USDA National Fluoride Database of Selected Beverages and Foods, Release 2

Prepared by

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in collaboration with

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Disclaimers

Mention of trade names, commercial products, or companies in this publication is solely for the purpose of providing specific information and does not imply recommendation or endorsement by the U.S. Department of Agriculture over others not mentioned.

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Introduction

Assessment of fluoride intake is paramount in understanding the mechanisms of fluoride metabolism specifically the prevention of dental caries, dental fluorosis, and skeletal fluorosis. The Institute of Medicine (IOM, 1997) specified Adequate Intakes (AI) of 0.01 mg/day for infants through 6 months, 0.05 mg/kg/day beyond 6 months of age, and 3 mg/day and 4 mg/day for adult women and men (respectively), to prevent dental caries. Upper limits (UL) of 0.10 mg/kg/day in children less than 8 years and 10 mg/day for those older than 8 years are recommended for prevention of dental fluorosis. Similar levels have been endorsed by the American Dental Association (ADA, 1994) and the American Dietetic Association (ADA, 2000). Fluoride works primarily via topical mechanisms to inhibit demineralization, to enhance remineralization, and to inhibit bacteria associated with tooth decay (Featherstone, 2000). Fluoride has an affinity for calcified tissues. Studies of exposure and bone mineral density, fractures and osteoporosis would benefit from a national fluoride database coupled with an intake assessment tool (Phipps, 1995; Phipps et al., 2000). Therefore, a database for fluoride is needed for epidemiologists and health researchers to estimate the intakes and to investigate the relationships between intakes and human health.

The Nutrient Data Laboratory (NDL), Agriculture Research Service, USDA, coordinated the development of the USDA National Fluoride Database of Selected Beverages and Foods subsequently described as the National Fluoride Database--a critical element of the comprehensive multi-center National Fluoride Database and Intake Study (NFDIAS). This second release of the USDA National Fluoride Database includes a column with mean values reported in parts per million, some data changes, and some new data resulting from aggregations of the Jackson (Jackson et. al., 2002) data and new data from University of Minnesota(UMN), Nutrition Coordinating Center and University of Iowa (Ulowa), College of Dentistry data (UMN-Ulowa) along with data from other literature and unpublished sources. These new aggregations have resulted in increases in the number of data points and in the number of studies resulting in tighter minimum to maximum values ranges, tighter lower and upper Error Bounds, and in some cases improved confidence codes. The National Fluoride Database has been incorporated into a computer-based fluoride assessment tool being developed by the University of Minnesota, Nutrition Coordinating Center (NCC), as a module of the Nutrition Data System for Research (NDS-R) software.

The National Fluoride Database is a comprehensive, nationally representative database of the fluoride concentration in foods and beverages consumed in the United States. It contains fluoride values for beverages, water, and foods that are major fluoride contributors. Water and water-based beverages are the chief source of dietary fluoride intake (Singer and Ophaug, 1984). Conventional estimates are that about 75% of dietary fluoride comes from water and water-based beverages. According to the Centers for Disease Control (CDC, 2000), in 2000 about 66% of the population on U.S.

public water systems are receiving water that is fluoridated naturally or by adding fluoride. Drinking water fluoride distributions may vary widely over geographical and geo-political boundaries (CDC, 1993). Variations occur with soil composition and with local political decisions to fluoridate water. The use of wells of varying depths, commercial water products, home water purifiers, and filtration systems also increase variability of fluoride in drinking water and complicate estimates of intake (Brown and Aaron, 1991; Robinson *et al.*1991; Van Winkle *et al.*, 1995). These variations in fluoride in commercial foods and beverages have been addressed in this National Fluoride Database.

Methods and procedures

Data Generation

The fluoride contents of the chief contributors to fluoride intake have been determined through a national sampling and analytical program developed by NDL under the National Food and Nutrient Analysis Program (NFNAP, Pehrsson et al., 2000). In this database, mean values for fluoride in a particular beverage or food come from different data sources. Analytical data for US samples from the scientific literature and unpublished analytical data from Jackson et al. (2002), Kingman (1984)- Levy et al. (1992-2003), and Ophaug (1983-1987) have been included as well as analytical data for 126 items developed specifically for this National Fluoride Database. NDL used the Key Foods approach (Haytowitz et al., 2000) giving consideration to the previously published fluoride data for foods, beverages, and drinking water as well as the respective patterns of consumption of these dietary items to identify and prioritize sampling and analysis of the key food and beverage contributors of dietary fluoride. Consumption data from the 1994-96 USDA Continuing Survey of Food Intakes by Individuals and a preliminary fluoride database developed by the NCC provided the values for the initial evaluation. Mean estimates of fluoride concentration and variability in drinking water, beverages and foods that are the chief contributors to dietary fluoride in the United States have been developed from analysis of representative samplings.

High priority beverages which collectively contribute up to 80% of dietary fluoride consumed in the United States, including municipal (tap)/drinking and bottled waters, teas, carbonated beverages, beers, and ready-to drink juices and drinks were analyzed. Samples were collected according to a self-weighting, nationally representative sampling approach (Bellow *et al.*, 2002). Samples were collected in up to 144 locations across the country, depending on the level of contribution to fluoride intake. Since drinking water accounts for approximately 75% of dietary fluoride intake, sampling of drinking water was conducted, with Office of Management and Budget approval, in 144 nationally representative private residential locations nationwide (Pehrsson *et al.*, 2004). The distribution of fluoride does vary due to naturally occurring fluoride levels and local fluoridation practices. The use of well water, commercial bottled waters, home purifiers and filter systems also affects variability in fluoride content of drinking water and impacts on estimates of daily intakes for individuals. NDL contacted water suppliers about their fluoridation practices and these were compared to participant responses

(Wilger *et al.*, 2004). Differences in geographical location have been incorporated into the National Fluoride Database for drinking water, brewed tea, and carbonated sodas.

Retail samples of fruit juices, fruit-flavored beverages, carbonated beverages, bottled water, and a limited number of foods were picked up in 12 to 36 locations. The authors' assumption that the fluoride variability would be lower in processed beverages and foods than that of municipal water was made based on existing data and the results of the water pilot study (Miller-Ihli *et al.*, 2003), and hence fewer samples.

The procurement and sample preparation of the foods and beverages that are the chief contributors of fluoride were handled through NFNAP supervised contracts and agreements. Sample units were purchased at retail sites, following detailed instruction from NDL. Virginia Polytechnic Institute and State University, Food Analysis Laboratory Control Center (FALCC) handled sample preparation. A quality control (QC) oversight program was established by the NFDIAS Laboratory Methods/Quality Control Working Group with representation from NDL, the University of Iowa, and FALCC. NFDIAS quality control materials were prepared by the USDA, Food Composition Laboratory (FCL) and by the NDL and characterized by three cooperating laboratories.

The University of Iowa, College of Dentistry, conducted the laboratory analysis of fluoride. Samples were analyzed using a fluoride ion-specific electrode direct read method for clear liquids and a micro-diffusion method for other food samples. The direct reading method was validated using Certified Reference Material (National Institute of Standards and Technology (NIST), a Standard Reference Material (SRM) 2671a, Fluoride in Freeze-Dried Urine) and by a comparison of results for several beverage samples between University of Iowa and FCL (Patterson *et al.*, 2004). The micro-diffusion method was validated by analysis of a Certified Reference Material (National Research Centre for Certified Reference Materials, Beijing, China, GBW 08572 Prawns) and other reference materials that have reference values for the fluoride content (for example: NIST, SRM 8436), prior to sample analysis. Methodological procedures for analyzing carbonated beverages were developed at the University of Iowa and presented at the March 2004 International Association for Dental Research (IADR) Meeting (Heilman *et al.*, 2004).

Values in the database are reported on a 100 gram and on a ppm basis on the edible portion of a food. For some foods, no standard error was available from the literature source. Much of the literature data as well as the analytical data reported by the University of Iowa were reported on a ppm basis. Specific gravities needed for fluoride data conversion and migrations were obtained from VPI. Specific gravities for literature data were based on the specific gravities obtained from VPI, from other sources (manufacturer), or were determined by NDL. Values for beverages other than water, coffee and tea were adjusted by their respective specific gravities and are reported as served.

Fluoride analytical results were submitted to the NFDIAS Quality Control (QC) Panel for review. These data included beer, wine, drinking water, brewed tea (considered

significant contributors to total intake of fluoride) and miscellaneous lower priority foods. The fluoride value for unsweetened instant tea powder seems high when reported at 89,772 mcgs/100 grams or 897.72 ppm because this product is extremely concentrated. However when one teaspoon of the unsweetened tea powder weighing 0.7 gram is added to an eight ounce cup of tap water, the value for prepared instant tea is 335 mcgs/100 grams or 3.35 ppm. This prepared unsweetened instant tea value compares well with the analytical values reported for regular brewed tea.

Data evaluation

Analytical data approved by the NFDIAS QC panel, unpublished data generated by the University of Iowa, and data gathered from the published literature by NCC and NDL were entered into the USDA National Nutrient Databank System (NDBS) for further evaluation and compilation. The data were evaluated for quality using procedures developed by scientists at the NDL as part of the NDBS (Holden, et al., 2002). These procedures were based on categories and criteria described earlier by Holden, et al. (1987) and Mangels, et al. (1993) with some modifications. Categories evaluated include: sampling plan, sample handling, number of samples, analytical method, and analytical quality control. The evaluation process was modified making it specific to fluoride analytical methods. Evaluation of the analytical method has two facets: the method itself (processing of samples, analysis and guantitation method) and validation and quality control of the method by the laboratory (accuracy and precision). Both the NFNAP analytical data and data from each manuscript were evaluated for each category, which then received a rating ranging from 0 to 20 points. The ratings for each of the five categories were summed to yield a Quality Index or QI-the maximum possible score is 100 points. The Confidence Code (CC) was derived from the QI and is an indicator of relative quality of the data and the reliability of a given mean. The CC is assigned as follows:

QI	CC
75 -100	А
74 - 50	В
49 - 25	С
< 25	D

Format of the table

The table contains fluoride values for 427 foods across 23 food groups. The data were aggregated where possible to match the foods in the USDA National Nutrient Database for Standard Reference (SR). Food groups are presented in alphabetical order with beverages and foods arranged in alphabetical order within a food group. Whenever possible, a NDB Number (No.) (a five digit numerical code used in the SR) is provided. This NDB No. provides the link between values for foods in this database and SR. As the data come from a variety of sources or are presented with specificity not used in SR, there are a number of beverages and foods, which do not have NDB Nos but do have

separate identifiers. In these cases, we assigned a temporary NDB No. which begins with "975." These temporary NDB Nos. are not unique to these beverages and foods and may be used in other special interest databases produced by NDL.

