**Supplemental Materials**

**Supplemental Methods**

The ‘UK Biobank’ (UKB) is a population-based cohort study, which recruited 502,505 UK volunteers between 2006 and 2010 (age range between 37 to 73 years). All participants provided written informed consent for the study. The UKB Study has approval from the Northwest Multi-Center Research Ethics Committee. Details of the methods, data availability, and access procedures for UKB are available on the study website ([http://www.ukbiobank.ac.uk](http://www.ukbiobank.ac.uk/)). All participants were encouraged to attend a clinical assessment centre for an initial examination, succeeded by a long-term follow-up. The UKB team measured height and weight during the baseline interview. Body Mass Index (BMI) was calculated by dividing weight (kg) by the square of standing height (m2). All participants gave informed consent for genotyping and data linkage to medical reports.

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| eTable 1. Definitions of Outcomes and Covariates | | |
| **Entity** | **Source** | **Definition** |
| Vitamin E | UKB data field 10025 | Mean mg intake among up to five questionnaires |
| Overall energy consumption | UKB data field 10002 | Mean kJ intake among up to five questionnaires (less than 100 kJ was excluded) |
| Carbohydrates | UKB data field 10005 | Mean g intake among up to five questionnaires |
| Fat | UKB data field 10004 | Mean g intake among up to five questionnaires |
| Protein | UKB data field 10003 | Mean g intake among up to five questionnaires |
| Alcohol consumption | UKB data field 10022 | Mean g intake among up to five questionnaires |
| Survival | date of death: UKB data field 40000  date of attending the assessment center: UKB data field 53 | Date of death or end of Follow up |
| Age | UKB data field 21022 plus time between Baseline examination UKB data field 53 and mean date of questionnaires 105010 | Age at attending the assessment center for the initial visit |
| Sex | UKB data field 31 | Sex of participant |
| BMI | UKB data field 21001 | BMI value is constructed from height and weight measured during the initial Assessment Centre visit |
| ICD10 codes | UKB data field 41270, | Summary of the diagnosis codes a participant has had recorded across all their hospital inpatient records |
| Smoking status | UKB data field 1239 | Self-reported smoking status |

Dietary Intake information

We selected our study population based on the availability of nutritional assessment. A web-based 24-hour dietary questionnaire was emailed for a total of five times from 2009-2012 to participants who provided an email address to the UKB team. Of >250,000 participants who received the questionnaire, 210,025 responded at least once. Information on micro- and macronutrients were extracted by dietitians from the provided food questionnaires. Mean Vitamin E consumption, kcal, alcohol consumption, carbohydrate, sugar, protein, and fat intake were estimated using the mean of the nutrient’s intake detailed in the questionnaires of participants that responded at least once. We estimated the overall dietary quality by using the Mediterranean Diet Score(Suppl. Table 2) (1). Subjects who reported intake of a Vitamin E supplement in at least one questionnaire (Field ID 20084, Medication ID 480) were excluded from the analysis (n=356).

Definition of Endpoints

We used ongoing inpatient hospital records beginning in 1996 to identify diagnoses according to the WHO’s International Classification of Diseases 10 (ICD-10) coding systems. Next, we connected all reported ICD-10 codes with the date of a patient’s first diagnosis. Hospital inpatient data, national cancer registries, or death registration were used for follow-up. We evaluated the association between dietary intake of Vitamin E and diagnosis of NAFLD ICD10 code (K76.0- Fatty (change of) liver, not elsewhere classified. (n=956). Liver MRI was performed in subsets of participants (n=3 038), mean 2 years after the first questionnaire was performed. The end of follow-up in the UKB was defined either as death of a participant or the end of hospital inpatient visits (June of 2021). Death notifications (age at death and primary ICD diagnosis that led to death) were received through linkage to national death registries by the UK Biobank. The UKB Access Committee has approved the study (Project #71300).

