

DATA TABLES:

**Intakes of 19 Individual Fatty Acids
Results from the 1994-96 Continuing Survey of Food Intakes by Individuals**

Table Set 8



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DATA TABLES:

Intakes of 19 Individual Fatty Acids: Results from 1994-96 Continuing Survey of Food Intakes by Individuals

Intakes of 19 individual fatty acids from USDA's 1994-96 Continuing Survey of Food Intakes by Individuals (CSFII) are presented in the attached set of tables. Over 16,000 individuals nationwide participated in the CSFII 1994-96, popularly known as the *What We Eat in America Survey*. Participants recalled food intake information for two separate days. Data presented here represent mean intakes based on respondents' first day of intake (day 1).

The data provide national probability estimates for the U.S. population. The results are weighted to adjust for differential rates of selection and nonresponse. The design and methodology of CSFII are detailed in a design and operation report for the survey (Tippett and Cypel 1997).

Sample sizes on which estimates are based are provided in appendix A. In general, the sample sizes for each sex-age group provide a sufficient level of precision to ensure statistical reliability of the estimates. However, estimates that are flagged with a dagger should be used with caution. Statistical issues are discussed in appendix B.

The CSFII 1994-96 data set was used to produce these tables, in conjunction with fatty acid composition data supplied by the Nutrient Data Laboratory, Beltsville Human Nutrition Research Center, Agricultural Research Service. The fatty acid data were compiled from the following sources: published literature, industry, government laboratories, and USDA-initiated contracts.

Fatty acids are categorized as saturated (no double bond), monounsaturated (one double bond), or polyunsaturated (more than one double bond). For monounsaturated and polyunsaturated fatty acids, both cis and trans isomers and positional isomers are included in the values. Appendix C provides a list of chemical names, trivial names, and abbreviations of reported fatty acids.

Interpreting information in the tables --

- When respondents were able to identify the type of fat used in preparation of foods such as vegetables, eggs, rice, pasta, and hot cereals, the fat type (oil, margarine, spread, butter, shortening, animal fat) was coded accordingly. However, if the respondent did not identify the type of fat, a default composite fat (margarine, vegetable oil, or shortening) based on industry and market data was used. Additional information about food coding and recipes can be found in the survey documentation on Disk 1 of this CD-ROM.
- Data from men and women 20 years and over were used to estimate the percentages of individual fatty acids provided by specified food sources (tables 4.1- 4.3). The quantities represent average food intakes by both consumers and nonconsumers.
- Appendix D contains examples of foods in each food group shown in tables 4.1 - 4.3. Mixed dishes are tabulated with the food group of the primary ingredient; for example, pizza is tabulated under 'Grain Products'.

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Table 1.1--Saturated fatty acids as sources of food energy: Mean percentages of food energy, by sex and age, 1 day, CSFII 1994-96