Field Name	Description
Food Group	Description of food group
Item	Description of food or beverage
Mean ppm	Amount in parts per million.
Mean mcg/100 g	Amount in 100 grams, edible portion
Std Error	Standard error of the mean. Null, if could not be calculated
Ν	Number of data points (samples analyzed). The N=1 on NFNAP data represents a composite of 12 samples
Min	Minimum value
Max	Maximum value
Lower EB	Lower 95% error bound
Upper EB	Upper 95% error bound
CC	Confidence code indicating data quality based on evaluations of sample plan, sample handling, analytical method, analytical quality control, and number of samples analyzed
Derivation Code	Code giving specific information on how the value was determined: A = Analytical data RPA = Recipe; Known formulation; No adjustments applied, combination of source codes 1, 12 and/or 6 RPI = Recipe; Known formulation; No adjustments applied, combination of source codes which includes codes other than 1, 12 or 6
Source Code	Code indicating type of data 1 = Analytical or derived from analytical 6 = Aggregated data involving combinations of source codes 1 & 12 12 = Manufacturer's analytical; partial documentation
Statistical Comments	 The displayed summary statistics were computed from data containing some less-than values. Less- than, trace, and not detected values were calculated The displayed degrees of freedom were computed using Satterthwaite's approximation (Korz and

The fields are as follows:

Johnson, 1988)

	 The procedure used to estimate the reliability of the generic mean requires that the data associated with each study be a simple random sample from all the products associated with the given data source (for example, manufacturer, variety, cultivar,
	and species)
	4. For this nutrient, one or more data sources had only one observation. Therefore, the standard errors, degrees of freedom and error bounds were computed from the between-group standard deviation of the weighted groups having only one study observation.
NDB No.	5-Digit Nutrient Databank number that uniquely identifies a food item.
No. of Studies	Number of studies
References	Unique descriptions of the references/sources

Data dissemination

The USDA National Fluoride Database of Selected Beverages and Foods, Release 2 is presented as a pdf file. Adobe Acrobat Reader® is needed to view the report of the database. A Microsoft Excel spreadsheet is also available (fluoride.xls). A compressed file (fluoride.zip) containing the complete database in the ASCII format and its documentation has also been prepared and is available for downloading from NDL's Web site (<u>http://www.ars.usda.gov/ba/bhnrc/ndl</u>). The user can download the database, free of charge, onto his/her own computer for use with other programs.

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ood Group	Item	Mean	Mean	Std Error	Num	Min Value	Max Value	Lower 95%	Upper 95%	Confidence Code	Derv. Code	Source Code	Statistical	NDB	No. of Studies	References
		ppm	mcg/ 100g	Enor	datapts	value	value	95% EB	95% EB	Code	Code	Code	Comments	No.	Studies	
aby Foods:			**		_									_		
	Cereal, mixed, with applesauce and bananas, junior	0.01	1	0.1	3	1	1			С	Α	1		03188	1	Levy 1992-2003
	Cereal, oatmeal, with applesauce and bananas, junior	0.08	8		2	2	14			С	Α	1		03192	1	Levy 1992-2003
	Cereal, rice, with applesauce and bananas, strained	0.16	16		2	2	31			С	Α	1		03195	1	Levy 1992-2003
	Cereal, rice, with mixed fruit, junior	0.03	3		1	3	3			С	Α	1		03210	1	Levy 1992-2003
	Dessert, custard pudding, vanilla, junior	0.04	4		2	4	4			С	Α	1		03246	1	Levy 1992-2003
	Dessert, dutch apple, junior	0.02	2	0.3	3	1	2	0	3	С	Α	1		03221	1	Levy 1992-2003
	Dessert, fruit dessert, junior	0.18	18	9.7	5	2	45	0	45	С	Α	1		03236	1	Levy 1992-2003
	Dessert, peach cobbler, junior	0.08	8	6.4	4	2	28	0	48	С	Α	1		03228	1	Levy 1992-2003
	Dinner, chicken noodle, junior	0.29	29	9.8	5	11	60			С	Α	1		03069	1	Levy 1992-2003
	Dinner, macaroni and cheese, junior	0.06	6		2	5	7			С	Α	1		03090	1	Levy 1992-2003
	Dinner, spaghetti, tomato, meat, junior	0.02	2		1	2	2			С	Α	1		03050	1	Levy 1992-2003
	Dinner, turkey and rice, junior	0.20	20	8.7	4	9	46	6	16	С	Α	1		03083	1	Levy 1992-2003
	Dinner, vegetables and beef, junior	0.21	21	11.4	4	2	45	0	57	С	Α	1		03054	1	Levy 1992-2003
	Dinner, vegetables and ham, junior	0.14	14	9.6	4	0	42	0	44	С	Α	1		03062	1	Levy 1992-2003
	Dinner, vegetables and turkey, junior	0.08	8	2.6	3	5	13	0	19	С	Α	1		03085	1	Levy 1992-2003
	Fruit, apple and blueberry, junior	0.01	1		2	1	2			С	Α	1		03165	1	Levy 1992-2003
	Fruit, applesauce, junior	0.02	2	1.4	3	1	5	0	8	С	Α	1		03117	1	Levy 1992-2003
	Fruit, applesauce, strained	0.01	1		2	1	1			С	Α	1		03116	1	Levy 1992-2003
	Fruit, apricot with tapioca, junior	0.00	0		1	0	0			С	Α	1		03128	1	Levy 1992-2003
	Fruit, bananas, pineapple with tapioca, junior	0.16	16		2	2	29			С	Α	1		03156	1	Levy 1992-2003
	Fruit, bananas with tapioca, junior	0.36	36		2	33	40			С	Α	1		03280	1	Levy 1992-2003
	Fruit, mango with tapioca, strained	0.12	12		1	12	12			C	Α	1		03140	1	Levy 1992-2003
	Fruit, peaches with sugar, strained	0.00	0		2	0	1			C	Α	1		03130	1	Levy 1992-2003
	Fruit, peaches, junior	0.03	3	1.2	4	1	6	0	6	C	Α	1		03131	1	Levy 1992-2003
	Fruit, pears and pineapple, junior	0.01	1		2	1	2			С	Α	1		03159	1	Levy 1992-2003
	Fruit, pears, junior	0.09	9	4.7	4	0	17	0	29	C	Α	1		03133	1	Levy 1992-2003
	Fruit, pears, strained	0.01	1		2	1	1	-		C	Α	1		03132	1	Levy 1992-2003
	Fruit, plums with tapioca, junior	0.34	34		2	20	49			C	Α	1		03135	1	Levy 1992-2003
	Fruit, prunes, without Vitamin C, strained	0.02	2		2	2	2			C	A	1		03139	1	Levy 1992-2003
	Juice, apple	0.13	12	2.9	6	5	22	0	55	C	A	1		03166	1	Levy 1992-2003
	Juice, apple and cherry	0.70	67	16.1	8	11	133	0	170	B	A	1		03268	1	Levy 1992-2003
	Juice, apple and grape	0.47	45	13.1	4	27	83	0	122	C	A	1		03265	1	Levy 1992-2003
	Juice, apple and peach	0.20	19	9.4	8	4	69	Ŧ		B	A	1		03168	1	Levy 1992-2003
	Juice, apple and prune	0.14	13		2	12	14			C	A	1		03171	1	Levy 1992-2003
	Juice, apple-cranberry	0.10	10		1	10	10			C	A	1		03169	1	Levy 1992-2003
	Meat, beef, junior	0.02	2	1.0	3	0	3	0	6	C	A	1		03003	1	Levy 1992-2003
	Meat, ham, junior	0.03	3		2	1	5	Ű	Ű	C	A	1		03009	1	Levy 1992-2003
	Meat, lamb, junior	0.10	10		2	5	14			C	A	1		03011	1	Levy 1992-2003
	Meat, turkey, junior	0.44	44		2	21	66			C	A	1		03016	1	Levy 1992-2003
	Vegetables and bacon, junior	0.03	3		1	3	3			c	A	1		03060	1	Levy 1992-2003
	Vegetables, carrots, strained	0.00	1		2	1	1			c	A	1		03099	1	Levy 1992-2003
	Vegetables, carrots, junior	0.12	12	6.9	5	1	35	0	31	c	A	1		03100	1	Levy 1992-2003
	Vegetables, corn, creamed, junior	0.12	32	0.0	2	32	32	5		C	A	1		03120	1	Levy 1992-2003
	Vegetables, green beans, junior	0.32	12	3.1	5	4	21	0	17	C	A	1		03092	1	Levy 1992-2003
	Vegetables, green beans, strained	0.12	12	0.1	2	15	16	0	. /	C C	A	1		03092	1	Levy 1992-2003
	Vegetables, peas, strained	0.10	25		2	23	28			C C	A	1		03091	1	Levy 1992-2003
	Vegetables, squash, junior	0.25	5	2.2	4	1	11	0	12	C C	A	1		03121	1	Levy 1992-2003
	Vegetables, squash, strained	0.03	1	2.2	2	1	1	U	12	C C	A	1		03103	1	Levy 1992-2003
	Vgetables, sweetpotatoes, junior	0.10	10	4.0	5	1	22	0	39	C C	A	1		03104	1	Levy 1992-2003
	Vegetables, sweetpotatoes, junior Vegetables, sweetpotatoes, strained	0.10	10	4.0	2	1	1	U	39	C C	A	4		03109	1	Levy 1992-2003

