Supplementary Table 1. Model selection for the optimal number of spline degrees of freedom (df) (Models were selected on the basis of their lower AIC and BIC values, and higher log-likelihood values) [a]

Forward digit-span				Reverse digit-span			
Without interaction terms between mushroom consumption and age	AIC	BIC	logLik	Without interaction terms between mushroom consumption and age	AIC	BIC	logLik
Model 1: Natural spline (mushroom consumption, df = 1) [c]	52214.5	52442.5	-26077.3	Model 1: Natural spline (mushroom consumption, df = 1) [c]	53334.4	53562.3	-26637.2
Model 2: Natural spline (mushroom consumption, df = 2) [d]	52213.6	52449.2	-26075.8	Model 2: Natural spline (mushroom consumption, df = 2) [d]	53333.9	53569.5	-26636.0
Model 3: Natural spline (mushroom consumption, df = 3) [e]	52214.6	52457.7	-26075.3	Model 3: Natural spline (mushroom consumption, df = 3) [e]	53335.8	53579.0	-26635.9
With interaction terms between mushroom consumption and age	AIC	BIC	logLik	With interaction terms between mushroom consumption and age	AIC	BIC	logLik
Model 4: Natural spline (mushroom consumption, df = 1) [c]	52216.3	52451.8	-26077.1	Model 4: Natural spline (mushroom consumption, df = 1) [c]	53334.8	53570.4	-26636.4
Model 5: Natural spline (mushroom consumption, df = 2) [d]	52216.9	52467.6	-26075.4	Model 5: Natural spline (mushroom consumption, df = 2) [d]	53335.3	53586.0	-26634.6
Model 6: Natural spline (mushroom consumption, df = 3) [e]	52217.7	52483.7	-26073.9	Model 6: Natural spline (mushroom consumption, df = 3) [e]	53338.9	53604.8	-26634.4

a Analyzed by Mixed-effects models with natural splines.

b Adjusted for baseline information including centered age (years; centered at mean value), square of centered age, sex, APOE genotype (APOE-ε4 carriers: 2/4, 3/4, 4/4, or APOE-ε4 noncarriers: 2/2, 2/3, 3/3), follow-up time (years), survey seasons (Spring: March to May, Summer: June to August, Autumn: September to November, Winter: December to February of the following year), energy intake (kcal/day; sex-specific tertiles), consumption of seafood, vegetables, and fruit (g/day; sex-specific tertiles), body mass index (kg/m²; <18.5, 18.5−<25.0, or ≥25.0), smoking status (current, former, or never), total physical activity (METs-h/day; centered at mean value), education level (≤9, 10−12, or ≥13 years), medical history (yes or no for hypertension, heart disease, dyslipidemia, and diabetes), and depressive symptoms (CES-D scale score <16 or ≥16).

c Often resembles a linear function or a slightly curved line. Captures the overall trend in the data.

d Typically has a more pronounced curvature. Often resembles a quadratic or cubic function.

e Usually has the most complex shape among the three. Can capture more nuanced, local variations in the data.