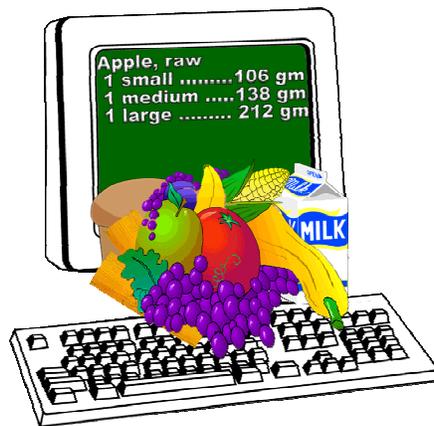


USDA Database of Vitamin A (mcg RAE) and Vitamin E (mg AT) for National Health and Nutrition Examination Survey 1999-2000



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WHAT IS THIS DATABASE AND HOW IS IT USED?

Current recommended dietary allowances (RDA) from the dietary reference intake (DRI) reports for vitamin A are expressed as micrograms of retinol activity equivalents (mcg RAE), and for vitamin E as milligrams of alpha-tocopherol (mg AT) (1, 2). Previously, recommendations were expressed as micrograms of retinol equivalents (mcg RE) for vitamin A and milligrams of alpha-tocopherol equivalents (mg ATE) for vitamin E (3). What We Eat in America, National Health and Nutrition Examination Survey (NHANES) 2001-2002 (4) includes food intake values for the two vitamins in the current DRI units, whereas NHANES 1999-2000 (5) used the former units.

A special database of vitamin A (mcg RAE) and vitamin E (mg AT) values has been developed for use with NHANES 1999-2000, so that intake estimates for that survey can be calculated in the current units. This will permit data from the two survey periods to be combined, as recommended in the NHANES analytical guidelines to produce estimates for vitamin A and vitamin E with greater statistical reliability (6). Researchers should note that tolerable upper intake levels (UL) from the DRI reports are expressed differently than the estimated average requirements (EAR) and RDAs for these nutrients and such values are not in this database. The UL for vitamin A is expressed as micrograms of preformed vitamin A only. For vitamin E, it is expressed as milligrams of supplemental alpha-tocopherol (all forms).

Values are present in the database for 4,311 foods and represent the amounts of the two vitamins in 100 grams of the edible portion of each food. Food codes in the database match food codes found in the individual foods file in NHANES 1999-2000. Please note that users will need to calculate the amount of these vitamins for each record in NHANES 1999-2000.

The database used to derive the food intakes for NHANES 2001-2002 was the Food and Nutrient Database for Dietary Studies (FNDDS) 1.0 (7). NHANES 1999-2000 used an earlier version of the FNDDS, at that time called the Survey Nutrient Database (SNDB) (8). The nutrient values in this new, special database are based on FNDDS 1.0, except for 140 foods which were reported in NHANES 1999-2000 but were not in the FNDDS 1.0. The nutrient values for those 140 foods were imputed based on similar foods, nutrient values in SNDB, USDA National Nutrient Database for Standard Reference, Release 16-1 (9), and information from the food specialists at USDA's Nutrient Data Laboratory.

Users are cautioned against making comparisons of intake estimates in old and new units (e.g. RE vs. RAE), as differences in the estimates could be due to the different versions of the database used for the old and new units.

The database can be downloaded from the Food Surveys Research Group website as a Microsoft Access® database or an ASCII database. It includes 3 data files - Main Food Descriptions (4311 records), Nutrient Values (8622 records), and Nutrient Descriptions (2 records). Formats for these files were modeled after files in FNDDS 1.0. [File formats](#) are appended to this document, but additional useful information may be found in the documentation for FNDDS 1.0 (7).

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APPENDIX. File Formats

Main food descriptions (MainFoodDesc)

There are 4,311 main food descriptions. The main food description is the primary (usually generic) complete description identified by a unique 8-digit food code. The food code links the description to information in the nutrient file.

Table 1. Format of main food descriptions file†

| Field Name | Type | Description |
|-------------------------|----------------|---|
| Food code‡ | N 8* | a unique 8-digit number assigned to a given main food description |
| Start date | D (MM/DD/YYYY) | start and end dates indicate the time period for the value |
| End date | D (MM/DD/YYYY) | |
| Main food description | A 200 | a complete description for the food, often including preparation method (e.g., boiled) and original form of the food (e.g., from frozen); usually generic in nature |
| Abbreviated description | A 60 | a shortened description of the food |

†See [table 4, Key to Tables](#) for an explanation of the abbreviations and symbols used in this table.

FNDDS nutrient values (FNDDSNutVal)

This file provides Vitamin A (mcg RAE) and Vitamin E (mg AT) values for each food code.

Table 2. Format of FNDDS nutrient values file†

| Field Name | Type | Description |
|-------------------|-----------------|--|
| Food code‡ | N 8* | a unique 8-digit number assigned to each main food description |
| Nutrient code‡ | N 5* | identifies a nutrient |
| Start date | D (MM/DD/YYYY)* | start and end dates indicate the time period for the value |
| End date | D (MM/DD/YYYY) | |
| Nutrient value | N 10 | amount of nutrient in 100 grams edible portion of the food |

†See [table 4, Key to Tables](#) for an explanation of the abbreviations and symbols used in this table.

Nutrient descriptions (NutDesc)

This file contains the names (nutrient descriptions) and codes for nutrients included in the FNDDS Nutrient Values file. The nutrient codes, nutrient descriptions, units of expression, and number of decimal places to which values are expressed are consistent with similar fields in the SR.

Table 3. Format of nutrient descriptions file†

| Field Name | Type | Description |
|----------------------|----------------|--|
| Nutrient code‡ | N 5* | identifies a nutrient |
| Start date | D (MM/DD/YYYY) | start and end dates indicate the time period for the value |
| End date | D (MM/DD/YYYY) | |
| Nutrient description | A 45 | the description for the nutrient code |
| Tagname | A 15 | the nutrient or food component name or “tag” assigned by INFOODS, the International Network of Food Data Systems, for international interchange of nutrient data |
| Unit | A 10 | the measurement unit in which values for the nutrient are expressed |
| Decimals | N | the number of decimal places to which the nutrient value is expressed; varies from nutrient to nutrient |

†See [table 4, Key to Tables](#) for an explanation of the abbreviations and symbols used in this table.

Key to Tables

This key (Table 4) defines abbreviations and symbols used in tables 1 to 3, which outline the format of each file in the database.

Table 4. Key to abbreviations and symbols used in tables 1 to 3

| Abbreviation or symbol | Meaning | Additional information |
|-------------------------------|---|--|
| N #.# | numeric field | Number (shown here as #) following field type indicates field length; number after decimal point indicates number of decimal places. |
| A # | alphanumeric field | Number (shown here as #) following field type indicates field length |
| D (MM/DD/YYYY) | date field | For this database, all start and end dates are the same (01/01/1999 and 12/31/2000). |
| * | indexed field (holds values by which the file is ordered) | |
| ‡ | linking field | Used to indicate links within the database |