








The relationship between age, gender, unhealthy lifestyle habits and cardiometabolic diseases in low- and moderate- risk adult population – a cross-sectional study of Health Centre of Osijek-Baranja County

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Goal: The aim of this study was to determine the impact of unhealthy lifestyle habits on the occurrence of cardiometabolic disease (CMD) depending on age and gender.

Patients and Methods: A cross-sectional population study that included 163 participants (86 women, 77 men) aged 20 to 65, without known cardiovascular disease and diabetes mellitus. Based on the laboratory findings and the obtained anthropometric measurements, the cardiometabolic profile of the subjects was evaluated. Lifestyle habits were examined through a questionnaire. The impact of 11 unhealthy lifestyle habits (**Table 1**) on the incidence of arterial hypertension, dyslipidemia, overweight, obesity, impaired fasting glycaemia and metabolic syndrome was observed. Chi-square test and logistic regression were used to identify the risk factors for CMD. Significance level p set at Alpha = 0.05. Odd's ratio and 95% confidence interval were used to report the findings.

Results: The average number of unhealthy lifestyle habits was 7 (min 2 - max 11). There was no significant difference in the number of unhealthy lifestyle habits in relation to gender and age. Of all, 84% of respondents already had one or more CMD. Men, compared to women, were significantly more obese, overweight and had dyslipidemia (**Table 2**). CMD was also significantly more common in those subjects who drink coffee in an amount of up to 2 dol daily. Using bivariate logistic regression, we assessed which lifestyle habits would be more significant in predicting the occurrence of CMD and obtained the data that respondents with more meat meals per week have a 1.29 times greater chance of CMD occurrence. In the age group up to 50 years subjects with ≥ 6 unhealthy lifestyle habits were 5.7 times more likely to develop CMD (OR = 2.7; 95% CI 1.13 to 29.3).

TABLE 1. 11 unhealthy lifestyle habits.

	Unhealthy lifestyle habits	Weekly frequency
1.	Smoking	
2.	Adequate physical activity	< 5
3.	Meat	> 3
4.	Sweets	> 2
5.	Fish	< 2
6.	Fruits	< 7
7.	Vegetables	< 7
8.	Dairy products	< 7
9.	Nuts	< 4
10.	Bread/pasta/cereals	< 7
11.	Extra salting	

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TABLE 2. 11 Gender differences in the incidence of cardiometabolic diseases

Cardiometabolic disease	M n (%)	W n (%)	P*
Dyslipidemia	69 (90)	52 (60)	0,01
Metabolic syndrome	42 (55)	33 (38)	0,07
Overweight	44 (57)	25 (29)	0,002
Arterial hypertension	30 (39)	30 (34)	0,55
Obesity	24 (31)	8 (9)	< 0,001
Impaired fasting glucose	23 (29)	15 (17)	0,08

M = men; W= female; * χ^2 test

Conclusion: Unhealthy lifestyle habits are rooted in our society regardless of gender and age¹⁻³, and as a result, a significant proportion of our population has already developed CMD.

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