

## Chapter HFS 134

## APPENDIX A

FOOD AND NUTRITION BOARD, NATIONAL ACADEMY OF SCIENCES-NATIONAL RESEARCH  
COUNCIL RECOMMENDED DAILY DIETARY ALLOWANCES. <sup>a</sup> Revised 1980*Designed for the maintenance of good nutrition of practically all healthy people in the U.S.A.*

|           | Age<br>(years) | Weight |      | Height |      | Protein<br>(g) | Fat-Soluble Vitamins   |                     |                            |
|-----------|----------------|--------|------|--------|------|----------------|------------------------|---------------------|----------------------------|
|           |                | (kg)   | (lb) | (cm)   | (in) |                | LVitamin A             | Vitamin D           | Vitamin E                  |
|           |                |        |      |        |      |                | ( $\mu\text{g RE}^b$ ) | ( $\mu\text{g}^c$ ) | (mg $\alpha\text{-TE}^d$ ) |
| Infants   | 0.0-0.5        | 6      | 13   | 60     | 24   | kgx2.2         | 420                    | 10                  | 3                          |
|           | 0.5-1.0        | 9      | 20   | 71     | 28   | kgx2.0         | 400                    | 10                  | 4                          |
| Children  | 1-3            | 13     | 29   | 90     | 35   | 23             | 400                    | 10                  | 5                          |
|           | 4-6            | 20     | 44   | 112    | 44   | 30             | 500                    | 10                  | 6                          |
|           | 7-10           | 28     | 62   | 132    | 52   | 34             | 700                    | 10                  | 7                          |
| Males     | 11-14          | 45     | 99   | 157    | 62   | 45             | 1000                   | 10                  | 8                          |
|           | 15-18          | 66     | 145  | 176    | 69   | 56             | 1000                   | 10                  | 10                         |
|           | 19-22          | 70     | 154  | 177    | 70   | 56             | 1000                   | 7.5                 | 10                         |
|           | 23-50          | 70     | 154  | 178    | 70   | 56             | 1000                   | 5                   | 10                         |
|           | 51+            | 70     | 154  | 178    | 70   | 56             | 1000                   | 5                   | 10                         |
| Females   | 11-14          | 46     | 101  | 157    | 62   | 46             | 800                    | 10                  | 8                          |
|           | 15-18          | 55     | 120  | 163    | 64   | 46             | 800                    | 10                  | 8                          |
|           | 19-22          | 55     | 120  | 163    | 64   | 44             | 800                    | 7.5                 | 8                          |
|           | 23-50          | 55     | 120  | 163    | 64   | 44             | 800                    | 5                   | 8                          |
|           | 51+            | 55     | 120  | 163    | 64   | 44             | 800                    | 5                   | 8                          |
| Pregnant  |                |        |      |        |      | +30            | +200                   | +5                  | +2                         |
| Lactating |                |        |      |        |      | +20            | +400                   | +5                  | +3                         |

|           | Age<br>(years) | Weight |      | Height |      | Water-Soluble Vitamins |         |            |                      |             |                      |                   |
|-----------|----------------|--------|------|--------|------|------------------------|---------|------------|----------------------|-------------|----------------------|-------------------|
|           |                | (kg)   | (lb) | (cm)   | (in) | Vitamin C              | Thiamin | Riboflavin | Niacin               | Vitamin B-6 | Folacin <sup>t</sup> | Vitamin B-12      |
|           |                |        |      |        |      | (mg)                   | (mg)    | (mg)       | (mg NE) <sup>e</sup> | (mg)        | ( $\mu\text{g}$ )    | ( $\mu\text{g}$ ) |
| Infants   | 0.0-0.5        | 6      | 13   | 60     | 24   | 35                     | 0.3     | 0.4        | 6                    | 0.3         | 30                   | 0.5 <sup>g</sup>  |
|           | 0.5-1.0        | 9      | 20   | 71     | 28   | 35                     | 0.5     | 0.6        | 8                    | 0.6         | 45                   | 1.5               |
| Children  | 1-3            | 13     | 29   | 90     | 35   | 45                     | 0.7     | 0.8        | 9                    | 0.9         | 100                  | 2.0               |
|           | 4-6            | 20     | 44   | 112    | 44   | 45                     | 0.9     | 1.0        | 11                   | 1.3         | 200                  | 2.5               |
|           | 7-10           | 28     | 62   | 132    | 52   | 45                     | 1.2     | 1.4        | 16                   | 1.6         | 300                  | 3.0               |
| Males     | 11-14          | 45     | 99   | 157    | 62   | 50                     | 1.4     | 1.6        | 18                   | 1.8         | 400                  | 3.0               |
|           | 15-18          | 66     | 145  | 176    | 69   | 60                     | 1.4     | 1.7        | 18                   | 2.0         | 400                  | 3.0               |
|           | 19-22          | 70     | 154  | 177    | 70   | 60                     | 1.5     | 1.7        | 19                   | 2.2         | 400                  | 3.0               |
|           | 23-50          | 70     | 154  | 178    | 70   | 60                     | 1.4     | 1.6        | 18                   | 2.2         | 400                  | 3.0               |
|           | 51+            | 70     | 154  | 178    | 70   | 60                     | 1.2     | 1.4        | 16                   | 2.2         | 400                  | 3.0               |
| Females   | 11-14          | 46     | 101  | 157    | 62   | 50                     | 1.1     | 1.3        | 15                   | 1.8         | 400                  | 3.0               |
|           | 15-18          | 55     | 120  | 163    | 64   | 60                     | 1.1     | 1.3        | 14                   | 2.0         | 400                  | 3.0               |
|           | 19-22          | 55     | 120  | 163    | 64   | 60                     | 1.1     | 1.3        | 14                   | 2.0         | 400                  | 3.0               |
|           | 23-50          | 55     | 120  | 163    | 64   | 60                     | 1.0     | 1.2        | 13                   | 2.0         | 400                  | 3.0               |
|           | 51+            | 55     | 120  | 163    | 64   | 60                     | 1.0     | 1.2        | 13                   | 2.0         | 400                  | 3.0               |
| Pregnant  |                |        |      |        |      | +20                    | +0.4    | +0.3       | +2                   | +0.6        | +400                 | +1.0              |
| Lactating |                |        |      |        |      | +40                    | +0.5    | +0.5       | +5                   | +0.5        | +100                 | +1.0              |