Food Group	Item	Mean ppm	Mean mcg/		Num datapts	Min Value	Max Value	Lower 95%	Upper 95%	Confidence Code	Derv. Code	Source Code	Statistical Comments	NDB No.	No. of Studies	References
			100g					EB	EB							
Baked produc	ts:		**													
	Biscuits, refrigerated dough, baked	0.26	26		9					С	A	1		18013 18015	1	Ophaug 1983-1987
	Bread, all (white and whole wheat)	0.49	49	2.2	44	28	67	44	54	С	A	1	4	18069 18075	5	Featherstone 1988 Jackson 2002 Kingman 1984 Ophaug 1983- 1987 Taves 1983
	Bread, rye	0.51	51		9					С	Α	1		18060	1	Ophaug 1983-1987
	Bread stuffing, prepared, baked	0.51	51		2					D	Α	1	4	18082	1	Taves 1983
	Brownie, with nuts	0.38	38		2	33.3	43.1			D	Α	1	4	97500	1	Jackson 2002
	Cake, all	0.22	22	1.9	29	18	26	16	28	С	A	1	4	97501	2	Ophaug 1983-1987 Taves 1983
	Cookies, without raisins, all	0.17	17	1.7	46	5	29	13	21	С	A	1	4	97502	6	Adair 1991 Featherstone 1988 Jackson 2002 Kingman 1984 Ophaug 1983-1987 Taves 1983
	Cookies, oatmeal raisin	0.69	69		2					D	Α	1		18184	1	Kingman 1984
	Cornbread	0.11	11		9					С	Α	1		18023	1	Ophaug 1983-1987
	Crackers, all	0.24	24	4.0	27	9	38	14	33	С	A	1	4	97503	4	Featherstone 1988 Kingman 1984 Ophaug 1983-1987 Taves 1983
	Doughnuts	0.26	26	2.2	15	18	34	20	32	С	A	1	4	97504	3	Jackson 2002 Kingman 1984 Ophaug 1983-1987
	Éclair, chocolate	0.13	13		2					D	Α	1		18257	1	Taves 1983
	Muffin, blueberry	0.39	39		9					С	Α	1		18274	1	Ophaug 1983-1987
	Pancakes, buttermilk, frozen	0.20	20		1					С	Α	1		18288	1	NFNAP
	Pie, apple, frozen, heated	0.13	13		9					С	Α	1		18301	1	Ophaug 1983-1987
	Pie, pumpkin, frozen, heated	0.32	32		9					С	Α	1		18326	1	Ophaug 1983-1987
	Rolls, hamburger and hot dog	0.25	25		3	23	30			С	Α	1	23	18350	1	NFNAP
	Snack type, cake roll	0.49	49		2	47	51			D	Α	1	4	97505	1	Jackson 2002
	Snack type, chocolate cup cake, cream filled	0.38	38		2	37	40			D	Α	1	4	97506	1	Jackson 2002
	Snack type, oatmeal cream pie	0.41	41		2	33	48			D	A	1	4	97507	1	Jackson 2002
	Tortillas, flour	0.33	33		1					С	Α	1		18364	1	NFNAP
	Waffles, frozen	0.18	18	3.7	5	7	26	8	28	D	A	1	4	18365 18932	1	Jackson 2002
Beef products					-				-						-	
	Beef, cooked and raw	0.22	22	5.2	57	4	72	11	34	С	A	1	4	97508	4	Featherstone 1988 Kingman 1984 Ophaug 1983-1987 Taves 1983
	Beef, liver, pan cooked with added fat	0.05	5		9					С	Α	1		13327	1	Ophaug 1983-1987

Food Group	Item	Mean ppm	Mean mcg/ 100g **	Error	Num datapts	Min Value	Max Value	Lower 95% EB	Upper 95% EB	Confidence Code	Derv. Code	Source Code	Statistical Comments	NDB No.	No. of Studies	References
Beverages:		0.45	45		1.10	-			50					4.4000	1	
	Alcoholic beverage, beer, light	0.45	45	2.3	142	7	92	41	50	A	A	1	23	14006	1	NFNAP
	Alcoholic beverage, beer, regular	0.45	44	2.5	102	6	80	39	49	A	A	1	23	14003	1	NFNAP
	Alcoholic beverage, distilled, all (gin, rum, vodka, whiskey), 80 proof	0.08	9		9					С	A	1		14037 14050	1	Ophaug 1983-1987
	Alcoholic beverage, wine, red	1.05	105	3.3	14	86	119	98	112	A	A	1	23	14050	1	NFNAP
		2.02	202	6.3	14	152	239	189	215	A	A	1	23	14096	1	NFNAP
	Alcoholic beverage, wine, white Carbonated, cola, cherry flavor	0.43	41	22.5	4	152	108	0	112	B	A	1	4	97624	1	UMN-UIowa 2004-2005
	Carbonated, cola, CICA-COLA, all regions	0.43	41	22.5	72	5	83	44	54	A	A	1	23	97516	1	NFNAP
	Carbonated, cola, COCA-COLA, air regions	0.31	49	5.7	16	9	79	34	58	A	A	1	23	97517	1	NFNAP
	Carbonated, cola, COCA-COLA, Nide-West	0.48	53	7.3	14	5	83	39	69	A	A	1	23	97518	1	NFNAP
	Carbonated, cola, COCA-COLA, Northeast Carbonated, cola, COCA-COLA, South				26	20	63 77	59 51		A		1			1	NFNAP
	Carbonated, cola, COCA-COLA, South Carbonated, cola, COCA-COLA, West	0.59	57 36	2.8 6.6	26 16	20	82	22	63 50	A	A	1	2 3 2 3	97519 97520	1	NFNAP
	Carbonated, cola, COCA-COLA, West Carbonated, cola, DIET COKE, all regions		60	5.2	36		82 99							97520		NFNAP
	Carbonated, cola, DIET COKE, all regions	0.60		5.2 9.9	36	1 10	99 99	49 45	71 92	A	A	1	23 23	97526	1	NFNAP
		0.69	69		8							-				
	Carbonated, cola, DIET COKE, Northeast	0.58	58	14.7		1	96	22	93	A	A	1	23	97528	1	NFNAP
	Carbonated, cola, DIET COKE, South	0.72	72	5.0	13	32	91	61	83	A	A	1	23	97529	1	NFNAP
	Carbonated, cola, DIET COKE, West	0.33	33	11.4	8	8	97	6	60	A	A	1	23	97530	1	NFNAP
	Carbonated, cola, DIET PEPSI, all regions	0.48	48	4.0	70	5	121	39	56	A	A	1	23	97521	1	NFNAP
	Carbonated, cola, DIET PEPSI, Mid-West	0.46	46	9.2	16	7	121	26	65	A	A	1	23	97522	1	NFNAP
	Carbonated, cola, DIET PEPSI, Northeast	0.46	46	11.0	14	7	107	22	70	A	Α	1	23	97523	1	NFNAP
	Carbonated, cola, DIET PEPSI, South	0.66	66	5.1	24	9	104	55	77	A	Α	1	23	97524	1	NFNAP
	Carbonated, cola, DIET PEPSI, West	0.25	25	4.6	16	5	78	15	35	A	Α	1	23	97525	1	NFNAP
	Carbonated, cola, fast food type, diet, without ice	0.78	78		2	67	89			С	Α	1	23	97509	1	NFNAP
	Carbonated, cola, fast food type, without ice	0.74	74		2	58	89			В	Α	1	23	97510	1	NFNAP
	Carbonated, cola, PEPSI, all regions	0.33	32	2.9	70	1	90	26	38	A	Α	1	23	97511	1	NFNAP
	Carbonated, cola, PEPSI, Mid-West	0.37	36	6.9	16	2	90	22	51	A	Α	1	23	97512	1	NFNAP
	Carbonated, cola, PEPSI, Northeast	0.28	27	7.0	14	5	74	11	42	A	Α	1	23	97513	1	NFNAP
	Carbonated, cola, PEPSI, South	0.47	45	3.9	24	5	65	37	53	A	Α	1	23	97514	1	NFNAP
	Carbonated, cola, PEPSI, West	0.14	13	2.1	16	1	32	8	17	A	Α	1	23	97515	1	NFNAP
	Carbonated, cola, PEPSI ONE, all regions	0.40	40	5.4	34	0	87	29	51	A	Α	1	23	97531	1	NFNAP
	Carbonated, cola, PEPSI ONE, Mid-West	0.47	47	11.2	8	0	80	21	74	A	Α	1	23	97532	1	NFNAP
	Carbonated, cola, PEPSI ONE, Northeast	0.31	31	13.0	7	2	87	0	63	A	Α	1	23	97533	1	NFNAP
	Carbonated, cola, PEPSI ONE, South	0.56	56	9.1	11	0	82	36	77	A	Α	1	23	97534	1	NFNAP
	Carbonated, cola, PEPSI ONE, West	0.18	18	4.4	8	5	37	7	28	A	Α	1	23	97535	1	NFNAP
	Carbonated, cream soda	0.37	35		1					С	Α	1		14130	1	UMN-UIowa 2004-2005
	Carbonated, ginger ale	0.70	69	7.8	8	45	91	49	89	С	A	1	4	14136	3	Jackson 2002 Schultz 1976 Taves 1983
	Carbonated, grape soda	0.91	86	5.9	14	58	109	72	101	С	A	1	4	14142	3	Jackson 2002 Schultz 1976 Stannard 1991
	Carbonated, lemon-lime, fast food type, without ice	0.67	64		2	59	69			С	Α	1	23	97536	1	NFNAP
	Carbonated, lemon-lime, SPRITE, all regions	0.50	48	4.0	36	4	81	39	56	A	Α	1	23	14145	1	NFNAP
	Carbonated, lemon-lime, SPRITE, Mid-West	0.49	47	8.2	8	7	77	27	66	A	A	1	2 3	97537	1	NFNAP
	Carbonated, lemon-lime, SPRITE, Northeast	0.50	48	11.8	7	4	81	19	77	A	A	1	2 3	97538	1	NFNAP
	Carbonated, lemon-lime, SPRITE, South	0.61	59	3.6	13	35	76	52	67	A	A	1	2 3	97539	1	NFNAP
	Carbonated, lemon-lime, SPRITE, West	0.30	29	8.9	8	9	82	8	50	A	A	1	23	97540	1	NFNAP
	Carbonated, lemon-lime, other brands	0.43	42	9.1	25	2	100.7	23	61	В	A	1	1 4	14144	4	Featherstone 1988 Jackson 2002 Schultz 1976 UMN-Ulowa 2004-2005
			1	1		1			1	1	1					