Sex and age (years)	Percentage of population	Food energy	4:0	6:0	8:0	10:0	12:0	14:0	16:0	18:0	Total saturated fatty acids
	<i>Percent</i>	<i>Kilocalories</i>	<i>----- Percent of kilocalories-----</i>								
Males and females:											
Under 1.....	1.1	838	.1	.1	.8	.6	4.1	2.0	7.0	1.9	16.7
1-2.....	3.1	1,312	.4	.2	.2	.3	.5	1.5	6.7	3.1	13.3
3-5.....	4.7	1,577	.3	.2	.1	.2	.4	1.2	6.4	3.0	12.2
5 and under.....	8.9	1,393	.3	.2	.2	.3	.9	1.4	6.6	2.9	13.2
Males:											
6-11.....	4.6	2,026	.3	.1	.1	.2	.4	1.1	6.4	3.0	12.0
12-19.....	5.8	2,766	.2	.1	.1	.2	.3	1.0	6.4	3.0	11.7
20-29.....	7.3	2,821	.2	.1	.1	.2	.3	.9	6.2	2.8	11.1
30-39.....	8.3	2,665	.2	.1	.1	.2	.3	1.0	6.4	3.0	11.5
40-49.....	7.0	2,435	.2	.1	.1	.2	.3	.9	6.1	2.9	11.0
50-59.....	4.6	2,270	.2	.1	.1	.2	.3	.9	6.1	2.9	11.0
60-69.....	3.4	2,072	.2	.1	.1	.2	.3	.9	6.1	2.9	11.0
70 and over.....	3.4	1,834	.2	.1	.1	.2	.3	.9	6.1	2.9	11.0
20 and over.....	33.9	2,455	.2	.1	.1	.2	.3	.9	6.2	2.9	11.2
Females:											
6-11.....	4.4	1,807	.3	.2	.1	.2	.4	1.1	6.3	3.0	12.0
12-19.....	5.6	1,910	.2	.1	.1	.2	.4	1.0	6.1	2.9	11.3
20-29.....	7.0	1,841	.2	.1	.1	.2	.3	.9	5.9	2.8	10.8
30-39.....	8.8	1,710	.2	.1	.1	.2	.3	.9	6.0	2.8	10.9
40-49.....	6.9	1,682	.2	.1	.1	.2	.4	.9	6.0	2.8	11.0
50-59.....	5.2	1,600	.2	.1	.1	.2	.4	.9	5.8	2.7	10.5
60-69.....	4.1	1,489	.2	.1	.1	.2	.3	.9	5.8	2.7	10.6
70 and over.....	4.9	1,384	.2	.1	.1	.2	.3	.8	5.6	2.7	10.2
20 and over.....	36.8	1,646	.2	.1	.1	.2	.3	.9	5.9	2.8	10.7
All individuals.....	100.0	2,002	.2	.1	.1	.2	.4	1.0	6.1	2.9	11.3

NOTE: Mean percentage calculations excluded five individuals with zero energy intake on day 1.

SOURCE: USDA Continuing Survey of Food Intakes by Individuals, 1994-96;

ARS, Beltsville Human Nutrition Research Center, Food Surveys Research Group.

Table 1.2--Monounsaturated fatty acids as sources of food energy: Mean percentages of food energy, by sex and age, 1 day, CSFII 1994-96

Sex and age (years)	Percentage of population	Food energy	16:1	18:1	20:1	22:1	Total monounsaturated fatty acids
	<i>Percent</i>	<i>Kilocalories</i>	----- <i>Percent of kilocalories</i> -----				
Males and females:							
Under 1.....	1.1	838	.2	11.7	*	*	12.0
1-2.....	3.1	1,312	.6	10.8	*	*	11.7
3-5.....	4.7	1,577	.6	11.4	.1	*	12.3
5 and under.....	8.9	1,393	.6	11.3	*	*	12.1
Males:							
6-11.....	4.6	2,026	.6	11.7	.1	*	12.6
12-19.....	5.8	2,766	.6	12.0	.1	*	13.0
20-29.....	7.3	2,821	.6	11.7	.1	*	12.6
30-39.....	8.3	2,665	.7	12.1	.1	*	13.0
40-49.....	7.0	2,435	.7	11.9	.1	*	12.9
50-59.....	4.6	2,270	.6	12.2	.1	*	13.1
60-69.....	3.4	2,072	.6	11.9	.1	*	12.8
70 and over.....	3.4	1,834	.6	11.8	.1	*	12.7
20 and over.....	33.9	2,455	.6	11.9	.1	*	12.9
Females:							
6-11.....	4.4	1,807	.6	11.7	.1	*	12.6
12-19.....	5.6	1,910	.6	11.5	*	*	12.3
20-29.....	7.0	1,841	.6	11.3	.1	*	12.1
30-39.....	8.8	1,710	.6	11.4	.1	*	12.3
40-49.....	6.9	1,682	.6	11.6	.1	*	12.5
50-59.....	5.2	1,600	.6	11.4	.1	*	12.2
60-69.....	4.1	1,489	.6	11.4	.1	*	12.3
70 and over.....	4.9	1,384	.6	11.2	.1	*	11.9
20 and over.....	36.8	1,646	.6	11.4	.1	*	12.2
All individuals.....	100.0	2,002	.6	11.6	.1	*	12.5

* Value less than 0.05 but greater than 0.

