

SUPPLEMENTAL MATERIAL

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Table S1. Full FFQ instrument and portion size definitions

FFQ item	Portion size specified in the FFQ	Portion size used
Whole milk	1 cup, 200 mL	200 mL
Semi-skimmed milk	1 cup, 200 mL	200 mL
Skimmed milk	1 cup, 200 mL	200 mL
Condensed milk	1 tablespoon	10 mL
Cream	1/2 cup	100 mL
Milkshakes	1 glass, 200 mL	200 mL
Whole yogurt	1 unit, 125 g	125 g
Skimmed yogurt	1 unit, 125 g	125 g
Petit Suisse	1 unit, 55 g	55 g
Curd / fresh cheese	1/2 cup	100 g
Processed or cream cheese	1 portion, 25 g	25 g
Other cheeses (aged, semi-aged, Manchego, Edam, Emmental)	50 g	50 g
Fresh cheese (Burgos or goat)	50 g	50 g
Custard / flan / pudding	1 unit, 130 mL	130 mL
Ice cream	1 cone/cup	75 g
Hen's egg	1 unit	60g
Chicken or turkey with skin	1 serving, 100–150 g	125 g
Chicken or turkey without skin	1 serving, 100–150 g	125 g
Beef or veal	1 serving, 100–150 g	125 g
Pork (excluding sausages, processed meats, bacon)	1 serving, 100–150 g	125 g
Lamb or goat	1 serving/piece, 100–150 g	125 g
Rabbit or hare	1 serving/piece, 100–150 g	125 g
Liver (beef, pork, or chicken)	1 serving, 100–150 g	125 g
Pâté / foie gras	25 g	25 g
Other organ meats (brain, heart, sweetbreads)	1 serving, 100–150 g	125 g
White fish (fresh/frozen: grouper, sole, sea bream, hake)	1 serving, 100–150 g	125 g
Oily fish (fresh/frozen: sardines, tuna, mackerel, salmon)	1 serving, 100–150 g	125 g
Salted fish (e.g., cod)	1 serving, 60 g dry	60 g
Shellfish (oysters, clams, mussels)	6 units	80 g
Squid, octopus, cuttlefish	1 serving, 200 g	200 g
Crustaceans (shrimp, prawns, langoustines)	4–5 pieces, 200 g	200 g
Canned fish/seafood in water	1 unit, 50 g	50 g
Canned fish/seafood in oil	1 unit, 50 g	50 g
Bacon or pork belly	50 g	50 g
Processed meats (sausages, chorizo, blood sausage, mortadella, etc.)	50 g	50 g
Hamburger or meatballs	(1 unit, 50 g) or meatballs (3 units)	50 g
Cooked ham	1 slice, 30 g	30 g
Cured ham	1 slice, 30 g	30 g
Croquettes, fritters, dumplings	1 serving, 3–5 units	100 g
Lasagna, cannelloni, meat pies	1 plate	150 g
Spinach or chard	1 medium plate, 200 g	200 g
Cabbage, cauliflower, broccoli	1 medium plate, 200 g	200 g
Lettuce, endive, escarole	1 medium plate, 100 g	100 g
Raw tomato	1 unit, 150 g	150 g
Onion	1/2-unit, 50 g	50 g
Garlic	1 clove	5 g
Carrot or pumpkin	100 g	100 g
Green beans	1 plate, 200 g	200 g
Peas or broad beans	1 plate, 150 g boiled	150 g
Eggplant, zucchini, cucumber	1 plate, 200 g	200 g
Peppers (red/green)	150 g	150 g
Other vegetables (artichoke, leek, celery)	1 plate, 200 g	200 g
Asparagus	1 plate, 200 g	200 g
Boiled corn	1 plate or small can, 82 g	82 g
Gazpacho	1 glass, 200 g	200 g
Herbs/spices (parsley, thyme, bay leaf, oregano)	1 pinch	5 g
Lentils	1 plate, 150 g boiled	150 g
Beans (pinto, white, black)	1 plate, 150 g boiled	150 g
Chickpeas	1 plate, 150 g boiled	150 g
Mushrooms	1 plate, 200 g	200 g
Orange, grapefruit or two mandarins	1 unit / 1 unit / two units	175 g
Banana	1 unit	175 g
Apple or pear	1 unit	175 g
Strawberries	6 units, dessert plate	150 g
Cherries, plums	1 dessert plate	150 g

Peach, apricot, nectarine	1 unit	175 g
Watermelon	1 slice, 200–250 g	225 g
Melon	1 slice, 200–250 g	225 g
Kiwi	1 unit, 100 g	100 g
Grapes	1 bunch or dessert plate	150 g
Berries (blueberries, raspberries)	100 g or dessert plate	100 g
Olives	10 units	40 g
Fruit in syrup/juice	2 units	60 g
Dates, dried figs, raisins, prunes	150 g	150 g
Almonds, peanuts, hazelnuts, pistachios	30 g	30 g
Walnuts	30 g	30 g
Avocado	1/2 unit or 50 g	50 g
White bread / sliced bread	3 slices, 75 g	75 g
Wholegrain bread	3 slices, 75 g	75 g
Breakfast cereals	30 g	30 g
Wholegrain cereals (muesli, oats, bran)	30 g	30 g
Fried potatoes	1 serving, 150 g	150 g
Boiled/roasted potatoes	1 serving, 200 g	200 g
White rice	60 g raw	60 g
Brown rice	60 g raw	60 g
Pasta (spaghetti, macaroni, etc.)	60 g raw	60 g
Wholegrain pasta	60 g raw	60 g
Pizza	1 portion, 200 g	200 g
Olive oil	1 tablespoon	10 mL
Extra virgin olive oil	1 tablespoon	10 mL
Olive pomace oil	1 tablespoon	10 mL
Corn oil	1 tablespoon	10 mL
Sunflower oil	1 tablespoon	10 mL
Soybean oil	1 tablespoon	10 mL
Margarine	12 g	12 g
Butter	12 g	12 g
Lard	10 g	10 g
Other fats/oils	10 mL	10 mL
Maria-type biscuits	4–6 units, 50 g	50 g
Wholegrain biscuits	4–6 units, 50 g	50 g
Chocolate biscuits	4 units, 50 g	50 g
Homemade cakes/pastries	50 g	50 g
Croissant, industrial pastries	1 unit, 50 g	50 g
Donut	1 unit	100 g
Muffins	1–2 units, 100 g	100 g
Cakes/pastries	1 unit, 50 g	50 g
Churros	1 serving, 100 g	100 g
Chocolate/candies	30 g	30 g
Dark chocolate	1–2 squares	20 g
Nougat	1/8 of a bar, 40 g	40 g
Marzipan/Christmas sweets	90 g	90 g
Jam	1 teaspoon	8 g
Sugar	1 teaspoon	8 g
Honey	1 teaspoon	8 g
Cocoa powder/soluble cocoa	1 dessert spoon	10 g
Mayonnaise	1 tablespoon, 20 g	20 g
Mustard	1 teaspoon	10 g
Fried tomato sauce	1 serving, 50 g	50 g
Ketchup	1 teaspoon	10 g
Spices (Tabasco, pepper, paprika)	1 pinch	2 g
Other spices (e.g., turmeric)	1 pinch	2 g
Potato chips	1 bag, 50 g	50 g
Other snacks (corn snacks, popcorn)	1 bag, 50 g	50 g
Instant soups/creams	1 plate	150 g
Salt	1 pinch	2g
Sugary soft drinks (cola, lemonade, tonic)	1 bottle, 200 mL	200 mL
Low-calorie soft drinks	1 bottle, 200 mL	200 mL
Fresh orange juice	1 glass, 200 mL	200 mL
Other fresh fruit juices	1 glass, 200 mL	200 mL
Bottled/canned fruit juice	200 mL	200 mL
Decaffeinated coffee	1 cup, 50 mL	50 mL
Coffee	1 cup, 50 mL	50 mL
Tea	1 cup, 50 mL	50 mL
Grape must	100 mL	100 mL
Rosé wine	1 glass, 100 mL	100 mL

Sweet wine	1 glass, 50 mL	50 mL
Young red wine	1 glass, 100 mL	100 mL
Aged red wine	1 glass, 100 mL	100 mL
White wine	1 glass, 100 mL	100 mL
Sparkling wine	1 glass, 100 mL	100 mL
Beer with alcohol	1 mug, 330 mL	330 mL
Alcohol-free beer	1 mug, 330 mL	330 mL
Liqueurs (anisetto, etc.)	1 cup, 50 mL	50 mL
Spirits (whisky, vodka, gin, cognac, rum)	1 cup, 50 mL	50 mL
Tofu	1/2 block, 150 g	150 g
Seitan	2 fillets, 150–200 g	175 g
Tempeh	1/2 block, 150 g	150 g
Textured soy protein	1/2 cup, 40 g	40 g
Other textured proteins (e.g., pea)	1/2 cup, 40 g	40 g
Quinoa	60 g raw	60 g
Couscous	40 g	40 g
Seeds (sesame, chia, flax, hemp, poppy, sunflower)	1 tablespoon, 10 g	10 g
Soy-based dairy alternatives	1 yogurt/dessert	125 g
Other plant-based dairy alternatives (oat, coconut)	1 yogurt/dessert	125 g
Kefir	1 glass, 200 mL	200 mL
Plant-based cheese alternative	40 g	40 g
Almond drink	1 glass	200 mL
Soy drink	1 glass	200 mL
Oat drink	1 glass	200 mL
Other plant drinks (flax, coconut, hazelnut, hemp, rice)	1 glass	200 mL
Fruit/vegetable smoothies	1 glass	200 mL
Kombucha	1 bottle	200 mL
Meat analogues (cereal-based, excluding soy)	1 serving, 150 g	150 g
Meat analogues (soy-based)	1 serving, 150 g	150 g
Meat analogues (legume-based, excluding soy)	1 serving, 150 g	150 g
Seaweed	10 g	10 g
Hummus	30 g	30 g
Plant-based spreads (cheese-type)	30 g	30 g
Vegetable spreads/pâtés (olive, beetroot, mushroom, pepper, eggplant)	30 g	30 g
Guacamole	30 g	30 g
Vegan ice cream	1 scoop, 75 g	75 g
Vegan pastries	100 g	100 g
Vegan biscuits/cookies	40 g	40 g
Prepared vegan dishes (lasagna, cannelloni)	1 serving	150 g
Prepared vegan foods (croquettes, falafel)	1 serving	125 g

Table S2. Description of main polyphenol source food groups: general food groups and 28 subgroups.

General Foods Groups	Groups' Components
VEGETABLES AND MUSHROOMS	POTATOES: Boiled potatoes, fried potatoes VEGETABLES: Spinach/chard, cabbage/cauliflower/broccoli, garlic, onion, carrot/pumpkin, green beans, eggplant/cucumber/zucchini, peppers, artichoke/leek/celery, asparagus, lettuce/escarole/endives, tomato MUSHROOMS: Wild mushrooms/button mushrooms/etc.
LEGUMES	LEGUMES: Lentils, beans, chickpeas, peas/broad beans, hummus
FRUITS	FRESH FRUITS: Orange/lemon, banana, apple/pear, strawberries, cherries/plums, peach/apricot, watermelon, melon, kiwi, grapes, avocado, orange juice, natural fruit juice BERRIES: Berries OTHER FRUITS: dates/figs, olives
NUTS	NUTS: Seeds, almonds/peanuts, walnuts
CEREALS	WHOLE GRAIN CEREALS: Whole grain breakfast cereals, whole wheat bread, quinoa, brown rice, whole wheat pasta REFINED CEREALS: Breakfast cereals, white rice, white bread, pasta, corn, couscous
BAKERY/PASTRIES	OMNIVOROUS PASTRIES: Chocolate cookies, pastries, croissant, donuts, muffins, cakes, churros, whole wheat cookies VEGAN PASTRIES: Vegan cookies/pastries, vegan baked goods
SUGARY ITEMS	SUGAR DERIVATIVES: Soluble cocoa, milk chocolate confectionery, bottled juices, jam, nougat
DARK CHOCOLATE	DARK CHOCOLATE: Dark chocolate
FATS	OLIVE OIL: Extra virgin olive oil, olive oil, pomace olive oil OTHER VEGETABLE FATS: Sunflower oil, corn oil, soybean oil, other fats (coconut), margarine
BEVERAGES	COFFEE AND TEA: Coffee, decaffeinated coffee, black tea, green tea, other infusions KOMBUCHA: Kombucha PLANT-BASED ALTERNATIVE BEVERAGES: Oat beverage, almond beverage, soy beverage, other plant-based beverages
ALCOHOL	WINES: Young red wine, aged red wine, rosé, muscat, white wine, cava BEER: Beer, non-alcoholic beer SPIRITS: Aniseed liquors, distilled spirits
SPICES	SPICES: Parsley/thyme/bay leaf, spicy seasonings, turmeric, other spices (cumin, turmeric, etc.)
VEGETARIAN/VEGAN FOODS	PLANT-BASED ALTERNATIVE PROTEIN: Tofu, seitan, tempeh, textured soy, other proteins, cereal-based meat, legume-based meat, soy meat MEAT ANALOGUES: Cereal-based meat, legume-based meat, soy meat SPREADS: Vegan pâtés, vegan spreadable cheese, hummus, guacamole SMOOTHIES: Vegetable/fruit smoothies VEGAN DAIRY-LIKE FOODS: Vegan cheese substitute, soy-based dairy alternatives, other plant-based dairy alternatives, Vegan ice cream

Table S3. Description of subclasses compounds and food sources.

Main groups	Polyphenol subclasses	Top 10 compounds	Common food source
Flavonoids	Anthocyanins	Cyanidin 3-O-rutinoside, Malvidin 3-O-glucoside, Cyanidin 3-O-sophoroside, Pelargonidin 3-O-glucoside, Cyanidin 3-O-glucoside, Delphinidin 3-O-galactoside, Malvidin 3-O-galactoside, Malvidin 3-O-(6"-acetyl-glucoside-, Delphinidin 3-O-arabinoside, Delphinidin 3-O-glucoside	Black elderberry, Bilberry, Black chokeberry, Black raspberry, Blackberry, Blackcurrant, Bog bilberry, Highbush blueberry, Lowbush blueberry, Plum
Flavonoids	Chalcones	Xanthohumol, Butein	Broad bean seed, Hops, Beer, Tomato, Lentils
Flavonoids	Dihydrochalcones	3-Hydroxyphloretin 2'-O-glucoside, 3-Hydroxyphloretin 2'-O-xylosyl-glucoside, Phloretin 2'-O-xylosyl-glucoside, Phloridzin, Phloretin	Apple, Apple cider, Pear, Quince, Medlar
Flavonoids	Dihydroflavonols	Dihydromyricetin 3-O-rhamnoside, Dihydroquercetin 3-O-rhamnoside, Dihydroquercetin	Wine Red, Wine White, Wine Rosé, Champagne, Grape Black, Grape Green
Flavonoids	Flavanols	Polymers (>10 mers), 04-06-mers, 07-10-mers, 02-mers, 03-mers, (-)-Epicatechin, Procyanidin dimer B2, (+)-Catechin, Procyanidin dimer B1, Cinnamtannin A2	Dark chocolate, Tea Black, Tea Green, Wine Red, Apples, Red wine, Plum, Peach
Flavonoids	Flavanones	Naringenin, Hesperetin, Hesperidin, Narirutin, Didymin, Naringin, Eriocitrin, Naringin-4-O-glucoside, Naringenin-7-O-glucoside, Poncirin	Grapefruit, Lemon, Orange Blood, Lime, Tomato Cherry, Pomegranate
Flavonoids	Flavones	Luteolin, Apigenin, Luteolin-7-O--2-apsiosyl-6-malonyl--glucoside, Chrysoeriol-7-O--6-malonyl-apsiosyl-glucoside-, Apigenin-7-O--6-malonyl-apsiosyl-glucoside-, Apigenin-7-O-apsiosyl-glucoside, Luteolin-7-O-glucoside, Luteolin-7-O-glucuronide, Chrysoeriol-7-O-apsiosyl-glucoside, Apigenin-7-O-glucuronide	Parsley fresh, Celery leaves, Marjoram dried, Thyme common, Oregano fresh, Sage common, Mint, Thyme fresh
Flavonoids	Flavonols	Quercetin 3-O-rutinoside, Quercetin-3-4-O-diglucoside, Myricetin, Quercetin, Quercetin-4-O-glucoside, 5,4'-Dihydroxy-3,3'-dimethoxy-6:7-methylenedioxyflavone 4'-O-glucuronide, Kaempferol 3-O-glucuronide, Kaempferol 3-O-glucoside, Quercetin 3-O-galactoside, Patuletin 3-O-glucosyl-(1->6)-[apsiosyl(1->2)]-glucoside	Capers, Olive Black, Asparagus, Buckwheat whole grain flour, Tea Black, Raspberry Black, Tea Black infusion
Flavonoids	Isoflavonoids	Genistin, Daidzin, 6"-O-Malonylgenistin, 6"-O-Malonyldaidzin, 6"-O-Acetylgenistin, Genistein, Daidzein, Glycitin, 6"-O-Malonylglycitin, 6"-O-Acetyldaidzin	Soy milk, Soy seeds, Tofu soft, Tempeh, Miso, Soybean raw, Lentils, Chickpeas
Lignans	Lignans	Lariciresinol, Pinoresinol, Sesamin, Secoisolariciresinol, Sesamol, Sesaminol, Arctigenin, Isolariciresinol, Episesamin, Matairesinol	Flaxseeds, Sesame seeds, Broccoli, Carrots, Rye bread, Cereals, Vegetables
Other	Alkylmethoxyphenols	4-Vinylguaiacol, 4-Ethylguaiacol, 4-Vinylsyringol	Coffee filter, Coffee espresso, Red wine
Other	Alkylphenols	5-Heneicosylresorcinol, 5-Nonadecylresorcinol, 5-Heptadecylresorcinol, 5-Tricosylresorcinol, 5-Pentacosylresorcinol, 5-Heneicosenylresorcinol, 5-Nonadecenylresorcinol, 5-Tricosenylresorcinol, 5-Pentacosenylresorcinol, 4-Ethylcatechol	Rye bread, Wheat cereals, Oats, Barley
Other	Curcuminoids	Bisdemethoxycurcumin, Curcumin, Demethoxycurcumin	Turmeric dried, Curry powder
Other	Furanocoumarins	Bergapten, Isopimpinellin, Psoralen, Xanthotoxin	Parsley fresh, Grapefruit, Lime juice, Celery, Carrot
Other	Hydroxybenzaldehydes	Vanillin, Syringaldehyde, Protocatechuic aldehyde, 4-Hydroxybenzaldehyde, p-Anisaldehyde, Gallic aldehyde	Vanilla, Sherry, Rum, Cognac, Whisky, Beer, Vinegar
Other	Hydroxyphenylpropenes	Anethole, 2-Methoxy-5-prop-1-enylphenol, Acetyl eugenol, Estragole, Eugenol, [6]-Gingerol	Star anise, Fennel, Oregano Mexican dried, Clove
Other	Methoxyphenols	Guaiacol	Coffee, Olive oil, Olives
Other	Naphthoquinones	1,4-Naphthoquinone, Juglone	Walnut dehulled, Walnut liquor
Other	Other polyphenols	Catechol, Pyrogallol, Phenol, Arbutin, Phlorin, Coumestrol, 3,4-Dihydroxyphenylglycol	Coffee, Cocoa powder, Beer, Red wine
Other	Phenolic terpenes	Carnosic acid, Rosmanol, Carnosol, Carvacrol, Epirosmanol, Rosmadiol, Thymol	Rosemary fresh, Sage fresh, Thyme common, Oregano, Marjoram
Other	Tyrosols	Oleuropein-aglycone, Oleuropein, Hydroxytyrosol, 3-4-DHPEA-EDA, 3-4-DHPEA-EA, p-HPEA-EDA, Demethyloleuropein, Tyrosol, p-HPEA-EA, Ligstroside-aglycone	Olive oil extra virgin, Olive Black, Olive oil virgin, Red wine, Beer
Other	Hydroxycinnamaldehydes	Ferulaldehyde, Sinapaldehyde	Cereals, Legumes, Seeds, Nuts
Other	Hydroxycoumarins	4-Hydroxycoumarin, Esculetin, Esculin, Scopoletin, Umbelliferone, Mellein, Coumarin	Vegetables, Citrus, Carrots, Fennel, Parsley
Phenolic acids	Hydroxybenzoic acids	Gallic-acid, Sanguiin-H-6, Syringic-acid, Lambertianin-C, Ellagic-acid, Protocatechuic-acid, 5-O-Galloylquinic-acid, 4-Hydroxybenzoic-acid, Vanillic-acid, Gentisic-acid	Tea Black, Tea Green, Coffee, Blueberries, Apples, Red wine
Phenolic acids	Hydroxybenzoketones	2,3-Dihydroxy-1-guaiacylpropanone, 3-Methoxyacetophenone	Raspberry, Blackberry
Phenolic acids	Hydroxycinnamic acids	5-Caffeoylquinic-acid, 3-Caffeoylquinic-acid, 4-Caffeoylquinic-acid, Rosmarinic-acid, Ferulic-acid, Verbascoside, 5-Feruloylquinic-acid, Sinapic-acid, 4-Feruloylquinic-acid, o-Coumaric-acid	Coffee, Potatoes, Broccoli, Artichokes, Eggplant, Seeds
Phenolic acids	Hydroxyphenylacetic acids	4-Hydroxyphenylacetic acid, Homovanillic acid, 3,4-Dihydroxyphenylacetic acid, Homoveratric acid, Methoxyphenylacetic acid	Olive Black, Beer
Phenolic acids	Hydroxyphenylpropanoic acids	Dihydro-p-coumaric acid, Dihydrocaffeic acid	Coffee, Green tea, Fruits, Wine, Olives
Stilbenes	Stilbenes	Pinosylvin, Resveratrol, Resveratrol 3-O-glucoside, d-Viniferin, e-Viniferin, Pallidol, Piceatannol, Piceatannol 3-O-glucoside, Pterostilbene, Resveratrol 5-O-glucoside	Wine, Grape Black, Strawberry, Bilberry, Redcurrant, Peanut, Dark chocolate

Table S4. Phenol-Explorer item associated with each FFQ item.