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| --- | --- | --- | --- | --- | --- | --- |
| eTable 2. Mediterranean diet score | | | | | | |
| **Entity** | **Portion size** | **0 Points** | **1 point** | **2 points** | **Source** | **Definition** |
| Fruit | 150g | <1 portion/d | 1-1.5 portions/d | >2 portions/d | |  |  | | --- | --- | | ID | Fruit | | 104400 | Fruit consumers | | 104410 | Stewed fruit intake | | 104420 | Prune intake | | 104430 | Dried fruit intake | | 104440 | Mixed fruit intake | | 104450 | Apple intake | | 104460 | Banana intake | | 104470 | Berry intake | | 104480 | Cherry intake | | 104490 | Grapefruit intake | | 104500 | Grape intake | | 104510 | Mango intake | | 104520 | Melon intake | | 104530 | Orange intake | | 104540 | Satsuma intake | | 104550 | Peach/nectarine intake | | 104560 | Pear intake | | 104570 | Pineapple intake | | 104580 | Plum intake | | 104590 | Other fruit intake | | Fruit consumption per questionnaire was added,  The mean fruit consumption between up to 5 questionnaires was calculated. |
| Vegetables | 100g | <1 portion/d | 1-2.5 portions/d | >2.5 portions/d | |  |  | | --- | --- | | ID | Vegetables | | 103990 | Vegetable consumers | | 104060 | Mixed vegetable intake | | 104070 | Vegetable pieces intake | | 104080 | Coleslaw intake | | 104090 | Side salad intake | | 104100 | Avocado intake | | 104130 | Beetroot intake | | 104140 | Broccoli intake | | 104150 | Butternut squash intake | | 104160 | Cabbage/kale intake | | 104170 | Carrot intake | | 104180 | Cauliflower intake | | 104190 | Celery intake | | 104200 | Courgette intake | | 104210 | Cucumber intake | | 104220 | Garlic intake | | 104230 | Leek intake | | 104240 | Lettuce intake | | 104250 | Mushroom intake | | 104260 | Onion intake | | 104270 | Parsnip intake | | 104280 | Pea intake | | 104290 | Sweet pepper intake | | 104300 | Spinach intake | | 104310 | Sprouts intake | | 104320 | Sweetcorn intake | | 104330 | Sweet potato intake | | 104340 | Fresh tomato intake | | 104350 | Tinned tomato intake | | 104360 | Turnip/swede intake | | 104370 | Watercress intake | | 104380 | Other vegetables intake | | Consumption per questionnaire was added,  The mean consumption between up to 5 questionnaires was calculated. |
| Legumes | 70g | <1 portion/week | 1-2 portions/week | >2 portions/week | |  |  | | --- | --- | | ID | Legumes | | [104000](https://biobank.ndph.ox.ac.uk/showcase/field.cgi?id=104000) | [Baked bean intake](https://biobank.ndph.ox.ac.uk/showcase/field.cgi?id=104000) | | [104010](https://biobank.ndph.ox.ac.uk/showcase/field.cgi?id=104010) | [Pulses intake](https://biobank.ndph.ox.ac.uk/showcase/field.cgi?id=104010) | | 104110 | Broad bean intake | | 104120 | Green bean intake | | Consumption per questionnaire was added,  The mean consumption between up to 5 questionnaires was calculated and multiplied by 7. |
