# Helicobacter pylori and Extra-gastric diseases

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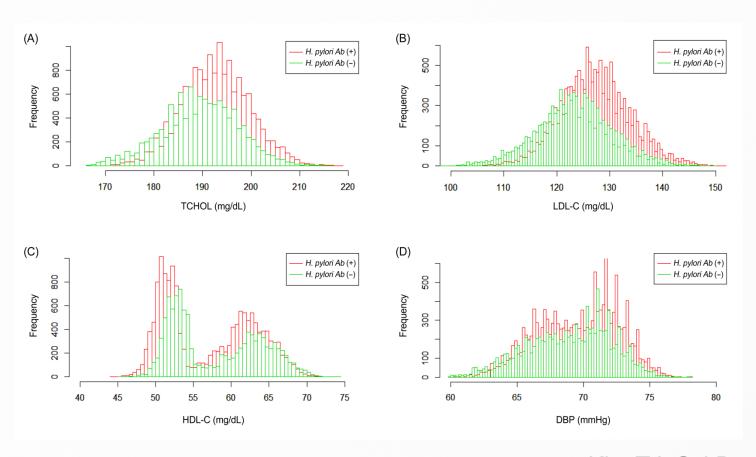
# Helicobacter pylori: metabolic syndrome

H. pylori infection was not associated with metabolic syndrome (SMC)

	ı	Multivariable analysis		
	RR	95% CI	P value	
Age	1.04	1.03-1.08	< 0.001	
Male sex	1.55	1.22-1.96	< 0.001	
Current smoker	1.59	1.41-1.79	< 0.001	
Alcohol consumption	1.10	0.90-1.32	0.372	
Regular exercise	0.96	0.87-1.05	0.389	
High education level	0.84	0.73-0.96	0.014	
High income	0.86	0.74-0.99	0.046	
BMI	1.23	1.20-1.25	< 0.001	
Body fat percentage	1.02	1.01-1.04	< 0.001	
GFR	1.00	0.99-1.01	0.954	
ALT	1.01	1.01-1.02	< 0.001	
Uric acid	1.08	1.04-1.12	< 0.001	
HS-CRP	1.02	0.94-1.11	0.591	
H. pylori	1.02	0.93-1.11	0.707	

# Helicobacter pylori: metabolic syndrome

After adjusting for potential confounding factors, H. pylori infection was independently associated with dyslipidemia, including higher total cholesterol and LDL-C and lower HDL-C levels, but not with other cardiometabolic risk factors. (SMC)



### Helicobacter pylori: NAFLD

#### Cohort study of 17,028 adults without NAFLD at baseline

	Person- years	Number of Incident cases	Incidence density (per 1,000 person-years)	Age- and sex- adjusted HR (95% CI)	Multivariable- adjusted HR <sup>a</sup> (95% CI)
H. pylori (-)	34,960.7	1,301	37.2	1.00 (reference)	1.00 (reference)
H. pylori (+)	48,169.3	2,080	43.2	1.19 (1.11-1.28)	1.21 (1.10-1.34)

<sup>&</sup>lt;sup>a</sup>Estimated from Cox proportional hazard models adjusted for age, sex, BMI, year of screening exam, smoking status, alcohol intake, regular exercise, and education level.

## Helicobacter pylori: NAFLD

#### Cohort study of 17,028 adults without NAFLD at baseline

	H. pylori (-)	H. pylori (+)	<i>P</i> -value
Model 1 - aHRa (95% CI)	Reference	1.21 (1.10-1.35)	<0.001
Model 2 - aHRa (95% CI)	Reference	1.31 (1.14-1.52)	0.002
Model 3 - aHRa (95% CI)	Reference	1.16 (1.06-1.30)	0.005
Model 4 - aHRa (95% CI)	Reference	1.16 (1.05-1.30)	0.005

Model 1: adjusted for age, sex, body mass index, year of screening exam, smoking status, alcohol intake, regular exercise, education level, and hsCRP

Model 2: Model 1 plus adjustment for HOMA-IR

Model 3: Model 2 plus adjustment for systolic blood pressure, use of antihypertensive medications, fasting blood glucose, use of hypoglycemic medications, triglycerides, LDL-C, HDL-C, and use of dyslipidemia medications

Model 4: Model 3 plus adjustment for AST, ALT, and GGT

## Helicobacter pylori: colorectal cancer

Cross-sectional study of 4,031 men undergoing screening colonoscopy

	Number of participants	Prevalent cases	Prevalence rate (%)	Age- adjusted OR (95% CI)	Multivariable- adjusted OR (95% CI)	
Adenoma						
H. pylori (-)	3,517	1,162	33.0	1.00 (reference)	1.00 (reference)	
H. pylori(+)	5,399	2,041	37.8	1.37 (1.18-1.58)	1.32(1.07-1.61)	
Advanced neoplasia						
H. pylori (-)	3,517	62	1.8	1.00 (reference)	1.00 (reference)	
H. pylori (+)	5,399	162	3.0	1.96 (1.11-3.49)	1.90 (1.05-3.56)	

Multivariable models adjusted for age, BMI, smoking status, alcohol intake, regular exercise, regular aspirin use, and family history of colorectal cancer.