Food Group	ltem	Mean ppm	Mean mcg/ 100g	Std Error	Num datapts	Min Value	Max Value	Lower 95% EB	Upper 95% EB	Confidence Code	Derv. Code	Source Code	Statistical Comments	NDB No.	No. of Studies	References
	Carbonated, orange soda	0.84	81	3.5	31	57	101	73	88	С	A	1	4	14150	4	Featherstone 1988 Heilman 1999 Jackson 2002 Schultz 1976
	Carbonated, pepper type, DR. PEPPER	0.37	36	19.0	54	3	99	0	85	В	A	1	14	14153	3	Heilman 1999 Schultz 1976 UMN- Ulowa 2004-2005
	Carbonated, root beer	0.73	71	11.4	13	6	122	45	96	С	A	1	4	14157	4	Jackson 2002 Shannon 1977 Schultz 1976 UMN-Ulowa 2004-2005
	Carbonated, tonic water	0.84	83		2	48	117			D	Α	1	4	14155	1	Shannon 1977
	Carbonated, water, fruit-flavored	1.05	105	4.5	8	89	121	94	115	С	Α	1	4	97541	1	Levy 1992-2003
	Chocolate-flavor beverage, mix for milk, powder	0.05	5		2					D	A	1		14175 14557	1	Kingman 1984
	Chocolate-flavor beverage, YOO-HOO, ready-to-drink	0.87	84		1					D	Α	1		97626	1	Schultz 1976
	Cocoa mix, SWISS MISS, powder, prepared with water	0.56	48		2	3.45	93.1			В	A	1	14	14194	1	UMN-UIowa 2004-2005 #
	Coffee, brewed	0.91	91		3	81	110			В	Α	1	23	14209	1	NFNAP #
	Coffee, brewed, decaffeinated	0.52	52	28.2	5	0	134	0	131	В	A	1	4	14201	1	UMN-UIowa 2004-2005 #
	Coffee, substitute, cereal grain beverage, prepared with water	1.25	125		1					С	A	1		14237	1	UMN-UIowa 2004-2005 #
	Cranberry juice cocktail, ready-to-drink and prepared concentrate, ready-to- drink	0.71	67	7.5	79	3.81	181	52	83	В	A	1	4	14242 14431	5	Kiritsy 1996 Levy 1992-2003 Stannard 1991 Taves 1983 UMN-Ulowa 2004-2005
	Cranberry-apple juice drink, ready-to-drink and prepared concentrate, ready-to-drink	0.87	83	8.7	18	5.714	164.8	64	101	С	Α	1	4	14238	2	Levy 1992-2003 Stannard 1991
	Cranberry-grape juice drink, ready-to-drink and prepared concentrate, ready-to-drink	0.68	65	12.7	10	9.524	114.3	36	94	В	A	1	4	14241	2	Levy 1992-2003 UMN-UIowa 2004-2005
	Cranberry-raspberry juice drink, ready-to-drink and prepared concentrate, ready-to-drink	0.73	69	8.8	18	6	125	51	88	В	A	1	4	97627	3	Levy 1992-2003 Stannard 1991 UMN-Ulowa 2004-2005
	Cranberry juice cocktail and blends, light, ready-to-drink	0.71	70	10.1	11	13	102	48	93	С	A	1	4	14243 43404	1	Levy 1992-2003
	Fruit drink, CAPRI-SUN, ready-to-drink	0.74	71	2.5	129	12	110	66	76	A	Α	1	23	14272	1	NFNAP
	Fruit drink, HAWAIIAN PUNCH, ready-to-drink	0.46	44	10.1	15	4	98	23	66	В	Α	1	4	97543	1	Levy 1992-2003
	Fruit drink, HI-C, ready-to-drink	0.23	22	2.0	58	4	76	18	26	A	Α	1	123	97544	1	NFNAP
	Fruit drink, MINUTE MAID punch, ready-to-drink	0.18	17	2.0	9	8	27	13	22	С	A	1	4	97545	1	Levy 1992-2003
	Fruit drink, other brands, ready-to-drink Fruit drink, punch, low calorie, ready-to-drink	0.57	54 11	5.4	30 2	10 9	108 12	43	65	B	A	1	4	14264 97628	1	Levy 1992-2003 UMN-Ulowa 2004-2005
	Fruit flavored drink, prepared from powder	0.11	42	17.3	10	2	93	0	90	C	A	1	4	14541	1	Featherstone 1988
	Fruit flavored drink, prepared from powder Fruit flavored drink, prepared from powder, sugar free	0.40	17	3.1	3	11	21	4	30	В	A	1	4	47011	1	UMN-UIowa 2004-2005 #
	Fruit flavored drink, KOOL-AID, ready-to-drink	0.45	43	9.8	18	3	103	22	63	В	А	1	4	14178 14276	1	Levy 1992-2003
	Fruit flavored drink, SUNNY DELIGHT, ready-to-drink	0.71	68	2.5	11	56	83	63	74	С	А	1	4	14435	1	Levy 1992-2003
	Fruit juice drink, apple, ready-to-drink	1.09	104		1	-			1	D	A	1		97546	1	Stannard 1991
	Fruit juice drink, blends (not cranberry), ready-to-drink	0.51	49	7.5	8	22	80	31	67	С	A	1	4	14122 14327 14334 14341	1	Levy 1992-2003

Food Group	Item	Mean	Mean	Std	Num	Min	Max	Lower	Upper	Confidence	Derv.	Source	Statistical	NDB	No. of	References
		ppm	mcg/	Error	datapts	Value	Value	95%	95%	Code	Code	Code	Comments	No.	Studies	
			100g					EB	EB							
	Fruit juice drink, FIVE ALIVE, ready-to-drink	0.08	8	0.3	3	8	9	7	10	С	Α	1	4	97547	1	Levy 1992-2003
	Fruit juice drink, grape, ready-to-drink	0.33	32	21.2	3	9	74	0	123	С	Α	1	4	14282	1	Levy 1992-2003
	Fruit juice drink, orange, ready-to-drink	0.57	55		2	19	90			С	Α	1	4	42270	2	Levy 1992-2003
																Stannard 1991
	Lemonade, ready-to-drink	0.16	16	3.6	54	3	80	8	23	С	Α	1	4	97548	5	Adair 1991
																Jackson 2002 Kiritsy
																1996 Levy
																1992-2003 Ophaug
																1983-1987
	Orange-flavor drink, breakfast type, powder	0.19	19		2					D	Α	1		14407	1	Kingman 1984
	Tea, black, brewed, microwave, all	3.22	322	4.9	36	260	383	312	332	A	A	1	23	97549	1	NFNAP #
	Tea, black, brewed, microwave, Mid-West	3.19	319	10.1	8	272	358	295	343	В	A	1	23	97550	1	NFNAP #
	Tea, black, brewed, microwave, Northeast	3.09	309	13.0	7	264	374	277	340	B	A	1	23	97551	1	NFNAP #
	Tea, black, brewed, microwave, South	3.38	338	6.2	13	307	383	325	352	A	A	1	23	97552	1	NFNAP #
	Tea, black, brewed, microwave, West	3.10	310		8	260	354	285	335	B	A	1	23	97553		NFNAP # NFNAP #
	Tea, black, brewed, regular, all	3.73	373	6.2	63	257	533	360	385	A	A	1	23	14355	1	NFNAP # NFNAP #
	Tea, black, brewed, regular, Mid-West Tea, black, brewed, regular, Northeast	3.93 3.57	393 357	16.8 13.9	13 14	312 294	533 466	357 327	430 387	A	A	1	2 3 2 3	97558 97559		NFNAP #
	Tea, black, brewed, regular, Northeast Tea, black, brewed, regular, South	3.57	357	7.2	23	324	466	327	387	A	A	1	23	97559	1	NFNAP #
	Tea, black, brewed, regular, South Tea, black, brewed, regular, West	3.81	355	14.1	13	324 257	445	300	396	A	A	1	23	97560	1	NFNAP #
	Tea, black, decaffeinated, brewed, all	2.69	269	8.0	33	159	355	253	286	A		1	23	14352	1	NFNAP #
	Tea, black, decaffeinated, brewed, all Tea, black, decaffeinated, brewed, Mid-West	2.69	269	8.0	33 7	220	355	253	335	B	A	1	23	97554	1	NFNAP #
	Tea, black, decaffeinated, brewed, Northeast	2.93	293	17.2	7	220	342	240	318	B	A	1	23	97555	1	NFNAP #
	Tea, black, decaffeinated, brewed, Northeast	2.79	264	11.5	11	237	331	240	290	B	A	1	23	97556	1	NFNAP #
	Tea, black, decaffeinated, brewed, West	2.64	204	19.7	8	159	312	239	290	B	A	1	23	97556	1	NFNAP #
	Tea, green, brewed	1.15	115	11.5	23	34	247	91	138	C	A	1	4	97629	2	Chan 1996
	rea, green, breweu	1.15	115	11.5	23	34	247	91	130	C	~		4	97029	2	UMN-Ulowa 2004-2005
	Tea, green, decaffeinated, brewed	2.72	272	30.5	10	82	373	203	341	С	Α	1	4	97630	2	Chan 1996
		2.72	2.2	00.0	10	02	010	200	011	Ũ	~		·	01000	-	UMN-Ulowa 2004-2005
-	Tea, herbal, chamomile, brewed	0.13	13		1					С	Α	1		14545	1	UMN-UIowa 2004-2005 #
-	Tea, herbal, peppermint, brewed	0.90	9	1.7	10	2	14	5	13	D	A	1	4	97631	1	Chan 1996
-	Tea, iced, ARIZONA, ready-to-drink	1.23	123	6.3	21	84	191	110	136	A	A	1	23	14475	1	NFNAP
	Tea, iced, COOL NESTEA Natural Lemon, ready-to-drink	0.90	90	3.5	31	62	133	83	97	A	A	1	23	14137		NFNAP
	Tea, iced, LIPTON BRISK Lemon, ready-to-drink	0.72	72	4.8	63	38	207	63	82	A	A	1	23	14476	1	NFNAP
	Tea, instant, powder, unsweetened	897.72	####		1		_			С	Α	1		14366	1	NFNAP
	Tea, instant, powder, unsweetened, prepared with tap water	3.35	335								RPA	6		14367		
	Tea, instant, powder, with lemon and sugar	5.84	584		1					С	Α	1		14370	1	NFNAP
	Tea, instant, powder, with lemon and sugar, prepared with tap water	1.27	116								RPA	6		14371		
	Thirst guencher (sport drink), GATORADE, ready-to-drink	0.35	34		1					D	Α	1		14460	1	NFNAP
	Thirst quencher (sport drink), POWERADE, ready-to-drink	0.64	62		1					D	Α	1		14461	1	NFNAP
	V 8 SPLASH, juice drink, ready-to-drink	0.13	12		1					С	Α	1		14119	1	UMN-Ulowa 2004-2005
	Water, bottled, AQUAFINA	0.05	5	0.6	16	1	9	4	6	A	Α	1	23	14433	1	NFNAP
	Water, bottled, CALISTOGA	0.07	7		2					D	Α	1		14437	1	NFNAP
	Water, bottled, CRYSTAL GEYSER	0.24	24		4					D	Α	1		14438	1	NFNAP
	Water, bottled, DANNON	0.11	11	1.3	12	5	20	8	14	A	Α	1	23	14432	1	NFNAP
	Water, bottled, DANNON FLUORIDE TO GO	0.78	78		1					D	Α	1		14440	1	NFNAP
	Water, bottled, DASONI	0.07	7	1.2	20	2	19	4	9	A	А	1	23	14434	1	NFNAP
	Water, bottled, EVIAN	0.10	10	0.6	16	7	15	9	12	A	А	1	23	14559	1	NFNAP
	Water, bottled, NAYA	0.14	14		4					D	А	1		14439	1	NFNAP
	Water, bottled, PERRIER	0.31	31		1					D	Α	1		14384	1	Stannard 1990
	Water, bottled, POLAND SPRINGS	0.10	10		1					D	Α	1		14385	1	Stannard 1990
	Water, bottled, PROPEL FITNESS WATER	0.02	2		2					D	Α	1		14462	1	NFNAP
	Water, bottled, SARATOGA	0.20	20		1					D	Α	1		97572	1	Stannard 1990
	Water, bottled, VERYFINE FRUIT2O Water	0.06	6		2					D	Α	1		97573	1	NFNAP