NOTE: Mean percentage calculations excluded five individuals with zero energy intake on day 1.

SOURCE: USDA Continuing Survey of Food Intakes by Individuals, 1994-96;

ARS, Beltsville Human Nutrition Research Center, Food Surveys Research Group.

Table 1.3--Polyunsaturated fatty acids as sources of food energy: Mean percentages of food energy, by sex and age, 1 day, CSFII 1994-96

Sex and age (years)	Percentage of population	Food energy	18:2	18:3	18:4	20:4	20:5	22:5	22:6	Total polyunsaturated fatty acids
	<i>Percent</i>	<i>Kilocalories</i>	<i>----- Percent of kilocalories-----</i>							
Males and females:										
Under 1.....	1.1	838	7.5	.9	† 0.0	*	*	*	† *	8.6
1-2.....	3.1	1,312	4.3	.5	† *	*	*	*	*	4.9
3-5.....	4.7	1,577	4.8	.5	*	*	*	*	*	5.4
5 and under.....	8.9	1,393	5.0	.5	*	*	*	*	*	5.6
Males:										
6-11.....	4.6	2,026	5.0	.5	*	*	*	*	*	5.5
12-19.....	5.8	2,766	5.3	.5	*	.1	*	*	*	5.9
20-29.....	7.3	2,821	5.5	.5	*	.1	*	*	*	6.2
30-39.....	8.3	2,665	5.9	.6	*	.1	*	*	*	6.7
40-49.....	7.0	2,435	5.9	.6	*	.1	*	*	*	6.6
50-59.....	4.6	2,270	6.2	.6	*	.1	*	*	*	7.1
60-69.....	3.4	2,072	6.1	.6	*	.1	*	*	*	6.9
70 and over.....	3.4	1,834	5.8	.6	*	.1	*	*	*	6.6
20 and over.....	33.9	2,455	5.9	.6	*	.1	*	*	*	6.6
Females:										
6-11.....	4.4	1,807	5.1	.5	*	*	*	*	*	5.7
12-19.....	5.6	1,910	5.4	.5	*	*	*	*	*	6.0
20-29.....	7.0	1,841	5.7	.6	*	.1	*	*	*	6.5
30-39.....	8.8	1,710	5.9	.6	*	.1	*	*	*	6.7
40-49.....	6.9	1,682	6.4	.7	*	.1	*	*	*	7.3
50-59.....	5.2	1,600	6.3	.6	*	.1	*	*	*	7.1
60-69.....	4.1	1,489	6.2	.7	*	.1	*	*	*	7.1
70 and over.....	4.9	1,384	5.8	.6	*	.1	*	*	*	6.6
20 and over.....	36.8	1,646	6.0	.6	*	.1	*	*	*	6.8
All individuals.....	100.0	2,002	5.7	.6	*	.1	*	*	*	6.4

† Indicates a statistic that is potentially unreliable because of small sample size or large coefficient of variation.

* Value less than 0.05 but greater than 0.

NOTE: Mean percentage calculations excluded five individuals with zero energy intake on day 1.