Phenol-Explorer Food item	Food group	FFQ item
Wine [Red]	Alcoholic beverages	Aged red wine
Almond, milk 5%	Seeds	Almond beverage
Almond	Seeds	Almonds, penanuts, hazelIntus and/or pistachios
Hazelnut, raw	Seeds	Almonds, penanuts, hazelIntus and/or pistachios
Peanut	Seeds	Almonds, penanuts, hazelIntus and/or pistachios
Pistachio	Seeds	Almonds, penanuts, hazelIntus and/or pistachios
Walnut, liquor	Alcoholic beverages	Aniseed liquors
Apple [Dessert], whole, raw	Fruits and fruit products	Apple/pear
Celery leaves, fresh	Seasonings	Artichoke, leek and/or celery
Globe artichoke, heads, raw	Vegetables	Artichoke, leek and/or celery
Asparagus, raw	Vegetables	Asparagus
Avocado, raw	Vegetables	Avocado
Banana, raw	Fruits and fruit products	Banana
Common bean [Black], whole, raw	Seeds	Beans
Common bean [Others], whole, raw	Seeds	Beans
Common bean [White], whole, raw	Seeds	Beans
Beer [Regular]	Alcoholic beverages	Beer alcoholic
Beer [Alcohol free]	Alcoholic beverages	Beer non alcoholic
Highbush blueberry, raw	Fruits and fruit products	Berries
Red raspberry, raw	Fruits and fruit products	Berries
Potato, raw	Vegetables	Boiled patatoes
Apple [Cider], juice from concentrate	Non-alcoholic beverages	Bottled fruit juice
Orange [Blond], juice from concentrate	Non-alcoholic beverages	Bottled fruit juice
Orange [Blood], juice from concentrate	Non-alcoholic beverages	Bottled fruit juice
Rice, whole grain	Cereals and cereal products	Brown rice
Hard wheat, refined flour 40%	Cereals and cereal products	Cakes
Sunflower seed, oil 20%	Oils	Cakes
Carrot, raw	Vegetables	Carrot/pumkin
Pumpkin, raw	Vegetables	Carrot/pumkin
Oat, refined flour 6%	Cereals and cereal products	Cereal based meat-alternative
Rice, whole grain 30%	Cereals and cereal products	Cereal based meat-alternative
Plum, fresh	Fruits and fruit products	Cherries, picotas and/or plums
Sweet cherry, raw	Fruits and fruit products	Cherries, picotas and/or plums
Chickpea, dehulled, raw	Seeds	Chikpeas
Chocolate, dark 10%	Coffee and cocoa	Chocolate cookies
Hard wheat, refined flour 40%	Cereals and cereal products	Chocolate cookies
Sunflower seed, oil 20%	Oils	Chocolate cookies
Hard wheat, refined flour 40%	Cereals and cereal products	Churros/porras
Sunflower seed, oil 20%	Oils	Churros/porras
Broccoli, raw	Vegetables	Cabbage, cauliflower and/or broccoli
Cauliflower, raw	Vegetables	Cabbage, cauliflower and/or broccoli
Common cabbage [Green], raw	Vegetables	Cabbage, cauliflower and/or broccoli
Coffee beverage [Filter]	Non-alcoholic beverages	Coffee

Maize, bran oil	Oils	Corn oil
Hard wheat, semolina	Cereals and cereal products	Couscous
Hard wheat, refined flour 40%	Cereals and cereal products	Croissant/ensaimada
Sunflower seed, oil 20%	Oils	Croissant/ensaimada
Chocolate, dark	Coffee and cocoa	Dark chocolate
Coffee beverage [Filter], decaffeinated	Non-alcoholic beverages	Decaffeinated coffee
Cognac	Alcoholic beverages	Distilled spirits
Rum	Alcoholic beverages	Distilled spirits
Scotch whisky	Alcoholic beverages	Distilled spirits
Hard wheat, refined flour 40%	Cereals and cereal products	Donuts
Sunflower seed, oil 20%	Oils	Donuts
Date, dried	Fruits and fruit products	Dried dates, figs, raisins, prunes
Fig, dried	Fruits and fruit products	Dried dates, figs, raisins, prunes
Grape, raisin	Fruits and fruit products	Dried dates, figs, raisins, prunes
Plum, prune	Fruits and fruit products	Dried dates, figs, raisins, prunes
Cucumber, raw	Vegetables	Eggplants, zucchini and/or cucumbers
Eggplant [Purple], whole, raw	Vegetables	Eggplants, zucchini and/or cucumbers
Zucchini, raw	Vegetables	Eggplants, zucchini and/or cucumbers
Olive, oil, extra virgin	Oils	Extra virgin olive oil
Potato, raw	Vegetables	Fried potatoes
Garlic, fresh	Seasonings	Garlic
Olive, oil, extra virgin 10% Gazpacho	Oils	Gazpacho
Tomato, whole, raw 70% gazpacho	Vegetables	Gazpacho
Grape [Black], pure juice	Non-alcoholic beverages	Grape must
Grape [Green], pure juice	Non-alcoholic beverages	Grape must
Grape [Black]	Fruits and fruit products	Grapes
Grape [Green]	Fruits and fruit products	Grapes
Green bean, raw	Vegetables	Green beans
Avocado, raw Guacamole 70%	Vegetables	Guacamole
Tomato, whole, raw Guacamole 20%	Vegetables	Guacamole
Pepper spice [Black]	Seasonings	Hot spices
Pepper spice [Green]	Seasonings	Hot spices
Pepper spice [White]	Seasonings	Hot spices
Chickpea, dehulled, raw 90% hummus	Seeds	Hummus
Olive, oil, extra virgin 5% Hummus	Oils	Hummus
Apple [Dessert], jam	Fruits and fruit products	Jams
Apricot, jam	Fruits and fruit products	Jams
Blackberry, jam	Fruits and fruit products	Jams
Blackcurrant, jam	Fruits and fruit products	Jams
Lowbush blueberry, jam	Fruits and fruit products	Jams
Plum, jam	Fruits and fruit products	Jams
Quince, jam	Fruits and fruit products	Jams
Quince, peeled, jam	Fruits and fruit products	Jams
Red raspberry, jam	Fruits and fruit products	Jams
Sour cherry, jam	Fruits and fruit products	Jams

Strawberry, jam	Fruits and fruit products	Jams
Sweet cherry, jam	Fruits and fruit products	Jams
Kiwi	Fruits and fruit products	Kiwi
Tea [Black], infusion	Non-alcoholic beverages	Kombucha
Chickpea, dehulled, raw 10% alt_carne_leg	Seeds	Legume based meat-alternative
Fresh pea, raw 10%	Vegetables	Legume based meat-alternative
Lentils, whole, raw	Seeds	Lentils
Endive [Curly], raw	Vegetables	Lettuce, endives and/or escalore
Endive [Escarole], raw	Vegetables	Lettuce, endives and/or escalore
Lettuce [Green], raw	Vegetables	Lettuce, endives and/or escalore
Maize, whole grain	Cereals and cereal products	Maize
Hard wheat, refined flour 40%	Cereals and cereal products	Maria biscuits
Sunflower seed, oil 20%	Oils	Maria biscuits
Melon	Fruits and fruit products	Melon
Chocolate, milk	Coffee and cocoa	Milk chocolate confectionery
Muscadine grape, red wine	Alcoholic beverages	Moscatel wine
Hard wheat, refined flour 40%	Cereals and cereal products	Muffins
Sunflower seed, oil 20%	Oils	Muffins
Apple [Cider], pure juice	Non-alcoholic beverages	Natural fruit juice
Apple [Dessert], juice from concentrate	Non-alcoholic beverages	Natural fruit juice
Apple [Dessert], pure juice	Non-alcoholic beverages	Natural fruit juice
Grapefruit, juice from concentrate	Non-alcoholic beverages	Natural fruit juice
Grapefruit, pure juice	Non-alcoholic beverages	Natural fruit juice
Lemon, juice from concentrate	Non-alcoholic beverages	Natural fruit juice
Pineapple, pure juice	Non-alcoholic beverages	Natural fruit juice
Pummelo, pure juice	Non-alcoholic beverages	Natural fruit juice
Tangerine, pure juice	Non-alcoholic beverages	Natural fruit juice
Orange [Blond], pure juice	Non-alcoholic beverages	Natural orange juice
Oat, whole grain flour (10%) milk	Cereals and cereal products	Oat beverage
Olive, oil, virgin	Oils	Olive oil
Olive [Black], raw	Vegetables	Olives
Olive [Green], raw	Vegetables	Olives
Onion [Red], raw	Vegetables	Onion
Onion [White], raw	Vegetables	Onion
Onion [Yellow], raw	Vegetables	Onion
Grapefruit	Fruits and fruit products	Orange, tangerine and/or grapefruit
Orange [Blond]	Fruits and fruit products	Orange, tangerine and/or grapefruit
Tangerine	Fruits and fruit products	Orange, tangerine and/or grapefruit
Rice, refined 15% milk	Cereals and cereal products	Other plant-based beverages
Cumin	Seasonings	Other spices
Curry, powder	Seasonings	Other spices
Turmeric, dried	Seasonings	Other spices
Fresh pea, raw otras protein	Vegetables	Other textured proteins
Sesame seed, oil	Oils	Other vegetable fats
Parsley, dried	Seasonings	Parsley, thyme, bayleaf and/or oregano
Rosemary, dried	Seasonings	Parsley, thyme, bayleaf and/or oregano

Sweet basil, dried	Seasonings	Parsley, thyme, bayleaf and/or oregano
Pasta	Cereals and cereal products	Pasta
Hard wheat, refined flour 40%	Cereals and cereal products	Pastries
Sunflower seed, oil 20%	Oils	Pastries
Nectarine, whole	Fruits and fruit products	Peach/apricot
Peach, whole	Fruits and fruit products	Peach/apricot
Pear, whole	Fruits and fruit products	Peach/apricot
Fresh pea, raw	Vegetables	Peas/broadbeans
Sweet pepper [Green], raw	Vegetables	Peppers
Sweet pepper [Red], raw	Vegetables	Peppers
Sweet pepper [Yellow], raw	Vegetables	Peppers
Hard wheat, refined flour 30%	Cereals and cereal products	Pizza
Tomato, whole, raw 10%	Vegetables	Pizza
Olive, oil, refined	Oils	Pomace olive oil
Tomato [Cherry], whole, raw	Vegetables	Raw tomato
Tomato, whole, raw	Vegetables	Raw tomato
Breakfast cereals, bran	Cereals and cereal products	Refined cereals
Breakfast cereals, corn	Cereals and cereal products	Refined cereals
Breakfast cereals, muesli	Cereals and cereal products	Refined cereals
Wine [Rosé]	Alcoholic beverages	Rosé wine
Sesame seed, meal	Seeds	Seeds
Sunflower seed, meal	Seeds	Seeds
Cocoa, powder 40%	Coffee and cocoa	Soluble cocoa
Soy, milk	Non-alcoholic beverages	Soy beverage
Soy, burger, raw	Seeds	Soy meat-alternative
Soy, yogurt	Seeds	Soy-based dairy alternatives
Soy, oil	Oils	Soybean oil
Champagne	Alcoholic beverages	Sparkling wine
Collards, raw	Vegetables	Spinach/chard
Spinach, raw	Vegetables	Spinach/chard
Strawberry, raw	Fruits and fruit products	Strawberries
Sunflower seed, oil	Oils	Sunflower oil
Tea [Black], infusion	Non-alcoholic beverages	Tea
Tea [Green], infusion	Non-alcoholic beverages	Tea
Soy, tempe	Seeds	Tempeh
Soy, meat	Seeds	Textured soy
Soy, tofu	Seeds	Tofu
Tomato, whole, raw salsa 90%	Vegetables	Tomato sauce
Almond 50%	Seeds	Turrón
Hard wheat, refined flour 40%	Cereals and cereal products	Vegan baked goods
Sunflower seed, oil 20%	Oils	Vegan baked goods
Hard wheat, refined flour 40%	Cereals and cereal products	Vegan cookies/pastries
Sunflower seed, oil 20%	Oils	Vegan cookies/pastries
Eggplant [Purple], whole, raw 70%	Vegetables	Vegan pâtés
Banana, raw 30%	Fruits and fruit products	Vegetable smoothies

Orange [Blond], pure juice 50%	Non-alcoholic beverages	Vegetable smoothies
Walnut	Seeds	Walnuts
Watermelon	Fruits and fruit products	Watermelon
Bread, refined flour	Cereals and cereal products	White bread
Rice, refined	Cereals and cereal products	White rice
Wine [White]	Alcoholic beverages	White wine
Bread, common wheat, whole grain flour	Cereals and cereal products	Whole wheat bread
Bread, rye, whole grain flour	Cereals and cereal products	Whole wheat bread
Pasta, whole grain	Cereals and cereal products	Whole wheat pasta
Breakfast cereals, oat, whole-meal	Cereals and cereal products	Wholegrain cereals
Hard wheat, whole grain flour	Cereals and cereal products	Wholegrain cookies
Wine [Red]	Alcoholic beverages	Young red wine

Table S5. Characteristics of the OMIVECA urine sample study population (n = 200).

	ALL n=200	OMN n=98	PVG n=19	PCV n=16	OVL n=45	VGN n=22	p-value
Sex, female	153 (76.5%)	68 (69.4%)	16 (84.2%)	16 (100.0%)	41 (91.1%)	12 (54.5%)	0.001 ^a
Age, years	25.0 [21.0;30.2]	24.5 [21.0;29.0]	32.0 [27.0;39.5]	22.0 [20.8;27.2]	23.0 [21.0;30.0]	28.5 [22.0;38.2]	0.030 ^b
BMI, kg/m ²	22.0 [20.5;24.3]	22.4 [20.9;24.5]	22.7 [20.5;25.7]	20.2 [19.8;21.8]	21.6 [20.1;23.4]	22.9 [20.9;25.0]	0.043 ^b
Center							0.599 ^c
Granada	145 (72.5%)	71 (72.4%)	14 (73.7%)	15 (93.8%)	32 (71.1%)	13 (59.1%)	
Madrid	28 (14.0%)	15 (15.3%)	2 (10.5%)	0 (0.0%)	8 (17.8%)	3 (13.6%)	
Seville	27 (13.5%)	12 (12.2%)	3 (15.8%)	1 (6.2%)	5 (11.1%)	6 (27.3%)	
Alcohol intake							0.715 ^c
Never	109 (54.5%)	56 (57.1%)	7 (36.8%)	8 (50.0%)	23 (51.1%)	15 (68.2%)	
Once /week	60 (30.0%)	26 (26.5%)	8 (42.1%)	6 (37.5%)	15 (33.3%)	5 (22.7%)	
≥2/week	31 (15.5%)	16 (16.3%)	4 (21.1%)	2 (12.5%)	7 (15.6%)	2 (9.1%)	
Smoking status							0.196 ^c
Never	159 (79.5%)	82 (83.7%)	10 (52.6%)	13 (81.2%)	38 (84.4%)	16 (72.7%)	
Former	20 (10.0%)	9 (9.2%)	5 (26.3%)	1 (6.2%)	2 (4.4%)	3 (13.6%)	
Currently	21 (10.5%)	7 (7.1%)	4 (21.1%)	2 (12.5%)	5 (11.1%)	3 (13.6%)	
Profession							0.098 ^c
Nutrition student/prof.	90 (45.0%)	43 (43.9%)	7 (36.8%)	7 (43.8%)	24 (53.3%)	9 (40.9%)	
Health sciences student/prof.	51 (25.5%)	32 (32.7%)	6 (31.6%)	5 (31.2%)	7 (15.6%)	1 (4.5%)	
Other	59 (29.5%)	23 (23.5%)	6 (31.6%)	4 (25.0%)	14 (31.1%)	12 (54.5%)	
Supplements use	91 (45.5%)	22 (22.4%)	5 (26.3%)	6 (37.5%)	36 (80.0%)	22 (100.0%)	<0.001 ^c
Vitamin B12	63 (31.5%)	2 (2.0%)	0 (0.0%)	3 (18.8%)	36 (80.0%)	22 (100.0%)	<0.001 ^c
Snacking							0.613 ^a
Yes	75 (37.5%)	33 (33.7%)	7 (36.8%)	8 (50.0%)	16 (35.6%)	11 (50.0%)	
No	125 (62.5%)	65 (66.3%)	12 (63.2%)	8 (50.0%)	29 (64.4%)	11 (50.0%)	
hPDI	59.0 [51.0;67.0]	51.5 [46.0;57.0]	66.0 [65.0;68.5]	60.5 [54.8;66.2]	66.0 [58.0;69.0]	71.0 [68.2;75.2]	<0.001 ^b

^a n (%) for categorical variables; p-value derived from Pearson Chi-square test.

^b Median and interquartile range for continuous variables; p-value derived from Kruskal-Wallis test.

^c n (%) for categorical variables; p-value derived from Fisher's exact test.

All p-values were corrected for multiple testing by Benjamini-Hochberg method.

Supplements non-exclusive options: iron, vitamin B12, other B vitamins, other vitamins and minerals, yeast, and omega-3.

OMN: omnivore; PVG: pro-vegetarian; PCV: pesco-vegetarian; OVL: ovo-lacto-vegetarian; VGN: vegan; BMI: Body mass index; hPDI: healthy pro-vegetarian diet index.

Table S6. Intake of main PB foods (g/2,000kcal per day) by type of diet in the OMIVECA study (n = 792).

