

Supplementary Materials

Table S1. Pearson correlation coefficients (ρ) between vitamin B6 intake and plasma PLP concentration by gender among US adults aged ≥ 60 years, NHANES 2003–2004.

Vitamin B6 intake (mg/d)		
ALL ($n=461$)		
Plasma PLP (nmol/L)	ρ (rho)	0.39
	P^1	<0.0001
Men ($n=247$)		
Plasma PLP (nmol/L)	ρ (rho)	0.36
	P^1	<0.0001
Women ($n=214$)		
Plasma PLP (nmol/L)	ρ (rho)	0.42
	P^1	<0.0001

- PLP, pyridoxal 5'-phosphate.
- Sample size (n) is presented as unweighted.
- Log-transformed values of plasma PLP are used for Pearson correlation tests.
- ¹ P -value for Pearson correlation tests.
- Number of observations used in the analysis: $n=421$ for all; $n=220$ for men; $n=201$ for women.

Table S2. Distributions of original metric intakes of vitamin B6 and PUFA by gender among US adults aged ≥ 60 years, NHANES 2003–2004.

	All (<i>n</i> =461)		Men (<i>n</i> =247)			Women (<i>n</i> =214)			
	<i>n</i>	Mean ± SE	<i>n</i>	Mean ± SE	%RDA or %AI ³	<i>n</i>	Mean ± SE	%RDA or %AI ³	<i>P</i> ¹
Nutrient intake from food									
Dietary vitamin B6 (mg/d)	424	1.78 ± 0.04	221	1.95 ± 0.07	(115%) ⁴	203	1.63 ± 0.05	(109%) ⁴	0.012
Dietary ALA (g/d)	424	1.49 ± 0.06	221	1.63 ± 0.09	(102%) ⁵	203	1.37 ± 0.08	(125%) ⁵	0.52
Dietary LA (g/d)	424	14.0 ± 0.57	221	15.4 ± 0.75	(n/a) ⁵	203	12.9 ± 0.65	(n/a) ⁵	0.27
Dietary EPA (g/d)	424	0.05 ± 0.01	221	0.06 ± 0.01	(n/a) ⁵	203	0.05 ± 0.01	(n/a) ⁵	0.33
Dietary DHA (g/d)	424	0.10 ± 0.02	221	0.11 ± 0.02	(n/a) ⁵	203	0.09 ± 0.02	(n/a) ⁵	0.20
Dietary AA (g/d)	424	0.13 ± 0.01	221	0.14 ± 0.01	(n/a) ⁵	203	0.11 ± 0.01	(n/a) ⁵	0.005
Total fat (g/d)	424	72.50 ± 2.60	221	80.41 ± 4.30	(n/a) ⁵	203	65.77 ± 2.30	(n/a) ⁵	0.48
Nutrient intake from food and supplements									
Total vitamin B6 (mg/d)	424	8.82 ± 1.51	221	7.39 ± 1.38	(435%) ⁴	203	10.04 ± 2.28	(669%) ⁴	0.27
Total ALA (g/d)	424	1.50 ± 0.06	221	1.64 ± 0.09	(103%) ⁵	203	1.39 ± 0.08	(126%) ⁵	0.36
Total EPA (g/d)	424	0.06 ± 0.01	221	0.08 ± 0.02	(n/a) ⁵	203	0.05 ± 0.01	(n/a) ⁵	0.03
Total DHA (g/d)	424	0.11 ± 0.02	221	0.12 ± 0.02	(n/a) ⁵	203	0.09 ± 0.02	(n/a) ⁵	0.053

