

FOOD AND NUTRITION BOARD, INSTITUTE OF MEDICINE–
 NATIONAL ACADEMY OF SCIENCES
 DIETARY REFERENCE INTAKES:
 RECOMMENDED INTAKES FOR INDIVIDUALS, VITAMINS

Life Stage Group	Vitamin A (µg/d) ^a	Vitamin C (mg/d)	Vitamin D (µg/d) ^{b,c}	Vitamin E (mg/d) ^d	Vitamin K (µg/d)	Thiamin (mg/d)	Riboflavin (mg/d)
Infants							
0–6 mo	400*	40*	5*	4*	2.0*	0.2*	0.3*
7–12 mo	500*	50*	5*	5*	2.5*	0.3*	0.4*
Children							
1–3 y	300	15	5*	6	30*	0.5	0.5
4–8 y	400	25	5*	7	55*	0.6	0.6
Males							
9–13 y	600	45	5*	11	60*	0.9	0.9
14–18 y	900	75	5*	15	75*	1.2	1.3
19–30 y	900	90	5*	15	120*	1.2	1.3
31–50 y	900	90	5*	15	120*	1.2	1.3
51–70 y	900	90	10*	15	120*	1.2	1.3
> 70 y	900	90	15*	15	120*	1.2	1.3
Females							
9–13 y	600	45	5*	11	60*	0.9	0.9
14–18 y	700	65	5*	15	75*	1.0	1.0
19–30 y	700	75	5*	15	90*	1.1	1.1
31–50 y	700	75	5*	15	90*	1.1	1.1
51–70 y	700	75	10*	15	90*	1.1	1.1
> 70 y	700	75	15*	15	90*	1.1	1.1
Pregnancy							
≤ 18 y	750	80	5*	15	75*	1.4	1.4
19–30 y	770	85	5*	15	90*	1.4	1.4
31–50 y	770	85	5*	15	90*	1.4	1.4
Lactation							
≤ 18 y	1,200	115	5*	19	75*	1.4	1.6
19–30 y	1,300	120	5*	19	90*	1.4	1.6
31–50 y	1,300	120	5*	19	90*	1.4	1.6

NOTE: This table (taken from the DRI reports, see www.nap.edu) presents Recommended Dietary Allowances (RDAs) in **bold type** and Adequate Intakes (AIs) in ordinary type followed by an asterisk (*). RDAs and AIs may both be used as goals for individual intake. RDAs are set to meet the needs of almost all (97 to 98 percent) individuals in a group. For healthy breastfed infants, the AI is the mean intake. The AI for other life stage and gender groups is believed to cover needs of all individuals in the group, but lack of data or uncertainty in the data prevent being able to specify with confidence the percentage of individuals covered by this intake.

^a As retinol activity equivalents (RAEs). 1 RAE = 1 µg retinol, 12 µg β-carotene, 24 µg α-carotene, or 24 µg β-cryptoxanthin. To calculate RAEs from REs of provitamin A carotenoids in foods, divide the REs by 2. For preformed vitamin A in foods or supplements and for provitamin A carotenoids in supplements, 1 RE = 1 RAE.

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Thiamin (mg/d)	Riboflavin (mg/d)	Niacin (mg/d) ^e	Vitamin B ₆ (mg/d)	Folate (µg/d) ^f	Vitamin B ₁₂ (µg/d)	Pantothenic Acid (mg/d)	Biotin (µg/d)	Choline (mg/d) ^g
0.2*	0.3*	2*	0.1*	65*	0.4*	1.7*	5*	125*
0.3*	0.4*	4*	0.3*	80*	0.5*	1.8*	6*	150*
0.5	0.5	6	0.5	150	0.9	2*	8*	200*
0.6	0.6	8	0.6	200	1.2	3*	12*	250*
0.9	0.9	12	1.0	300	1.8	4*	20*	375*
1.2	1.3	16	1.3	400	2.4	5*	25*	550*
1.2	1.3	16	1.3	400	2.4	5*	30*	550*
1.2	1.3	16	1.3	400	2.4	5*	30*	550*
1.2	1.3	16	1.7	400	2.4^h	5*	30*	550*
1.2	1.3	16	1.7	400	2.4^h	5*	30*	550*
0.9	0.9	12	1.0	300	1.8	4*	20*	375*
1.0	1.0	14	1.2	400ⁱ	2.4	5*	25*	400*
1.1	1.1	14	1.3	400ⁱ	2.4	5*	30*	425*
1.1	1.1	14	1.3	400ⁱ	2.4	5*	30*	425*
1.1	1.1	14	1.5	400	2.4^h	5*	30*	425*
1.1	1.1	14	1.5	400	2.4^h	5*	30*	425*
1.4	1.4	18	1.9	600^j	2.6	6*	30*	450*
1.4	1.4	18	1.9	600^j	2.6	6*	30*	450*
1.4	1.4	18	1.9	600^j	2.6	6*	30*	450*
1.4	1.6	17	2.0	500	2.8	7*	35*	550*
1.4	1.6	17	2.0	500	2.8	7*	35*	550*
1.4	1.6	17	2.0	500	2.8	7*	35*	550*

continued

^b calciferol. 1 µg calciferol = 40 IU vitamin D.

^c In the absence of adequate exposure to sunlight.

^d As α-tocopherol. α-Tocopherol includes *RRR*-α-tocopherol, the only form of α-tocopherol that occurs naturally in foods, and the *2R*-stereoisomeric forms of α-tocopherol (*RRR*-, *RSR*-, *RRS*-, and *RSS*-α-tocopherol) that occur in fortified foods and supplements. It does not include the *2S*-stereoisomeric forms of α-tocopherol (*SRR*-, *SSR*-, *SRS*-, and *SSS*-α-tocopherol), also found in fortified foods and supplements.

^e As niacin equivalents (NE). 1 mg of niacin = 60 mg of tryptophan; 0–6 months = preformed niacin (not NE).

^f As dietary folate equivalents (DFE). 1 DFE = 1 µg food folate = 0.6 µg of folic acid from fortified food or as a supplement consumed with food = 0.5 µg of a supplement taken on an empty stomach.

^g Although AIs have been set for choline, there are few data to assess whether a