	ALL n=792	OMN n=534	PVG n=92	PCV n=32	OVL n=75	VGN n=59	p-value
Vegetables	327.5 (192.5)	281.7 (177.6)	431.7 (176.6)	390.3 (169.5)	376.1 (127.4)	483.6 (252.5)	<0.001
Mushrooms	25.0 (30.7)	19.8 (27.9)	30.6 (30.2)	35.5 (35.6)	41.4 (39.8)	36.0 (27.3)	<0.001
Potatoes	42.0 (30.5)	45.6 (31.0)	29.6 (30.6)	36.4 (26.0)	38.6 (26.3)	36.3 (27.0)	<0.001
Legumes	75.5 (50.1)	62.9 (44.5)	82.6 (43.1)	94.4 (48.2)	102.2 (42.1)	134.4 (58.2)	<0.001
Fresh fruits	324.8 (223.3)	302.9 (222.0)	447.8 (230.9)	330.3 (139.0)	348.1 (218.1)	299.0 (205.8)	<0.001
Berries	12.1 (22.3)	9.8 (16.8)	19.1 (31.7)	24.8 (53.2)	11.9 (16.1)	15.4 (24.0)	0.003
Nuts	18.5 (18.1)	14.4 (15.5)	27.2 (17.5)	19.9 (16.4)	20.9 (15.7)	38.0 (25.3)	<0.001
WG cereals	40.8 (39.9)	32.9 (36.8)	67.7 (46.2)	59.2 (39.8)	49.4 (38.6)	48.6 (32.7)	<0.001
Ref. cereals	64.1 (45.2)	73.1 (45.5)	40.6 (44.2)	50.6 (34.3)	50.7 (34.7)	43.8 (35.3)	<0.001
Total pastries	21.6 (22.7)	24.5 (24.7)	11.4 (12.0)	18.3 (21.2)	20.7 (19.4)	14.5 (14.0)	<0.001
Omnivorous pastries	20.5 (22.4)	24.2 (24.5)	11.2 (12.0)	16.9 (20.3)	17.5 (16.7)	7.8 (9.5)	<0.001
Vegan pastries	1.1 (4.7)	0.3 (3.7)	0.2 (1.0)	1.5 (3.5)	3.2 (6.3)	6.7 (8.2)	<0.001
Dark chocolate	4.0 (6.2)	3.2 (5.3)	6.8 (6.9)	6.2 (9.2)	5.2 (7.1)	4.2 (7.5)	<0.001
Sugar derivates	12.8 (28.1)	15.1 (28.5)	3.0 (4.1)	14.1 (50.9)	12.5 (31.8)	7.4 (18.7)	<0.001
Olive oil	18.9 (12.6)	18.0 (12.4)	22.1 (12.6)	18.4 (11.6)	21.6 (12.8)	19.3 (14.1)	0.006
Other vegetable fats	1.2 (2.9)	1.3 (3.0)	0.3 (1.0)	0.8 (2.0)	1.1 (2.1)	2.5 (3.7)	<0.001
Coffee & tea	55.5 (55.3)	46.6 (49.7)	86.3 (60.3)	77.2 (83.4)	69.4 (56.2)	59.0 (52.7)	<0.001
Kombucha	2.4 (11.2)	1.1 (6.0)	7.1 (23.9)	1.8 (4.4)	3.0 (6.7)	6.7 (18.4)	<0.001
Bottled juices	7.3 (25.0)	8.8 (25.9)	0.4 (1.6)	8.7 (43.0)	6.2 (27.2)	4.6 (17.7)	<0.001
PB Alt. beverages	53.2 (109.9)	19.0 (56.6)	67.8 (111.3)	126.7 (149.8)	115.4 (139.2)	221.6 (176.8)	<0.001
Almond beverage	9.0 (45.3)	5.4 (29.1)	22.2 (69.9)	9.2 (28.9)	19.0 (93.1)	7.4 (23.1)	<0.001
Soy beverage	21.1 (58.5)	4.3 (19.5)	21.7 (58.5)	51.5 (81.6)	46.7 (81.2)	122.5 (107.0)	<0.001
Oat beverage	18.3 (61.3)	7.2 (37.7)	20.1 (65.0)	55.5 (115.2)	39.7 (74.5)	68.5 (111.3)	<0.001
Other PB beverages	4.9 (37.3)	2.0 (13.1)	3.8 (16.7)	10.5 (29.6)	10.0 (33.0)	23.1 (121.1)	<0.001
Wine	6.8 (16.5)	6.1 (13.4)	10.1 (26.8)	9.5 (16.0)	7.9 (20.3)	5.5 (14.7)	0.279
Beer	38.2 (69.0)	35.0 (68.7)	42.3 (68.1)	42.8 (47.6)	55.1 (84.2)	36.8 (59.4)	0.113
Spirits	1.7 (3.7)	2.1 (4.0)	1.2 (3.9)	0.7 (1.5)	0.9 (1.8)	0.6 (1.5)	<0.001
Spices	4.3 (4.3)	3.4 (3.6)	5.6 (4.6)	5.1 (3.7)	5.6 (3.6)	8.5 (6.8)	<0.001
Meat analogs	10.2 (24.1)	2.4 (7.4)	3.5 (8.1)	31.1 (36.6)	38.7 (36.5)	43.5 (43.1)	<0.001
PB Alt. protein	27.6 (56.8)	4.7 (11.9)	11.0 (16.0)	66.3 (65.4)	96.4 (63.7)	152.2 (82.6)	<0.001
Spreads	5.7 (7.0)	4.3 (5.9)	6.3 (7.1)	6.5 (6.1)	10.3 (8.1)	11.0 (9.3)	<0.001
Smoothies	5.6 (16.1)	4.6 (13.4)	6.3 (17.9)	1.9 (4.9)	8.0 (20.4)	12.3 (27.5)	0.055
Vegan dairy-like products	14.4 (33.5)	7.9 (25.8)	16.9 (33.1)	23.0 (40.0)	30.2 (46.3)	44.9 (46.7)	<0.001

Adjusted intakes by 2,000 kcal: mean (standard deviation); p-value derived from Kruskal-Wallis test.

All p-values were corrected for multiple testing by Benjamini-Hochberg method.

OMN: omnivore; PVG: pro-vegetarian; PCV: pesco-vegetarian; OVL: ovo-lacto-vegetarian; VGN: vegan. WG: whole grain; Ref.: refined; PB: plant-based; alc.: alcoholic; Alt.: alternative.

Table S7. Post-hoc analyses: intake of main PB foods by type of diet in the OMIVECA study (n = 792).

	OMN vs PVG	OMN vs PCV	OMN vs OVL	OMN vs VGN	PVG vs PCV	PVG vs OVL	PVG vs VGN	PCV vs OVL	PCV vs VGN	OVL vs VGN
Vegetables	<0.001	<0.001	<0.001	<0.001	0.198	0.052	0.539	0.989	0.052	0.014
Mushrooms	<0.001	0.004	<0.001	<0.001	0.583	0.101	0.101	0.583	0.592	0.968
Potatoes	<0.001	0.082	0.082	0.053	0.082	0.029	0.082	0.821	0.907	0.654
Legumes	<0.001	<0.001	<0.001	<0.001	0.254	0.002	<0.001	0.388	0.002	0.002
Fresh fruits	<0.001	0.107	0.046	0.973	0.012	0.003	<0.001	0.973	0.145	0.107
Berries	0.016	0.089	0.089	0.524	0.905	0.636	0.584	0.715	0.584	0.715
Nuts	<0.001	0.036	<0.001	<0.001	0.026	0.018	0.007	0.718	<0.001	<0.001
WG cereals	<0.001	<0.001	<0.001	<0.001	0.365	0.008	0.008	0.264	0.319	0.856
Ref. cereals	<0.001	0.006	<0.001	<0.001	0.044	0.006	0.310	1.000	0.306	0.199
Total pastries	<0.001	0.100	0.267	0.003	0.493	0.003	0.267	0.267	0.914	0.140
Omnivorous pastries	<0.001	0.026	0.026	<0.001	0.653	0.032	0.039	0.405	0.104	<0.001
Vegan pastries	0.195	<0.001	<0.001	<0.001	0.037	<0.001	<0.001	0.105	<0.001	0.001
Dark chocolate	<0.001	0.056	0.019	0.268	0.492	0.234	0.044	0.750	0.374	0.377
Sugar derivates	<0.001	0.015	0.063	<0.001	0.086	<0.001	0.919	0.324	0.161	0.012
Olive oil	0.021	0.872	0.047	0.804	0.272	0.872	0.272	0.272	0.973	0.272
Other vegetable fats	<0.001	0.201	0.765	<0.001	0.024	<0.001	<0.001	0.188	0.001	0.003
Coffee & tea	<0.001	0.006	0.001	0.117	0.278	0.117	0.013	0.817	0.288	0.288
Kombucha	0.001	0.091	<0.001	<0.001	0.820	0.792	0.787	0.787	0.787	0.855
Bottled juices	<0.001	0.168	0.075	0.075	0.075	0.054	0.075	0.906	0.906	0.885
PB Alt. beverages	<0.001	<0.001	<0.001	<0.001	0.010	0.001	<0.001	0.891	0.001	<0.001
Almond beverage	<0.001	0.066	<0.001	0.014	0.889	0.889	0.889	0.889	0.963	0.889
Soy beverage	<0.001	<0.001	<0.001	<0.001	0.016	<0.001	<0.001	0.755	<0.001	<0.001
Oat beverage	<0.001	<0.001	<0.001	<0.001	0.255	0.016	0.003	0.705	0.275	0.380
Other PB beverages	0.208	0.001	0.001	0.001	0.140	0.208	0.208	0.656	0.691	0.830
Wine	0.523	0.369	0.673	0.369	0.523	0.804	0.369	0.523	0.369	0.369
Beer	0.522	0.337	0.388	0.850	0.426	0.617	0.617	0.675	0.402	0.426
Spirits	0.001	0.046	0.004	0.001	1.000	0.994	0.571	0.994	0.701	0.571
Spices	<0.001	0.006	<0.001	<0.001	0.664	0.532	0.004	0.417	0.013	0.015
Meat analogs	0.058	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.121	0.121	0.646
PB Alt. protein	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.008	<0.001	<0.001
Spreads	0.004	0.004	<0.001	<0.001	0.336	0.001	<0.001	0.036	0.018	0.847
Smoothies	0.416	0.416	0.140	0.140	0.247	0.416	0.452	0.140	0.140	0.987
Vegan dairy-like products	0.002	<0.001	<0.001	<0.001	0.190	0.006	<0.001	0.415	<0.001	0.001

P-values derived from Kruskal-Wallis test. Statistically significant p-values are highlighted in bold.

All p-values were corrected for multiple testing by Benjamini-Hochberg method.

OMN: omnivore; PVG: pro-vegetarian; PCV: pesco-vegetarian; OVL: ovo-lacto-vegetarian; VGN: vegan. WG: whole grain; Ref.: refined; PB: plant-based; alc.: alcoholic; Alt.: alternative.

Table S8. Post-hoc analyses: Intake of main polyphenol subclasses (mg/2,000kcal per day) by type of diet in the OMIVECA study (n = 792).

	OMN vs PVG	OMN vs PCV	OMN vs OVL	OMN vs VGN	PVG vs PCV	PVG vs OVL	PVG vs VGN	PCV vs OVL	PCV vs VGN	OVL vs VGN
Total polyphenols	<0.001	<0.001	<0.001	<0.001	0.723	0.053	0.534	0.28	0.393	0.012
Flavonoids	<0.001	<0.001	<0.001	<0.001	0.719	0.114	0.425	0.341	0.341	0.014
Anthocyanins	<0.001	0.034	0.061	0.891	0.711	0.200	0.034	0.503	0.061	0.207
Dihydrochalcones	<0.001	0.21	0.337	0.639	0.147	0.024	0.022	0.639	0.384	0.639
Flavanols	<0.001	0.015	0.137	0.109	0.449	0.015	0.065	0.197	0.314	0.725
Flavanones	0.440	0.832	0.832	0.832	0.832	0.808	0.832	0.832	0.927	0.832
Flavones	<0.001	0.004	<0.001	<0.001	0.986	0.175	<0.001	0.245	0.003	0.028
Flavonols	<0.001	<0.001	<0.001	<0.001	0.623	0.041	0.531	0.338	0.403	0.007
Isoflavonoids	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	0.020	<0.001	<0.001
Phenolic acids	<0.001	<0.001	<0.001	<0.001	0.706	0.343	0.722	0.984	0.801	0.706
Hydroxybenzoic acids	0.043	0.043	0.133	0.043	0.637	0.781	0.781	0.565	0.781	0.678
Hydroxycinnamic acids	<0.001	<0.001	<0.001	<0.001	0.596	0.387	0.611	0.854	0.611	0.611
Hydroxyphenylacetic acids	0.747	0.310	0.310	0.335	0.310	0.310	0.310	0.812	0.747	0.747
Hydroxyphenylpropanoic acids	0.763	0.294	0.294	0.294	0.294	0.294	0.294	0.843	0.820	0.843
Lignans	<0.001	0.001	<0.001	<0.001	0.032	0.002	0.427	0.780	0.013	0.001
Stilbenes	0.687	0.624	0.624	0.001	0.793	0.513	0.001	0.513	0.007	0.012
Other polyphenols	<0.001	<0.001	<0.001	<0.001	0.084	0.294	0.014	0.523	0.816	0.294
Alkylmethoxyphenols	<0.001	0.302	0.051	0.739	0.302	0.302	0.014	0.739	0.302	0.064
Alkylphenols	<0.001	0.039	0.066	0.409	0.414	0.020	0.003	0.409	0.194	0.409
Curcuminoids	<0.001	<0.001	<0.001	<0.001	0.323	0.323	<0.001	0.897	0.022	0.003
Furanocoumarins	<0.001	0.089	<0.001	<0.001	0.426	0.804	0.278	0.278	0.137	0.426
Tyrosols	0.587	0.157	0.006	0.058	0.335	0.066	0.157	0.821	0.868	0.593
Other polyphenols	0.973	0.795	0.576	0.567	0.878	0.576	0.576	0.908	0.567	0.567

P-values derived from Kruskal-Wallis test. Statistically significant p-values are highlighted in bold.

All p-values were corrected for multiple testing by Benjamini-Hochberg method.

OMN: omnivore; PVG: pro-vegetarian; PCV: pesco-vegetarian; OVL: ovo-lacto-vegetarian; VGN: vegan.

Table S9. Polyphenol's food contributions (%) to total polyphenols intake by type of diet in the OMIVECA study (n = 792)

	ALL n=792	OMN n=534	PVG n=92	PCV n=32	OVL n=75	VGN n=59	p-value
Vegetables	14.6 (9.7)	13.4 (9.5)	15.3 (8.4)	14.4 (6.8)	17.2 (9.8)	20.8 (11.7)	<0.001
Potatoes	1.8 (1.8)	2.2 (2.0)	0.9 (1.2)	1.1 (1.0)	1.4 (1.3)	1.1 (1.0)	<0.001
Legumes	2.3 (3.0)	2.3 (3.4)	1.5 (1.5)	1.9 (1.8)	2.4 (2.3)	3.2 (2.3)	<0.001
Fresh fruits	18.2 (12.1)	19.4 (12.6)	20.3 (12.6)	15.0 (9.0)	15.0 (7.6)	10.4 (6.8)	<0.001
Berries	7.9 (11.0)	7.5 (10.7)	9.5 (11.4)	12.0 (18.7)	7.2 (8.8)	7.5 (10.2)	0.215
Nuts	5.0 (5.3)	4.5 (5.6)	6.0 (3.6)	4.4 (3.0)	5.2 (4.3)	8.7 (5.0)	<0.001
WG cereals	1.6 (2.3)	1.6 (2.6)	2.2 (2.1)	1.9 (2.0)	1.4 (1.4)	1.2 (1.1)	<0.001
Ref. cereals	1.2 (1.8)	1.4 (2.1)	0.6 (0.8)	0.8 (0.7)	0.8 (0.7)	0.7 (0.7)	<0.001
Bakery/pastries	3.2 (6.8)	4.1 (8.0)	1.2 (2.3)	1.5 (2.5)	1.8 (2.7)	0.6 (0.9)	<0.001
Dark chocolate	6.9 (9.3)	6.3 (9.1)	9.4 (9.0)	9.4 (12.4)	8.0 (9.2)	5.5 (8.4)	0.001
Sugar derivates	10.6 (19.3)	13.4 (21.5)	2.9 (6.9)	6.5 (16.2)	5.7 (13.2)	5.6 (12.0)	<0.001
Olive oil	1.6 (1.5)	1.7 (1.6)	1.4 (1.3)	1.1 (0.9)	1.6 (1.7)	1.1 (1.0)	0.007
Coffee & tea	12.0 (11.8)	11.9 (12.4)	14.7 (11.3)	12.7 (11.4)	12.4 (9.8)	8.5 (7.9)	0.006
Kombucha	0.2 (1.4)	0.2 (1.4)	0.5 (1.7)	0.2 (0.4)	0.3 (0.6)	0.6 (1.6)	<0.001
PB Alt. beverages	2.3 (6.3)	1.3 (5.3)	4.2 (9.6)	3.9 (6.6)	3.6 (5.6)	5.7 (6.5)	<0.001
Wine	0.6 (1.9)	0.6 (2.0)	0.8 (2.3)	0.6 (1.1)	0.5 (1.3)	0.5 (1.5)	0.314
Beer	0.2 (0.5)	0.2 (0.5)	0.2 (0.3)	0.2 (0.2)	0.2 (0.4)	0.1 (0.2)	0.567
Spices	3.4 (3.8)	3.0 (3.6)	3.6 (3.5)	3.5 (2.5)	4.4 (3.8)	5.8 (4.7)	<0.001
PB Alt. protein	0.8 (2.0)	0.1 (0.4)	0.3 (0.5)	1.5 (2.0)	2.8 (3.3)	4.5 (3.6)	<0.001
Smoothies	0.4 (1.0)	0.4 (1.0)	0.3 (0.8)	0.1 (0.3)	0.4 (1.0)	0.6 (1.4)	0.104
Food groups sum	94.9 (14.9)	95.4 (16.7)	95.7 (7.4)	92.7 (12.1)	92.6 (10.6)	92.8 (12.2)	0.015

Contribution expressed in % and standard deviation in parenthesis; p-value derived from Kruskal-Wallis test. All were corrected for multiple testing by Benjamini-Hochberg method. Berries were not included in fresh fruits; beer is expressed as sum of alcoholic and nonalcoholic beer; pastries/bakery are expressed as sum of vegan pastries and not vegan pastries. Sugar derivates were mainly composed of bottled juices, chocolate candy and jams.

OMN: omnivore; PVG: pro-vegetarian; PCV: pesco-vegetarian; OVL: ovo-lacto-vegetarian; VGN: vegan; WG: whole grain; Ref.: refined; PB: plant-based; Alt.: alternative.

Table S10. Post-hoc analyses: Polyphenol's food contributions to total polyphenols intake by type of diet in the OMIVECA study (n = 792)

	OMN vs PVG	OMN vs PCV	OMN vs OVL	OMN vs VGN	PVG vs PCV	PVG vs OVL	PVG vs VGN	PCV vs OVL	PCV vs VGN	OVL vs VGN
Vegetables	0.023	0.283	0.002	<0.001	0.723	0.329	0.021	0.299	0.025	0.172
Potatoes	<0.001	<0.001	<0.001	<0.001	0.103	0.003	0.163	0.371	0.721	0.198
Legumes	0.384	0.974	0.05	<0.001	0.408	0.006	<0.001	0.213	0.004	0.032
Fresh fruits	0.520	0.047	0.018	<0.001	0.018	0.018	<0.001	0.582	0.016	0.001
Berries	0.531	0.531	0.592	0.957	0.890	0.632	0.531	0.632	0.531	0.592
Nuts	<0.001	0.299	0.025	<0.001	0.036	0.095	<0.001	0.471	<0.001	<0.001
WG cereals	<0.001	0.054	0.134	0.462	0.341	0.009	0.001	0.315	0.132	0.475
Ref. cereals	<0.001	0.194	0.056	0.007	0.054	0.012	0.215	0.854	0.483	0.384
Bakery/pastries	<0.001	0.011	0.024	<0.001	0.753	0.013	0.624	0.241	0.489	0.006
Dark chocolate	0.001	0.186	0.120	0.899	0.763	0.370	0.021	0.899	0.186	0.186
Sugar derivates	<0.001	0.009	0.009	<0.001	0.092	0.001	0.844	0.371	0.279	0.059
Olive oil	0.355	0.109	0.667	0.011	0.355	0.676	0.109	0.223	0.667	0.064
Coffee & tea	0.010	0.335	0.253	0.335	0.335	0.335	0.005	0.957	0.188	0.065
Kombucha	0.002	0.108	<0.001	<0.001	0.915	0.650	0.650	0.650	0.650	0.915
PB Alt. beverages	<0.001	<0.001	<0.001	<0.001	0.073	0.017	<0.001	0.973	0.007	0.001
Wine	0.664	0.368	0.813	0.368	0.492	0.863	0.368	0.424	0.368	0.368
Beer	0.790	0.712	0.617	0.617	0.617	0.617	0.617	0.989	0.617	0.617
Spices	0.016	0.060	<0.001	<0.001	0.545	0.068	0.002	0.360	0.060	0.088
PB Alt. protein	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Smoothies	0.622	0.319	0.201	0.244	0.281	0.319	0.396	0.201	0.201	0.899
Food groups sum	0.515	0.158	0.058	0.158	0.063	0.035	0.058	0.849	0.772	0.787

P-values derived from Kruskal-Wallis test. Statistically significant p-values are highlighted in bold. All were corrected for multiple testing by Benjamini-Hochberg method. Berries were not included in fresh fruits; beer is expressed as sum of alcoholic and nonalcoholic beer; bakery/pastries are expressed as sum of vegan pastries and not vegan pastries. Sugar derivates were mainly composed of bottled juices, chocolate candy and hams.

