SUPPLEMENTARY DATA

Supplementary Methods

To estimate the number of grams of pure alcohol consumed per day, we used an alcohol conversion table: 125 ml of wine or 250 ml of beer/cider equals 10 g of alcohol, and one glass of spirits (20 ml) equals 7 g of alcohol. Participants were also asked to grade their tobacco consumption and their physical activity levels at home, at work and during their leisure time, combined in three classes.

Clinical measurements included body mass index (BMI= weight/height^2 in kg/m^2), waist circumference, and systolic and diastolic blood pressures after 5 minutes resting in a supine position.

Biological measures included plasma glucose, serum insulin, triglycerides, and HDL-cholesterol concentrations in a morning blood sample after 12 hours of fasting. Blood analyses were performed in one of four laboratories: Institut inter-Régional pour la Santé (IRSA) at La Riche, or Health Examination Centre laboratories at Blois, Orléans, and Chartres, France. Triglycerides, HDL-cholesterol and gamma glutamyl transferase (gamma GT) were assayed with a DAX24 Technicon or with a Kone (Konelab, Evry, France). Plasma glucose was determined by the glucose-oxidase method using a Technicon RA 1000 (Bayer, Puteaux, France) or a Kone (Konelab, Evry, France), and serum insulin concentrations were centrally assessed at IRSA using a specific enzyme-immunoassay (MEIA) with an IMX (Abbott, Rungis, France). Urinary density in a spot urine sample was measured using dipsticks (Labtix 8SG and Multistix 8SG AMES/Bayer Diagnostics, Puteaux, France).

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Supplementary Table 1. Odds ratios (95% confidence intervals) for the associations between classes of mean daily water intake at baseline and incident risk of impaired fasting glucose or type 2 diabetes, by categories of known diabetes risk factors at baseline.

				Daily water intake				P for interaction	P
		N		< 0.5 L		0.5 to 1.0 L	> 1.0 L		
Sex								0.47	
Women		1908		1.00		0.81 (0.55-1.18)	0.83 (0.56-1.24)		0.54
Men		1707		1.00		0.61 (0.45-0.82)	0.64 (0.47-0.89)		**0.004**
Age categories								0.092	
30-44 y		1582		1.00		0.81 (0.56-1.18)	0.76 (0.51-1.13)		0.39
45-54 y		1039		1.00		0.60 (0.40-0.90)	0.49 (0.32-0.77)		**0.007**
≥ 55 y		994		1.00		0.59 (0.39-0.91)	0.91 (0.58-1.43)		**0.018**
BMI categories								0.29	
< 25 kg/m^2		2193		1.00		0.60 (0.43-0.84)	0.53 (0.37-0.77)		**0.0025**
25 - 29.9 kg/m2		1154		1.00		0.81 (0.55-1.18)	0.76 (0.51-1.14)		0.41
≥ 30 kg/m2		268		1.00		0.45 (0.22-0.90)	0.69 (0.34-1.40)		0.061
Waist categories								0.40	
Normal waist		2507		1.00		0.70 (0.51-0.95)	0.62 (0.44-0.88)		**0.022**
Moderately obese		685		1.00		0.61 (0.39-0.96)	0.52 (0.32-0.86)		**0.031**
Severely obese		414		1.00		0.63 (0.34-1.15)	0.89 (0.49-1.64)		0.18
Physical activity								0.19	
Low		874		1.00		0.82 (0.53-1.27)	0.86 (0.53-1.41)		0.67
Medium		1960		1.00		0.73 (0.53-1.01)	0.79 (0.56-1.11)		0.17
High		781		1.00		0.40 (0.23-0.68)	0.40 (0.23-0.69)		**0.002**

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Tobacco smoking									0.93	
Never smokers		1987		1.00		0.63 (0.45-0.89)		0.67 (0.47-0.97)		**0.034**
Ex smokers		930		1.00		0.73 (0.47-1.13)		0.76 (0.48-1.23)		0.35
Current smokers		698		1.00		0.83 (0.53-1.30)		0.80 (0.49-1.31)		0.63
Alcohol consumption									0.95	
Non drinkers		916		1.00		0.63 (0.36-1.12)		0.71 (0.40-1.26)		0.30
1 – 10 g/day		1014		1.00		0.82 (0.47-1.43)		0.89 (0.50-1.58)		0.79
10 – 20 g/day		282		1.00		0.74 (0.33-1.70)		1.14 (0.48-2.75)		0.48
> 20 g/day		1403		1.00		0.67 (0.49-0.92)		0.75 (0.53-1.06)		**0.044**
Sex specific tertiles of fasting blood glucose									0.63	
T1		1206		1.00		0.45 (0.22-0.90)		0.48 (0.24-0.98)		0.063
T2		1204		1.00		0.79 (0.49-1.27)		0.87 (0.52-1.44)		0.62
T3		1205		1.00		0.58 (0.42-0.80)		0.71 (0.50-1.00)		**0.004**
Sex specific tertiles of HOMA IR									0.42	
T1		1206		1.00		0.63 (0.38-1.02)		0.46 (0.26-0.79)		0.02
T2		1204		1.00		0.60 (0.40-0.90)		0.68 (0.44-1.06)		0.052
T3		1205		1.00		0.66 (0.46-0.95)		0.81 (0.55-1.18)		0.068
Sex specific tertiles of HOMA B									0.43	
T1		1206		1.00		0.80 (0.55-1.17)		0.72 (0.48-1.09)		0.29
T2		1204		1.00		0.59 (0.38-0.87)		0.59 (0.38-0.91)		**0.024**
T3		1205		1.00		0.67 (0.44-1.02)		0.82 (0.52-1.27)		**0.003**

SUPPLEMENTARY DATA

Supplementary Figure 1. Multivariate association between daily water intake at baseline and incident risk of impaired fasting glucose or type 2 diabetes. Model 1: Adjusted for age, sex, BMI, baseline fasting glycaemia, physical activity, smoking status, triglycerides, HOMA-IR. Model 2: Further adjusted on total cholesterol, self-reported mean daily volumes of beer-cider, sweet drinks, and wine consumed per day.