Table DS1 Association between alcohol consumption and smoking status on global cognition: beta coefficients[a], 95% confidence intervals and p

values for a model containing interaction terms between exposures.

N = 6473	Model including interaction terms between exposures[a]			
	Intercepts		Slopes	
Main effects	B (95% CI)	p	B (95% CI)	p
Current smoker	-0.26 (-0.37, -0.15)	<.001	0.05 (-0.03, 0.13)	.21
Ex-smoker	0.03 (-0.02, 0.09)	.27	0.01 (-0.03, 0.04)	.82
0 alcohol units/week	-0.47 (-0.57, -0.38)	<.001	0.02 (-0.05, 0.08)	.61
Heavy drinker	0.09 (0.01, 0.16)	.04	0.00 (-0.06, 0.06)	.97
Interaction terms				
Current smoker*Heavy drinker	0.17 (-0.01, 0.34)	.06	-0.21 (-0.34, -0.07)	<.001
Current smoker*0 alcohol units/week	0.48 (0.24, 0.72)	<.001	-0.15 (-0.33, 0.03)	.11
Ex-smoker*Heavy drinker	0.07 (-0.04, 0.17)	.23	-0.04 (-0.11, 0.04)	.35
Ex-smoker*0 alcohol units/week	0.18 (0.03, 0.33)	.02	0.02 (-0.09, 0.12)	.73
Current smoker*female	-			

[a] Coefficients are adjusted for age, sex, education and chronic disease. Results are equivalent to online Table DS2. Reference categories are

'never smoker' and 'moderate drinker'.

Table DS2 Association between alcohol consumption and smoking status on global cognition: beta coefficients, 95% confidence intervals and p values for a model using eight dummy variables[a]

N = 6473	Intercepts		Slopes	
Nine groups (eight dummy variables)	B (95% CI)	p	B (95% CI)	p
Never smoker, 0 alcohol units/week	-0.47 (-0.57, -0.38)	.00	0.02 (-0.05, 0.08)	.61
Ex-smoker, 0 alcohol units/week	-0.26 (-0.38, -0.14)	.00	0.04 (-0.04, 0.12)	.36
Current smoker, 0 alcohol units/week	-0.26 (-0.46, -0.06)	.01	-0.08 (-0.23, 0.07)	.31
Never smoker, moderate drinker	(reference group)		(reference group)	
Ex-smoker, moderate drinker	0.03 (-0.02, 0.09)	.27	0.01 (-0.03, 0.04)	.82
Current smoker, moderate drinker	-0.26 (-0.37, -0.15)	.00	0.05 (-0.03, 0.13)	.21
Never smoker, heavy drinker	0.09 (0.01, 0.16)	.04	0.00 (-0.06, 0.06)	.97
Ex-smoker, heavy drinker	0.18 (0.11, 0.25)	.00	-0.03 (-0.08, 0.02)	.23
Current smoker, heavy drinker	-0.01 (-0.13, 0.11)	.88	-0.15 (-0.25, -0.05)	.00

[a] Coefficients are adjusted for age, sex, education and chronic disease. The model is a reparameterization of the model shown in online Table DS1.

Table DS3 Prevalence of chronic disease in the study population according to cigarette smoking status and alcohol drinking level

Total N = 6473	Never smoker (N = 3192)	Ex-smoker (N = 2647)	Current smoker (N = 634)
	Chronic disease[a] (N positive, prevalence (%))		
0 alcohol units/week (N = 994)	174 (29.1)	75 (26.5)	36 (31.6)
1-14/1-21 alcohol units/week (N = 3911)	395 (19.4)	375 (23.9)	74 (23.8)
>14/>21 alcohol units/week (N = 1568)	103 (18.3)	147 (18.4)	43 (20.6)
P[b]	<.001		

[a] Chronic disease are defined as physician diagnosed cancer, coronary heart disease (CHD), stroke (excluding transient ischaemic attack) or diabetes.

[b] P value for linear trend according to chronic disease status, from 0 alcohol units/week, to 1-14/1-21 units/week, to >14/>21 units/week (Mantel-Haenszel test).