OMN: omnivore; PVG: pro-vegetarian; PCV: pesco-vegetarian; OVL: ovo-lacto-vegetarian; VGN: vegan; WG: whole grain; Ref.: refined; PB: plant-based; Alt.: alternative.

Table S11. Urine (poly)phenol concentrations (ng/mL) by type of diet in the urine subsample population (n = 200).

Class	Subclass	Urine biomarker	ALL n=200	OMN n=98	PVG n=19	PCV n=16	OVL n=45	VGN n=22	p-value	N	<LLOQ
		Total (poly)phenols (FC-creatinine)	157.4 [119.2;213.7]	132.1 [102.7;175.0]	189.2 [154.2;218.9]	178.5 [145.6;226.6]	176.4 [134.0;255.2]	215.0 [176.1;315.0]	<0.001	200	-
Flavonoids	Flavanones	Naringenin	24.5 [7.5;76.2]	16.0 [3.7;43.3]	48.9 [14.2;167.8]	17.0 [9.3;45.7]	29.1 [14.0;73.1]	133.6 [42.8;430.1]	<0.001	199	0.51
	Flavanones	Hesperetin	2.9 [1.0;40.0]	1.9 [0.7;16.1]	34.5 [2.4;243.9]	12.5 [2.2;53.8]	2.6 [1.0;15.2]	52.2 [3.2;344.0]	0.001	184	0.68
	Isoflavonoids	Daidzein	11.4 [2.1;220.1]	2.7 [1.1;13.2]	13.1 [3.4;73.2]	34.0 [4.0;133.9]	168.1 [5.5;572.3]	1424.0 [685.1;2152.9]	<0.001	197	0.84
	Isoflavonoids	Genistein	12.4 [2.5;127.6]	3.0 [1.2;12.6]	19.7 [4.8;43.0]	19.1 [5.8;135.7]	76.9 [18.2;311.2]	853.9 [286.4;3376.6]	<0.001	198	0.49
	Isoflavonoids	Equol	1.9 [1.1;4.1]	1.7 [1.0;3.3]	2.4 [1.2;11.5]	2.8 [1.6;4.1]	2.2 [1.5;6.1]	0.5 [0.3;221.0]	0.166	196	0.49
Lignans	Lignans	Enterolactone	85.7 [34.6;279.5]	55.4 [24.5;157.2]	150.0 [74.5;261.2]	71.7 [47.6;208.4]	118.2 [55.4;400.4]	434.0 [73.3;1102.8]	0.002	200	0.62
	Lignans	Enterodiol	25.9 [11.0;73.8]	13.9 [7.6;31.6]	26.1 [15.4;64.7]	28.1 [17.3;86.6]	40.0 [20.5;132.4]	99.1 [58.2;423.3]	<0.001	199	0.48
Other (poly)phenols	Tyrosols	Hydroxytyrosol	22.1 [10.8;38.7]	16.9 [8.9;29.3]	46.5 [35.4;68.8]	26.4 [15.2;57.6]	27.4 [13.6;36.7]	30.1 [16.4;41.1]	<0.001	200	1.16
	Tyrosols	Tyrosol	13.5 [11.4;19.6]	12.7 [10.8;15.3]	22.8 [13.7;36.3]	15.1 [12.4;16.9]	13.3 [11.8;20.3]	15.2 [12.2;22.8]	0.004	200	0.58
Phenolic acids	Hydroxybenzoic acids	Protocatechuic acid	1.9 [1.1;3.5]	1.3 [0.9;2.4]	1.8 [1.0;3.1]	2.2 [2.1;3.4]	2.8 [1.8;4.0]	4.5 [3.4;6.5]	<0.001	200	0.24
	Hydroxyphenylacetic acids	3,4-Dihydroxyphenylacetic acid	1.0 [0.6;1.7]	0.7 [0.5;1.0]	1.2 [0.7;1.8]	1.2 [0.9;2.2]	1.6 [1.1;3.7]	1.6 [0.9;2.7]	<0.001	191	0.54
	Hydroxybenzoic acids	4-Hydroxybenzoic acid	10.9 [8.0;15.0]	8.7 [7.0;11.9]	11.2 [8.6;13.2]	13.1 [9.0;20.2]	12.6 [9.5;15.2]	16.0 [13.4;20.9]	<0.001	200	0.24
	Hydroxybenzoic acids	3-Hydroxybenzoic acid	0.5 [0.3;0.8]	0.4 [0.3;0.7]	0.5 [0.3;0.9]	0.6 [0.5;1.2]	0.7 [0.4;1.0]	0.6 [0.4;1.1]	0.004	183	0.24
	Hydroxyphenylacetic acids	3-Hydroxyphenylacetic acid	76.1 [61.3;92.3]	71.2 [58.4;84.5]	71.9 [60.0;82.9]	85.4 [66.8;97.6]	86.7 [68.2;110.0]	81.8 [71.2;118.6]	0.001	199	0.30
	Hydroxycinnamic acids	m-Coumaric acid	2.8 [1.0;6.4]	1.6 [0.6;3.6]	3.3 [1.3;10.3]	3.4 [2.6;5.0]	5.6 [2.9;8.8]	5.0 [2.0;15.6]	<0.001	187	0.24
	Hydroxycinnamic acids	p-Coumaric acid	4.5 [3.3;6.8]	3.6 [2.7;5.1]	3.9 [3.2;8.4]	5.4 [4.6;6.7]	5.6 [4.2;8.1]	6.4 [5.2;10.0]	<0.001	198	0.25
	Hydroxybenzoic acids	Vanillic acid	19.0 [10.5;29.6]	11.8 [8.7;20.1]	16.8 [10.6;34.4]	27.9 [14.9;43.8]	22.9 [17.6;41.2]	27.0 [24.3;44.6]	<0.001	200	0.24
	Hydroxyphenylacetic acids	Homovanillic acid	11.3 [8.7;15.0]	9.5 [7.8;12.2]	10.7 [9.0;13.7]	14.2 [11.1;19.8]	14.0 [12.3;17.3]	12.4 [9.9;17.3]	<0.001	198	0.46
	Hydroxycinnamic acids	Ferulic acid	22.9 [14.9;37.1]	17.2 [11.9;24.0]	23.4 [18.1;33.3]	24.5 [15.0;32.2]	32.3 [21.4;49.3]	33.6 [25.4;43.0]	<0.001	199	0.24
	Hydroxycinnamic acids	Caffeic acid	4.9 [2.7;8.8]	3.9 [1.9;6.4]	5.6 [2.8;8.9]	6.3 [3.9;8.9]	7.1 [3.4;12.1]	6.3 [3.8;10.1]	0.001	200	0.49

Median and interquartile range; p-value derived from Kruskal-Wallis test. All p-values were corrected for multiple testing by Benjamini-Hochberg method. Total (poly)phenols were quantified using the Folin-Ciocalteu method, and urinary concentrations were normalized using creatinine and osmolality; OMN: omnivore; PVG: pro-vegetarian; PCV: pesco-vegetarian; OVL: ovo-lacto-vegetarian; VGN: vegan; FC: Folin-Ciocalteu method; <LLOQ: limit of quantification. N: represents the number of participants with metabolite values detected.

Table S12. Post-hoc analyses of geometric means of urinary polyphenols adjusted for batch in the urine sample study population (n = 200).

Metabolite	OMN - PVG	OMN- PCV	OMN- OVL	OMN- VGN	PVG - PCV	PVG - OVL	PVG - VGN	PCV- OVL	PCV- VGN	OVL- VGN
Naringenin	0.041	0.986	0.137	<0.001	0.436	0.821	0.437	0.868	0.008	0.017
Hesperetin	0.020	0.891	1.000	0.025	0.525	0.031	1.000	0.893	0.588	0.039
Daidzein	0.137	0.054	<0.001	<0.001	0.992	0.093	<0.001	0.377	<0.001	0.002
Genistein	0.304	0.053	<0.001	<0.001	0.942	0.037	<0.001	0.393	0.001	0.016
Equol	0.380	0.829	0.258	0.499	0.988	0.998	1.000	0.999	0.998	1.000
Enterolactone	0.795	0.737	0.282	0.052	1.000	0.999	0.739	1.000	0.852	0.773
Enterodiol	0.715	0.693	0.129	<0.001	1.000	0.994	0.053	0.999	0.096	0.041
Hydroxytyrosol	0.001	0.144	0.472	0.263	0.801	0.072	0.450	0.787	0.992	0.952
Tyrosol	0.004	0.909	0.529	0.708	0.292	0.160	0.320	1.000	0.999	1.000
Protocatechuic acid	0.370	0.121	<0.001	<0.001	0.978	0.536	0.037	0.942	0.213	0.374
3,4- Dihydroxyphenylacetic acid	0.042	0.106	<0.001	0.004	1.000	0.722	0.989	0.688	0.976	0.950
4-Hydroxybenzoic acid	0.746	0.239	0.017	0.004	0.941	0.870	0.389	1.000	0.895	0.800
3-Hydroxybenzoic acid	0.783	0.060	0.026	0.837	0.685	0.882	1.000	0.968	0.578	0.795
3- Hydroxyphenylacetic acid	0.935	0.702	0.657	0.644	0.487	0.475	0.431	0.997	1.000	0.997
m-Coumaric acid	0.084	0.400	<0.001	0.011	0.988	0.859	0.990	0.577	0.875	0.990
p-Coumaric acid	0.709	0.397	<0.001	0.003	0.990	0.468	0.360	0.865	0.722	0.991
Vanillic acid	0.160	0.034	<0.001	<0.001	0.969	0.544	0.324	0.961	0.784	0.964
Homovanillic acid	0.940	0.006	<0.001	0.154	0.182	0.235	0.777	0.971	0.758	0.935
Ferulic acid	0.811	0.864	<0.001	0.012	1.000	0.353	0.477	0.417	0.510	1.000
Caffeic acid	0.753	0.384	0.001	0.016	0.982	0.586	0.577	0.951	0.917	0.999

Table S13. Post-hoc analyses: Urine polyphenol values (ng/mL) by type of diet in the urine sample study population (n = 200).

	OMN vs PVG	OMN vs PCV	OMN vs OVL	OMN vs VGN	PVG vs PCV	PVG vs OVL	PVG vs VGN	PCV vs OVL	PCV vs VGN	OVL vs VGN
Naringenin	0.022	0.349	0.022	<0.001	0.349	0.349	0.166	0.441	0.005	0.002
Hesperetin	0.019	0.190	0.574	0.006	0.421	0.052	0.834	0.255	0.207	0.006
Daidzein	0.030	0.011	<0.001	<0.001	0.408	0.014	<0.001	0.098	<0.001	<0.001
Genistein	0.018	0.003	<0.001	<0.001	0.466	0.006	<0.001	0.098	0.001	0.001
Equol	0.542	0.542	0.307	0.556	0.922	0.922	0.548	0.922	0.556	0.556
Enterolactone	0.109	0.413	0.052	0.006	0.413	0.843	0.120	0.413	0.120	0.225
Enterodiol	0.046	0.122	<0.001	<0.001	0.921	0.327	0.005	0.327	0.014	0.022
Hydroxytyrosol	<0.001	0.094	0.040	0.040	0.171	0.007	0.053	0.609	0.929	0.609
Tyrosol	0.005	0.159	0.246	0.098	0.159	0.098	0.166	0.512	0.836	0.512
Protocatechuic acid	0.115	0.005	<0.001	<0.001	0.259	0.084	0.004	0.646	0.011	0.006
3,4-Dihydroxyphenylacetic acid	0.002	0.002	<0.001	<0.001	0.895	0.264	0.64	0.441	0.670	0.670
4-Hydroxybenzoic acid	0.146	0.015	0.001	<0.001	0.308	0.311	0.021	0.611	0.276	0.026
3-Hydroxybenzoic acid	0.392	0.007	0.007	0.392	0.392	0.595	0.875	0.595	0.524	0.598
3-Hydroxyphenylacetic acid	0.936	0.065	0.002	0.047	0.213	0.065	0.127	0.936	0.936	0.936
m-Coumaric acid	0.053	0.053	<0.001	0.005	0.868	0.509	0.509	0.509	0.509	0.868
p-Coumaric acid	0.228	0.006	<0.001	<0.001	0.339	0.246	0.178	0.806	0.262	0.339
Vanillic acid	0.083	0.020	<0.001	<0.001	0.531	0.124	0.083	0.935	0.531	0.124
Homovanillic acid	0.359	0.002	<0.001	0.02	0.029	0.011	0.205	0.682	0.359	0.374
Ferulic acid	0.118	0.152	<0.001	<0.001	0.947	0.118	0.076	0.170	0.119	0.733
Caffeic acid	0.293	0.158	0.002	0.012	0.714	0.405	0.405	0.640	0.640	0.718

P-values derived from Kruskal-Wallis test. All were corrected for multiple testing by Benjamini-Hochberg method. Statistically significant p-values are highlighted in bold. OMN: omnivore; PVG: pro-vegetarian; PCV: pesco-vegetarian; OVL: ovo-lacto-vegetarian; VGN: vegan.

Table S14. Urine biomarkers with missing values greater than 10% in the urine sample study population (n = 200).

Urine polyphenol	ALL	OMN	PVG	PCV	OVL	VGN	p-value
Apigenin	2.4 [1.2;5.5]	1.4 [0.8;3.1]	3.2 [1.4;4.8]	3.3 [2.0;5.9]	3.1 [1.7;9.6]	13.2 [6.2;35.3]	<0.001
Absent %	37 (18.5%)	11 (11.2%)	2 (10.5%)	2 (12.5%)	13 (28.9%)	9 (40.9%)	0.024
Phloretin	4.6 [3.3;6.8]	4.0 [3.1;4.7]	6.9 [6.4;14.4]	5.5 [5.5;5.5]	4.4 [3.2;20.4]	4.6 [3.2;13.5]	0.220
Absent %	170 (85.0%)	86 (87.8%)	15 (78.9%)	15 (93.8%)	39 (86.7%)	15 (68.2%)	0.285
Kaempferol	9.6 [8.3;12.5]	8.6 [7.9;10.5]	8.4 [7.6;10.2]	9.1 [8.3;13.5]	9.6 [8.6;11.8]	11.9 [10.7;13.5]	0.004
Absent %	92 (46.0%)	59 (60.2%)	10 (52.6%)	7 (43.8%)	14 (31.1%)	2 (9.1%)	0.001
Isorhamnetin	3.8 [3.0;5.8]	3.3 [2.9;4.9]	3.4 [3.2;6.4]	5.1 [4.6;6.4]	3.8 [3.0;4.8]	6.8 [3.7;9.2]	0.082
Absent %	123 (61.5%)	64 (65.3%)	10 (52.6%)	8 (50.0%)	27 (60.0%)	14 (63.6%)	0.784
Resveratrol	2.0 [1.2;2.7]	1.6 [1.1;2.5]	1.7 [1.2;3.2]	2.3 [2.2;3.0]	2.1 [1.3;2.6]	2.5 [1.4;2.6]	0.338
Absent %	91 (45.5%)	48 (49.0%)	10 (52.6%)	4 (25.0%)	20 (44.4%)	9 (40.9%)	0.653
Gallic acid	2.8 [2.6;3.1]	2.6 [2.5;2.9]	2.7 [2.7;2.9]	2.8 [2.7;3.3]	2.8 [2.7;3.1]	2.8 [2.6;3.1]	0.422
Absent %	137 (68.5%)	78 (79.6%)	12 (63.2%)	7 (43.8%)	28 (62.2%)	12 (54.5%)	0.031
Gallic acid ethyl ester	1.8 [1.7;2.2]	1.8 [1.7;2.2]	2.8 [1.9;5.9]	1.8 [1.8;1.9]	1.8 [1.7;2.0]	1.9 [1.8;2.1]	0.422
Absent %	148 (74.0%)	73 (74.5%)	15 (78.9%)	10 (62.5%)	33 (73.3%)	17 (77.3%)	0.843
Quercetin	-	-	-	-	-	-	-
Absent %	188 (94.0%)	94 (95.9%)	17 (89.5%)	14 (87.5%)	44 (97.8%)	19 (86.4%)	0.248

Median and interquartile range (ng/mL); p-value derived from Kruskal-Wallis test. All were corrected for multiple testing by Benjamini-Hochberg method.

n (%) for number of participants corresponding to non-detectable values. Metabolites not included in the table are those with less than 10% of missing values and those with more than 99%. OMN: omnivore; PVG: pro-vegetarian; PCV: pescovegetarian; OVL: ovo-lacto-vegetarian; VGN: vegan. Quercetin values were not available since the quantification was not possible for the majority of the samples.

Table S15. Factor loadings of the first three components of the PCA in the urine sample study population (n = 200).

Urine biomarker	Component 1	Component 2	Component 3
Naringenin	0.016	-0.284	-0.652
Hesperetin	0.057	0.039	-0.730
Daidzein	0.098	0.731	-0.180
Genistein	-0.063	0.760	-0.071
Equol	-0.100	0.597	-0.018
Enterolactone	0.070	0.202	0.069
Enterodiol	0.092	0.185	0.030
Hydroxytyrosol	0.777	-0.008	0.102
Tyrosol	0.590	-0.034	-0.232
Protocatechuic acid	0.252	0.323	-0.428
3,4-Dihydroxyphenylacetic acid	-0.154	0.049	0.145
4-Hydroxybenzoic acid	0.229	0.042	-0.474
3-Hydroxybenzoic acid	-0.131	0.286	-0.366
3-Hydroxyphenylacetic acid	0.387	0.000	-0.264
m-Coumaric acid	0.007	-0.171	-0.643
p-Coumaric acid	0.489	0.057	-0.266
Vanillic acid	0.004	-0.105	-0.308
Homovanillic acid	0.731	-0.112	0.023
Ferulic acid	0.309	0.127	0.040
Caffeic acid	0.392	0.103	-0.086

Factor loadings (FL) higher than 0.2 are highlighted in bold.

Table S16. Type of diet and urine polyphenol values by cluster of the PCA in the urine sample study population (n = 200).

		Cluster 1: n=22	Cluster 2: n=60	Cluster 3: n=118	p-value
Type of diet					<0.001
	Omnivorous	0 (0.0%)	17 (28.3%)	81 (68.6%)	
	Pro-vegetarian	2 (9.1%)	6 (10.0%)	11 (9.3%)	
	Pesco-vegetarian	0 (0.0%)	8 (13.3%)	8 (6.8%)	
	Ovolacto-vegetarian	6 (27.3%)	25 (41.7%)	14 (11.9%)	
	Vegan	14 (63.6%)	4 (6.7%)	4 (3.4%)	
hPDI		70.5 [67.2;72.0]	63.5 [52.8;69.0]	54.0 [49.0;61.0]	<0.001
PPS		66.5 [64.2;68.0]	66.0 [60.0;71.2]	57.0 [49.0;64.8]	<0.001
Sex (Female)		16 (72.7%)	48 (80.0%)	89 (75.4%)	0.719
Age (years)		28.5 [22.5;33.0]	25.5 [21.8;31.2]	24.0 [21.0;29.0]	0.181
Subclass	Urine biomarker				
Flavanones	Naringenin	247.1 [67.7;593.5]	29.1 [10.0;74.7]	19.4 [4.2;45.9]	<0.001
Flavanones	Hesperetin	113.3 [3.5;502.7]	2.3 [1.3;26.0]	2.9 [0.8;23.7]	0.002
Isoflavonoids	Daidzein	1517.3 [828.8;2502.1]	7.1 [2.4;135.7]	5.4 [1.6;88.5]	<0.001
Isoflavonoids	Genistein	1056.5 [602.6;5054.6]	16.6 [2.8;100.0]	7.0 [1.8;52.0]	<0.001
Isoflavonoids	Equol	6.2 [0.4;387.8]	1.9 [1.2;3.4]	1.9 [1.0;3.5]	0.634
Lignans	Enterolactone	574.2 [121.6;1146.5]	113.4 [37.3;309.4]	66.9 [32.4;165.7]	<0.001
Lignans	Enterodiol	189.2 [31.1;540.0]	35.4 [14.4;94.0]	19.5 [8.1;49.6]	<0.001
Tyrosols	Hydroxytyrosol	28.6 [15.3;43.0]	38.4 [25.8;65.2]	15.7 [9.7;27.7]	<0.001
Tyrosols	Tyrosol	13.3 [11.5;25.7]	19.6 [14.1;31.9]	12.4 [10.8;14.7]	<0.001
Hydroxybenzoic acids	Protocatechuic acid	4.7 [3.5;7.0]	2.6 [1.6;4.0]	1.4 [1.0;2.6]	<0.001
Hydroxyphenylacetic acids	3,4-Dihydroxyphenylacetic acid	1.5 [0.9;2.2]	1.3 [1.0;2.0]	0.7 [0.6;1.2]	<0.001
Hydroxybenzoic acids	4-Hydroxybenzoic acid	16.9 [12.9;20.9]	14.4 [10.7;20.2]	8.9 [7.1;11.4]	<0.001
Hydroxybenzoic acids	3-Hydroxybenzoic acid	0.6 [0.4;0.9]	0.6 [0.4;1.1]	0.4 [0.3;0.7]	0.019
Hydroxyphenylacetic acids	3-Hydroxyphenylacetic acid	77.9 [70.9;107.2]	94.2 [83.4;118.2]	67.1 [56.4;80.4]	<0.001
Hydroxycinnamic acids	m-Coumaric acid	6.4 [3.4;12.7]	4.4 [1.9;12.1]	1.7 [0.7;3.6]	<0.001
Hydroxycinnamic acids	p-Coumaric acid	6.4 [4.2;9.1]	6.9 [4.9;10.7]	3.6 [2.8;4.9]	<0.001
Hydroxybenzoic acids	Vanillic acid	27.6 [24.1;51.8]	29.0 [20.5;41.5]	13.0 [8.9;20.7]	<0.001
Hydroxyphenylacetic acids	Homovanillic acid	11.3 [9.9;15.5]	15.2 [12.7;19.5]	9.6 [7.8;12.1]	<0.001
Hydroxycinnamic acids	Ferulic acid	31.6 [22.2;38.5]	38.2 [26.7;50.5]	16.6 [11.6;23.4]	<0.001
Hydroxycinnamic acids	Caffeic acid	7.4 [4.1;10.2]	9.1 [5.3;12.8]	3.2 [1.8;5.6]	<0.001

Median and interquartile range (ng/mL); p-value derived from Kruskal-Wallis test and corrected for Benjamini-Hochberg method.

