

**Supplemental Table 1.** Usual Intake from NHANES 2009-2012 Compared to the Dietary Reference Intakes (DRI) from Nutrients as Naturally Occurring, Enriched/Fortified, and Dietary Supplements among **Children 2-8 years of age** in the U.S. Population <sup>1</sup>

Nutrient	Usual Intake <sup>2-3</sup>	Percentiles					% < EAR <sup>3-4</sup>
		10	25	50	75	90	
<b>Vitamin A, µg RAE/d</b> <sup>5-6</sup>							
Naturally occurring	402 ± 0.0	210	279	375	496	629	19.4 ± 20.4
+ Enriched/fortified	672 ± 1.0	354	471	631	830	1044	2.9 ± 0.4
+ Dietary supplements	--	--	--	--	--	--	--
<b>Vitamin D, µg/d</b> <sup>7-8</sup>							
Naturally occurring	1.3 ± 0.0	0.6	0.9	1.2	1.7	2.2	100 ± 0.0
+ Enriched/fortified	7.3 ± 0.0	3.5	4.9	6.8	9.1	11.7	81.4 ± 1.4
+ Dietary supplements	9.4 ± 0.0	3.8	5.4	7.8	11.7	16.6	66.5 ± 1.0
<b>Vitamin E, mg AT/d</b> <sup>6,9</sup>							
Naturally occurring	5.7 ± 0.0	3.2	4.2	5.4	7.0	8.6	54.3 ± 1.2
+ Enriched/fortified	6.4 ± 0.0	3.5	4.6	6.0	7.7	9.7	44.6 ± 1.4
+ Dietary supplements	--	--	--	--	--	--	--
<b>Vitamin C, mg/d</b> <sup>9</sup>							
Naturally occurring	52.3 ± 0.0	17.8	28.1	44.6	68.0	96.4	12.1 ± 1.0
+ Enriched/fortified	91.8 ± 0.0	35.7	53.7	81.1	118	161	1.9 ± 0.4
+ Dietary supplements	107 ± 0.2	38.9	59.1	90.2	132	182	1.6 ± 0.2
<b>Vitamin B-6, mg/d</b> <sup>10</sup>							
Naturally occurring	1.2 ± 0.0	0.7	0.9	1.2	1.4	1.7	1.0 ± 0.2
+ Enriched/fortified	1.7 ± 0.0	1.0	1.2	1.6	2.0	2.4	0.1 ± 0.0
+ Dietary supplements	2.0 ± 0.0	1.0	1.3	1.7	2.3	3.2	0.2 ± 0.0
<b>Vitamin B-12, µg/d</b> <sup>10</sup>							
Naturally occurring	3.9 ± 0.0	2.2	2.8	3.7	4.8	6.0	0.1 ± 0.0
+ Enriched/fortified	5.2 ± 0.0	2.7	3.6	4.9	6.5	8.2	0.1 ± 0.0
+ Dietary supplements	6.3 ± 0.0	2.9	4.0	5.5	7.9	10.6	0.1 ± 0.0
<b>Folate, µg DFE/d</b> <sup>10-11</sup>							
Naturally occurring	158 ± 0.2	88	114	149	192	239	47.7 ± 1.0
+ Enriched/fortified	497 ± 0.4	286	365	471	600	739	0.3 ± 0.0
+ Dietary supplements	592 ± 0.6	302	391	523	719	992	0.3 ± 0.0
<b>Thiamin, mg/d</b> <sup>10</sup>							
Naturally occurring	0.8 ± 0.0	0.5	0.6	0.8	0.9	1.1	8.8 ± 1.2

