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## **U-shaped effect of drinking and linear effect of smoking on risk for stomach cancer in Japan.**

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A case-control study was conducted to evaluate the relationship between smoking or drinking doses and risk for stomach cancer, and to clarify whether the relationship is dose-dependent or U-shaped. Smoking dose was categorized as 0, 1 - 399, 400 - 799, or 800 + cigarette-years, and drinking dose as 0, occasional/0.1 - 134.9, 135 - 1349.9, or 1350 + alcohol-years (ml of pure alcohol intake per day multiplied by years of drinking). Helicobacter pylori status was determined by serology for adjustment. Using logistic regression, the adjusted effects of smoking and drinking doses on risk for stomach cancer were calculated for both genders. Among male subjects, the odds ratios (95% confidence intervals (CIs)) were 1.29 (0.76, 2.18) for 1 - 399, 1.71 (1.05, 2.80) for 400 - 799 and 2.46 (1.49, 4.07) for 800 + cigarette-years compared with never-smokers, and 1.89 (0.97, 3.69) for never-drinkers, 2.82 (1.63, 4.86) for 135 - 1349.9 and 2.84 (1.97, 4.83) for 1350.0 +, compared with occasional/0.1 - 134.9 alcohol-years. Among female subjects, they were 0.44 (0.20, 1.00) for 1 - 399 and 2.471 (0.91, 6.68) for 400 + cigarette-years compared with never-smokers, and 1.54 (0.90, 2.63) for never-drinkers and 1.39 (0.66, 2.93) for 135.0 + alcohol-years. Smoking seems to exert a linear effect and drinking, a J- or U-shaped effect on risk for stomach cancer, although there might be a dip of risk in light smokers among female subjects.

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