|           | Age<br>(years) | Minerals |      |        |      |         |            |           |      |      |        |
|-----------|----------------|----------|------|--------|------|---------|------------|-----------|------|------|--------|
|           |                | Weight   |      | Height |      | Calcium | Phosphorus | Magnesium | Iron | Zinc | Iodine |
|           |                | (kg)     | (lb) | (cm)   | (in) | (mg)    | (mg)       | (mg)      | (mg) | (mg) | (µg)   |
| Infants   | 0.0-0.5        | 6        | 13   | 60     | 24   | 360     | 240        | 50        | 10   | 3    | 40     |
|           | 0.5-1.0        | 9        | 20   | 71     | 28   | 540     | 360        | 70        | 15   | 5    | 50     |
| Children  | 1-3            | 13       | 29   | 90     | 35   | 800     | 800        | 150       | 15   | 10   | 70     |
|           | 4-6            | 20       | 44   | 112    | 44   | 800     | 800        | 200       | 10   | 10   | 90     |
|           | 7-10           | 28       | 62   | 132    | 52   | 800     | 800        | 250       | 10   | 10   | 120    |
| Males     | 11-14          | 45       | 99   | 157    | 62   | 1200    | 1200       | 350       | 18   | 15   | 150    |
|           | 15-18          | 66       | 145  | 176    | 69   | 1200    | 1200       | 400       | 18   | 15   | 150    |
|           | 19-22          | 70       | 154  | 177    | 70   | 800     | 800        | 350       | 10   | 15   | 150    |
|           | 23-50          | 70       | 154  | 178    | 70   | 800     | 800        | 350       | 10   | 15   | 150    |
|           | 51+            | 70       | 154  | 178    | 70   | 800     | 800        | 350       | 10   | 15   | 150    |
| Females   | 11-14          | 46       | 101  | 157    | 62   | 1200    | 1200       | 300       | 18   | 15   | 150    |
|           | 15-18          | 55       | 120  | 163    | 64   | 1200    | 1200       | 300       | 18   | 15   | 150    |
|           | 19-22          | 55       | 120  | 163    | 64   | 800     | 800        | 300       | 18   | 15   | 150    |
|           | 23-50          | 55       | 120  | 163    | 64   | 800     | 800        | 300       | 18   | 15   | 150    |
|           | 51+            | 55       | 120  | 163    | 64   | 800     | 800        | 300       | 10   | 15   | 150    |
| Pregnant  |                |          |      |        |      | +400    | +400       | +150      | h    | +5   | +25    |
| Lactating |                |          |      |        |      | +400    | +400       | +150      | h    | +10  | +50    |

<sup>a</sup>The allowances are intended to provide for individual variations among most normal persons as they live in the United States under usual environmental stresses. Diets should be based on a variety of common foods in order to provide other nutrients for which human requirements have been less well defined.

<sup>b</sup> Retinol equivalents. 1 retinol equivalent = 1 µg retinol or 6 µg carotene. See text for calculation of vitamin A activity of diets as retinol equivalents.

<sup>c</sup> As cholecalciferol. 10 µg cholecalciferol = 400 IU of vitamin D.

<sup>d</sup> α-tocopherol equivalents. 1 mg d-α tocopherol = 1 α-TE.

<sup>e</sup> 1 NE (niacin equivalent) is equal to 1 mg of niacin or 60 mg of dietary tryptophan.

<sup>f</sup> The folacin allowances refer to dietary sources as determined by *Lactobacillus casei* assay after treatment with enzymes (conjugases) to make polyglutamyl forms of the vitamin available to the test organism.

<sup>g</sup> The recommended dietary allowance for vitamin B-12 in infants is based on average concentration of the vitamin in human milk. The allowances after weaning are based on energy intake (as recommended by the American Academy of Pediatrics) and consideration of other factors, such as intestinal absorption.

<sup>h</sup> The increased requirements during pregnancy cannot be met by the iron content of habitual American diets nor by the existing iron stores of many women; therefore the use of 30-60 mg of supplemental iron is recommended. Iron needs during lactation are not substantially different from those of nonpregnant women, but continued supplementation of the mother for 2-3 months after parturition is advisable in order to replenish stores depleted by pregnancy.