Estimated Average Requirements (calculated values) based on FAO/WHO Recommended Nutrient Intakes

Nutrient (unit)	1–3 years	4–6 years	19–50 years, female	Pregnant women, second trimester	Lactating women, 0–3 months	19–50 years, male
Vitamin A (μg RE)[a]	286	321	357	571	607	429
Vitamin D (μg)[b]	5	5	5	5	5	5
Vitamin E (mg α-tocopherol)	4	4	6	6	6	8
Vitamin C (mg)	25	25	37	46	58	37
Thiamine (vitamin B_1) (mg)	0.4	0.5	0.9	1.2	1.3	1.0
Riboflavin (vitamin B_2) (mg)	0.4	0.5	0.9	1.2	1.3	1.1
Niacin (vitamin B_3) (mg NE)	5	6	11	14	13	12
Vitamin B_6 (mg)	0.4	0.5	1.1	1.6	1.7	1.1
Folate (μg DFE)[c]	120	160	320	480	400	320
Vitamin B_{12} (μg)	0.7	1.0	2.0	2.2	2.3	2.0
Iron (mg)[d]						
■ 15% bioavailability	3.9[e]	4.2[e]	19.6[e]	>40.0	7.8	7.2
■ 10% bioavailability	5.8[e]	6.3[e]	29.4[e]	>40.0	11.7	10.8
■ 5% bioavailability	11.6[e]	12.6[e]	58.8[e]	>40.0	23.4	21.6
Zinc (mg)[f]						
■ High bioavailability	2.0	2.4	2.5	3.5	4.8	3.5
■ Moderate bioavailability	3.4	4.0	4.1	5.8	7.9	5.8
■ Low bioavailability	6.9	8.0	8.2	11.7	15.8	11.7
Calcium (mg)	417	500	833	833	833	833
Selenium (μg)	14	17	22	23	29	28
Iodine (μg)	64	64	107	143	143	107

[a] 1 RE = 1 μg retinol = 12 μg β-carotene or 24 μg other provitamin A carotenoids. In oil, the conversion factor for vitamin A (retinol): β-carotene is 1 : 2. The corresponding conversion factor for synthetic β-carotene is uncertain, but a factor of 1 : 6 is generally considered to be reasonable. 1 μg RE = 3.33 IU vitamin A.

[b] In the absence of adequate exposure to sunlight, as calciferol. 1 μg calciferol = 40 IU vitamin D.

[c] 1 DFE = Dietary folate equivalent = 1 μg food folate = 0.6 μg folic acid from fortified foods, which means that 1 μg folic acid = 1.7 DFE.

[d] The RNI and thus the calculated EAR depends on the composition of the diet. For a diet rich in vitamin C and animal protein, the bioavailability of iron is 15%; for diets rich in cereals but including sources of vitamin C, bioavailability is 10%, and for diets low in vitamin C and animal protein, bioavailability is reduced to 5%.

[e] EARs cannot be calculated from RNIs for these age groups because of the skewed distribution of requirements for iron by young children and menstruating women. Instead, the corresponding RNI values are given.

[f] The RNI and thus the calculated EAR depends on the composition of the diet. The bioavailability of zinc is high from diets rich in animal protein, moderate from diets rich in legumes and pulses or diets that include fermented cereals, and low from diets poor in animal protein or zinc-rich plant foods.

Source: calculated from FAO/WHO RNIs. Table from: WHO (World Health Organization). (2006). Guidelines on food fortification with micronutrients, (Allen L, de Benoist B, Dary O, Hurrell R Eds). WHO/FAO, 2006.