Food Group	Item	Mean		Std						Confidence						References
		ppm	0		datapts	Value	Value	95%	95%	Code	Code	Code	Comments	No.	Studies	
			100g					EB	EB							
	Water, bottled, VOLVIC	0.34	34		1					D	А	1		97574	1	Stannard 1990
	Water, bottled, store brand	0.16	16		11					С	Α	1		97575	1	NFNAP
	Water, frozen (ice), fast food type	0.11	11		3					В	Α	1	23	97576	1	NFNAP
	Waters, tap, all regions, all (includes municipal and well)	0.71	71	2.8	288	1	193	66	77	Α	Α	1	123	97577	1	NFNAP
	Waters, tap, all regions, municipal \$	0.81	81	2.9	238	2	193	75	86	Α	Α	1	123	14429	1	NFNAP
	Waters, tap, all regions, well	0.26	26	4.8	50	1	162	17	36	A	Α	1	123	97578	1	NFNAP
	Waters, tap, Mid-West, all (includes municipal and well)	0.88	88	5.1	68	4	167	78	98	A	Α	1	123	97579	1	NFNAP
	Waters, tap, Mid-West, municipal \$	0.99	99	4.6	52	4	167	89	108	A	Α	1	123	97580	1	NFNAP
	Waters, tap, Mid-West, well	0.53	53	12.2	16	5	162	27	79	A	Α	1	123	97581	1	NFNAP
	Waters, tap, Northeast, all (includes municipal and well)	0.69	69	7.5	56	2	193	54	84	A	Α	1	123	97582	1	NFNAP
	Waters, tap, Northeast, municipal \$	0.74	74	7.7	52	2	193	58	89	A	Α	1	123	97583	1	NFNAP
	Waters, tap, Northeast, well	0.09	9	3.0	4	4	17	4	17	В	Α	1	123	97584	1	NFNAP
	Waters, tap, South, all (includes municipal and well)	0.76	76	4.6	100	1	191	67	86	A	Α	1	123	97585	1	NFNAP
	Waters, tap, South, municipal \$	0.93	93	4.0	80	9	191	85	101	A	A	1	23	97586	1	NFNAP
	Waters, tap, South, well	0.10	10	1.6	20	1	30	6	13	A	Α	1	123	97587	1	NFNAP
	Waters, tap, West, all (includes municipal and well)	0.47	47	4.8	64	3	135	38	57	A	A	1	123	97588	1	NFNAP
	Waters, tap, West, municipal \$	0.51	51	5.5	54	3	135	40	62	A	Α	1	123	97589	1	NFNAP
	Waters, tap, West, well	0.24	24	4.3	10	5	48	14	34	В	A	1	123	97590	1	NFNAP

Food Group	Item	Mean ppm	Mean mcg/ 100g	Error	Num datapts	Min Value	Max Value	Lower 95% EB	Upper 95% EB	Confidence Code	Derv. Code	Source Code	Statistical Comments	NDB No.	No. of Studies	
Breakfast cere	eals:															
	Corn flakes	0.17	17	3.3	15	8	22	6	27	С	A	1	4	08020 08022 08076 08246 08269	3	Kingman 1984 Ophaug 1983-1987 Taves 1983
	Farina, enriched, cooked	0.51	51	22.8	19	3	134	0	109	С	A	1	4	08113 08173	2	Featherstone 1988 # Ophaug 1983-1987 *
	Granola, with raisins	0.33	33		9					С	A	1		08220 08275 08284	1	Ophaug 1983-1987
	Grits, cooked	0.56	56	18.2	21	5	113	12	101	С	A	1	4	08091 08161	3	Featherstone 1988 # Ophaug 1983-1987 * Taves 1983 #
	Oatmeal, cooked	0.72	72	27.5	21	4	201	4	139	С	A	1	4	08121 08180	3	Featherstone 1988 # Ophaug 1983-1987 * Taves 1983 #
	Oatmeal, instant, flavored, prepared	0.50	50	10.4	9	16	88	26	74	С	Α	1	4	97591	1	Jackson 2002 #
	Oat rings	0.68	68	12.1	13	45	100	29	106	С	A	1	4	08013	3	Jackson 2002 Kingman 1984 Ophaug 1983-1987
	Presweetened, ready-to-eat	0.42	42	4.6	29	8	81	33	52	С	A	1	4	97592	4	Jackson 2002 Kingman 1984 Ophaug 1983-1987 Taves 1983
	Raisin bran	0.65	65	9.2	15	34	91	40	91	С	A	1	4	08026 08060 08061	4	Jackson 2002 Kingman 1984 Ophaug 1983-1987 Taves 1983
	Rice, ready-to-eat	0.19	19	1.4	17	14	23	14	23	С	A	1	4	08015 08025 08065 08066 08156 08348 08378	4	Jackson 2002 Kingman 1984 Ophaug 1983-1987 Taves 1983
	Rice and corn, lightly sweetened, ready-to-eat	0.31	31	1.2	4	27	33	27	35	D	Α	1	4	08259	1	Jackson 2002
	Wheat, ready-to-eat	0.27	27	8.0	17	8	53	5	50	С	A	1	4	08089 08147 08148 08157 08379 08384	3	Kingman 1984 Ophaug 1983-1987 Taves 1983
Cereal grains a											-					
ļ	Macaroni and spaghetti, cooked	0.07	7		9	7	7			С	A	1	4	20100 20121	1	Ophaug 1983-1987 *
ļ	Macaroni and spaghetti, uncooked	0.18	18	6.0	6	6	25	0	44	С	A	1	4	20099 20120	1	Kingman 1984
	Noodles, egg, cooked Rice, cooked	0.06	6 41	12.8	9 21	3	79	10	72	C C	A	<u>1</u> 1	4 4	20110 20045	1 3	Ophaug 1983-1987 * Featherstone 1988 # Ophaug 1983-1987 * Taves 1983 #