Table S17. Post-hoc: urine polyphenol values by cluster of the PCA in the urine sample study population (n = 200).

Metabolites	p.1 vs 2	p.1 vs 3	p.2 vs 3
Naringenin	<0.001	<0.001	0.044
Hesperetin	0.003	0.001	0.559
Daidzein	<0.001	<0.001	0.177
Genistein	<0.001	<0.001	0.075
Equol	0.558	0.558	0.961
Enterolactone	0.005	0.001	0.075
Enterodiol	0.002	<0.001	0.005
Hydroxytyrosol	0.061	0.019	<0.001
Tyrosol	0.042	0.042	<0.001
Protocatechuic acid	<0.001	<0.001	<0.001
3,4-Dihydroxyphenylacetic acid	0.742	0.002	<0.001
4-Hydroxybenzoic acid	0.191	<0.001	<0.001
3-Hydroxybenzoic acid	0.900	0.129	0.029
3-Hydroxyphenylacetic acid	0.054	0.003	<0.001
m-Coumaric acid	0.217	<0.001	<0.001
p-Coumaric acid	0.420	<0.001	<0.001
Vanillic acid	0.668	<0.001	<0.001
Homovanillic acid	0.014	0.006	<0.001
Ferulic acid	0.161	<0.001	<0.001
Caffeic acid	0.184	<0.001	<0.001

P-values derived from Kruskal-Wallis test. All were corrected for multiple testing by Benjamini-Hochberg method. Statistically significant p-values are highlighted in bold. OMN: omnivore; PVG: pro-vegetarian; PCV: pesco-vegetarian; OVL: ovo-lacto-vegetarian; VGN: vegan.

Table S18. Polyphenol intake (mg/2,000 kcal) of metabolites with urine values among the overall study population (n = 792) and the participants with urinary samples (n = 200).

Dietary polyphenols	ALL n=792	OMN n=534	PVG n=92	PCV n=32	OVL n=75	VGN n=59	p-value
Naringenin	9.7 [3.8;16.3]	7.6 [3.4;14.8]	14.3 [6.3;20.6]	9.9 [5.1;19.0]	11.4 [4.9;15.6]	10.7 [4.1;18.9]	<0.001
Hesperetin	5.2 [1.8;9.1]	4.8 [1.7;8.9]	7.0 [2.6;11.1]	5.4 [2.3;11.4]	5.5 [2.3;8.7]	5.7 [2.0;11.2]	0.065
Daidzein	0.1 [<0.1;0.5]	<0.1 [<0.1;0.1]	0.2 [<0.1;0.5]	0.6 [0.2;1.3]	1.5 [0.7;2.3]	2.9 [1.9;4.3]	<0.001
Genistein	0.1 [<0.1;0.6]	<0.1 [<0.1;0.1]	0.2 [<0.1;0.6]	0.8 [0.2;1.7]	1.8 [1.0;2.7]	3.3 [2.3;4.9]	<0.001
Ferulic acid	9.2 [6.8;11.9]	8.6 [6.4;11.1]	9.5 [7.1;12.3]	11.2 [9.1;13.8]	10.5 [8.3;13.3]	11.2 [8.6;13.3]	<0.001
Homovanillic acid	0.1 [<0.1;0.3]	0.1 [<0.1;0.3]	0.1 [0.1;0.2]	0.2 [0.1;0.5]	0.2 [<0.1;0.5]	0.1 [0.1;0.4]	0.174
4-Hydroxybenzoic acid	0.1 [<0.1;0.2]	0.1 [<0.1;0.2]	0.2 [0.1;0.4]	0.1 [0.1;0.3]	0.1 [<0.1;0.3]	0.1 [0.0;0.2]	0.001
Vanillic acid	0.7 [0.5;1.1]	0.6 [0.4;0.9]	0.8 [0.6;1.1]	1.0 [0.8;1.3]	1.0 [0.6;1.4]	1.1 [0.8;1.5]	<0.001
Caffeic acid	2.0 [1.5;2.5]	1.9 [1.4;2.4]	2.2 [1.8;2.7]	2.1 [1.9;2.8]	2.3 [1.8;2.8]	2.4 [2.0;3.2]	<0.001
p-Coumaric acid	2.3 [1.6;3.7]	2.2 [1.4;3.4]	2.3 [1.5;3.7]	3.2 [1.9;4.5]	2.6 [1.9;4.0]	3.3 [2.6;4.6]	<0.001
m-Coumaric acid	0.6 [<0.1;1.5]	0.6 [<0.1;1.3]	0.6 [<0.1;1.0]	0.8 [0.3;2.8]	0.7 [<0.1;2.9]	0.6 [0.4;2.1]	0.174
Protocatechuic acid	1.1 [0.6;2.0]	1.1 [0.6;2.2]	0.9 [0.6;1.4]	1.5 [0.7;2.0]	1.2 [0.7;1.7]	1.4 [0.9;2.5]	0.030
3,4-Dihydroxy-phenylacetic acid	0.1 [<0.1;0.3]	0.1 [<0.1;0.2]	0.1 [<0.1;0.2]	0.1 [0.1;0.5]	0.1 [<0.1;0.5]	0.1 [0.1;0.4]	0.193
3-Hydroxybenzoic acid	0.0 [0.0;<0.1]	0.0 [0.0;<0.1]	0.0 [0.0;<0.1]	<0.1 [0.0;<0.1]	<0.1 [0.0;<0.1]	0.0 [0.0;<0.1]	0.318
Hydroxytyrosol	3.7 [0.4;8.9]	3.6 [0.3;7.9]	3.6 [0.4;5.7]	4.9 [2.2;16.6]	4.4 [0.4;17.2]	3.8 [2.7;12.4]	0.117
Tyrosol	1.3 [0.7;2.6]	1.2 [0.7;2.4]	1.2 [0.7;2.2]	1.6 [1.0;3.6]	1.7 [0.8;4.0]	1.4 [0.9;3.1]	0.045

Dietary polyphenols	ALL n=200	OMN n=98	PVG n=19	PCV n=16	OVL n=45	VGN n=22	p-value
Naringenin	10.2 [4.1;15.4]	8.2 [3.3;14.2]	15.0 [6.0;22.5]	10.5 [5.4;17.0]	11.4 [5.0;15.7]	7.5 [4.7;15.3]	0.141
Hesperetin	5.1 [1.7;8.6]	4.3 [1.2;7.6]	7.9 [3.5;11.7]	6.0 [2.1;9.1]	5.7 [2.6;8.5]	5.4 [1.9;11.5]	0.245
Daidzein	0.2 [<0.1;1.3]	<0.1 [<0.1;0.1]	0.2 [0.1;0.4]	0.4 [0.3;1.2]	1.4 [0.7;2.3]	3.2 [2.0;5.1]	<0.001
Genistein	0.3 [<0.1;1.5]	<0.1 [<0.1;0.2]	0.3 [<0.1;0.5]	0.5 [0.3;1.5]	1.8 [1.0;2.4]	3.9 [2.3;5.7]	<0.001
Ferulic acid	9.7 [7.3;12.7]	8.8 [6.9;11.7]	8.8 [6.5;12.0]	13.3 [10.7;16.2]	10.5 [8.2;13.4]	10.2 [8.0;13.1]	0.009
Homovanillic acid	0.1 [0.1;0.4]	0.1 [<0.1;0.3]	0.1 [0.1;0.2]	0.2 [<0.1;0.7]	0.2 [<0.1;0.5]	0.1 [0.1;0.3]	0.655
4-Hydroxybenzoic acid	0.1 [<0.1;0.2]	0.1 [<0.1;0.2]	0.2 [0.1;0.3]	0.1 [0.1;0.3]	0.1 [0.1;0.3]	<0.1 [0.0;0.1]	0.009
Vanillic acid	0.8 [0.5;1.2]	0.7 [0.4;0.9]	0.8 [0.6;1.2]	1.0 [0.8;1.2]	1.0 [0.6;1.5]	1.1 [0.6;1.3]	0.002
Caffeic acid	2.0 [1.6;2.6]	1.9 [1.4;2.5]	2.0 [1.9;2.5]	2.1 [2.0;2.5]	2.2 [1.9;2.8]	2.4 [2.0;2.8]	0.009
p-Coumaric acid	2.4 [1.7;3.6]	2.2 [1.6;3.2]	2.2 [1.6;2.7]	3.6 [2.3;4.8]	2.6 [1.8;4.1]	2.9 [2.1;4.0]	0.053
m-Coumaric acid	0.7 [<0.1;2.2]	0.6 [<0.1;1.7]	0.7 [0.2;0.9]	1.4 [<0.1;3.8]	0.9 [<0.1;2.9]	0.6 [0.5;1.5]	0.619
Protocatechuic acid	1.2 [0.7;2.0]	1.2 [0.6;2.4]	0.8 [0.7;1.4]	1.8 [0.8;2.1]	1.2 [0.8;1.7]	1.3 [1.0;1.7]	0.655
3,4-Dihydroxy-phenylacetic acid	0.1 [<0.1;0.4]	0.1 [<0.1;0.3]	0.1 [<0.1;0.1]	0.2 [<0.1;0.7]	0.2 [<0.1;0.5]	0.1 [0.1;0.3]	0.655
3-Hydroxybenzoic acid	0.0 [0.0;<0.1]	0.0 [0.0;<0.1]	<0.1 [0.0;<0.1]	0.0 [0.0;<0.1]	<0.1 [0.0;<0.1]	0.0 [0.0;<0.1]	0.571
Hydroxytyrosol	4.1 [0.5;13.1]	3.9 [0.4;10.2]	4.0 [1.5;5.4]	8.3 [0.2;22.8]	5.5 [0.5;17.2]	3.8 [2.9;9.2]	0.655
Tyrosol	1.6 [0.9;3.2]	1.4 [0.7;3.0]	1.7 [1.0;2.8]	2.2 [0.5;4.6]	1.9 [1.0;4.0]	1.1 [0.9;2.5]	0.571

Adjusted (2,000 kcal) median and interquartile range; p-value derived from Kruskal-Wallis test. All were corrected for multiple testing by Benjamini-Hochberg method. Enterolactone, enterodiol, equol and 3-hydroxyphenylacetic are not included in Phenol-Explorer.
 OMN: omnivore; PVG: pro-vegetarian; PCV: pesco-vegetarian; OVL: ovo-lacto-vegetarian; VGN: vegan.

Table S19. Post-hoc analyses: Polyphenol intake of metabolites with urine values among the overall study population (n = 792) and the participants with urinary samples (n = 200).

n=792 (diet)	OMN vs PVG	OMN vs PCV	OMN vs OVL	OMN vs VGN	PVG vs PCV	PVG vs OVL	PVG vs VGN	PCV vs OVL	PCV vs VGN	OVL vs VGN
Naringenin	0.014	0.006	<0.001	0.014	0.006	<0.001	0.014	0.006	<0.001	0.014
Hesperetin	0.014	0.006	<0.001	0.014	0.006	<0.001	0.014	0.006	<0.001	0.014
Daidzein	0.184	<0.001	<0.001	0.184	<0.001	<0.001	0.184	<0.001	<0.001	0.184
Genistein	0.161	<0.001	<0.001	0.161	<0.001	<0.001	0.161	<0.001	<0.001	0.161
Ferulic acid	0.161	<0.001	<0.001	0.161	<0.001	<0.001	0.161	<0.001	<0.001	0.161
Homovanillic acid	0.184	<0.001	<0.001	0.184	<0.001	<0.001	0.184	<0.001	<0.001	0.184
4-Hydroxybenzoic acid	0.014	0.006	<0.001	0.014	0.006	<0.001	0.014	0.006	<0.001	0.014
Vanillic acid	0.161	<0.001	<0.001	0.161	<0.001	<0.001	0.161	<0.001	<0.001	0.161
Caffeic acid	0.184	<0.001	<0.001	0.184	<0.001	<0.001	0.184	<0.001	<0.001	0.184
p-Coumaric acid	0.014	0.006	<0.001	0.014	0.006	<0.001	0.014	0.006	<0.001	0.014
m-Coumaric acid	0.161	<0.001	<0.001	0.161	<0.001	<0.001	0.161	<0.001	<0.001	0.161
Protocatechuic acid	0.184	<0.001	<0.001	0.184	<0.001	<0.001	0.184	<0.001	<0.001	0.184
3,4-Dihydroxy-phenylacetic acid	0.014	0.006	<0.001	0.014	0.006	<0.001	0.014	0.006	<0.001	0.014
3-Hydroxybenzoic acid	0.161	<0.001	<0.001	0.161	<0.001	<0.001	0.161	<0.001	<0.001	0.161
Hydroxytyrosol	0.184	<0.001	<0.001	0.184	<0.001	<0.001	0.184	<0.001	<0.001	0.184
Tyrosol	0.014	0.006	<0.001	0.014	0.006	<0.001	0.014	0.006	<0.001	0.014
n=200 (diet)	OMN vs PVG	OMN vs PCV	OMN vs OVL	OMN vs VGN	PVG vs PCV	PVG vs OVL	PVG vs VGN	PCV vs OVL	PCV vs VGN	OVL vs VGN
Naringenin	0.087	0.406	0.406	0.530	0.530	0.406	0.406	0.857	0.832	0.832
Hesperetin	0.211	0.483	0.478	0.478	0.725	0.478	0.725	0.918	0.918	0.918
Daidzein	0.003	<0.001	<0.001	<0.001	0.098	<0.001	<0.001	0.003	<0.001	<0.001
Genistein	0.002	<0.001	<0.001	<0.001	0.120	<0.001	<0.001	0.002	<0.001	<0.001
Ferulic acid	0.859	0.008	0.062	0.250	0.049	0.202	0.417	0.114	0.077	0.639
Homovanillic acid	0.828	0.828	0.828	0.828	0.828	0.828	0.828	0.935	0.828	0.828
4-Hydroxybenzoic acid	0.155	0.090	0.043	0.111	0.865	0.982	0.043	0.865	0.030	0.017
Vanillic acid	0.141	0.018	0.007	0.016	0.671	0.690	0.671	0.690	0.929	0.929
Caffeic acid	0.315	0.096	0.030	0.030	0.552	0.552	0.400	0.831	0.552	0.552
p-Coumaric acid	0.877	0.102	0.102	0.102	0.102	0.179	0.120	0.743	0.743	0.843
m-Coumaric acid	0.831	0.801	0.801	0.831	0.801	0.801	0.831	0.831	0.831	0.831
Protocatechuic acid	0.718	0.795	0.938	0.845	0.718	0.718	0.718	0.795	0.795	0.795
3,4-Dihydroxy-phenylacetic acid	0.734	0.734	0.734	0.734	0.734	0.734	0.734	0.734	0.734	0.734
3-Hydroxybenzoic acid	0.532	0.532	0.607	0.607	0.481	0.607	0.481	0.481	0.717	0.532
Hydroxytyrosol	0.870	0.870	0.870	0.870	0.870	0.870	0.870	0.870	0.870	0.870
Tyrosol	0.788	0.788	0.479	0.957	0.851	0.788	0.788	0.851	0.788	0.766

P-values derived from Kruskal-Wallis test. All were corrected for multiple testing by Benjamini-Hochberg method. Statistically significant p-values are highlighted in bold. OMN: omnivore; PVG: pro-vegetarian; PCV: pesco-vegetarian; OVL: ovo-lacto-vegetarian; VGN: vegan.

Table S20. Dietary scores values by type of diet

	ALL n=792	OMN n=534	PVG n=92	PCV n=32	OVL n=75	VGN n=59	p- value	OMN vs PVG	OMN vs PCV	OMN vs OVL	OMN vs VGN	PVG vs PCV	PVG vs OVL	PVG vs VGN	PCV vs OVL	PCV vs VGN	OVL vs VGN
hPDI	56.0 [48.0;64.0]	51.0 [46.0;57.0]	67.0 [65.0;70.0]	64.0 [55.0;69.0]	67.0 [59.0;70.5]	73.0 [68.5;78.5]	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.052	<0.001	0.085	<0.001	<0.001
PPS	59.0 [50.0;66.0]	54.0 [47.0;61.0]	67.0 [61.0;73.2]	66.0 [61.5;70.2]	67.0 [61.5;71.0]	65.0 [61.0;68.5]	<0.001	<0.001	<0.001	<0.001	<0.001	0.762	0.507	0.507	0.873	0.873	0.873

hPDI: healthy pro-vegetarian index score; PPS: polyphenol-rich diet score.

OMN: omnivore; PVG: pro-vegetarian; PCV: pesco-vegetarian; OVL: ovo-lacto-vegetarian; VGN: vegan.

Table S21. Geometric means of polyphenol subclasses intake (mg per 2000 kcal/day) adjusted for age and sex in the OMIVECA study population (n = 792).