Nutrient	Usual Intake <sup>2-3</sup>	Percentiles					% < EAR <sup>3-4</sup>
		10	25	50	75	90	
+ Enriched/fortified	1.5 ± 0.0	0.9	1.1	1.4	1.7	2.1	0.2 ± 0.0
+ Dietary supplements	1.6 ± 0.0	0.9	1.2	1.5	1.9	2.5	0.2 ± 0.0
<b>Riboflavin, mg/d</b> <sup>10</sup>							
Naturally occurring	1.4 ± 0.0	0.8	1.0	1.4	1.7	2.1	0.9 ± 0.2
+ Enriched/fortified	2.0 ± 0.0	1.2	1.5	1.9	2.4	2.9	0.1 ± 0.0
+ Dietary supplements	2.2 ± 0.0	1.2	1.5	2.0	2.6	3.3	0.1 ± 0.0
<b>Niacin, mg/d</b> <sup>10</sup>							
Naturally occurring	12.2 ± 0.0	7.3	9.2	11.7	14.6	17.7	3.2 ± 0.4
+ Enriched/fortified	19.1 ± 0.0	11.7	14.6	18.4	22.8	27.4	0.1 ± 0.0
+ Dietary supplements	20.6 ± 0.0	12.0	15.0	19.2	24.6	31.0	0.2 ± 0.0
<b>Iron, mg/d</b> <sup>5</sup>							
Naturally occurring	7.0 ± 0.0	4.4	5.4	6.8	8.3	9.9	5.1 ± 0.6
+ Enriched/fortified	13.2 ± 0.0	8.0	10.0	12.7	15.8	19.2	0.1 ± 0.0
+ Dietary supplements	14.7 ± 0.0	8.2	10.3	13.1	17.0	23.0	0.2 ± 0.0
<b>Zinc, mg/d</b> <sup>5</sup>							
Naturally occurring	8.2 ± 0.0	5.1	6.3	7.9	9.8	11.7	1.6 ± 0.2
+ Enriched/fortified	9.6 ± 0.0	5.8	7.3	9.2	11.5	13.9	0.8 ± 0.2
+ Dietary supplements	10.8 ± 0.0	6.1	7.6	9.8	12.6	16.7	0.7 ± 0.2
<b>Calcium, mg/d</b> <sup>7-8</sup>							
Naturally occurring	982 ± 1.0	584	738	941	1182	1433	23.2 ± 2.0
+ Enriched/fortified	1082 ± 1.0	638	809	1035	1304	1585	17.1 ± 1.4
+ Dietary supplements	1095 ± 1.0	646	810	1048	1319	1603	16.4 ± 1.4
<b>Magnesium, mg/d</b> <sup>8</sup>							
Naturally occurring	230 ± 0.0	142	176	221	275	331	1.7 ± 0.2
+ Enriched/fortified	233 ± 0.0	143	178	223	278	335	1.6 ± 0.2
+ Dietary supplements	235 ± 0.0	144	179	225	280	337	1.6 ± 0.2
<b>Potassium, g/d</b> <sup>12-13</sup>							<b>% &gt;AI</b>
Naturally occurring	2221 ± 1.0	1382	1723	2154	2648	3144	5.9 ± 0.4
+ Enriched/fortified	2225 ± 1.0	1388	1727	2157	2651	3148	6.0 ± 0.6
+ Dietary supplements	2225 ± 1.0	1388	1727	2158	2651	3148	6.0 ± 0.6

<sup>1</sup> Source: What We Eat in America, NHANES 2009-2012 [9] (n=2871 children 2-8 years of age). AI, adequate intake; AT, a-tocopherol; DFE, dietary folate equivalents; EAR, estimated average requirement; NHANES, National Health and Nutrition Examination Survey; RAE, retinol activity equivalents; SEM, standard error of the mean; U.S., United States.

<sup>2</sup> Values are mean  $\pm$  SEM and percentiles for usual intakes estimated using the National Cancer Institute Method [14, 15].

<sup>3</sup> SEM is  $<0.01$  where SEM is 0.0 in the table.

<sup>4</sup> Values are mean  $\pm$  SEM for the percent below the EAR [16-19, 34].

<sup>5</sup> Dietary Reference Intakes for Vitamin A, Vitamin K, Arsenic, Boron, Chromium, Copper, Iodine, Iron, Manganese, Molybdenum, Nickel, Silicon, Vanadium, and Zinc (2001) [19].

<sup>6</sup> A supplements file is not currently available for Vitamins A and E in NHANES for 2009-2012, and it will be released at a later date.

<sup>7</sup> Dietary Reference Intakes for Calcium and Vitamin D (2011) [34].

<sup>8</sup> Dietary Reference Intakes for Calcium, Phosphorous, Magnesium, Vitamin D, and Fluoride (1997) [17].

<sup>9</sup> Dietary Reference Intakes for Vitamin C, Vitamin E, Selenium, and Carotenoids (2000) [18].

<sup>10</sup> Dietary Reference Intakes for Thiamin, Riboflavin, Niacin, Vitamin B6, Folate, Vitamin B12, Pantothenic Acid, Biotin, and Choline (1998) [16].