Food Group	Item	Mean ppm	Mean mcg/ 100g	Error	Num datapts	Min Value	Max Value	Lower 95% EB	Upper 95% EB	Confidence Code	Derv. Code	Source Code	Statistical Comments	NDB No.	No. of Studies	References
Dairy and egg	products: Butter	0.03	3	0.7	19	1	4	0	6	С	A	1	4	01001	3	Kingman 1984
		0.00	3	0.7	10		-	Ū	0	0			-	01001 01002 01145	5	Ophaug 1983-1987 Taves 1983
	Buttermilk	0.04	4		9					С	A	1		01088 01176	1	Ophaug 1983-1987
	Cheese, American, processed	0.35	35		9					С	A	1		01042 01046 01048 01147 01149 01150	1	Ophaug 1983-1987
	Cheese, cheddar	0.35	35		1					С	A	1		01009 01168 01169	1	NFNAP
	Cheese, cottage	0.32	32	9.4	21	6	82	9	55	С	A	1	4	01012 01013 01014 01015 01016	3	Featherstone 1988 Ophaug 1983-1987 Taves 1983
	Cream, fluid, half and half	0.03	3		9	3	3			С	A	1	4	01049 01050 01051 01052 01053 01054 01199	1	Ophaug 1983-1987
	Cream substitute, powdered	1.12	112		9					С	Α	1	4	01069	1	Ophaug 1983-1987
	Egg, cooked	0.05	5	0.6	66	2	12	4	6	С	A	1	4	01128 01129 01130 01131 01132	4	Featherstone 1988 Jackson 2002 Ophaug 1983-1987 Taves 1983
	Egg, raw	0.01	1		2					D	Α	1		01123	1	Kingman 1984
	Milk, chocolate	0.05	5	0.8	11	5	6	0	15	С	A	1	4	01102 01103 01104	2	Kingman 1984 Ophaug 1983-1987
	Milk, evaporated	0.08	8	1.1	19	4	12	6	11	С	A	1	4	01096 01097 01153 01177	2	Featherstone 1988 Ophaug 1983-1987
	Milk, 1%	0.03	3	0.4	4	2	4	1	4	В	Α	1	23	01082	1	NFNAP
	Milk, 2%	0.03	3	0.4	4	3	5	2	5	В	Α	1	23	01079	1	NFNAP
	Milk, skim	0.03	3	0.1	5	3	3	3	3	С	A	1	23	01085	1	NFNAP
	Yogurt, fruit, strawberry	0.09	9		9					С	A	1	4	01120 01121 01122	1	Ophaug 1983-1987
	Yogurt, plain, low-fat	0.12	12		9	12	12			С	A	1	4	01116 01117 01118 01119 01184 01187	1	Ophaug 1983-1987

Food Group	Item	Mean	Mean	Std	Num	Min	Max	Lower	Upper	Confidence	Derv.	Source	Statistical	NDB	No. of	References
		ppm	mcg/	Error	datapts	Value	Value	95%	95%	Code	Code	Code	Comments	No.	Studies	
			100g					EB	EB							
Fast foods:			**		_									_		
1 401 10040.	Chicken McNUGGETS, McDONALD'S	0.16	16		2	14	18			D	А	1	4	21229	1	Jackson 2002
	Dessert, DAIRY QUEEN, BLIZZARD	0.13	13	0.9	6	10	16	10	15	C	A	1	4	97593	1	Jackson 2002
	Dessert, WENDY'S, FROSTY	0.19	19		2	19	19			D	А	1	4	97594	1	Jackson 2002
	French fries, McDONALD'S	1.15	115		2	38	193			D	Α	1	4	21238	1	Jackson 2002
	Hamburger on roll, quarter pound patty, with condiments	0.28	28		9					С	Α	1		21202	1	Ophaug 1983-1987
	Pizza	0.31	31	8.1	11	20	47	0	66	С	Α	1	4	21224	2	Adair 1991
																Ophaug 1983-1987
	Shake	0.14	14		9					С	A	1		14347	1	Ophaug 1983-1987
	Steak and cheese sandwich	0.37	37		1		I			D	Α	1	4	21123	1	Adair 1991
Fats and oils:	he ·				-	F			r			1.			г.	
	Mayonnaise	0.09	9		9					С	A	1	4	04025 04026	1	Ophaug 1983-1987
	Margarine	0.05	5	3.6	11	2	9	0	51	С	A	1	4	04610	2	Ophaug 1983-1987 Taves 1983
	Margarine-like spread	0.25	25	9.1	6	5	62	1	48	С	Α	1	4	04128	1	Jackson 2002
	Salad dressing, mayonnaise type	0.04	4	0.4	4	3	4	0	9	C	A	1	4	04018	1	Kingman 1984
	Salad dressings	0.27	27	5.9	15	16	44	8	46	C	A	1	4	97595	2	Ophaug 1983-1987 Taves 1983
	Vegetable oil, corn	0.01	1		9					С	Α	1	4	04518	1	Ophaug 1983-1987
- infish and she	nellfish products:	0.01	<u> </u>		<u> </u>		1	1	1	Ŭ		1 '		01010		ophaug 1000 1001
	Crab, canned	2.10	210		1					С	Α	1		15141	1	NFNAP
	Fish, cooked (includes broiled and fried)	0.18	18	2.9	4	15	21	0	54	D	А	1	4	97596	1	Taves 1983
	Fish sticks, baked	1.34	134		9				-	С	Α	1		15027	1	Ophaug 1983-1987
	Shrimp, canned	2.01	201		1					С	Α	1		15152	1	NFNAP
	Shrimp, fried	1.66	166		9					С	Α	1		15150	1	Ophaug 1983-1987
	Tuna, light, canned in water	0.19	19		1					С	A	1		15121 15184	1	NFNAP
	Tuna, canned in oil, drained	0.31	31		9					С	Α	1		15119	1	Ophaug 1983-1987
														15124		
														15183		
														15185		
Fruits and fruit							1	1	r			1.			г	
	Apple, raw, with peel	0.03	3	0.7	1	_			-	C	A	1		09003	1	NFNAP
	Applesauce, sweetened	0.05	5	0.7	19	3	8	3	7	С	A	1	4	09020	2	Featherstone 1988 Ophaug 1983-1987
	Avocado, raw	0.07	7		9				L	С	Α	1		09037	1	Ophaug 1983-1987
	Bananas, raw	0.02	2		1				L	C	A	1		09040	1	NFNAP
	Cantaloupe, raw	0.01	1		9				<u> </u>	C	A	1		09181	1	Ophaug 1983-1987
	Cherries, sweet, raw	0.02	2		9					С	A	1	4	09070	1	Ophaug 1983-1987
	Cranberry sauce	0.02	2	0.0	2	_	4-			D	A	1		09081	1	Taves 1983
	Fruit cocktail, canned	0.09	9	3.0	12	5	15	0	22	С	A	1	4	09100	3	Adair 1991 Ophaug 1983-1987 Taves 1983
	Grapefruit, raw	0.01	1		9					С	А	1		09111	1	Ophaug 1983-1987
	Grapes, raw	0.08	8	4.8	13	1	27	0	21	c	A	1	4	09132	2	Jackson 2002
	Juice, apple, DOLE, ready-to-drink	0.61	58	6.9	22	15	127	43	72	A	A	1	23	09400	1	Ophaug 1983-1987 NFNAP
	Juice, apple, JUICY JUICE, ready-to-drink	0.50	48	6.5	30	9	145	34	61	A	A	1	23	09400	1	NFNAP
	Juice, apple, MINUTE MAID, ready to drink	0.29	28	2.8	32	8	81	22	33	A	A	1	23	09400	1	NFNAP
	Juice, apple, MOTT'S, ready-to-drink	0.29	28	3.3	28	8	60	22	35	A	A	1	2 3	09400	1	NFNAP
												1	4	09123	2	Levy 1992-2003
	Juice, grapefruit	0.46	45	5.9	40	1	115	33	57	В	A	1	4	09123	2	Taves 1983

Food Group	Item	Mean	Mean		Num	Min	Max	Lower	Upper			Source		NDB		References
		ppm	mcg/ 100g		datapts	Value	Value	95% EB	95% EB	Code	Code	Code	Comments	No.	Studies	
	Juice, grape, white	2.13	204	43.7	12	139	287	16	392	С	A	1	4	97600	2	Kiritsy 1996 Stannard 1991
	Juice, orange, frozen, concentrate	0.24	20		1					С	Α	1		09214	1	NFNAP
	Juice, orange, frozen, concentrate, prepared with tap water	0.61	58								RPI	6		09215		
	Juice, orange, DEAN, ready-to-drink	0.54	52	9.8	22	4	145	32	72	А	Α	1	123	09207	1	NFNAP
	Juice, orange, MINUTE MAID, ready-to-drink	0.32	31	2.8	51	3	72	26	37	A	Α	1	123	09207	1	NFNAP
	Juice, pinapple, canned	0.06	6	1.4	24	1	15	3	9	В	A	1	4	09409		Adair 1991 Featherstone 1988 Levy 1992-2003 Ophaug 1983-1987
	Juice, prune	0.62	60	23.5	21	17	115	0	135	С	A	1	4	09294	3	Kiritsy 1996 Ophaug 1983-1987 Stannard 1991
	Juice blend (apple and grape), JUICY JUICE grape, ready-to-drink	1.07	102	8.9	27	53	184	84	121	A	Α	1	23	97597	1	NFNAP
	Juice blend (apple, grape, and other juices), JUICY JUICE (berry, cherry, or punch), ready-to-drink	0.88	84	13.7	4	44	103	41	127	В	A	1	4	97632		UMN-Ulowa 2004-2005
	Juice blend (apple and grape), MOTT'S grape, ready-to-drink	0.28	27	3.2	18	10	60	20	33	A	A	1	23	97599	1	NFNAP
	Juice blend (apple, grape and pear), MINUTE MAID grape, ready-to-drink	0.45	43	4.4	25	10	100	34	52	A	A	1	23	97598		NFNAP
	Nectar, fruit	0.13	12	2.3	11	5	26	7	17	С	A	1	4	09403 09407 09408	1	Levy 1992-2003
	Peaches, canned	0.07	7	0.4	30	4	8	6	8	С	A	1	4	09241 09370	-	Adair 1991 Featherstone 1988 Jackson 2002 Kingman 1984 Ophaug 1983-1987 Taves 1983
	Peaches, raw	0.04	4		9					С	Α	1	4	09236	1	Ophaug 1983-1987
	Pears, raw	0.02	2	0.2	20	1	3	2	3	С	A	1	4	09252	3	Adair 1991 Featherstone 1988 Ophaug 1983-1987
	Pears, canned	0.08	8	1.3	20	2	11	4	11	С	A	1	4	09257 09374	3	Adair 1991 Featherstone 1988 Ophaug 1983-1987
	Pineapple, canned	0.04	4	1.1	11	2	5	0	9	С	A	1	4	09409	2	Jackson 2002 Ophaug 1983-1987
	Plums, dried (prunes), uncooked	0.04	4		9					С	Α	1	4	09291	1	Ophaug 1983-1987
	Plums, raw	0.02	2		9					С	Α	1	4	09279		Ophaug 1983-1987
	Raisins	2.34	234	L	1			L		С	A	1		09298	1	NFNAP
	Strawberries, raw	0.04	4	0.4	10	4	5	0	9	С	A	1	4	09316	2	Jackson 2002 Ophaug 1983-1987
	Watermelon, raw	0.01	1	0.3	11	1	2	0	3	С	A	1	4	09326	2	Jackson 2002 Ophaug 1983-1987
Lamb, veal and	d game:	-						-							-	
	Lamb chop, pan cooked with added fat	0.32	32		9					С	Α	1		17227		Ophaug 1983-1987
	Veal cutlet, breaded, pan cooked with added fat	0.21	21	15.1	11	6	36	0	212	С	A	1	4	17096		Ophaug 1983-1987 Taves 1983
	Veal, liver, pan cooked with added fat	0.05	5		9					С	Α	1		17204	1	Ophaug 1983-1987