- AA, arachidonic acid; ALA, α -linolenic acid; DHA, docosahexaenoic acid; EPA, eicosapentaenoic acid; LA, linoleic acid; PLP, pyridoxal 5'-phosphate; PUFA, polyunsaturated fatty acids; SE, standard error; DRI, dietary reference intakes; n/a, not available.
- Sample sizes (*n*) are presented as unweighted.
- Values are expressed as arithmetic means \pm SE.
- ¹ *t*-tests for comparing the means of dependent variables between men and women.
- Number of observations used for *t*-tests: *n*=389 for nutrient intakes.
- Adjusted for demographic variables (age, race/ethnicity), BMI, socioeconomic variables (PIR, educational attainment), physical activity level, cigarette smoking status, alcohol consumption, prescription medication use, and total energy intake.
- ³ %RDA or %AI is calculated by dividing each nutrient intake value by the corresponding RDA or AI value, then multiplying the obtained value by 100.
- ⁴ Recommended Dietary Allowance (RDA) for vitamin B6: 1.7 mg/d for men ≥ 51 y; 1.5 mg/d for women ≥ 51 y (Reference: Food and Nutrition Board Institute of Medicine A report of the Standing Committee on the Scientific Evaluation of Dietary Reference Intakes and its Panel on Folate, Other B Vitamins, and Choline and Subcommittee on Upper Reference Levels of Nutrients. Dietary reference intakes for thiamin, riboflavin, niacin, vitamin B6, folate, vitamin B12, pantothenic acid, biotin, and choline; National Academies Press: Washington, DC, 1998).
- ⁵ Adequate Intake (AI) for ALA: 1.6 g/d for men ≥ 51 y; 1.1 g/d for women ≥ 51 y; no AIs or RDAs for total fat, EPA, and DHA established by the Institute of Medicine (Reference: Institute of Medicine, Food and Nutrition Board. Dietary reference intakes for energy, carbohydrate, fiber, fat, fatty acids, cholesterol, protein, and amino acids (macronutrients). Washington, DC: National Academy Press, 2005).

Table S3. Distributions of iron intake and serum iron levels by gender among US adults aged ≥ 60 years, NHANES 2003–2004.

	All (<i>n</i> =461)		Men (<i>n</i> =247)		Women (<i>n</i> =214)		<i>P</i> ¹
	<i>n</i>	Mean \pm SE	<i>n</i>	Mean \pm SE	<i>n</i>	Mean \pm SE	
Original metric intake							
Dietary Iron (mg/d)	424	15.17 \pm 0.59	221	16.74 \pm 0.76	203	13.83 \pm 0.72	0.054
Total Iron (mg/d)	424	20.54 \pm 0.97	221	22.99 \pm 2.13	203	18.45 \pm 1.31	0.46
Energy-adjusted intake							
Dietary Iron (mg/d)	424	15.17 \pm 0.54	221	15.42 \pm 0.43	203	14.95 \pm 0.74	0.09
Total Iron (mg/d)	424	20.54 \pm 0.83	221	21.75 \pm 1.77	203	19.50 \pm 1.42	0.61
Serum iron (μ mol/L)	453	15.00 \pm 0.40	242	16.41 \pm 0.37	211	13.81 \pm 0.51	0.0003
Serum iron category ^{2,3}							0.91
Low	89	16.6 \pm 2.01	46	16.4 \pm 2.09	43	16.9 \pm 3.44	
High	364	83.4 \pm 2.01	196	83.6 \pm 2.09	168	83.2 \pm 3.44	

- Sample sizes (*n*) are presented as unweighted.
- Values are expressed as arithmetic means (nutrient intakes) or geometric means (blood variables) \pm standard error (SE) for continuous variables and sample-weighted percentages (%) with SE for categorical variables.
- Log-transformed values of serum iron and hemoglobin are used for *t*-tests.
- ¹ *t*-tests for comparing the means of dependent variables between men and women.
- ² Rao-Scott chi-square tests to examine whether there are differences in proportions between men and women across categories of each characteristic.
- ³ % \pm SE.
- Sample sizes for *t*-tests: *n*=389 for iron intake; *n*=383 for serum iron; *n*=389 for hemoglobin.
- For iron intake: adjusted for demographic variables (age, race/ethnicity), BMI, socioeconomic variables (PIR, educational attainment), physical activity level, cigarette smoking status, alcohol consumption, prescription medication use, total energy intake (only for original metric dietary variables)
- For serum iron: adjusted for demographic variables (age, race/ethnicity), BMI, total iron intake, total energy intake, socioeconomic variables (PIR, educational attainment), physical activity level, cigarette smoking status, alcohol consumption, and prescription medication use.
- Low serum iron status is defined as $<12 \mu\text{mol/L}$ for men and $<10 \mu\text{mol/L}$ for women (Reference: Krajcovicova-Kudlackova M, Klvanova J, Dusinska M. Polyunsaturated fatty acid plasma content in groups of general population with low vitamin B6 or low iron serum levels. *Ann Nutr Metab.* 2004;48(2):118-121).