Table DS4 Beta coefficients, 95% confidence intervals and p values for a model containing main effects only[a]

N = 6473	Model including main effects only			
	Intercepts		Slopes	
	B (95% CI)	p	B (95% CI)	p
Current smoker (vs. never smoker)	-0.13 (-0.21, -0.04)	<.001	-0.04 (-0.10, 0.02)	.20
Ex-smoker (vs. never smoker)	0.07 (0.03, 0.12)	<.001	0.00 (-0.03, 0.03)	.97
0 alcohol units/week (vs. moderate drinker)	-0.37 (-0.44, -0.30)	<.001	0.01 (-0.04, 0.06)	.76
Heavy drinker (vs. moderate drinker)	0.13 (0.08, 0.18)	<.001	-0.04 (-0.07, 0.00)	.05

[a] Coefficients are adjusted for age, sex, education and chronic disease.

Fig. DS1 Estimated cognitive trajectories in male current cigarette smokers reporting >=1 unit of alcohol/week, according to alcohol units drunk weekly.
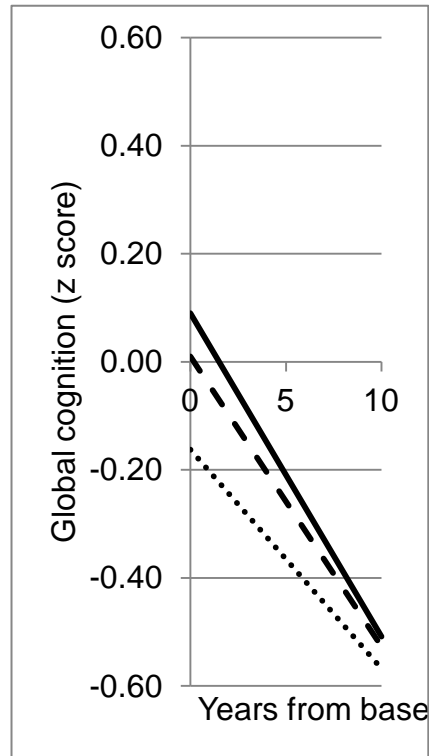

Figure DS1. Nested sample of 416 male cigarette smokers. Adjusted for exposed (reporting >=1 unit of alcohol/week) vs. unexposed (0 units of alcohol/week), additionally estimating the linear effect among the exposed: solid line = 30 alcohol units/week, dashed line = 20 alcohol units/week, dotted line = 10 alcohol units/week.

Fig. DS2 Estimated cognitive trajectories in male heavy alcohol drinkers, according to number of cigarettes smoked daily (grouped).
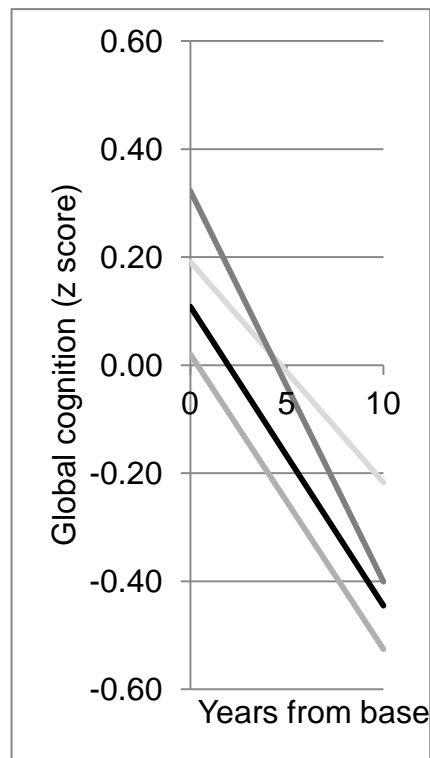

Figure DS2. Nested sample of male heavy alcohol drinkers (N = 1286). Intercepts (cognitive function at baseline) for cigarette smoking groups do not differ significantly from the intercept for non-smokers. Group membership: light grey line = 0 cigarettes/day (N = 1123, 87.3%), medium grey line = 1-10 cigarettes/day (N = 51, 4.0%), dark grey line = 11-20 cigarettes/day (N = 45, 3.5%), black line = 21+cigarettes/day (N = 67, 5.2%).