SOURCE: USDA Continuing Survey of Food Intakes by Individuals, 1994-96;

Table 2.1--Saturated fatty acids intakes: Mean per individual, by sex and age, 1 day, CSFII 1994-96

Sex and age (years)	Percentage of population	4:0	6:0	8:0	10:0	12:0	14:0	16:0	18:0	Total saturated fatty acids
	<i>Percent</i>	----- <i>Grams</i> -----								
Males and females:										
Under 1.....	1.1	.1	.1	.7	.6	3.6	1.8	6.5	1.8	15.4
1-2.....	3.1	.6	.3	.2	.5	.7	2.2	9.9	4.6	19.5
3-5.....	4.7	.5	.3	.2	.4	.7	2.1	11.3	5.4	21.6
5 and under.....	8.9	.5	.3	.3	.5	1.1	2.1	10.2	4.7	20.1
Males:										
6-11.....	4.6	.6	.3	.2	.5	.8	2.5	14.5	6.9	27.3
12-19.....	5.8	.8	.4	.3	.6	1.1	3.2	19.7	9.3	36.5
20-29.....	7.3	.7	.3	.3	.5	.9	3.0	19.7	9.1	35.4
30-39.....	8.3	.7	.4	.3	.6	1.0	3.0	19.5	9.0	35.3
40-49.....	7.0	.5	.3	.2	.5	.8	2.5	17.0	8.1	30.6
50-59.....	4.6	.5	.3	.2	.4	.7	2.2	15.9	7.6	28.5
60-69.....	3.4	.5	.3	.2	.4	.7	2.1	14.3	6.8	25.9
70 and over.....	3.4	.4	.2	.2	.4	.6	1.9	12.4	6.0	22.8
20 and over.....	33.9	.6	.3	.2	.5	.8	2.6	17.3	8.1	31.3
Females:										
6-11.....	4.4	.6	.3	.2	.5	.8	2.3	12.8	6.2	24.2
12-19.....	5.6	.5	.3	.2	.4	.8	2.2	13.2	6.2	24.5
20-29.....	7.0	.4	.2	.2	.4	.7	1.9	12.2	5.7	22.3
30-39.....	8.8	.4	.2	.2	.4	.7	1.8	11.7	5.4	21.3
40-49.....	6.9	.4	.2	.2	.3	.7	1.8	11.5	5.4	21.0
50-59.....	5.2	.3	.2	.2	.3	.6	1.6	10.5	5.0	19.1
60-69.....	4.1	.3	.2	.2	.3	.5	1.5	9.9	4.6	17.9
70 and over.....	4.9	.3	.2	.1	.3	.5	1.3	8.8	4.2	15.9
20 and over.....	36.8	.4	.2	.2	.3	.6	1.7	11.0	5.2	20.0
All individuals.....	100.0	.5	.3	.2	.4	.8	2.2	13.9	6.5	25.6

SOURCE: USDA Continuing Survey of Food Intakes by Individuals, 1994-96;
 ARS, Beltsville Human Nutrition Research Center, Food Surveys Research Group.

Table 2.2--Monounsaturated fatty acids intakes: Mean per individual, by sex and age, 1 day, CSFII 1994-96

Sex and age (years)	Percentage of population	16:1	18:1	20:1	22:1	Total monounsaturated fatty acids
	<i>Percent</i>	<i>----- Grams -----</i>				
Males and females:						
Under 1.....	1.1	.2	10.9	*	*	11.1
1-2.....	3.1	1.0	16.1	.1	*	17.5
3-5.....	4.7	1.1	20.4	.1	*	21.9
5 and under.....	8.9	.9	17.7	.1	*	19.0
Males:						
6-11.....	4.6	1.4	26.7	.1	*	28.7
12-19.....	5.8	1.9	37.3	.2	.1	40.2
20-29.....	7.3	2.0	37.2	.2	.1	40.1
30-39.....	8.3	2.0	36.6	.2	.1	39.4
40-49.....	7.0	1.8	33.1	.2	.1	35.6
50-59.....	4.6	1.7	31.6	.2	.1	33.9
60-69.....	3.4	1.5	28.0	.1	*	30.1
70 and over.....	3.4	1.3	24.7	.1	*	26.4
20 and over.....	33.9	1.8	33.3	.2	.1	35.8
Females:						
6-11.....	4.4	1.2	23.7	.1	*	25.5
12-19.....	5.6	1.2	24.7	.1	*	26.6
20-29.....	7.0	1.2	23.4	.1	*	25.2
30-39.....	8.8	1.2	22.5	.1	*	24.1
40-49.....	6.9	1.1	22.4	.1	*	24.0
50-59.....	5.2	1.0	21.1	.1	*	22.6
60-69.....	4.1	1.0	19.4	.1	*	20.8
70 and over.....	4.9	.9	17.5	.1	*	18.7
20 and over.....	36.8	1.1	21.4	.1	*	23.0
All individuals.....	100.0	1.4	26.6	.1	*	28.6

* Value less than 0.05 but greater than 0.