Food Group	Item	Mean ppm	Mean mcg/ 100g **	Std Error	Num datapts	Min Value	Max Value	Lower 95% EB	Upper 95% EB	Confidence Code	Derv. Code	Source Code	Statistical Comments	NDB No.	No. of Studies	References
Legumes and	legume products:		1			1	-	1	1	.	-	1	T.	1	1	1
	Beans, baked, canned, with pork	0.54	54	13.0	11	41	67	0	219	С	A	1	4	16009		Kingman 1984 Ophaug 1983-1987
	Beans, mature, boiled	0.02	2	0.3	36	2	3	1	3	С	A	1	4	16032 16043 16072 16038	1	Ophaug 1983-1987 *
	Cowpeas common (blackeyes), boiled	0.03	3		9					С	Α	1	4	16063	1	Ophaug 1983-1987 *
	Peanut butter, creamy	0.03	3		1					С	Α	1	4	16098	1	NFNAP
	Peanuts, dry roasted, salted	0.16	16		9					С	Α	1	4	16090	1	Ophaug 1983-1987
Meals, entrees	s and sidedishes:															• • •
	Beef stew	0.57	57	3.7	10	47	68	46	67	D	Α	1	4	22905	1	Featherstone 1988
	Casserole, beef, tomato and pasta	0.67	67		2					D	Α	1	4	97601	1	Taves 1983
	Chicken potpie	0.58	58	5.0	13	48	75	44	71	С	A	1	4	22906	2	Jackson 2002 Ophaug 1983-1987
	Chicken and noodle casserole, homemade	0.16	16		9	16	16			С	Α	1		97602		Ophaug 1983-1987
	Chili con carni, beef and beans, canned	0.45	45		9					С	Α	1	4	22904		Ophaug 1983-1987
	Frozen meal, fried chicken, mashed potatoes, cornbread, and/or vegetable	0.48	48		9					С	A	1		97603	1	Ophaug 1983-1987
	Lasagna, homemade	0.18	18		9					С	Α	1	4	97604	1	Ophaug 1983-1987
	Lasagna, canned	0.54	54		2	30	78			D	Α	1	4	97633	1	Jackson 2002
	Macaroni and cheese, prepared from mix	0.33	33	5.8	23	11	51	18	47	С	A	1	4	97605	3	Featherstone 1988 Ophaug 1983-1987 Taves 1983
	Mashed potato and gravy	0.84	84		1					D	Α	1	4	97606	1	Adair 1991
	Meatloaf	0.30	30	3.4	19	18	40	21	38	С	A	1	4	97607	2	Featherstone 1988 Ophaug 1983-1987
	Spaghetti, with meat sauce	0.38	38	9.3	19	10	76	14	62	С	A	1	4	22401	2	Featherstone 1988 Ophaug 1983-1987
	Spaghetti, with sauce, no meat, canned	0.40	40	6.6	13	30	59	19	61	С	A	1	4	22914	3	Jackson 2002 Ophaug 1983-1987 Taves 1983
	Ravioli, CHEF BOYARDEE, beef, with meat sauce, canned	0.13	13		2	12	15			D	Α	1	4	22515	1	Jackson 2002
	Turkey, broccoli, cheese bake	0.28	28		2					D	Α	1	4	97608	1	Taves 1983
Nut and seed															-	
	Pecans	0.10	10		9					С	Α	1	4	12142	1	Ophaug 1983-1987
Pork products						I		1	1				I .		I	
	Bacon, cooked	0.34	34	5.3	17	15	60	21	46	С	A	1	4	10124	3	Jackson 2002 Ophaug 1983-1987 Taves 1983
	Bacon, raw	0.04	4		2					D	Α	1		10123	1	Kingman 1984
	Ham, cured, baked	0.20	20	6.0	16	4	30	1	39	С	A	1	4	10151	3	Kingman 1984 Ophaug 1983-1987 Taves 1983
	Pork, chop, baked	0.38	38		2	19	57		1	D	Α	1	4	97609	1	Jackson 2002
	Pork, roast, cooked	0.42	42	0.6	11	42	43	35	50	С	A	1	4	10188	2	Taves 1983 Ophaug 1983-1987

Food Group	Item	Mean ppm	Mean mcg/ 100g **	Error	Num datapts	Min Value	Max Value	Lower 95% EB	Upper 95% EB	Confidence Code	Derv. Code	Source Code	Statistical Comments	NDB No.	No. of Studies	References
Poultry produc		0.45	45		07	1 4	05	10	1 40		1.			07040		E (1) 1000
	Chicken, cooked (includes fried and roasted)	0.15	15	2.1	37	4	25	10	19	С	A	1	4	97610	3	Featherstone 1988 Jackson 2002 Ophaug 1983-1987
	Turkey, roast	0.21	21		2					D	A	1		05166 05200 05232 05256	1	Taves 1983
Sausages and	I luncheon meats:				i	ı.	•			-						
	Bologna, OSCAR MEYER	0.36	36	5.2	13	25	50	25	50	С	A	1	4	07007 07008 07960 07937 07959 07952 07010 07011	3	Jackson 2002 Kingman 1984 Ophaug 1983-1987
	Ham and cheese loaf	0.36	36		2	34	38			D	Α	1	4	07032	1	Jackson 2002
	Hot dogs, beef	0.48	48		1					С	Α	1		07022	1	NFNAP
	Sausage, pork	0.16	16	1.8	12	11	19	10	22	С	A	1	4	07064	2	Jackson 2002 Ophaug 1983-1987
	Sausage (includes salami, not hard)	0.41	41	10.2	11	31	51	0	170	С	A	1	4	97611	2	Ophaug 1983-1987 Taves 1983
Snacks:			1	1	1	1	1	1	-	-	1		1	1		
	Chips, corn and tortilla	0.52	52	3.3	18	43	71.4	44	60	С	A	1	4	19056	3	Jackson 2002 Kingman 1984 Ophaug 1983-1987
	Popcorn, oil popped	0.06	6	2.3	11	4	9	0	35	С	A	1	4	19035	2	Kingman 1984 Ophaug 1983-1987
	Potato chip	0.61	61	7.0	16	30	86	45	78	С	A	1	4	19411	2	Jackson 2002 Ophaug 1983-1987
	Potato chip, baked	1.06	106	15.5	4	60	131	56	155	D	Α	1	4	42283	1	Jackson 2002
Soups, sauces			r	1	1	1	1	1	-	T	T		1	1	1	
	Sauce, cheese	0.29	29		2		-			D	A	1		06930	1	Kingman 1984
	Sauce, pizza, canned Sauce, spaghetti, canned	0.10	10 22	6.5	2 12	5	58	6.0224	37.91	D C	A	1	4	97635 06931	1 2	Kingman 1984 Featherstone 1988 Jackson 2002
	Sauce, tartar	0.30	30		2		-			D	А	1	4	97612	1	Taves 1983
	Sauce, white	0.00	4		9					C	A	1	4	06166	1	Ophaug 1983-1987
	Gravy, beef	0.99	99		1					C	A	1	-	06116	1	NFNAP
	Gravy, brown, prepared from mix	0.57	57	20.9	19	10	120	3	111	С	A	1	4	97613	2	Featherstone 1988 # Ophaug 1983-1987 *
	Soup, beef bouillon, canned, reconstituted	0.29	29		9					С	Α	1	4	97614	1	Ophaug 1983-1987 *
	Soup, chicken broth	0.61	61		1					С	Α	1	4	06413	1	NFNAP
	Soup, chicken noodle, canned, reconstituted	0.35	35	7.0	19	14	55	17	53	С	A	1	4	06419	2	Featherstone 1988 # Ophaug 1983-1987 *
	Soup, clam chowder	0.36	36		2					D	Α	1	4	97615	1	Taves 1983
	Soup, corn chowder	1.32	132		1				L	D	Α	1	4	06725	1	Adair 1991
	Soup, minestrone	0.86	86		2					D	A	1		97616	1	Taves 1983
	Soup, pea	0.76	76	0.0	4	<u> </u>		<u> </u>	-	D	A	1		97617	1	Taves 1983
	Soup, tomato, canned reconstituted, with milk Soup, vegetable beef, canned, reconstituted	0.07	7 43	0.8 12.3	10 19	4 12	8 89	4 11	9 74	D C	A	1	4	06359 06741	1 2	Featherstone 1988 Featherstone 1988 # Ophaug 1983-1987 *