<sup>11</sup> Folate EAR is presented as dietary folate equivalents (DFE). 1 DFE=1  $\mu\text{g}$  food folate=0.6  $\mu\text{g}$  of folic acid from fortified food or supplement consumed with food=5  $\mu\text{g}$  of a supplement taken on an empty stomach.

<sup>12</sup> Dietary Reference Intakes for Water, Potassium, Sodium, Chloride, and Sulfate (2005) [23].

<sup>132</sup> The AI approach was used for potassium [23].

**Supplemental Table 2.** Usual Intake from NHANES 2009-2012 Compared to the Dietary Reference Intakes (DRI) from Nutrients as Naturally Occurring, Enriched/Fortified, and Dietary Supplements among **Children 9-18 years of age** in the U.S. Population <sup>1</sup>

Nutrient	Usual Intake <sup>2-3</sup>	Percentiles					% < EAR <sup>3-4</sup>
		10	25	50	75	90	
<b>Vitamin A</b> , $\mu\text{g RAE/d}$ <sup>5-6</sup>							
Naturally occurring	381 $\pm$ 0	197	262	354	470	599	75.5 $\pm$ 6.4
+ Enriched/fortified	608 $\pm$ 0	310	418	568	754	958	37.7 $\pm$ 2.2
+ Dietary supplements	--	--	--	--	--	--	--
<b>Vitamin D</b> , $\mu\text{g/d}$ <sup>7-8</sup>							
Naturally occurring	1.3 $\pm$ 0.0	0.6	0.9	1.2	1.7	2.2	100 $\pm$ 0.0
+ Enriched/fortified	5.7 $\pm$ 0.0	2.5	3.6	5.2	7.2	9.4	92.1 $\pm$ 1.2
+ Dietary supplements	6.9 $\pm$ 0.0	2.6	3.8	5.6	8.1	12.5	84.1 $\pm$ 1.0
<b>Vitamin E</b> , mg AT/d <sup>6,9</sup>							
Naturally occurring	6.7 $\pm$ 0.0	3.8	4.9	6.3	8.1	9.9	90.8 $\pm$ 0.8
+ Enriched/fortified	7.2 $\pm$ 0.0	4.0	5.2	6.7	8.7	10.9	86.2 $\pm$ 1.0
+ Dietary supplements	--	--	--	--	--	--	--
<b>Vitamin C</b> , mg/d <sup>9</sup>							
Naturally occurring	50.5 $\pm$ 0.0	17.1	27.0	42.9	65.7	93.6	56.0 $\pm$ 2.2
+ Enriched/fortified	74.8 $\pm$ 0.0	27.5	42.2	65.2	96.8	134	32.3 $\pm$ 1.6
+ Dietary supplements	92.1 $\pm$ 0.2	28.8	44.6	70.1	107	156	29.4 $\pm$ 1.6
<b>Vitamin B-6</b> , mg/d <sup>10</sup>							
Naturally occurring	1.4 $\pm$ 0.0	0.9	1.1	1.3	1.6	2.0	13.7 $\pm$ 1.2
+ Enriched/fortified	1.8 $\pm$ 0.0	1.1	1.4	1.7	2.2	2.7	4.3 $\pm$ 0.6
+ Dietary supplements	2.1 $\pm$ 0.0	1.1	1.4	1.8	2.4	3.1	4.0 $\pm$ 0.6
<b>Vitamin B-12</b> , $\mu\text{g/d}$ <sup>10</sup>							
Naturally occurring	4.0 $\pm$ 0.0	2.2	2.9	3.8	4.9	6.1	3.9 $\pm$ 0.6
+ Enriched/fortified	5.3 $\pm$ 0.0	2.8	3.7	4.9	6.5	8.2	1.6 $\pm$ 0.2
+ Dietary supplements	7.5 $\pm$ 0.0	2.8	3.8	5.2	7.1	9.8	1.5 $\pm$ 0.2
<b>Folate</b> , $\mu\text{g DFE/d}$ <sup>10-11</sup>							
Naturally occurring	179 $\pm$ 0	102	131	170	218	269	91.6 $\pm$ 0.8
+ Enriched/fortified	562 $\pm$ 0	330	417	534	677	831	6.1 $\pm$ 0.8
+ Dietary supplements	616 $\pm$ 0	337	428	558	731	971	5.7 $\pm$ 0.8
<b>Thiamin</b> , mg/d <sup>10</sup>							