| Cereals | 130g | <1 portion/d | 1-1.5 portions/d | >1.5 portions/d | |  |  | | --- | --- | | Field ID | Cereal | | 100840 | Bran cereal intake | | 100770 | Porridge intake | | 100760 | Breakfast cereal consumed | | 100840 | Bran cereal intake | | 100800 | Muesli intake | | 100810 | Oat crunch intake | | 100860 | Other cereal intake | | 100830 | Plain cereal intake | | 100770 | Porridge intake | | 102370 | Cereal bar intake | | 100850 | Whole-wheat cereal intake | | 100850 | Whole-wheat cereal intake | | 101260 | Oatcakes intake | | Consumption per questionnaire was added,  The mean consumption between up to 5 questionnaires was calculated. |
| fish | 100g | <1 portion/week | 1-2.5 portions/week | >2.5 portions/week | |  |  | | --- | --- | | ID | Fish | | 103140 | Fish consumer | | 103150 | Tinned tuna intake | | 103160 | Oily fish intake | | 103170 | Breaded fish intake | | 103180 | Battered fish intake | | 103190 | White fish intake | | 103200 | Prawns intake | | 103210 | Lobster/crab intake | | 103220 | Shellfish intake | | 103230 | Other fish intake | | Consumption per questionnaire was added,  The mean consumption between up to 5 questionnaires was calculated. |
| Meat | 80g | >1.5 portions/d | 1-1.5 portions/d | <1 portion/d | |  |  | | --- | --- | | Field ID | meat | | 103000 | Meat consumers | | 103010 | Sausage intake | | 103020 | Beef intake | | 103030 | Pork intake | | 103040 | Lamb intake | | 103050 | Crumbed or deep-fried poultry intake | | 103060 | Poultry intake | | 103070 | Bacon intake | | 103080 | Ham intake | | 103090 | Liver intake | | 103100 | Other meat intake | | Consumption per questionnaire was added,  The mean consumption between up to 5 questionnaires was calculated. |
| Dairy | 180g | >1.5 portions/d | 1-1.5 portions/d | <1 portion/d | |  |  | | --- | --- | | [102090](https://biobank.ndph.ox.ac.uk/showcase/field.cgi?id=102090) | [Yogurt intake](https://biobank.ndph.ox.ac.uk/showcase/field.cgi?id=102090) | | [102080](https://biobank.ndph.ox.ac.uk/showcase/field.cgi?id=102080) | [Yogurt/ice-cream consumers](https://biobank.ndph.ox.ac.uk/showcase/field.cgi?id=102080) | | 102120 | Ice-cream intake | | 102480 | Cheesy biscuits intake | | 102220 | Cheesecake intake | | 100920 | Type milk consumed | | 102830 | Soft cheese intake | | 102910 | Other cheese intake | | 102800 | Cheese consumers | | 102880 | Feta intake | | 102900 | Goat's cheese intake | | 102820 | Hard cheese intake | | 102850 | Low fat cheese spread intake | | 102810 | Low fat hard cheese intake | | 102890 | Mozzarella intake | | 102840 | Blue cheese intake | | 102800 | Cheese consumers | | 102860 | Cheese spread intake | | 102870 | Cottage cheese intake | | Consumption per questionnaire was added,  The mean consumption between up to 5 questionnaires was calculated. |
| Alcohol | 120g | >2 portions/d | 1-1.5 portions/d | <1 portion/d | |  |  | | --- | --- | | Field ID | Description | | 100580 | Alcohol consumed | | 100590 | Red wine intake | | 20096 | Size of red wine glass drunk | | 100630 | Rose wine intake | | 20097 | Size of rose wine glass drunk | | 100670 | White wine intake | | 20095 | Size of white wine glass drunk | | 100710 | Beer/cider intake | | 100720 | Fortified wine intake | | 100730 | Spirits intake | | 100740 | Other alcohol intake | | Consumption per questionnaire was added,  The mean consumption between up to 5 questionnaires was calculated. |
| Olive oil | / | Occasional use | Frequent use | Regular use | **20090 Type of oil used** |  |

