## **Supplementary Online Content**

Huisman MHB, Seelen M, van Doormaal PTC, et al. Effect of presymptomatic body mass index and consumption of fat and alcohol on amyotrophic lateral sclerosis. JAMA Neurol. Published online August 17, 2015. doi:10.1001/jamaneurol.2015.1584.

**eMethods.** Design of the Food Frequency Questionnaire (FFQ)

eFigure 1. Relation Between Risk of ALS and Quintiles of Nutrient Intake

eFigure 2. Relation Between Risk of ALS and Quintiles of Alcohol Intake, Adjusted for Intake of Red Wine

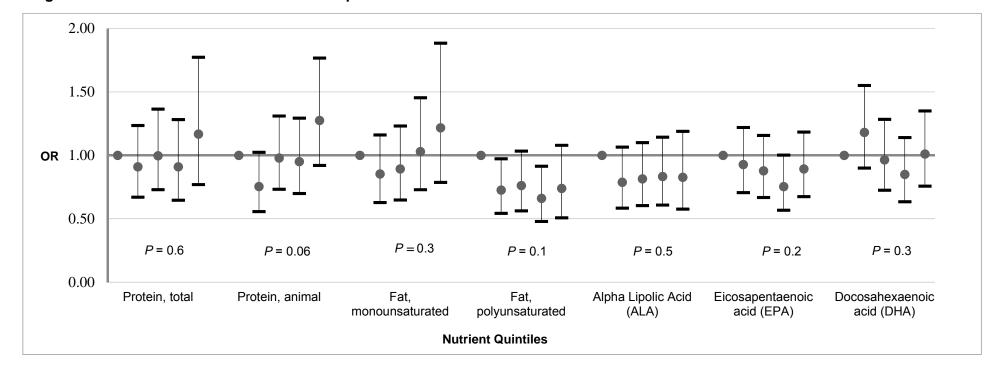
eTable. Relation Between Nutrient Intake and Survival

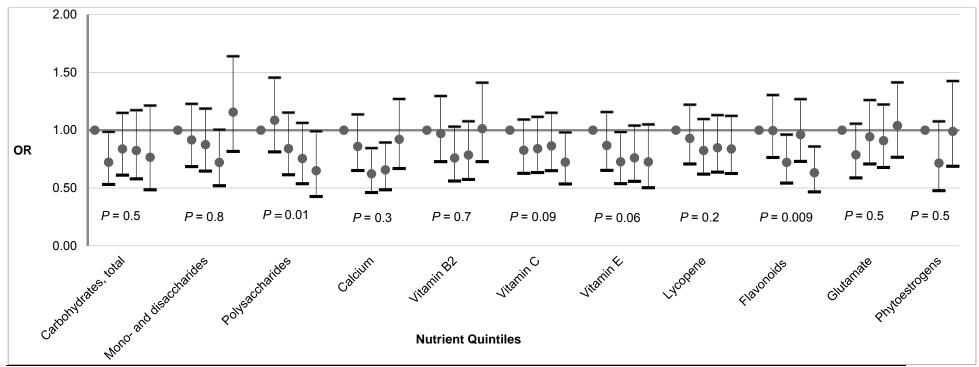
This supplementary material has been provided by the authors to give readers additional information about their work.

## eMethods. Design of the Food Frequency Questionnaire (FFQ)

Food items for the original questionnaire were chosen on the basis of data from the Dutch National Food Consumption Survey of 1992<sup>1</sup>, and updated based on a 1998 survey.<sup>2</sup> The selected food items for this FFQ covered about 95% of the intake of total energy, total fat, fatty acids and cholesterol of the Dutch population and was validated for this purpose.<sup>3</sup> Considering the hypotheses of the present study, the questionnaire was extended with questions on the intake of foods which contributed > 0.5% to the population intake of protein, carbohydrates, dietary fibres, alcohol, calcium, vitamin B2, vitamin C, vitamin E, lycopene, flavonoids, glutamate and phyto-oestrogens. For several food items, additional questions were included on preparation method or portion sizes. Consumed amounts were calculated using standard household measures.<sup>4</sup> For nutrient calculations, the 2006 Dutch Food Composition Table was used for energy, macronutrients and vitamin C<sup>5</sup>; national reports by TNO Nutrition and Food Research for calcium, vitamin B2 and vitamin E; publications for flavonoids<sup>6,7</sup>; the US Department of Agriculture table for phyto-oestrogens (isoflavones)<sup>8</sup>; publications for glutamate and monosodium glutamate <sup>9-13</sup>; and the US Department of Agriculture table for lycopene.<sup>8</sup>

