

Supplementary Table 2. Dietary Reference Intake for vitamins in Pregnancy, quantity of natural food, and supplementation notes

Vitamin	RDA	Quantity of natural sources to meet recommended intake (approximate)	Supplementation notes	Ref
B9 Folate	600 µg/day	Asparagus: 182 µg/100 g, 330 g required to reach 600 µg/day (USDA. FoodData Central: Asparagus, green, raw, FDC ID: 2710823). Spinach: 113 µg/100 g, 531 g required (USDA. FoodData Central: Spinach, boiled, drained, without salt, FDC ID: 1999633). Avocado: 129 µg/100 g, 465 g required (USDA. FoodData Central: Avocado, Hass, peeled, raw, FDC ID: 2710824).	The bioavailability of naturally occurring folate is lower than that of synthetic folic acid. Therefore, supplementation is strongly advised at dose of 400-600 µg per day, starting before conception and continued through early pregnancy. For adults, the TUIL for folic acid is 1000 µg/day in adults.	1-4
B12 Cobalamin	2.6 - 4.5 µg/day	Salmon: 5.7 µg/100 g, 79 g required to reach 4.5 µg/day (USDA. FoodData Central: Fish, salmon, Atlantic, farm raised, raw, FDC ID: 2684441).	Vitamin B12 requirements are generally fulfilled with adult women consuming an average of 3.69 µg/day from food and beverages.	4, 5
C Ascorbic acid	85 mg/day	Kale: 93.4 mg/100g, 91 g required to reach 85 mg/day (USDA. FoodData Central: Kale, raw, FDC ID: 323505). Broccoli: 91.3 mg/100g, 93 g required (USDA. FoodData Central: Broccoli, raw, FDC ID: 747447). Strawberries: 59.6 mg/100g, 143 g required (USDA. FoodData Central: Strawberries, raw, FDC ID: 2346409). Oranges: 59.1 mg/100g, 144 g required (USDA. FoodData Central: Oranges, raw, navels, FDC ID: 746771).	Vitamin C requirements are typically met through dietary intake, with adult women consuming an average of about 83.6 mg/day from food and beverages. Supplements, most often provided as ascorbic acid, exhibit the same bioavailability as naturally occurring vitamin C in foods. Additional supplementation may be warranted in cases of deficiency or heightened oxidative stress, such as in smokers. The TUIL for vitamin c is 2000 mg.	4, 6
D Cholecalciferol	600-800 IU	To achieve the recommended VD serum levels (at least 30 ng/mL), most experts advise 5-30 min of midday sun exposure on the face, arms, hands, and legs without sunscreen, two or three times per week. However, during pregnancy, empirical oral supplementation > 400 IU is also recommended, with a TUIL of 4,000 IU. Mushrooms sliced and exposed to sunlight on aluminum foil for 18-30 minutes before consumption can provide up to 1,153 IU VD ₂ / 70 g.	VD supplementation during pregnancy is frequently necessary, depending on sun exposure and serum 25-hydroxyvitamin D ₃ levels. In cases of deficiency, most experts consider daily doses of 1000-4,000 IU. In the case of obesity, up to 10,000 IU VD ₃ / day may be needed.	4, 7-10
E Tocopherol	15 mg/day	Sunflower seed kernels: 36.3 mg/100 g, 41 mg required to reach the RDA (USDA. FoodData Central: Seeds, sunflower seed, kernel, oil roasted, without salt. FDC ID: 170564).	Usually met through diet. Routine supplementation not recommended; high doses may increase risk of adverse outcomes.	4

USDA: United States Department of Agriculture, FoodData Central database, a resource with nutrient profiles for foods, including natural sources. FDC ID: Food Data Central identifier. TUIL: Tolerable upper intake level; VD: Vitamin D; RDA: Recommended dietary allowance.

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