Subclass	OMN	PVG	PCV	OVL	VGN	p-value	OMN - PVG	OMN-PCV	OMN-OVL	OMN-VGN	PVG - PCV	PVG - OVL	PVG - VGN	PCV-OVL	PCV-VGN	OVL-VGN
Anthocyanins	33.0	55.5	58.5	43.3	35.3	<0.001	0.004	0.116	0.447	0.996	1.000	0.730	0.229	0.806	0.393	0.896
Chalcones	0.0	0.0	0.0	0.0	0.0	0.259	0.983	0.245	0.896	0.270	0.540	0.998	0.244	0.721	0.025	0.161
Dihydrochalcones	0.1	0.2	0.9	0.1	0.2	0.355	0.948	0.464	0.980	0.972	0.821	0.855	1.000	0.387	0.866	0.895
Dihydroflavonols	0.0	0.0	0.0	0.0	0.0	0.228	0.999	0.931	1.000	0.081	0.911	1.000	0.279	0.939	0.145	0.281
Flavanols	210.6	313.9	282.9	235.5	250.5	<0.001	<0.001	0.143	0.698	0.399	0.950	0.060	0.303	0.721	0.933	0.987
Flavanones	16.8	19.4	19.1	16.8	17.7	0.496	0.792	0.972	1.000	0.997	1.000	0.919	0.988	0.982	0.998	0.999
Flavones	15.7	25.4	23.3	31.8	47.2	<0.001	0.002	0.321	<0.001	<0.001	0.996	0.699	0.010	0.684	0.038	0.270
Flavonols	47.9	72.7	69.0	63.2	79.0	<0.001	<0.001	0.002	<0.001	<0.001	0.989	0.424	0.884	0.933	0.774	0.113
Isoflavonoids	0.1	0.7	6.0	31.6	75.0	<0.001	<0.001	<0.001	<0.001	<0.001	0.103	<0.001	<0.001	0.344	0.058	0.777
Lignans	37.9	59.5	49.9	48.1	66.9	<0.001	<0.001	0.038	0.003	<0.001	0.483	0.071	0.682	0.997	0.090	0.004
Alkylmethoxyphenols	0.0	0.1	0.1	0.1	0.0	0.007	0.256	0.494	0.424	0.999	0.998	1.000	0.782	0.995	0.775	0.857
Alkylphenols	7.8	17.1	13.2	10.9	8.6	<0.001	<0.001	0.194	0.267	0.985	0.880	0.180	0.019	0.955	0.584	0.855
Curcuminoids	0.0	0.6	8.0	2.0	2.7	<0.001	<0.001	<0.001	<0.001	<0.001	0.846	0.974	0.953	0.983	0.995	1.000
Furanocoumarins	0.0	0.3	0.2	0.3	0.3	<0.001	0.003	0.222	0.005	0.008	1.000	1.000	0.996	0.999	0.995	1.000
Hydroxybenzaldehydes	0.0	0.0	0.1	0.1	0.0	0.005	0.977	0.373	0.049	0.999	0.294	0.064	0.973	1.000	0.670	0.409
Hydroxycinnamaldehydes	0.0	0.0	0.0	0.0	0.0	0.048	1.000	1.000	0.017	0.999	1.000	0.112	1.000	0.385	1.000	0.270
Hydroxycoumarins	0.0	0.0	0.0	0.0	0.0	0.004	0.032	0.999	1.000	0.008	0.357	0.202	0.922	1.000	0.138	0.056
Methoxyphenols	0.0	0.0	0.0	0.0	0.0	0.007	0.241	0.946	0.204	0.978	0.989	1.000	0.894	0.973	0.999	0.832
Naphthoquinones	0.0	0.0	0.0	0.0	0.0	0.990	0.999	0.997	0.995	0.995	0.991	1.000	1.000	0.986	0.985	1.000
Other polyphenols	0.6	0.5	0.7	0.6	0.4	0.425	0.810	0.990	1.000	0.177	0.842	0.950	0.797	0.990	0.371	0.425
Phenolic terpenes	0.0	0.0	0.0	0.0	0.0	0.048	1.000	1.000	0.017	0.999	1.000	0.112	1.000	0.385	1.000	0.270
Tyrosols	25.2	18.1	30.8	34.1	30.3	0.021	0.290	0.946	0.466	0.907	0.397	0.045	0.236	0.998	1.000	0.990
Hydroxybenzoic acids	23.3	29.2	30.7	26.0	31.2	<0.001	0.091	0.316	0.796	0.067	0.998	0.877	0.987	0.856	1.000	0.675
Hydroxybenzoketones	0.0	0.0	0.0	0.0	0.0	0.188	0.984	0.876	0.792	0.353	0.981	0.986	0.760	1.000	0.995	0.960
Hydroxycinnamic acids	163.2	239.4	219.6	220.6	221.2	<0.001	<0.001	0.034	<0.001	0.001	0.944	0.883	0.920	1.000	1.000	1.000
Hydroxyphenylacetic acids	0.3	0.2	0.5	0.4	0.4	0.145	0.779	0.867	0.873	0.943	0.550	0.482	0.615	0.999	0.998	1.000
Hydroxyphenylpropanoic acids	0.0	0.0	0.0	0.0	0.0	0.216	0.996	0.990	0.962	0.778	0.969	0.999	0.735	0.927	0.997	0.620
Stilbenes	0.2	0.1	0.2	0.1	0.1	0.140	0.874	1.000	0.947	0.038	0.974	1.000	0.411	0.987	0.326	0.394
Total polyphenols	725.3	1036.4	993.4	925.8	1088.7	<0.001	<0.001	<0.001	<0.001	<0.001	0.988	0.409	0.957	0.930	0.859	0.177

Means (adjusted 2,000 kcal) corrected for age and sex; p-value derived from t-test. Pairwise comparisons between diet groups were performed using the Tukey method to adjust for multiple testing.

OMN: omnivore; PVG: pro-vegetarian; PCV: pesco-vegetarian; OVL: ovo-lacto-vegetarian; VGN: vegan.

Table S22. Energy-unadjusted dietary intake of main polyphenol classes and subclasses (mg/2,000 kcal per day) by type of diet in the OMIVECA study (n = 792).

	ALL n=792	OMN n=534	PVG n=92	PCV n=32	OVL n=75	VGN n=59	p- value
Total polyphenols	1037.9 [738.7;1458.4]	887.8 [650.5;1235.3]	1385.4 [1032.6;1844.5]	1424.5 [1117.1;1701.2]	1249.3 [940.3;1694.2]	1496.5 [1142.0;2045.9]	<0.001
Flavonoids	551.3 [355.4;870.9]	478.8 [317.7;742.7]	813.6 [523.2;1101.8]	759.5 [626.1;943.1]	677.1 [458.6;1041.7]	843.5 [530.0;1280.6]	<0.001
Anthocyanins	41.7 [20.4;88.4]	36.9 [18.6;71.0]	62.2 [28.2;138.1]	54.9 [40.5;88.4]	45.4 [29.0;104.8]	37.6 [15.4;116.3]	<0.001
Dihydrochalcones	1.3 [0.4;2.1]	0.8 [0.3;2.0]	2.0 [0.7;4.7]	2.0 [0.7;2.0]	2.0 [0.5;2.4]	1.1 [0.3;2.2]	0.001
Flavanols	306.2 [180.7;525.1]	272.4 [160.6;467.9]	479.2 [256.6;696.0]	391.5 [278.1;557.9]	345.1 [190.9;547.6]	335.4 [183.6;702.7]	<0.001
Flavanones	23.9 [12.3;46.0]	23.2 [10.8;45.4]	29.8 [16.3;49.8]	23.1 [14.6;48.7]	24.3 [16.3;38.1]	29.9 [15.1;45.7]	0.274
Flavones	27.0 [13.4;48.7]	23.4 [8.5;42.6]	40.7 [22.6;117.7]	40.5 [23.4;120.5]	42.3 [24.8;120.2]	117.4 [42.4;124.9]	<0.001
Flavonols	70.7 [49.5;110.3]	61.5 [41.7;93.0]	98.8 [69.1;138.6]	101.7 [64.6;132.8]	82.1 [58.6;125.4]	122.2 [72.0;162.8]	<0.001
Isoflavonoids	0.2 [<0.1;21.3]	0.1 [<0.1;2.6]	6.3 [0.1;22.4]	25.0 [4.1;65.5]	51.4 [22.8;88.9]	114.0 [80.7;162.0]	<0.001
Phenolic acids	299.9 [193.7;429.7]	259.5 [165.4;379.4]	405.7 [285.2;544.6]	377.9 [333.6;502.0]	392.3 [267.5;485.2]	399.0 [280.1;573.4]	<0.001
Hydroxybenzoic acids	31.5 [19.0;60.8]	29.2 [17.6;55.9]	34.9 [21.6;74.3]	45.2 [33.4;63.6]	38.0 [24.1;58.9]	38.4 [25.0;86.2]	<0.001
Hydroxycinnamic acids	251.5 [160.4;374.8]	215.0 [134.9;330.3]	359.6 [238.1;487.4]	315.2 [255.4;447.0]	349.9 [230.6;424.3]	351.2 [251.3;492.7]	<0.001
Hydroxyphenylacetic acids	0.6 [0.1;1.3]	0.6 [0.1;1.1]	0.6 [0.2;1.1]	0.8 [0.5;3.2]	1.0 [0.1;3.2]	0.7 [0.5;3.1]	0.060
Hydroxyphenylpropanoic acids	0.5 [0.0;0.9]	0.5 [0.0;0.9]	0.5 [0.0;0.9]	0.7 [0.5;2.8]	0.9 [0.0;2.8]	0.5 [0.5;2.8]	0.161
Lignans	58.7 [38.0;84.3]	49.6 [33.3;72.2]	82.4 [61.2;120.7]	69.6 [47.6;91.1]	65.8 [48.8;85.2]	96.6 [63.0;142.2]	<0.001
Stilbenes	0.3 [0.1;0.5]	0.3 [0.1;0.6]	0.3 [0.1;0.5]	0.3 [0.1;0.7]	0.2 [0.1;0.5]	0.1 [0.1;0.3]	0.004
Other polyphenols	79.9 [48.1;130.6]	65.7 [40.6;110.1]	93.3 [69.9;136.2]	129.1 [86.9;162.3]	102.7 [70.4;154.4]	126.3 [81.3;175.4]	<0.001
Alkylmethoxyphenols	0.6 [0.1;1.2]	0.5 [0.1;0.8]	0.8 [0.2;1.5]	0.6 [0.2;1.4]	0.6 [0.2;1.4]	0.4 [<0.1;1.2]	<0.001
Alkylphenols	15.7 [5.0;32.5]	14.5 [3.5;29.1]	28.0 [15.3;35.3]	26.2 [13.1;35.6]	17.8 [6.7;33.6]	17.0 [5.7;30.7]	<0.001
Curcuminoids	5.3 [2.7;30.1]	2.7 [0.0;16.4]	16.4 [5.3;32.1]	16.4 [5.3;38.1]	16.4 [5.3;38.1]	38.1 [16.4;95.3]	<0.001
Furanocoumarins	0.2 [0.1;0.4]	0.2 [0.1;0.3]	0.3 [0.2;0.4]	0.3 [0.2;0.4]	0.3 [0.2;0.4]	0.4 [0.2;1.1]	<0.001
Tyrosols	33.1 [19.6;78.7]	31.2 [18.1;55.5]	35.8 [21.6;49.8]	47.4 [22.0;106.6]	46.1 [28.4;99.6]	45.1 [28.5;98.7]	<0.001
Other polyphenols	0.9 [0.5;1.6]	0.9 [0.5;1.6]	1.0 [0.4;1.5]	0.9 [0.6;1.5]	1.2 [0.6;1.7]	0.8 [0.3;1.6]	0.684

Median and interquartile range; p-value derived from Kruskal-Wallis test. All were corrected for multiple testing by Benjamini-Hochberg method.

Chalcones, dihydroflavonols, hydroxybenzaldehydes, hydroxybenzoketones, hydroxycoumarins, hydroxyphenylpropenes, methoxyphenols, naphthoquinones are not presented due to the low values for all the groups.

OMN: omnivore; PVG: pro-vegetarian; PCV: pesco-vegetarian; OVL: ovo-lacto-vegetarian; VGN: vegan.

Table S23. Dietary intake of main polyphenol classes and subclasses (mg/2,000kcal per day) by type of diet among females (n = 581).

	ALL n=581	OMN n=368	PVG n=79	PCV n=31	OVL n=64	VGN n=39	p- value
Total polyphenols	896.4 [675.0;1163.2]	771.0 [607.8;988.8]	1118.1 [915.1;1342.0]	1101.7 [887.9;1293.3]	1022.1 [877.2;1221.2]	1179.3 [969.8;1473.5]	<0.001
Flavonoids	500.2 [330.8;668.3]	427.3 [285.7;579.1]	625.3 [483.8;863.3]	605.5 [481.5;728.7]	587.7 [406.3;707.9]	696.3 [567.1;877.9]	<0.001
Anthocyanins	35.2 [20.1;72.6]	32.1 [17.1;59.7]	58.6 [25.2;103.2]	40.8 [31.3;72.3]	36.6 [26.1;80.1]	29.3 [14.2;70.7]	<0.001
Dihydrochalcones	1.0 [0.4;2.0]	0.7 [0.3;1.8]	1.9 [0.7;3.2]	1.3 [0.6;1.7]	1.0 [0.4;2.1]	1.2 [0.4;2.0]	<0.001
Flavanols	273.1 [167.5;407.2]	256.5 [144.6;373.7]	397.1 [235.8;527.0]	344.4 [236.8;446.7]	281.1 [165.8;417.8]	303.1 [199.4;440.4]	<0.001
Flavanones	21.1 [9.7;35.3]	20.8 [8.8;33.5]	24.9 [13.4;36.9]	23.1 [11.5;36.9]	20.2 [13.4;29.1]	19.9 [10.7;41.0]	0.413
Flavones	26.8 [15.0;53.1]	22.5 [8.7;42.0]	31.9 [19.2;66.6]	34.7 [20.7;70.1]	42.6 [22.6;98.6]	66.8 [36.0;110.1]	<0.001
Flavonols	63.6 [44.4;87.4]	57.4 [39.1;73.8]	87.4 [63.1;114.1]	80.3 [58.3;96.2]	69.7 [57.2;93.5]	81.3 [68.6;117.2]	<0.001
Isoflavonoids	1.3 [<0.1;24.4]	0.1 [<0.1;2.8]	5.2 [0.1;19.8]	24.4 [5.6;59.0]	40.4 [20.2;63.9]	107.2 [66.2;130.4]	<0.001
Phenolic acids	252.2 [175.5;360.0]	216.6 [152.9;308.2]	326.8 [235.7;464.6]	278.9 [233.8;390.3]	308.0 [237.2;384.1]	344.2 [245.4;419.0]	<0.001
Hydroxybenzoic acids	27.2 [17.6;46.0]	25.3 [15.7;40.6]	30.2 [20.5;58.5]	29.9 [25.8;60.1]	29.5 [21.2;47.3]	31.8 [22.3;58.0]	0.004
Hydroxycinnamic acids	210.8 [146.1;314.3]	184.0 [122.0;280.7]	288.0 [192.6;409.2]	247.5 [195.5;318.2]	272.6 [198.9;332.2]	303.2 [198.7;370.4]	<0.001
Hydroxyphenylacetic acids	0.6 [0.1;1.3]	0.6 [0.1;1.2]	0.5 [0.2;1.0]	0.7 [0.3;2.3]	0.7 [0.1;2.7]	0.5 [0.4;1.2]	0.436
Hydroxyphenylpropanoic acids	0.5 [0.0;1.1]	0.5 [0.0;1.0]	0.4 [0.0;0.7]	0.6 [0.3;2.1]	0.6 [0.0;2.3]	0.5 [0.3;1.1]	0.598
Lignans	50.8 [35.9;67.2]	45.7 [31.3;58.7]	68.3 [50.9;90.1]	54.9 [44.8;68.1]	55.5 [40.7;67.0]	71.2 [55.2;101.5]	<0.001
Stilbenes	0.2 [0.1;0.4]	0.2 [0.1;0.4]	0.3 [0.1;0.4]	0.3 [0.1;0.4]	0.2 [0.1;0.3]	0.1 [<0.1;0.3]	0.018
Other polyphenols	66.0 [43.0;98.7]	54.8 [38.3;86.2]	75.2 [54.0;99.5]	92.3 [66.8;131.2]	82.9 [57.8;140.7]	88.9 [68.7;128.0]	<0.001
Alkylmethoxyphenols	0.4 [0.1;0.9]	0.4 [0.1;0.8]	0.6 [0.1;1.3]	0.5 [0.2;0.9]	0.6 [0.2;1.1]	0.5 [<0.1;1.0]	0.007
Alkylphenols	14.2 [4.3;25.5]	11.9 [3.4;22.8]	22.0 [13.6;29.1]	22.5 [9.6;26.4]	15.9 [6.4;26.2]	13.2 [5.3;23.8]	<0.001
Curcuminoids	5.5 [1.8;20.8]	2.9 [0.0;13.1]	14.5 [3.9;26.1]	16.9 [6.6;29.7]	19.1 [5.8;26.9]	28.1 [16.2;60.8]	<0.001
Furanocoumarins	0.2 [0.1;0.3]	0.2 [0.1;0.3]	0.3 [0.2;0.4]	0.2 [0.1;0.4]	0.2 [0.2;0.3]	0.3 [0.2;0.6]	<0.001
Tyrosols	29.4 [18.2;48.8]	28.0 [16.7;45.3]	29.0 [17.2;42.9]	33.6 [19.4;69.5]	37.0 [20.9;91.3]	31.7 [24.0;46.3]	0.044
Other polyphenols	0.8 [0.4;1.3]	0.7 [0.4;1.3]	0.9 [0.4;1.3]	0.8 [0.5;1.1]	1.0 [0.4;1.4]	0.6 [0.2;1.3]	0.598

Median and interquartile range; p-value derived from Kruskal-Wallis test. All were corrected for multiple testing by Benjamini-Hochberg method. Chalcones, dihydroflavonols, hydroxybenzaldehydes, hydroxybenzoketones, hydroxycoumarins, hydroxyphenylpropenes, methoxyphenols, naphthoquinones are not presented due to the low values for all the groups.

OMN: omnivore; PVG: pro-vegetarian; PCV: pesco-vegetarian; OVL: ovo-lacto-vegetarian; VGN: vegan.

Table S24. Dietary intake of main polyphenol classes and subclasses (mg/2,000kcal per day) by type of diet among participants older than 24 years (n = 299).

	ALL n=299	OMN n=143	PVG n=48	PCV n=19	OVL n=42	VGN n=47	p- value
Total polyphenols	981.4 [742.6;1220.6]	827.1 [629.3;1033.8]	1122.9 [921.5;1311.1]	1200.2 [946.5;1321.4]	1024.0 [900.3;1255.1]	1120.9 [952.5;1487.5]	<0.001
Flavonoids	523.0 [337.0;706.6]	384.2 [274.3;576.9]	603.7 [407.9;801.4]	616.3 [473.9;714.3]	575.9 [437.7;729.0]	614.4 [494.0;877.9]	<0.001
Anthocyanins	32.9 [19.0;66.6]	29.2 [16.3;48.7]	52.8 [24.4;89.8]	40.8 [31.9;55.3]	39.9 [26.8;70.5]	21.5 [11.3;52.9]	0.002
Dihydrochalcones	1.1 [0.4;2.0]	0.9 [0.4;1.9]	1.6 [0.6;2.5]	1.1 [0.7;1.8]	1.3 [0.4;2.1]	0.8 [0.3;1.8]	0.234
Flavanols	258.4 [155.3;412.3]	200.6 [133.0;359.2]	340.0 [210.2;479.7]	307.3 [228.9;410.9]	294.8 [182.4;423.6]	286.8 [126.1;461.1]	0.001
Flavanones	21.3 [9.6;36.0]	21.4 [8.8;35.2]	26.5 [12.2;36.1]	27.7 [12.5;36.9]	19.7 [10.9;28.7]	21.5 [10.3;36.4]	0.672
Flavones	33.2 [19.3;80.7]	23.4 [11.8;42.4]	33.0 [18.9;68.5]	36.9 [26.5;73.2]	51.1 [28.9;104.5]	78.9 [46.8;111.9]	<0.001
Flavonols	68.7 [50.9;93.5]	58.2 [42.8;78.6]	84.0 [63.9;113.0]	80.3 [63.3;106.2]	71.9 [57.9;96.4]	80.3 [66.1;127.3]	<0.001
Isoflavonoids	5.8 [<0.1;48.6]	0.1 [<0.1;2.9]	5.9 [0.1;25.9]	32.2 [2.5;65.3]	48.6 [23.6;69.0]	88.6 [54.3;127.5]	<0.001
Phenolic acids	305.3 [222.7;414.5]	273.5 [181.7;397.4]	371.8 [290.1;489.9]	324.2 [267.3;507.9]	308.0 [243.3;364.6]	344.2 [241.0;411.1]	0.001
Hydroxybenzoic acids	26.8 [17.1;50.8]	23.0 [14.6;42.6]	27.6 [17.2;56.8]	33.6 [25.6;53.0]	32.5 [19.2;52.6]	27.5 [17.6;56.5]	0.042
Hydroxycinnamic acids	265.7 [186.6;366.3]	234.7 [154.6;346.7]	341.0 [262.5;432.8]	294.3 [245.6;386.0]	258.9 [198.1;328.3]	303.2 [191.9;366.3]	0.001
Hydroxyphenylacetic acids	0.7 [0.4;2.1]	0.8 [0.4;1.5]	0.7 [0.4;1.1]	1.7 [0.5;2.6]	2.4 [0.4;3.1]	0.6 [0.4;1.7]	0.164
Hydroxyphenylpropanoic acids	0.6 [0.3;1.8]	0.6 [0.3;1.3]	0.5 [0.3;0.9]	1.5 [0.4;2.3]	2.0 [0.3;2.8]	0.5 [0.3;1.5]	0.177
Lignans	55.8 [38.4;74.5]	48.0 [33.3;66.2]	66.1 [50.0;93.5]	55.3 [44.8;67.5]	57.8 [37.7;71.0]	71.2 [49.4;97.6]	<0.001
Stilbenes	0.2 [0.1;0.5]	0.2 [0.1;0.6]	0.3 [0.1;0.6]	0.4 [0.2;0.6]	0.2 [0.1;0.3]	0.1 [<0.1;0.3]	0.003
Other polyphenols	77.5 [52.1;111.8]	62.9 [41.8;88.1]	85.3 [61.3;106.2]	94.1 [90.2;132.1]	110.9 [64.3;146.4]	90.8 [70.2;128.2]	<0.001
Alkylmethoxyphenols	0.6 [0.3;1.2]	0.6 [0.3;1.2]	1.0 [0.5;1.6]	0.5 [0.2;1.3]	0.5 [0.1;0.9]	0.4 [<0.1;0.8]	0.001
Alkylphenols	15.1 [4.6;25.6]	13.0 [3.8;25.0]	23.5 [14.3;29.9]	18.0 [7.2;25.6]	15.9 [6.1;24.9]	12.6 [4.2;20.8]	0.006
Curcuminoids	11.9 [2.6;24.6]	2.9 [0.0;15.5]	16.1 [4.1;28.3]	15.4 [6.6;29.7]	16.6 [4.5;24.7]	23.6 [14.1;70.7]	<0.001
Furanocoumarins	0.2 [0.1;0.3]	0.2 [<0.1;0.3]	0.3 [0.2;0.4]	0.2 [0.1;0.4]	0.2 [0.2;0.3]	0.2 [0.2;0.5]	<0.001
Tyrosols	36.0 [22.4;67.9]	32.1 [20.7;53.1]	36.7 [26.0;43.7]	57.7 [22.8;83.1]	70.6 [33.3;97.3]	33.5 [25.0;63.9]	0.010
Other polyphenols	0.9 [0.4;1.4]	0.9 [0.5;1.5]	1.0 [0.5;1.3]	0.9 [0.6;1.7]	0.9 [0.4;1.3]	0.7 [0.2;1.2]	0.234

Median and interquartile range; p-value derived from Kruskal-Wallis test. All were corrected for multiple testing by Benjamini-Hochberg method.