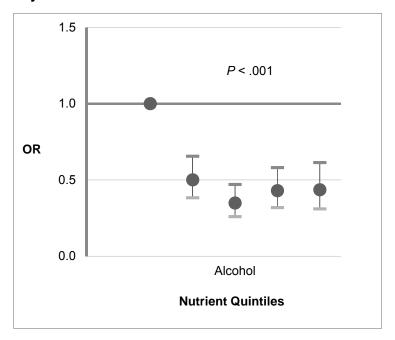
eFigure 1. Relation between risk of ALS and quintiles of nutrient intake.





Odds ratios for the relationship between ALS and quintiles of nutrient intake. Adjusted for energy intake, age (at onset in patients; at questionnaire in controls), gender, BMI, education, current smoking, and lifetime physical activity.

eFigure 2. Relation between risk of ALS and quintiles of alcohol intake, adjusted for intake of red wine.



Odds ratios for the relationship between ALS and quintiles of alcohol intake. Adjusted for energy intake, age (at onset in patients; at questionnaire in controls), gender, BMI, education, current smoking, lifetime physical activity, and intake of red wine.

eTable. Relation between nutrient intake and survival.

Nutrient Setween nation	Hazard ratio <sup>a</sup> (95% CI)	P value
Drotain total	1.01.(0.07.1.05)	.81
Protein, total	1.01 (0.97-1.05) 0.95 (0.89-1.03)	.01 .21
Vegetable Animal	1.02 (0.98-1.06)	.34
Allillai	1.02 (0.96-1.00)	.34
Fat, total	1.01 (1.00-1.03)	.12
Saturated	1.02 (0.99-1.05)	.17
Monounsaturated	1.02 (0.99-1.06)	.23
Polyunsaturated	1.02 (0.98-1.06)	.39
Alpha Lipolic Acid (ALA)	1.52 (0.92-2.52)	.10
Eicosapentaenoic acid (EPA)	0.57 (0.03-12.67)	.72
Docosahexaenoic acid (DHA)	0.51 (0.05-5.45)	.58
Omega 3 fatty acids, total	1.37 (0.86-2.19)	.19
Trans fatty acids	1.30 (0.89-1.90)	.17
Cholesterol	1.00 (0.97-1.03)	.84
Carbohydrates, total	0.99 (0.97-1.00)	.09
Mono- and disaccharides	0.99 (0.98-1.01)	.39
Polysaccharides	0.99 (0.97-1.01)	.19
Fibres	0.91 (0.79-1.04)	.16
Alcohol	1.00 (0.98-1.02)	.95
Vitamins and minerals		
Calcium	1.00 (1.00-1.01)	.32
Vitamin B2	1.40 (0.02-87.71)	.87
Vitamin C	0.97 (0.93-1.01)	.11
Vitamin E	1.00 (0.96-1.05)	.89
Lycopene	0.94 (0.90-0.99)	.02
Flavonoids	0.99 (0.97-1.00)	.07
Glutamate	1.00 (0.99-1.00)	.32
Phytoestrogens	0.92 (0.80-1.06)	.24
Abbreviation: CL confidence interval	· · · · · ·	

Abbreviation: CI, confidence interval

a Adjusted for sex, age at onset, site of onset, premorbid BMI, energy intake, educational level, current smoking, and lifetime physical activity

<sup>&</sup>lt;sup>b</sup> Bonferroni significant values of *P*; Bonferroni adjusted α: .05/25 = .002

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