**Supplemental Table 3: Characteristics of participants by quartile of Vitamin E consumption**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Percentile Group of Vitamin E/total energy intake** | **1, (lowest)**  **n=52666** | | **2,**  **n=52667** | | **3,**  **n=52667** | | **4, (highest)**  **n=52667** | | **p** |
| Mean | SD | Mean | SD | Mean | SD | Mean | SD |  |
| **Age (years)** | 58 | 8 | 58 | 8 | 58 | 8 | 58 | 8 | <.0001 |
| **BMI (kg‎/m2)** | 27.6 | 4.6 | 27.1 | 4.6 | 26.8 | 4.6 | 26.4 | 4.7 | <.0001 |
| **Male Sex (%)** | 40 | / | 51 | / | 60 | / | 69 | / | <.0001 |
| **Date food questionnaire perfomed** | 11-APR-2011 | 290 days | 27-MAY-2011 | 248 days | 04-JUN-2011 | 241 days | 16-MAY-2011 | 266 days | <.0001 |
| **Died (%)** | 4.8 | / | 4.1 | / | 3.8 | / | 3.6 | / | <.0001 |
| **Survival (years)** | 10.91 | 1.31 | 10.98 | 1.23 | 11.01 | 1.20 | 11.01 | 1.20 | <.0001 |
| **Vitamin E/total energy intake (%mg/kJ)** | 0.06 | 0.01 | 0.09 | 0.01 | 0.11 | 0.01 | 0.16 | 0.03 | <.0001 |
| **KJ (kJ)** | 8677 | 2672 | 8829 | 2533 | 8924 | 2549 | 8853 | 3135 | <.0001 |
| **Protein total energy intake (%)** | 16 | 4 | 16 | 3 | 16 | 3 | 16 | 4 | <.0001 |
| **Carbohydrates/ total energy intake (%)** | 47 | 9 | 48 | 8 | 49 | 8 | 49 | 9 | <.0001 |
| **Fat /total energy intake (%)** | 31 | 7 | 33 | 6 | 34 | 6 | 35 | 7 | <.0001 |
| **Alcohol/ total energy intake (%)** | 8 | 9 | 5 | 6 | 4 | 5 | 3 | 5 | <.0001 |
| **MDS** | 7 | 2 | 7 | 2 | 8 | 2 | 8 | 2 | <.0001 |
| **Current smoking (%)** | 14 | / | 10 | / | 9 | / | 8 | / | <.0001 |

