and <80 (diastolic).; Median age of the participants (47% males) was 37 years. Mean SDNN was 153 and median lifestyle-score was four. A score of 0/1 or 6/7 was found in 5.2% and 11.0%, respectively. In multivariable linear regression analysis with SDNN as the outcome variable, the β -estimate (95% confidence interval (CI)) for a one-point increase of the lifestyle-score was 0.14 (0.11-0.17), $p < 0.0001$. This relationship was attenuated but remained significant after additional adjustment for resting heart rate (HR) (β -estimate (95% CI) 0.07 (0.07-0.10), $p < 0.0001$) or 24-hour HR (0.04 (0.01-0.07), $p = 0.003$).; Few individuals adopted a healthy lifestyle in this large contemporary cohort of young adults from the general population. Adopting a healthy lifestyle has an important effect on autonomic function.

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