Chalcones, dihydroflavonols, hydroxybenzaldehydes, hydroxybenzoketones, hydroxycoumarins, hydroxyphenylpropenes, methoxyphenols, naphthoquinones are not presented due to the low values for all the groups.

OMN: omnivore; PVG: pro-vegetarian; PCV: pesco-vegetarian; OVL: ovo-lacto-vegetarian; VGN: vegan.

Table S25. Dietary intake of main polyphenol classes and subclasses (mg/2,000kcal per day) by type of diet among participants of nutrition-related fields (n = 369).

	ALL n=369	OMN n=273	PVG n=43	PCV n=10	OVL n=30	VGN n=13	p- value
Total polyphenols	814.2 [618.8;1074.3]	730.9 [581.0;969.5]	1070.2 [851.2;1236.2]	1227.4 [988.8;1304.6]	901.1 [816.3;1130.0]	1091.7 [973.2;1203.7]	<0.001
Flavonoids	444.3 [301.6;618.6]	400.9 [273.3;557.8]	583.8 [370.1;702.3]	621.7 [530.6;757.3]	485.3 [353.0;683.0]	618.6 [564.0;721.7]	<0.001
Anthocyanins	33.8 [19.8;75.2]	32.4 [17.5;68.8]	55.5 [23.5;97.1]	40.3 [32.0;95.1]	36.1 [26.8;59.4]	29.5 [10.4;40.6]	0.184
Dihydrochalcones	1.0 [0.4;1.9]	0.8 [0.3;1.8]	1.7 [0.6;2.7]	1.4 [0.7;1.5]	1.3 [0.4;2.5]	0.7 [0.5;1.8]	0.024
Flavanols	261.4 [152.2;376.0]	250.1 [139.8;357.3]	326.9 [200.7;428.3]	367.9 [268.6;469.8]	266.2 [152.8;391.6]	226.2 [197.1;345.8]	0.020
Flavanones	20.6 [9.8;32.5]	20.7 [9.9;32.5]	19.4 [8.7;31.7]	16.0 [8.8;45.9]	19.9 [14.9;28.7]	22.4 [11.8;36.9]	0.974
Flavones	21.9 [8.3;42.4]	19.6 [6.6;36.9]	28.9 [18.8;59.1]	20.7 [15.8;78.4]	27.7 [20.3;70.3]	43.4 [24.9;50.3]	<0.001
Flavonols	59.8 [38.9;76.2]	53.3 [34.9;69.1]	74.8 [53.4;99.9]	69.2 [47.9;90.7]	69.3 [59.6;81.8]	81.3 [66.9;98.0]	<0.001
Isoflavonoids	0.1 [<0.1;10.9]	0.1 [<0.1;3.2]	5.2 [0.1;12.7]	37.5 [16.1;65.8]	35.5 [21.0;58.9]	116.9 [54.8;136.0]	<0.001
Phenolic acids	215.7 [152.0;335.7]	202.4 [136.8;302.0]	314.5 [201.3;454.9]	276.8 [231.1;395.1]	303.6 [208.2;378.7]	328.6 [248.3;351.8]	<0.001
Hydroxybenzoic acids	25.3 [15.6;43.0]	23.8 [15.1;42.0]	26.6 [16.8;54.6]	31.6 [27.6;55.7]	27.6 [20.9;35.8]	29.8 [25.9;38.1]	0.238
Hydroxycinnamic acids	187.1 [123.2;295.9]	167.7 [112.2;250.7]	288.0 [178.3;418.8]	215.6 [193.7;329.0]	266.9 [175.5;349.3]	274.2 [209.2;337.6]	<0.001
Hydroxyphenylacetic acids	0.5 [<0.1;1.1]	0.5 [<0.1;1.0]	0.4 [<0.1;0.8]	0.6 [0.4;3.5]	0.5 [0.1;1.2]	0.6 [0.5;2.3]	0.113
Hydroxyphenylpropanoic acids	0.4 [0.0;0.9]	0.4 [0.0;0.9]	0.3 [0.0;0.6]	0.6 [0.4;3.1]	0.4 [0.0;1.0]	0.6 [0.4;2.1]	0.177
Lignans	45.4 [32.7;59.3]	40.7 [29.6;54.5]	57.5 [46.6;78.5]	52.0 [35.0;65.8]	50.9 [43.2;65.6]	63.7 [52.2;82.7]	<0.001
Stilbenes	0.2 [0.1;0.4]	0.2 [0.1;0.4]	0.2 [0.1;0.3]	0.2 [0.1;0.3]	0.2 [0.1;0.4]	0.1 [0.1;0.3]	0.282
Other polyphenols	63.4 [40.5;96.7]	57.2 [37.0;87.3]	76.7 [55.2;102.6]	118.7 [73.2;148.8]	78.3 [52.7;108.4]	115.1 [88.9;131.1]	<0.001
Alkylmethoxyphenols	0.4 [0.1;0.8]	0.3 [<0.1;0.6]	0.8 [0.1;1.2]	0.4 [0.2;0.5]	0.4 [0.1;1.1]	0.2 [<0.1;1.0]	0.022
Alkylphenols	14.7 [4.4;27.2]	12.7 [3.8;25.0]	23.1 [14.5;35.7]	25.5 [12.8;26.0]	20.5 [8.2;29.1]	24.8 [5.6;30.8]	0.002
Curcuminoids	4.5 [1.6;21.6]	2.9 [0.0;15.0]	16.5 [3.9;28.4]	26.5 [6.8;36.8]	19.9 [4.4;29.2]	37.2 [12.2;46.1]	<0.001
Furanocoumarins	0.2 [0.1;0.3]	0.2 [0.1;0.3]	0.3 [0.2;0.4]	0.3 [0.1;0.6]	0.3 [0.2;0.5]	0.4 [0.2;0.8]	<0.001
Tyrosols	26.0 [14.7;42.9]	25.6 [14.5;40.5]	22.7 [14.4;37.2]	31.5 [22.8;105.7]	29.2 [21.3;47.7]	46.5 [26.1;69.8]	0.042
Other polyphenols	0.6 [0.3;1.2]	0.6 [0.4;1.2]	0.9 [0.3;1.1]	0.6 [0.4;0.8]	0.8 [0.3;1.2]	0.5 [0.3;1.3]	0.974

Median and interquartile range; p-value derived from Kruskal-Wallis test. All were corrected for multiple testing by Benjamini-Hochberg method.

Chalcones, dihydroflavonols, hydroxybenzaldehydes, hydroxybenzoketones, hydroxycoumarins, hydroxyphenylpropenes, methoxyphenols, naphthoquinones are not presented due to the low values for all the groups.

OMN: omnivore; PVG: pro-vegetarian; PCV: pesco-vegetarian; OVL: ovo-lacto-vegetarian; VGN: vegan.

Table S26. Food groups contributions (%) to total polyphenols when coffee portion size is equal to 175 mL

Food group	ALL	OMN	PVG	PCV	OVL	VGN	p-value
Coffee & tea	25.8 (22.0)	25.5 (22.6)	30.7 (21.5)	26.6 (20.9)	27.1 (20.3)	18.6 (17.7)	0.007
Vegetables	12.1 (8.7)	11.0 (8.3)	12.3 (7.3)	12.1 (6.9)	14.4 (9.0)	18.5 (11.0)	<0.001
Fresh fruits	15.3 (11.3)	16.4 (11.9)	16.6 (12.2)	12.3 (7.5)	12.1 (6.3)	9.2 (6.3)	<0.001
Berries	6.8 (10.2)	6.4 (9.8)	8.0 (10.5)	10.7 (18.2)	6.2 (8.2)	6.9 (9.7)	0.450
Nuts	4.3 (5.0)	3.8 (5.3)	4.8 (3.3)	3.6 (2.5)	4.4 (4.1)	7.8 (4.9)	<0.001
Dark chocolate	5.7 (8.0)	5.2 (7.8)	7.7 (7.8)	7.9 (10.8)	6.7 (8.1)	4.7 (7.5)	0.030
Sugar derivates	9.6 (18.4)	12.1 (20.7)	2.5 (6.5)	5.8 (15.1)	5.1 (12.5)	5.4 (11.8)	<0.001
Spices	2.9 (3.3)	2.5 (3.3)	2.8 (2.8)	3.0 (2.3)	3.7 (3.4)	5.1 (4.2)	<0.001
Pastries	2.7 (6.0)	3.5 (7.1)	1.0 (1.9)	1.3 (2.0)	1.6 (2.5)	0.6 (0.8)	<0.001
Potatoes	1.5 (1.7)	1.8 (1.8)	0.7 (0.9)	0.9 (0.8)	1.1 (1.1)	0.9 (0.9)	<0.001
Legumes	1.9 (2.6)	1.9 (2.9)	1.2 (1.4)	1.6 (1.6)	2.0 (1.9)	2.9 (2.2)	<0.001
Wholegrain cereal	1.3 (2.0)	1.3 (2.1)	1.7 (1.9)	1.5 (1.5)	1.1 (1.2)	1.0 (0.9)	0.023
Refined cereal	1.0 (1.6)	1.2 (1.9)	0.5 (0.7)	0.7 (0.6)	0.7 (0.6)	0.6 (0.6)	<0.001
Olive oil	1.3 (1.3)	1.4 (1.4)	1.1 (0.9)	0.9 (0.6)	1.3 (1.3)	0.9 (0.8)	<0.001
Kombucha	0.2 (1.4)	0.2 (1.4)	0.4 (1.5)	0.1 (0.3)	0.2 (0.6)	0.6 (1.6)	0.142
Wine	0.5 (1.4)	0.4 (1.4)	0.6 (1.6)	0.5 (0.7)	0.4 (1.2)	0.3 (1.0)	0.879
PB alt. protein	0.7 (1.8)	0.1 (0.4)	0.2 (0.4)	1.2 (1.8)	2.3 (2.9)	4.0 (3.5)	<0.001
Smoothies	0.3 (0.8)	0.3 (0.8)	0.3 (0.8)	0.1 (0.2)	0.4 (0.9)	0.5 (1.1)	<0.001
Beer	0.2 (0.4)	0.2 (0.4)	0.1 (0.2)	0.1 (0.2)	0.2 (0.3)	0.1 (0.2)	0.028
PB beverages	1.9 (5.5)	1.1 (4.6)	3.5 (8.6)	3.1 (5.7)	3.0 (4.7)	5.0 (6.3)	<0.001
TOTAL	95.9 (13.8)	96.4 (15.5)	96.7 (5.8)	93.9 (10.9)	93.9 (9.5)	93.8 (11.6)	0.077

Adjusted intakes by 2,000 kcal: mean (standard deviation); p-value derived from Kruskal-Wallis test.

All p-values were corrected for multiple testing by Benjamini-Hochberg method.

OMN: omnivore; PVG: pro-vegetarian; PCV: pesco-vegetarian; OVL: ovo-lacto-vegetarian; VGN: vegan; alt: alternative; PB: plant-based.

Table S27. Urine (poly)phenol concentrations (ng/mL) by type of diet in the urine subsample population restricted to participants not consuming polyphenol-containing (poly)phenol-supplements (n=175).

Class	Subclass	Urine biomarker	ALL n=200	OMN n=98	PVG n=19	PCV n=16	OVL n=45	VGN n=22	p-value	N	<LLOQ
	Total (poly)phenols (FC)		155.1 [118.6;204.0]	132.8 [102.9;174.7]	170.2 [149.3;218.9]	178.5 [145.6;226.6]	160.8 [138.2;273.0]	198.1 [145.9;236.7]	<0.001	175	-
Flavonoids	Flavanones	Naringenin	24.1 [7.8;77.4]	16.3 [3.9;42.5]	53.0 [24.2;354.2]	17.0 [9.3;45.7]	28.1 [15.4;77.9]	104.4 [41.9;245.8]	<0.001	175	0.51
	Flavanones	Hesperetin	2.9 [1.0;49.8]	1.9 [0.7;15.9]	34.5 [2.4;622.6]	12.5 [2.2;53.8]	2.7 [1.0;11.3]	19.7 [4.1;180.9]	0.004	175	0.68
	Isoflavonoids	Daidzein	12.1 [1.9;194.1]	2.5 [1.1;13.3]	27.3 [4.7;108.8]	34.0 [4.0;133.9]	174.3 [9.9;685.3]	1358.6 [672.0;2165.3]	<0.001	175	0.84
	Isoflavonoids	Genistein	12.1 [2.5;116.2]	3.1 [1.3;12.4]	24.6 [9.0;51.4]	19.1 [5.8;135.7]	92.0 [22.8;350.1]	675.6 [148.9;2923.2]	<0.001	175	0.49
	Isoflavonoids	Equol	1.8 [1.0;3.6]	1.8 [1.0;3.2]	2.5 [1.4;61.6]	2.8 [1.6;4.1]	2.4 [1.5;5.7]	0.4 [0.2;20.7]	0.02	175	0.49
Lignans	Lignans	Enterolactone	77.8 [34.1;231.9]	55.0 [23.4;154.0]	150.0 [74.5;216.2]	71.7 [47.6;208.4]	94.4 [41.5;348.4]	367.3 [67.2;771.8]	0.019	175	0.62
	Lignans	Enterodiol	24.7 [10.0;61.8]	13.5 [7.7;31.6]	22.1 [13.8;69.5]	28.1 [17.3;86.6]	37.9 [18.3;84.4]	64.7 [42.0;199.0]	<0.001	175	0.48
Other (poly)phenols	Tyrosols	Hydroxytyrosol	21.8 [10.9;38.9]	18.6 [9.1;29.9]	40.2 [25.7;61.6]	26.4 [15.2;57.6]	26.7 [13.1;36.4]	33.1 [20.0;46.3]	0.001	175	1.16
	Tyrosols	Tyrosol	13.5 [11.5;19.8]	12.6 [10.9;15.6]	24.3 [13.9;38.8]	15.1 [12.4;16.9]	13.3 [11.8;20.4]	15.6 [12.2;21.3]	0.006	175	0.58
Phenolic acids	Hydroxybenzoic acids	Protocatechuic acid	1.9 [1.1;3.4]	1.4 [0.9;2.4]	2.0 [1.0;3.1]	2.2 [2.1;3.4]	2.6 [1.8;4.2]	5.1 [3.3;7.1]	<0.001	175	0.24
	Hydroxyphenylacetic acids	3,4-Dihydroxyphenylacetic acid	1.0 [0.6;1.7]	0.7 [0.5;1.1]	1.0 [0.7;2.3]	1.2 [0.9;2.2]	1.6 [1.1;3.8]	1.6 [1.0;3.5]	<0.001	175	0.54
	Hydroxybenzoic acids	4-Hydroxybenzoic acid	10.5 [8.0;14.7]	8.7 [7.0;11.9]	10.6 [8.5;15.5]	13.1 [9.0;20.2]	12.0 [8.8;15.2]	15.5 [12.0;17.8]	<0.001	175	0.24
	Hydroxybenzoic acids	3-Hydroxybenzoic acid	0.5 [0.3;0.8]	0.4 [0.3;0.6]	0.5 [0.3;0.9]	0.6 [0.5;1.2]	0.5 [0.4;0.9]	0.6 [0.4;1.1]	0.006	175	0.24
	Hydroxyphenylacetic acids	3-Hydroxyphenylacetic acid	75.1 [60.2;91.2]	71.2 [58.0;84.1]	69.8 [60.0;81.4]	85.4 [66.8;97.6]	84.2 [67.0;110.9]	86.3 [70.7;124.7]	0.002	175	0.3
	Hydroxycinnamic acids	m-Coumaric acid	2.5 [0.9;5.8]	1.6 [0.6;3.5]	3.3 [1.3;10.2]	3.4 [2.6;5.0]	5.3 [2.7;8.7]	4.4 [1.9;16.4]	<0.001	175	0.24
	Hydroxycinnamic acids	p-Coumaric acid	4.4 [3.3;6.6]	3.6 [2.8;5.0]	3.7 [3.0;7.3]	5.4 [4.6;6.7]	5.9 [4.3;9.0]	6.5 [5.1;12.2]	<0.001	175	0.25
	Hydroxybenzoic acids	Vanillic acid	18.3 [10.5;29.7]	11.9 [8.8;19.9]	25.1 [12.6;38.1]	27.9 [14.9;43.8]	22.9 [17.5;41.7]	27.0 [23.9;46.7]	<0.001	175	0.24
	Hydroxyphenylacetic acids	Homovanillic acid	11.4 [8.4;15.2]	9.5 [7.6;12.4]	10.0 [8.6;12.3]	14.2 [11.1;19.8]	14.6 [12.5;17.4]	15.2 [11.4;18.5]	<0.001	175	0.46
	Hydroxycinnamic acids	Ferulic acid	21.4 [14.6;37.3]	16.7 [11.9;23.8]	23.4 [17.3;36.0]	24.5 [15.0;32.2]	32.9 [19.2;50.2]	29.7 [24.7;38.7]	<0.001	175	0.24
Hydroxycinnamic acids	Caffeic acid	4.6 [2.6;8.2]	3.8 [1.9;6.3]	5.6 [3.6;8.4]	6.3 [3.9;8.9]	6.7 [3.0;12.2]	5.5 [3.6;9.8]	0.003	175	0.49	

Median and interquartile range; p-value derived from Kruskal-Wallis test. All p-values were corrected for multiple testing by Benjamini-Hochberg method.

OMN: omnivore; PVG: pro-vegetarian; PCV: pesco-vegetarian; OVL: ovo-lacto-vegetarian; VGN: vegan; FC: Folin-Ciocalteu method; LLOQ: limit of quantification.

Polyphenol-containing supplements were defined as supplements including plant extracts and other products with antioxidant compounds; vitamin C, vitamin D, and multivitamins were also considered within this category

Table S28. Urine (poly)phenol concentrations (ng/mL) by type of diet excluding the participants with metabolite concentration lower than LLOQ.