**Supplemental Table 4: PheWAS analysis**

Odds ratios (ORs) and 95% confidence intervals (Cis) per SD increase of nutritional Vitamin E intake/daily energy intake are given. Only PheCodes that remained significant after adjustment for multiple testing are displayed.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| P | OR | CI1 | CI2 | PheCode | Name |
| 4.6E-26 | 0.80 | 0.77 | 0.83 | 496 | Chronic airway obstruction |
| 5.0E-22 | 0.81 | 0.78 | 0.85 | 318 | Tobacco use disorder |
| 1.1E-19 | 0.92 | 0.90 | 0.93 | 530 | Diseases of esophagus |
| 6.6E-19 | 0.92 | 0.90 | 0.93 | 530.1 | Esophagitis, GERD and related diseases |
| 2.7E-15 | 0.92 | 0.90 | 0.94 | 550.2 | Diaphragmatic hernia |
| 1.8E-14 | 0.71 | 0.65 | 0.78 | 496.2 | Chronic bronchitis |
| 2.4E-14 | 0.71 | 0.65 | 0.78 | 496.21 | Obstructive chronic bronchitis |
| 3.1E-14 | 0.93 | 0.92 | 0.95 | 550 | Abdominal hernia |
| 2.1E-13 | 0.69 | 0.63 | 0.76 | 496.1 | Emphysema |
| 7.2E-13 | 0.91 | 0.89 | 0.94 | 530.11 | GERD |
| 1.3E-12 | 0.93 | 0.91 | 0.95 | 535 | Gastritis and duodenitis |
| 1.3E-08 | 0.79 | 0.73 | 0.86 | 555.1 | Regional enteritis |
| 4.5E-08 | 0.94 | 0.93 | 0.96 | 411 | Ischemic Heart Disease |
| 2.4E-07 | 0.94 | 0.92 | 0.96 | 564 | Functional digestive disorders |
| 4.8E-07 | 0.91 | 0.87 | 0.94 | 535.6 | Duodenitis |
| 5.6E-07 | 0.93 | 0.91 | 0.96 | 411.3 | Angina pectoris |
| 5.8E-07 | 0.94 | 0.91 | 0.96 | 250.2 | Type 2 diabetes |
| 7.8E-07 | 0.95 | 0.93 | 0.97 | 208 | Benign neoplasm of colon |
| 8.3E-07 | 0.91 | 0.88 | 0.95 | 585 | Renal failure |
| 9.4E-07 | 0.96 | 0.94 | 0.97 | 272 | Disorders of lipoid metabolism |
| 1.1E-06 | 0.96 | 0.94 | 0.97 | 272.1 | Hyperlipidemia |
| 1.3E-06 | 0.94 | 0.92 | 0.96 | 250 | Diabetes mellitus |
| 1.6E-06 | 0.92 | 0.89 | 0.95 | 535.8 | Other specified gastritis |
| 2.8E-06 | 0.94 | 0.91 | 0.96 | 574.1 | Cholelithiasis |
| 3.0E-06 | 0.93 | 0.90 | 0.96 | 530.14 | Reflux esophagitis |
| 5.1E-06 | 0.94 | 0.91 | 0.96 | 296.2 | Depression |
| 5.4E-06 | 0.89 | 0.85 | 0.94 | 530.12 | Ulcer of esophagus |
| 5.9E-06 | 0.94 | 0.91 | 0.96 | 296.22 | Major depressive disorder |
| 7.5E-06 | 0.94 | 0.91 | 0.97 | 564.9 | Personal history of diseases of digestive system |
| 7.6E-06 | 0.96 | 0.94 | 0.98 | 272.11 | Hypercholesterolemia |
| 8.7E-06 | 0.92 | 0.89 | 0.95 | 41 | Bacterial infection NOS |
| 1.0E-05 | 0.90 | 0.86 | 0.94 | 555 | Inflammatory bowel disease and other gastroenteritis and colitis |
| 1.1E-05 | 0.94 | 0.91 | 0.97 | 296 | Mood disorders |
| 1.1E-05 | 0.92 | 0.89 | 0.96 | 411.2 | Myocardial infarction |
| 2.8E-05 | 0.90 | 0.85 | 0.94 | 585.1 | Acute renal failure |
| 3.3E-05 | 0.84 | 0.78 | 0.91 | 165.1 | Cancer of bronchus; lung |
| 3.5E-05 | 0.83 | 0.75 | 0.90 | 578.1 | Hematemesis |
| 3.6E-05 | 0.95 | 0.92 | 0.97 | 574 | Cholelithiasis and cholecystitis |
| 6.3E-05 | 0.95 | 0.92 | 0.97 | 558 | Noninfectious gastroenteritis |
| 7.7E-05 | 0.43 | 0.29 | 0.66 | 302 | Sexual and gender identity disorders |
| 8.7E-05 | 0.87 | 0.80 | 0.93 | 165 | Cancer within the respiratory system |
| 1.3E-04 | 0.94 | 0.92 | 0.97 | 411.8 | Other chronic ischemic heart disease, unspecified |
| 1.4E-04 | 0.81 | 0.73 | 0.90 | 276.41 | Acidosis |
| 1.7E-04 | 0.86 | 0.79 | 0.93 | 443.9 | Peripheral vascular disease, unspecified |