Food Group	Item	Mean ppm	Mean mcg/ 100g **	Std Error	Num datapts	Min Value	Max Value	Lower 95% EB	Upper 95% EB	Confidence Code		Source Code	Statistical Comments	NDB No.	No. of Studies	References
Spices and he		·		-		1				-	•				1	-
	Pepper, black	0.34	34		8					С	A	1	4	02030	1	Taves 1983
	Salt, iodized	0.02	2		1					С	A	1		02047	1	NFNAP
	Mustard, prepared	0.01	1		2					D	Α	1	4	02046	1	Kingman 1984
Sweets:															-	
	Candies, caramels	0.27	27		9					С	Α	1		19074	1	Ophaug 1983-1987
	Candies, milk chocolate	0.05	5		9					С	Α	1		19120	1	Ophaug 1983-1987
	Candies, M&M MARS, "M&M's" Milk Chocolate Candies	0.17	17		2	15	20			D	Α	1	4	19141	1	Jackson 2002
	Candies, REESE'S Peanut Butter Cups	0.09	9		2	7	11			D	Α	1	4	19150	1	Jackson 2002
	Candies, M&M MARS, SNICKERS Bar	0.36	36		2	27	46			D	Α	1	4	19155	1	Jackson 2002
	Gum	0.05	5		2					D	Α	1	4	19163	1	Kingman 1984
	Frozen novelties, ice type, regular, all flavors	0.74	74	11.1	3	57	95	26	122	С	A			19283 19717	1	NFNAP
	Frozen novelties, ice type, sugar free, all flavors	0.89	89	1.7	3	86	91	82	96	С	Α	1	23	43514	1	NFNAP
	Frozen novelties, juice type	0.77	77		1									43346	1	NFNAP
	Frozen novelties, ice cream sandwich	0.27	27		9					С	A	1	4	19887 19888 19889	1	Ophaug 1983-1987
	Frozen yogurts, chocolate	0.40	40		1					D	Α	1		42186	1	Jackson 2002
	Frozen yogurts, vanilla	0.26	26		1					D	Α	1		42187	1	Jackson 2002
	Gelatin desserts, strawberry, prepared	0.69	69	14.3	24	18	137	36	102	С	A	1	4	19173	4	Adair 1991 # Featherstone 1988 # Ophaug 1983-1987 * Taves 1983 #
	Honey, bottled	0.07	7		9					С	Α	1	4	19296	1	Ophaug 1983-1987
	Jam, strawberry	0.19	19		2					D	Α	1		19297	1	Taves 1983
	Jellies	0.73	73	8.7	13	64	90	35	110	С	A	1	4	19300	2	Kingman 1984 Ophaug 1983-1987
	Ice creams, chocolate	0.23	23	2.6	3	19	28	12	34	В	Α	1	23	19270	1	NFNAP
	Ice creams, vanilla	0.15	15	1.1	4	14	19	12	19	В	Α	1	23	19095	1	NFNAP
	Bread pudding	0.74	74		2					D	Α	1		19167	1	Taves 1983
	Pudding, instant, prepared with whole milk	0.22	22	7.7	23	4	65	4	40	С	A	1	4	19185 19203 19319 19331	3	Featherstone 1988 Ophaug 1983-1987 Taves 1983
	Sugar, granulated	0.01	1	0.5	15	1	2	0	7	С	A	1	4	19335	2	Ophaug 1983-1987 Taves 1983
	Syrup, pancake	0.44	44	16.0	11	28	60	0	247	С	A	1	4	19129	2	Kingman 1984 Ophaug 1983-1987

Food Group	Item	Mean ppm	Mean mcg/ 100g	Error	Num datapts	Min Value	Max Value	Lower 95% EB	Upper 95% EB	Confidence Code	Derv. Code	Source Code	Statistical Comments	NDB No.	No. of Studies	References
Vegetables and	d vegetable products:		00	40.0	40		40		050	0			4	44040		Only 2000 4007 *
	Asparagus, cooked	0.22	22	18.0	13	4	40	0	250	С	A	1	4	11012	2	Ophaug 1983-1987 * Taves 1983 #
	Beans, snap (includes cooked, canned, frozen)	0.19	19	6.6	36	4	62	4	34	D	A	1	4	11052	4	Featherstone 1988 # Kingman 1984 % Ophaug 1893 - 1987 * Taves 1983 #
	Beets, canned	0.26	26	0.3	11	26	27	22	30	С	A	1	4	11082 11084	2	Ophaug 1983-1987 * Taves 1983 #
	Broccoli, boiled	0.04	4		9	4	4			С	А	1	4	11091	1	Ophaug 1983-1987 *
	Cabbage, boiled	0.01	1		9					С	Α	1		11110	1	Ophaug 1983-1987 *
	Carrots, cooked	0.47	47		2					D	Α	1	4	11125	1	Taves 1983 #
	Carrot, juice	0.07	7		1					В	Α	1		97634	1	UMN-UIowa 2004-2005
	Carrots, raw	0.03	3	0.5	21	2	6	2	4	С	A	1	4	11124	3	Featherstone 1988 Kingman 1984 Ophaug 1983-1987
	Catsup	0.15	15	3.5	19	5	32	7	23	С	A	1	4	11935	4	Jackson 2002 Kingman 1984 Ophaug 1983-1987 Taves 1983
	Cauliflower, boiled	0.01	1		9					С	Α	1		11136		Ophaug 1983-1987 *
	Celery, raw	0.04	4		9					С	Α	1		11143	1	Ophaug 1983-1987
	Coleslaw	0.11	11	1.1	13	8	14	8	14	С	A	1	4	11159	2	Jackson 2002 Ophaug 1983-1987
	Collard greens, boiled	0.27	27		9					С	Α	1		97618	1	Ophaug 1983-1987 *
	Corn, frozen, kernels cut off cob, unprepared	0.15	15	12.2	6	1	39	0	67	С	А	1	4	11178 11910	1	Kingman 1984
	Corn, canned	0.18	18		9					С	A	1	4	11170 11903	1	Ophaug 1983-1987
-	Corn, cream style, canned	0.28	28		9					С	A	1	4	11174 11906	1	Ophaug 1983-1987
	Cucumber, raw	0.01	1	0.7	11	1	2	0	10	С	A	1	4	11205 11206	2	Kingman 1984 Ophaug 1983-1987
	Lettuce	0.05	5	4.2	14	0	13	0	23	С	A	1	4	97619	3	Kingman 1984 Ophaug 1983-1987 Taves 1983
	Lima beans, immature seeds, frozen, boiled	0.07	7		9					С	Α	1	4	11038	1	Ophaug 1983-1987 *
	Mixed vegetables, canned	0.37	37	6.5	10	24	57	19	55	С	A	1	4	11579 11581 43312	1	Featherstone 1988 #
	Mushrooms, canned	0.10	10		9					С	A	1	4	11262 11264	1	Ophaug 1983-1987
	Onion rings, breaded, fried, frozen, heated	0.55	55		9					С	Α	1		11296	1	Ophaug 1983-1987
	Onions, raw	0.01	1	0.1	12	1	1	0	2	С	A	1	4	11282	2	Kingman 1984 Ophaug 1983-1987
	Peas, green (includes cooked and canned)	0.29	29	5.0	36	8	57	18	40	С	A	1	4	97620	5	Adair 1991 # Featherstone 1988 # Kingman 1984 % Ophaug 1983-1987 * Taves 1983 #
	Peppers, sweet, green, raw	0.02	2		9					С	Α	1	4	11333	1	Ophaug 1983-1987
	Pickles, cucumber, dill	0.30	30	6.0	18	4	49	16	44	С	A	1	4	11937	3	Jackson 2002 Kingman 1984 Ophaug 1983-1987

Food Group	Item	Mean	Mean	Std	Num	Min	Max	Lower		Confidence	Derv.	Source	Statistical	NDB	No. of	References
		ppm	mcg/	Error	datapts	Value	Value		95%	Code	Code	Code	Comments	No.	Studies	
			100g					EB	EB							
	Potatoes, boiled	0.49	49		2					D	Α	1		11365	1	Taves 1983 #
	Potatoes, french fried, frozen, heated	0.26	26	4.1	21	6	41	16	35	С	Α	1	4	11403	3	Adair 1991
														11407		Featherstone 1988
														11838		Ophaug 1983-1987
														11840		
	Potatoes, hashed brown	0.44	44		2					D	Α	1		11390	1	Taves 1983
	Potatoes, mashed	0.39	39	11.0	23	9	84	12	66	С	Α	1	4	11371	3	Featherstone 1988
																Ophaug 1983-1987
																Taves 1983
	Potatoes, puffs, frozen, prepared	0.06	6		2	6	6			D	Α	1	4	11399	1	Jackson 2002
	Potatoes, russet, baked	0.45	45		1					С	Α	1		11356	1	NFNAP
	Potatoes, scalloped	0.31	31	10.1	19	4	62	6	57	С	Α	1	4	11372	2	Featherstone 1988
														11844		Ophaug 1983-1987
	Radishes, raw	0.06	6		9					С	Α	1	4	11429	1	Ophaug 1983-1987
	Sauerkraut, canned	0.07	7		9					С	Α	1		11439	1	Ophaug 1983-1987
	Spinach, cooked	0.38	38	16.3	20	20	70	0	108	С	Α	1	4	11458	2	Ophaug 1983-1987 *
																Taves 1983 #
	Squash, cooked (includes summer and winter)	0.02	2	0.0	20	2	2	2	2	С	Α	1	4	97621	2	Ophaug 1983-1987 *
																Taves 1983 #
	Sweet potatoes	0.14	14	7.0	11	7	21	0	102	С	Α	1	4	97622	2	Ophaug 1983-1987
																Taves 1983
	Sweet potatoes, candied, home prepared	0.08	8		9					С	Α	1		11659	1	Ophaug 1983-1987
	Tomatoes, canned	0.05	5	1.4	12	3	9	1	9	С	Α	1	4	11531	2	Jackson 2002 Ophaug
														11535		1983-1987
														11885		
	Tomatoes, raw	0.02	2		1					С	Α	1		11529	1	NFNAP
	Tomato juice, canned	0.07	7	3.1	11	4	10	0	46	С	Α	1	4	11540	2	Ophaug 1983-1987
																Taves 1983
	Tomato sauce, canned	0.35	35		1					С	Α	1		11549	1	NFNAP
	Tossed salad	0.05	5		2	3	8			D	Α	1	4	97623	1	Adair 1991

*mcg/100g = ppm * 100 (beverages corrected for specific gravity) \$ Municipal water is not well water.

* Cooked in deionized water.

Cooked/brewed/prepared in tap water.% Unprepared.