

**Supplementary Table 1. Risk factors for GBPs among 392,913 participants**

Risk factors	GBP ≥ 5 mm		GBP ≥ 10 mm		GBP, overall (< 5, 5–9, and ≥ 10 mm)	
	Multivariable-adjusted OR (95% CI)	p value	Multivariable-adjusted OR (95% CI)	p value	Multivariable-adjusted OR (95% CI)	p value
<b>Model 1<sup>a)</sup></b>						
Age (yr)	1.00 (1.00–1.01)	0.031	0.99 (0.98–1.01)	0.406	1.02 (1.01–1.02)	< 0.001
Male, sex	1.83 (1.72–1.95)	< 0.001	1.76 (1.31–2.38)	< 0.001	1.75 (1.70–1.81)	< 0.001
Current smoker	1.07 (1.01–1.23)	0.025	0.92 (0.70–1.21)	0.559	1.04 (1.01–1.07)	0.015
Alcohol intake ≥ 20 g/d	0.93 (0.88–0.99)	0.021	0.81 (0.59–1.10)	0.180	0.95 (0.92–0.98)	0.002
HEPA	0.97 (0.91–1.03)	0.315	0.98 (0.72–1.35)	0.908	1.01 (0.97–1.04)	0.734
High education level	1.39 (1.29–1.49)	< 0.001	1.29 (0.91–1.82)	0.160	1.34 (1.29–1.38)	< 0.001
Obesity (BMI ≥ 25 kg/m <sup>2</sup> )	1.18 (1.11–1.25)	< 0.001	1.05 (0.79–1.40)	0.748	0.94 (0.91–0.97)	< 0.001
Fatty liver	1.23 (1.16–1.30)	< 0.001	1.37 (1.03–1.82)	0.033	1.08 (1.05–1.12)	< 0.001
Metabolic syndrome	1.01 (0.94–1.09)	0.760	1.14 (0.78–1.66)	0.503	0.95 (0.91–0.99)	0.011
AST (U/L)	0.99 (0.99–0.997)	< 0.001	0.97 (0.95–0.99)	0.011	0.995 (0.993–0.997)	< 0.001
ALT (U/L)	1.00 (1.00–1.003)	0.631	0.01 (1.00–1.02)	0.111	0.998 (0.997–0.999)	0.001
HOMA-IR	1.01 (1.00–1.03)	0.046	0.99 (0.88–1.11)	0.882	0.99 (0.98–1.01)	0.323
HBSAg	1.66 (1.49–1.85)	< 0.001	2.39 (1.53–3.75)	< 0.001	1.49 (1.41–1.59)	< 0.001
<b>Model 2<sup>b)</sup></b>						
Age (yr)	1.003 (1.000–1.006)	0.048	0.9 (0.98–1.01)	0.338	1.01 (1.01–1.02)	< 0.001
Male, sex	1.82 (1.70–1.94)	< 0.001	1.72 (1.25–2.35)	0.001	1.76 (1.70–1.82)	< 0.001
Current smoker	1.07 (1.01–1.13)	0.020	0.95 (0.72–1.25)	0.692	1.05 (1.02–1.08)	0.003
Alcohol intake ≥ 20 g/d	0.95 (0.89–1.01)	0.071	0.84 (0.62–1.15)	0.287	0.97 (0.94–0.998)	0.036
HEPA	0.97 (0.91–1.03)	0.304	0.98 (0.71–1.34)	0.896	1.00 (0.97–1.04)	0.868
High education level	1.39 (1.29–1.49)	< 0.001	1.28 (0.90–1.82)	0.165	1.34 (1.29–1.39)	< 0.001
Obesity (BMI ≥ 25 kg/m <sup>2</sup> )	1.18 (1.12–1.25)	< 0.001	1.06 (0.80–1.40)	0.686	0.94 (0.91–0.96)	< 0.001
Fatty liver	1.23 (1.16–1.31)	< 0.001	1.37 (1.03–1.84)	0.032	1.09 (1.06–1.13)	< 0.001
Total cholesterol (mg/dL)	1.01 (1.003–1.010)	< 0.001	1.01 (0.99–1.03)	0.238	1.003 (1.001–1.005)	< 0.001
LDL-C (mg/dL)	0.99 (0.991–0.998)	0.001	1.00 (0.98–1.01)	0.598	0.997 (0.995–0.999)	0.002
HDL-C (mg/dL)	0.99 (0.99–0.997)	< 0.001	0.99 (0.97–1.01)	0.291	0.996 (0.994–0.998)	< 0.001
Triglycerides (mg/dL)	0.999 (0.998–0.999)	< 0.001	1.00 (0.99–1.00)	0.055	0.999 (0.998–0.999)	< 0.001
AST (U/L)	0.99 (0.99–0.997)	< 0.001	0.97 (0.95–0.99)	0.012	0.998 (0.997–0.999)	0.001
ALT (U/L)	1.00 (1.00–1.003)	0.671	1.01 (0.96–1.02)	0.129	1.00 (0.99–1.01)	0.869
HOMA-IR	1.02 (1.002–1.03)	0.022	1.01 (0.96–1.07)	0.689	1.003 (1.001–1.005)	< 0.001
HBSAg	1.65 (1.48–1.84)	< 0.001	2.36 (1.51–3.70)	< 0.001	1.48 (1.39–1.57)	< 0.001

ALT, alanine aminotransferase; AST, aspartate transaminase; BMI, body mass index; CI, confidence interval; GBP, gallbladder polyp; HBSAg, Hepatitis B surface antigen; HDL-C, high-density lipoprotein cholesterol; HEPA, health-enhancing physically active; HOMA-IR, homeostasis model assessment of insulin resistance; LDL-C, low-density lipoprotein cholesterol; OR, odds ratio.

<sup>a)</sup>The multivariate-adjusted model was adjusted for confounders including age, sex, smoking status, alcohol intake, physical activity, educational level, obesity, fatty liver, metabolic syndrome, AST, ALT, and HOMA-IR.

<sup>b)</sup>The multivariate-adjusted model was adjusted for confounders including age, sex, smoking status, alcohol intake, physical activity, educational level, obesity, fatty liver, total cholesterol, LDL-C, HDL-C, TG, AST, ALT, and HOMA-IR.