| 1.7E-04 | 0.82 | 0.75 | 0.91 | 276.4 | Acid-base balance disorder |
| 1.8E-04 | 0.91 | 0.87 | 0.96 | 585.3 | Chronic renal failure [CKD] |
| 2.0E-04 | 0.89 | 0.83 | 0.95 | 41.1 | Staphylococcus infections |
| 2.1E-04 | 0.92 | 0.88 | 0.96 | 512 | Other symptoms of respiratory system |
| 2.8E-04 | 0.94 | 0.91 | 0.97 | 706.2 | Sebaceous cyst |
| 3.6E-04 | 0.93 | 0.89 | 0.97 | 564.1 | Irritable Bowel Syndrome |
| 4.1E-04 | 0.92 | 0.88 | 0.97 | 512.7 | Shortness of breath |
| 4.1E-04 | 0.94 | 0.91 | 0.97 | 706 | Diseases of sebaceous glands |
| 5.2E-04 | 0.91 | 0.86 | 0.96 | 428 | Congestive heart failure; nonhypertensive |
| 6.9E-04 | 0.91 | 0.87 | 0.96 | 571 | Chronic liver disease and cirrhosis |
| 8.8E-04 | 0.96 | 0.94 | 0.98 | 626 | Disorders of menstruation and other abnormal bleeding from female genital tract |
| 1.0E-03 | 0.96 | 0.94 | 0.98 | 785 | Abdominal pain |
| 1.1E-03 | 0.88 | 0.82 | 0.95 | 41.11 | Methicillin sensitive Staphylococcus aureus |
| 1.1E-03 | 0.93 | 0.89 | 0.97 | 760 | Back pain |
| 1.2E-03 | 0.93 | 0.89 | 0.97 | 574.12 | Cholelithiasis with other cholecystitis |
| 1.2E-03 | 0.94 | 0.90 | 0.98 | 665 | Obstetrical/birth trauma |
| 1.3E-03 | 0.96 | 0.94 | 0.98 | 244 | Hypothyroidism |
| 1.3E-03 | 0.91 | 0.85 | 0.96 | 571.5 | Other chronic nonalcoholic liver disease |
| 1.3E-03 | 0.95 | 0.92 | 0.98 | 591 | Urinary tract infection |
| 1.4E-03 | 0.93 | 0.88 | 0.97 | 470 | Septal Deviations/Turbinate Hypertrophy |
| 1.4E-03 | 0.93 | 0.89 | 0.97 | 480.11 | Pneumococcal pneumonia |
| 1.4E-03 | 0.96 | 0.94 | 0.98 | 244.4 | Hypothyroidism NOS |
| 1.5E-03 | 0.92 | 0.87 | 0.97 | 521.1 | Dental caries |
| 1.5E-03 | 0.92 | 0.87 | 0.97 | 521 | Diseases of hard tissues of teeth |
| 1.5E-03 | 1.17 | 1.06 | 1.29 | 798 | Malaise and fatigue |
| 1.5E-03 | 1.17 | 1.06 | 1.29 | 798.1 | Chronic fatigue syndrome |
| 1.7E-03 | 0.94 | 0.90 | 0.98 | 211 | Benign neoplasm of other parts of digestive system |
| 1.7E-03 | 0.91 | 0.86 | 0.97 | 573.7 | Abnormal results of function study of liver |
| 1.7E-03 | 1.23 | 1.08 | 1.40 | 285.22 | Anemia in neoplastic disease |
| 1.7E-03 | 0.81 | 0.71 | 0.93 | 260.6 | Anorexia |
| 1.8E-03 | 1.65 | 1.21 | 2.27 | 722.3 | Schmorl's nodes |
| 1.8E-03 | 0.90 | 0.84 | 0.96 | 696.4 | Psoriasis |
| 1.8E-03 | 0.96 | 0.94 | 0.99 | 626.1 | Irregular menstrual cycle/bleeding |
| 1.8E-03 | 0.90 | 0.84 | 0.96 | 696 | Psoriasis and related disorders |
| 1.9E-03 | 0.59 | 0.42 | 0.82 | 440.9 | Atherosclerosis of aorta |
| 1.9E-03 | 1.40 | 1.13 | 1.72 | 305.2 | Eating disorder |
| 2.1E-03 | 0.93 | 0.89 | 0.97 | 327.3 | Sleep apnea |
| 2.1E-03 | 0.91 | 0.86 | 0.97 | 345 | Epilepsy, recurrent seizures, convulsions |
| 2.2E-03 | 0.94 | 0.91 | 0.98 | 300 | Anxiety disorders |
| 2.4E-03 | 0.87 | 0.80 | 0.95 | 428.1 | Congestive heart failure (CHF) NOS |
| 2.4E-03 | 0.87 | 0.80 | 0.95 | 442.1 | Aortic aneurysm |
| 2.4E-03 | 0.95 | 0.93 | 0.98 | 278 | Overweight, obesity and other hyperalimentation |
| 2.5E-03 | 0.89 | 0.83 | 0.96 | 189.21 | Malignant neoplasm of bladder |
| 2.5E-03 | 0.70 | 0.56 | 0.88 | 38.1 | Gram negative septicemia |
| 2.7E-03 | 0.90 | 0.84 | 0.96 | 594.3 | Calculus of ureter |
| 2.9E-03 | 0.88 | 0.82 | 0.96 | 509.1 | Respiratory failure |