Class	Subclass	Urine biomarker	ALL n=200	OMN n=98	PVG n=19	PCV n=16	OVL n=45	VGN n=22	p-value	N	<LLOQ
Flavonoids	Flavanones	Naringenin	25.5 [7.7;78.5]	16.6 [4.0;44.8]	48.9 [14.2;167.8]	17.0 [9.3;45.7]	29.1 [14.0;73.1]	133.6 [42.8;430.1]	<0.001	198	0.51
	Flavanones	Hesperetin	6.7 [1.8;85.2]	3.9 [1.4;35.7]	39.1 [2.6;280.6]	17.0 [3.5;75.6]	3.6 [1.5;33.9]	52.2 [3.2;344.0]	0.020	164	0.68
	Isoflavonoids	Daidzein	17.3 [2.9;319.8]	4.3 [2.1;17.8]	24.4 [6.3;88.8]	34.0 [4.0;133.9]	168.1 [5.5;572.3]	1424.0 [685.1;2152.9]	<0.001	177	0.84
	Isoflavonoids	Genistein	14.6 [2.8;139.0]	3.8 [1.6;13.2]	19.7 [4.8;43.0]	19.1 [5.8;135.7]	76.9 [18.2;311.2]	861.9 [578.3;3527.7]	<0.001	192	0.49
	Isoflavonoids	Equol	2.4 [1.4;5.3]	2.0 [1.2;3.4]	2.4 [1.4;14.2]	3.0 [1.6;4.4]	2.7 [1.6;8.3]	178.2 [15.7;526.8]	0.005	174	0.49
Lignans	Lignans	Enterolactone	86.5 [36.0;282.5]	55.4 [24.5;157.2]	150.0 [74.5;261.2]	71.7 [47.6;208.4]	133.8 [58.4;414.7]	460.4 [91.8;1129.6]	<0.001	198	0.62
	Lignans	Enterodiol	26.2 [11.7;75.2]	14.0 [7.8;31.7]	26.1 [15.4;64.7]	28.1 [17.3;86.6]	47.8 [23.8;146.2]	99.1 [58.2;423.3]	<0.001	196	0.48
Other (poly)phenols	Tyrosols	Hydroxytyrosol	22.8 [10.9;39.1]	17.7 [9.3;29.7]	46.5 [35.4;68.8]	26.4 [15.2;57.6]	27.4 [13.6;36.7]	30.1 [16.4;41.1]	<0.001	198	1.16
	Tyrosols	Tyrosol	13.5 [11.4;19.7]	12.8 [10.9;15.4]	22.8 [13.7;36.3]	15.1 [12.4;16.9]	13.3 [11.8;20.3]	15.2 [12.2;22.8]	0.005	198	0.58
Phenolic acids	Hydroxybenzoic acids	Protocatechuic acid	2.0 [1.1;3.6]	1.3 [0.9;2.4]	1.8 [1.0;3.1]	2.2 [2.1;3.4]	2.8 [1.8;4.0]	4.5 [3.4;6.5]	<0.001	198	0.24
	Hydroxyphenylacetic acids	3,4-Dihydroxyphenylacetic acid	1.2 [0.7;1.9]	0.8 [0.7;1.2]	1.2 [0.7;1.8]	1.2 [0.9;2.2]	1.6 [1.2;3.8]	1.6 [1.0;2.9]	<0.001	168	0.54
	Hydroxybenzoic acids	4-Hydroxybenzoic acid	11.1 [8.1;15.1]	8.8 [7.2;12.0]	11.2 [8.6;13.2]	13.1 [9.0;20.2]	12.6 [9.5;15.2]	16.0 [13.4;20.9]	<0.001	198	0.24
	Hydroxybenzoic acids	3-Hydroxybenzoic acid	0.5 [0.4;0.9]	0.4 [0.3;0.7]	0.5 [0.4;0.9]	0.6 [0.5;1.2]	0.7 [0.5;1.0]	0.7 [0.5;1.1]	0.001	173	0.24
	Hydroxyphenylacetic acids	3-Hydroxyphenylacetic acid	76.6 [61.6;92.4]	71.2 [58.4;84.5]	71.9 [60.0;82.9]	85.4 [66.8;97.6]	87.1 [68.8;110.9]	81.8 [71.2;118.6]	<0.001	199	0.30
	Hydroxycinnamic acids	m-Coumaric acid	3.2 [1.4;7.5]	1.9 [0.9;4.2]	3.3 [1.3;10.3]	3.5 [3.0;6.3]	5.6 [3.0;9.1]	8.8 [3.0;16.5]	<0.001	180	0.24
	Hydroxycinnamic acids	p-Coumaric acid	4.5 [3.3;6.8]	3.6 [2.8;5.1]	3.9 [3.2;8.4]	5.4 [4.6;6.7]	5.6 [4.2;8.1]	6.4 [5.2;10.0]	<0.001	198	0.25
	Hydroxybenzoic acids	Vanillic acid	19.3 [10.6;29.7]	11.9 [8.8;20.3]	16.8 [10.6;34.4]	27.9 [14.9;43.8]	22.9 [17.6;41.2]	27.0 [24.3;44.6]	<0.001	199	0.24
	Hydroxyphenylacetic acids	Homovanillic acid	11.4 [8.7;15.1]	9.5 [7.9;12.3]	10.7 [9.0;13.7]	14.2 [11.1;19.8]	14.0 [12.3;17.3]	12.4 [9.9;17.3]	<0.001	198	0.46
	Hydroxycinnamic acids	Ferulic acid	23.0 [15.0;37.3]	17.8 [12.0;24.0]	23.4 [18.1;33.3]	24.5 [15.0;32.2]	32.3 [21.4;49.3]	33.6 [25.4;43.0]	<0.001	199	0.24
Hydroxycinnamic acids	Caffeic acid	5.0 [2.9;8.9]	4.2 [2.1;6.6]	5.6 [2.8;8.9]	6.3 [3.9;8.9]	7.1 [3.4;12.1]	6.3 [3.8;10.1]	0.003	195	0.49	

Median and interquartile range; p-value derived from Kruskal-Wallis test. All p-values were corrected for multiple testing by Benjamini-Hochberg method. OMN: omnivore; PVG: pro-vegetarian; PCV: pesco-vegetarian; OVL: ovo-lacto-vegetarian; VGN: vegan; FC: Folin-Ciocalteu method; <LLOQ: limit of quantification. N: represents the number of participants with metabolite concentration higher than LLOQ.

Table S29. Urine (poly)phenol concentrations (ng/mL) by type of diet substituting the participants with metabolite concentration lower than LLOQ by $LLOQ/\sqrt{2}$

Class	Subclass	Urine biomarker	ALL n=200	OMN n=98	PVG n=19	PCV n=16	OVL n=45	VGN n=22	p-value	N	<LLOQ
Flavonoids	Flavanones	Naringenin	24.5 [7.5;76.2]	16.0 [3.7;43.3]	48.9 [14.2;167.8]	17.0 [9.3;45.7]	29.1 [14.0;73.1]	133.6 [42.8;430.1]	<0.001	200	0.51
	Flavanones	Hesperetin	2.9 [1.0;40.0]	1.9 [0.7;16.1]	34.5 [2.4;243.9]	12.5 [2.2;53.8]	2.6 [1.0;15.2]	52.2 [3.2;344.0]	0.001	200	0.68
	Isoflavonoids	Daidzein	11.4 [2.1;220.1]	2.7 [1.1;13.2]	13.1 [3.4;73.2]	34.0 [4.0;133.9]	168.1 [5.5;572.3]	1424.0 [685.1;2152.9]	<0.001	200	0.84
	Isoflavonoids	Genistein	12.4 [2.5;127.6]	3.0 [1.2;12.6]	19.7 [4.8;43.0]	19.1 [5.8;135.7]	76.9 [18.2;311.2]	853.9 [286.4;3376.6]	<0.001	200	0.49
	Isoflavonoids	Equol	1.9 [1.1;4.1]	1.7 [1.0;3.3]	2.4 [1.2;11.5]	2.8 [1.6;4.1]	2.2 [1.5;6.1]	0.5 [0.3;221.0]	0.131	200	0.49
Lignans	Lignans	Enterolactone	85.7 [34.6;279.5]	55.4 [24.5;157.2]	150.0 [74.5;261.2]	71.7 [47.6;208.4]	118.2 [55.4;400.4]	434.0 [73.3;1102.8]	0.002	200	0.62
	Lignans	Enterodiol	25.9 [11.0;73.8]	13.9 [7.6;31.6]	26.1 [15.4;64.7]	28.1 [17.3;86.6]	40.0 [20.5;132.4]	99.1 [58.2;423.3]	<0.001	200	0.48
Other (poly)phenols	Tyrosols	Hydroxytyrosol	22.1 [10.8;38.7]	16.9 [8.9;29.3]	46.5 [35.4;68.8]	15.2 [15.2;57.6]	27.4 [13.6;36.7]	30.1 [16.4;41.1]	<0.001	200	1.16
	Tyrosols	Tyrosol	13.5 [11.4;19.6]	12.7 [10.8;15.3]	22.8 [13.7;36.3]	15.1 [12.4;16.9]	13.3 [11.8;20.3]	15.2 [12.2;22.8]	0.003	200	0.58
Phenolic acids	Hydroxybenzoic acids	Protocatechuic acid	1.9 [1.1;3.5]	1.3 [0.9;2.4]	1.8 [1.0;3.1]	2.2 [2.1;3.4]	2.8 [1.8;4.0]	4.5 [3.4;6.5]	<0.001	200	0.24
	Hydroxyphenylacetic acids	3,4-Dihydroxyphenylacetic acid	1.0 [0.6;1.7]	0.7 [0.4;1.0]	1.2 [0.7;1.8]	1.2 [0.9;2.2]	1.6 [1.1;3.7]	1.6 [0.9;2.7]	<0.001	200	0.54
	Hydroxybenzoic acids	4-Hydroxybenzoic acid	10.9 [8.0;15.0]	8.7 [7.0;11.9]	11.2 [8.6;13.2]	13.1 [9.0;20.2]	12.6 [9.5;15.2]	16.0 [13.4;20.9]	<0.001	200	0.24
	Hydroxybenzoic acids	3-Hydroxybenzoic acid	0.5 [0.3;0.8]	0.4 [0.3;0.7]	0.5 [0.3;0.9]	0.6 [0.5;1.2]	0.7 [0.4;1.0]	0.6 [0.4;1.1]	0.002	200	0.24
	Hydroxyphenylacetic acids	3-Hydroxyphenylacetic acid	76.1 [61.3;92.3]	71.2 [58.4;84.5]	71.9 [60.0;82.9]	85.4 [66.8;97.6]	86.7 [68.2;110.0]	81.8 [71.2;118.6]	<0.001	200	0.30
	Hydroxycinnamic acids	m-Coumaric acid	2.8 [1.0;6.4]	1.6 [0.6;3.6]	3.3 [1.3;10.3]	3.4 [2.6;5.0]	5.6 [2.9;8.8]	5.0 [2.0;15.6]	<0.001	200	0.24
	Hydroxycinnamic acids	p-Coumaric acid	4.5 [3.3;6.8]	3.6 [2.7;5.1]	3.9 [3.2;8.4]	5.4 [4.6;6.7]	5.6 [4.2;8.1]	6.4 [5.2;10.0]	<0.001	200	0.25
	Hydroxybenzoic acids	Vanillic acid	19.0 [10.5;29.6]	11.8 [8.7;20.1]	16.8 [10.6;34.4]	27.9 [14.9;43.8]	22.9 [17.6;41.2]	27.0 [24.3;44.6]	<0.001	200	0.24
	Hydroxyphenylacetic acids	Homovanillic acid	11.3 [8.7;15.0]	9.5 [7.8;12.2]	10.7 [9.0;13.7]	14.2 [11.1;19.8]	14.0 [12.3;17.3]	12.4 [9.9;17.3]	<0.001	200	0.46
	Hydroxycinnamic acids	Ferulic acid	22.9 [14.9;37.1]	17.2 [11.9;24.0]	23.4 [18.1;33.3]	24.5 [15.0;32.2]	32.3 [21.4;49.3]	33.6 [25.4;43.0]	<0.001	200	0.24
Hydroxycinnamic acids	Caffeic acid	4.9 [2.7;8.8]	3.9 [1.9;6.4]	5.6 [2.8;8.9]	6.3 [3.9;8.9]	7.1 [3.4;12.1]	6.3 [3.8;10.1]	<0.001	200	0.49	

Median and interquartile range; p-value derived from Kruskal-Wallis test. All p-values were corrected for multiple testing by Benjamini-Hochberg method. OMN: omnivore; PVG: pro-vegetarian; PCV: pesco-vegetarian; OVL: ovo-lacto-vegetarian; VGN: vegan; FC: Folin-Ciocalteu method; <LLOQ: limit of quantification. N: represents the number of participants.

Figure S1. Number of clusters selection graph: silhouette method.

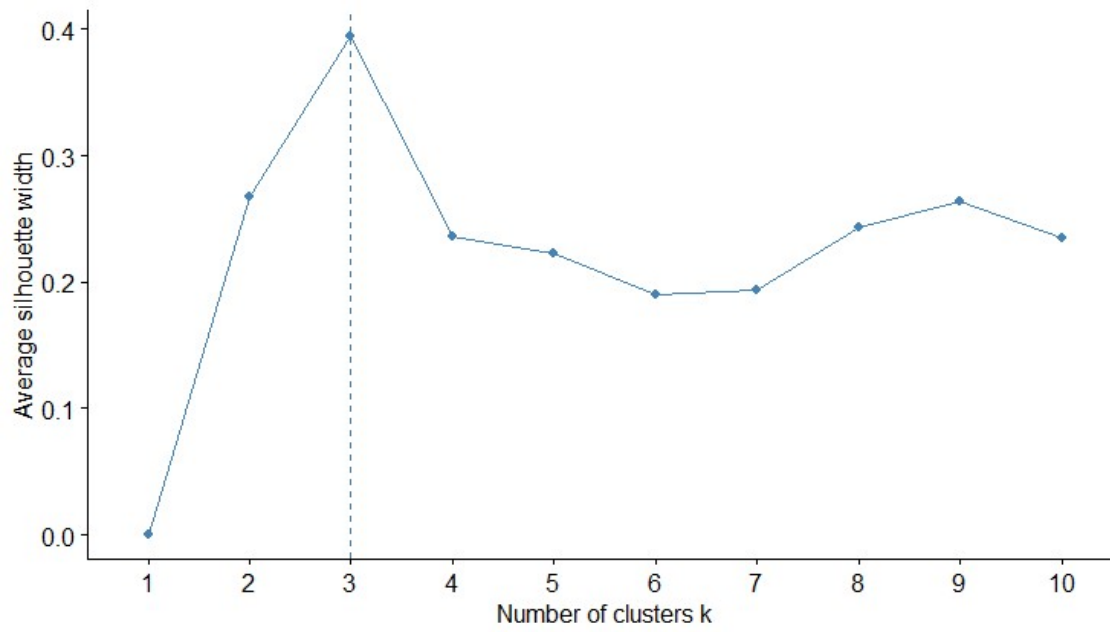


Figure S2. Number of clusters selection graph: elbow method.

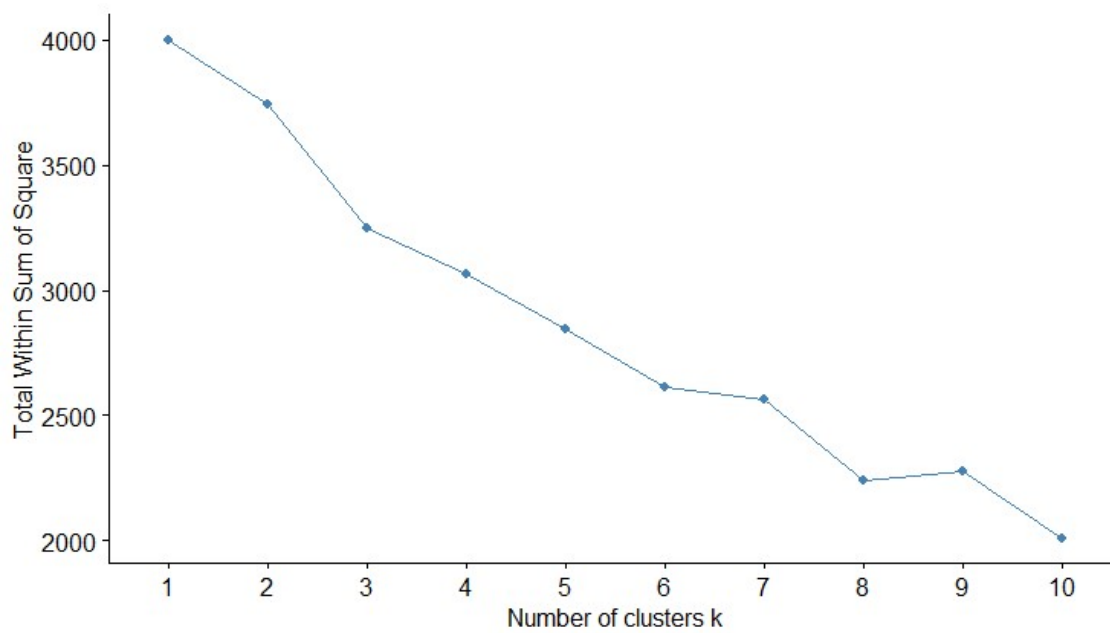
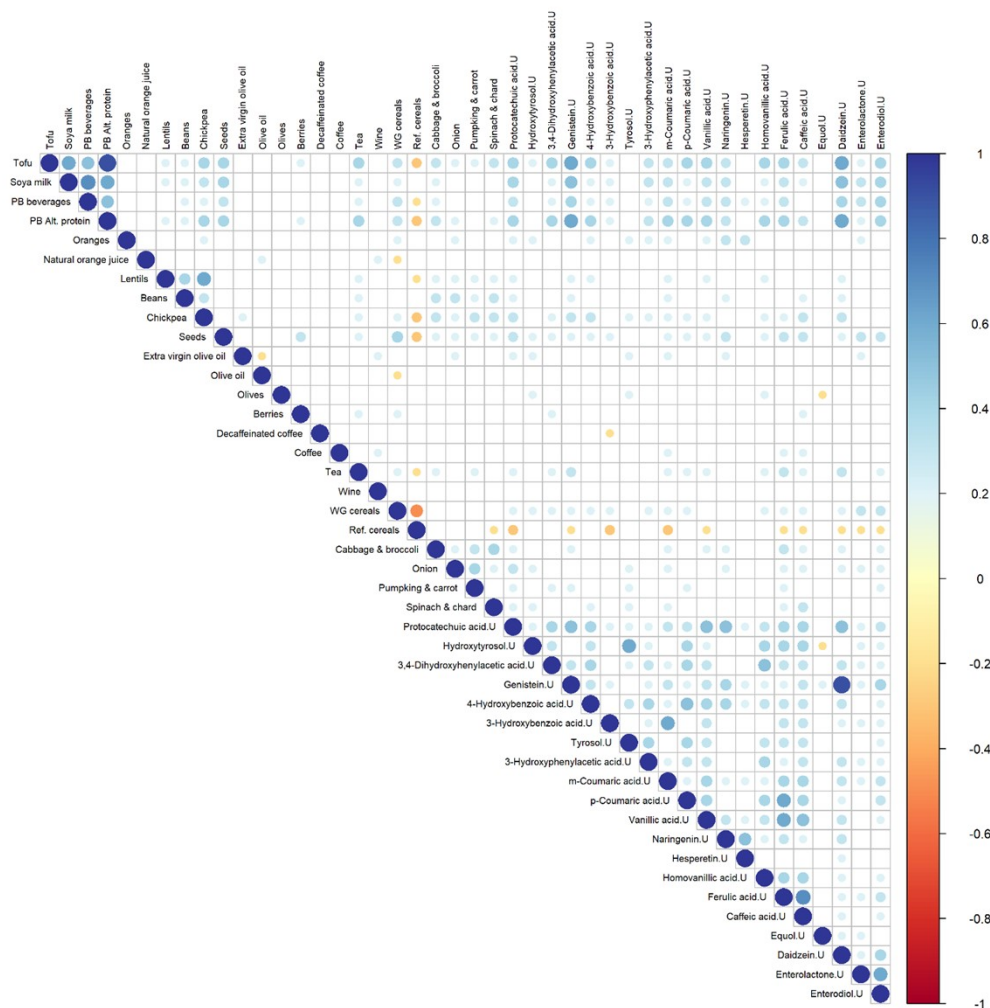


Figure S3. Correlations between the intake of selected foods rich in polyphenols and urinary polyphenols (U) in the urine sample study population (n = 200).



Correlation diagram, where Spearman correlation coefficients for correlations between selected foods and the urine metabolites are shown. Spearman correlations superior to $|0.2|$ presented. Size of the circle represents the weight of the correlation. Positive correlations are indicated in blue