

Supplementary File 3

Genetic polymorphism	No. of studies (participants)	Effect (OR, 95% CI)	Certainty (GRADE)	Reasons for downgrading
GSTM1-null	6 studies (n ≈ 1,300)	OR = 2.94 (1.13–7.63)	Moderate	Risk of bias, some heterogeneity, imprecision
GSTT1-null	5 studies (n ≈ 1,000)	OR = 0.64 (0.38–1.09)	Low	Small sample size, imprecision
GSTP1 (rs1695, all models)	3 studies (n ≈ 500)	Initial ORs 1.5–2.0 across models; not robust after HWE-sensitive analysis	Low	Few studies, small samples, inconsistency