**Supplemental Table 5: Vitamin E intake is associated with reduced overall mortality**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Effect per unit increase** | **p-value** | **OR** | **95%CI** | |
| **Vitamin E (per SD mg/KJ)** | <.0001 | .947 | .924 | .971 |
| **Protein (%)** | <.0001 | .965 | .954 | .976 |
| **Carbohydrates (%)** | <.0001 | .981 | .972 | .991 |
| **Fat (%)** | <.0001 | .979 | .969 | .989 |
| **Alcohol (%)** | <.0001 | .973 | .963 | .983 |
| **Current smoking** | <.0001 | 1.530 | 1.462 | 1.600 |
| **Male Sex** | <.0001 | 1.528 | 1.461 | 1.599 |
| **BMI (kg‎/m2)** | <.0001 | 1.039 | 1.035 | 1.044 |
| **Age (years)** | <.0001 | 1.106 | 1.102 | 1.110 |
| **Mediterranean diet**  **score (points)** | <.01 | 0.985 | .974 | .997 |

**Supplemental Table 6: Vitamin E intake is associated with decreased ICD10 coded diagnosis of NAFLD diagnosed after the first questionnaire was performed**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Effect per unit increase | p-value | OR | 95%CI | |
| Vitamin E (per SD mg/KJ) | <.0001 | .875 | .812 | .942 |
| Protein (%) | .955 | 1.002 | .937 | 1.071 |
| Carbohydrates (%) | .863 | 1.005 | .946 | 1.069 |
| Fat (%) | .797 | 1.008 | .947 | 1.174 |
| Alcohol (%) | .568 | .981 | .920 | 1.047 |
| Current smoking | .004 | 1.246 | 1.073 | 1.446 |
| Male Sex | <.0001 | 1.291 | 1.129 | 1.475 |
| BMI (kg‎/m2) | <.0001 | 1.139 | 1.129 | 1.149 |
| Age (years) | <.0001 | 1.015 | 1.007 | 1.024 |
| Mediterranean diet  score (points) | .002 | 1.000 | .967 | 1.034 |

**Supplemental Table 7: Vitamin E intake is associated with protection from imaging diagnosed steatosis that was diagnosed after the first questionnaire was performed**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Effect per unit increase | p-value | OR | 95%CI | |
| Vitamin E (per SD mg/KJ) | <.0001 | .757 | .672 | .854 |
| Protein (%) | .578 | 1.121 | .749 | 1.678 |
| Carbohydrates (%) | .559 | 1.120 | .766 | 1.638 |
| Fat (%) | .487 | 1.147 | .778 | 1.692 |
| Alcohol (%) | .528 | 1.136 | .765 | 1.687 |
| Current smoking | .076 | 1.246 | .977 | 1.588 |
| Male Sex | <.0001 | 1.672 | 1.370 | 2.040 |
| BMI (kg‎/m2) | <.0001 | 1.205 | 1.177 | 1.233 |
| Age (years) | .167 | 1.009 | .996 | 1.022 |
| Mediterranean diet  score (points) | .537 | 1.246 | .966 | 1.068 |

**Supplemental Figure 1:** **The most strongly associated digestive PheCodes per SD Vitamin E consumption/total daily energy corrected for age, sex, BMI, smoking, alcohol consumption/total daily energy, fat/total daily energy, carbohydrates/total daily energy, protein/total daily energy, and MDS.** Odds ratios (ORs) and 95% confidence intervals (Cis) per SD increase of nutritional Vitamin E/total daily energy intake are given. Only PheCodes that remained significant after adjustment for multiple testing are displayed.

Table

Description automatically generated

**References**

1. Sofi F, Macchi C, Abbate R, Gensini GF, Casini A. Mediterranean diet and health status: an updated meta-analysis and a proposal for a literature-based adherence score. Public Health Nutr. 2014;17(12):2769-82.