<b>Nutrient</b>	<b>Usual Intake</b> <sup>2-3</sup>	<b>Percentiles</b>					<b>% &lt; EAR</b> <sup>3-4</sup>
		<b>10</b>	<b>25</b>	<b>50</b>	<b>75</b>	<b>90</b>	
Naturally occurring	0.9 ± 0.0	0.6	0.7	0.9	1.1	1.3	43.5 ± 2.0
+ Enriched/fortified	1.6 ± 0.0	1.0	1.3	1.6	2.0	2.3	3.2 ± 0.4
+ Dietary supplements	1.8 ± 0.0	1.1	1.3	1.6	2.0	2.6	3.1 ± 0.4
<b>Riboflavin, mg/d</b> <sup>10</sup>							
Naturally occurring	1.4 ± 0.0	0.8	1.0	1.3	1.7	2.1	18 ± 1.2
+ Enriched/fortified	2.0 ± 0.0	1.2	1.5	1.9	2.4	3.0	3.1 ± 0.4
+ Dietary supplements	2.2 ± 0.0	1.2	1.5	2.0	2.6	3.2	2.9 ± 0.4
<b>Niacin, mg/d</b> <sup>10</sup>							
Naturally occurring	15.4 ± 0.0	9.4	11.7	14.8	18.4	22.1	13.6 ± 1.4
+ Enriched/fortified	23.5 ± 0.0	14.7	18.1	22.6	27.9	33.3	1.1 ± 0.2
+ Dietary supplements	24.6 ± 0.0	14.9	18.4	23.2	29.0	35.7	1.1 ± 0.2
<b>Iron, mg/d</b> <sup>5</sup>							
Naturally occurring	8.5 ± 0.0	5.5	6.7	8.2	10.0	11.9	26.2 ± 1.6
+ Enriched/fortified	15.1 ± 0.0	9.3	11.5	14.5	18.0	21.8	2.0 ± 0.4
+ Dietary supplements	16.2 ± 0.0	9.4	11.7	14.8	18.7	23.6	1.9 ± 0.4
<b>Zinc, mg/d</b> <sup>5</sup>							
Naturally occurring	9.6 ± 0.0	6.1	7.5	9.3	11.4	13.6	24.4 ± 2.0
+ Enriched/fortified	10.9 ± 0.0	6.7	8.3	10.4	13.0	15.7	16.2 ± 1.4
+ Dietary supplements	11.7 ± 0.0	6.8	8.5	10.8	13.6	17.4	15 ± 1.4
<b>Calcium, mg/d</b> <sup>7-8</sup>							
Naturally occurring	994 ± 1.0	593	747	952	1194	1450	66.5 ± 1.8
+ Enriched/fortified	1073 ± 1.0	632	801	1026	1293	1575	57.8 ± 2.0
+ Dietary supplements	1089 ± 1.0	640	811	1040	1313	1602	56.3 ± 2.0
<b>Magnesium, mg/d</b> <sup>8</sup>							
Naturally occurring	252 ± 0.0	157	194	242	300	360	53.1 ± 1.6
+ Enriched/fortified	254 ± 0.0	157	194	243	302	363	52.6 ± 1.6
+ Dietary supplements	256 ± 0.0	159	196	246	305	367	51.6 ± 1.8
<b>Potassium, mg/d</b> <sup>12-13</sup>							<b>% &gt; AI</b>
Naturally occurring	2299 ± 1.0	1442	1788	2232	2735	3244	0.4 ± 0.0
+ Enriched/fortified	2318 ± 1.0	1459	1805	2250	2754	3267	0.5 ± 0.2
+ Dietary supplements	2318 ± 1.0	1459	1806	2251	2755	3268	0.5 ± 0.2

<sup>1</sup> Source: What We Eat in America, NHANES 2009-2012 [9] (n=3238 children 9-18 years of age). AI, adequate intake; AT, a-tocopherol; DFE, dietary folate

equivalents; EAR, estimated average requirement; NHANES, National Health and Nutrition Examination Survey; RAE, retinol activity equivalents; SEM, standard error of the mean; U.S., United States.

<sup>2</sup> Values are mean  $\pm$  SEM and percentiles for usual intakes estimated using the National Cancer Institute Method [14, 15].

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<sup>11</sup> Folate EAR is presented as dietary folate equivalents (DFE). 1 DFE=1  $\mu$ g food folate=0.6  $\mu$ g of folic acid from fortified food or supplement consumed with food=5  $\mu$ g of a supplement taken on an empty stomach.

<sup>12</sup> Dietary Reference Intakes for Water, Potassium, Sodium, Chloride, and Sulfate (2005) [23].

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