SOURCE: USDA Continuing Survey of Food Intakes by Individuals, 1994-96;

ARS, Beltsville Human Nutrition Research Center, Food Surveys Research Group.

Table 2.3--Polyunsaturated fatty acids intakes: Mean per individual, by sex and age, 1 day, CSFII 1994-96

Sex and age (years)	Percentage of population	18:2	18:3	18:4	20:4	20:5	22:5	22:6	Total polyunsaturated fatty acids
	<i>Percent</i>	----- <i>Grams</i> -----							
Males and females:									
Under 1.....	1.1	6.8	.8	† 0.0	*	*	*	† *	7.8
1-2.....	3.1	6.4	.7	† *	.1	*	*	*	7.3
3-5.....	4.7	8.6	.8	*	.1	*	*	*	9.6
5 and under.....	8.9	7.6	.8	*	.1	*	*	*	8.6
Males:									
6-11.....	4.6	11.4	1.1	† *	.1	*	*	*	12.7
12-19.....	5.8	16.4	1.6	*	.2	*	*	.1	18.4
20-29.....	7.3	17.5	1.7	*	.2	*	*	.1	19.6
30-39.....	8.3	17.8	1.8	*	.2	*	*	.1	20.1
40-49.....	7.0	16.2	1.6	*	.2	*	*	.1	18.3
50-59.....	4.6	16.0	1.6	*	.2	.1	*	.1	18.1
60-69.....	3.4	14.6	1.5	*	.1	*	*	.1	16.5
70 and over.....	3.4	12.3	1.3	*	.1	*	*	.1	13.9
20 and over.....	33.9	16.3	1.6	*	.2	*	*	.1	18.4
Females:									
6-11.....	4.4	10.3	1.0	*	.1	*	*	*	11.5
12-19.....	5.6	11.5	1.1	† *	.1	*	*	*	12.9
20-29.....	7.0	12.0	1.2	*	.1	*	*	.1	13.5
30-39.....	8.8	11.4	1.1	*	.1	*	*	.1	12.8
40-49.....	6.9	12.1	1.2	*	.1	*	*	.1	13.6
50-59.....	5.2	11.5	1.2	*	.1	*	*	.1	13.1
60-69.....	4.1	10.7	1.1	*	.1	*	*	.1	12.1
70 and over.....	4.9	9.3	1.0	*	.1	*	*	.1	10.6
20 and over.....	36.8	11.3	1.1	*	.1	*	*	.1	12.8
All individuals.....	100.0	12.9	1.3	*	.1	*	*	.1	14.6

† Indicates a statistic that is potentially unreliable because of small sample size or large coefficient of variation.

* Value less than 0.05 but greater than 0.

SOURCE: USDA Continuing Survey of Food Intakes by Individuals, 1994-96;

ARS, Beltsville Human Nutrition Research Center, Food Surveys Research Group.

Table 3.--Fatty acids: Mean percentages of total contributed by individual fatty acids, by sex and age, 1 day, CSFII 1994-96

Sex and age (years)	Percentage of population	Total fatty acids	4:0	6:0	8:0	10:0	12:0	14:0	16:0	18:0
	<i>Percent</i>	<i>Grams</i>	<i>-----Percent-----</i>							
Males and females:										
Under 1.....	1.1	34.2	.2	.2	2.1	1.7	11.0	5.4	18.6	5.2
1-2.....	3.1	44.3	1.3	.8	.6	1.1	1.6	4.9	22.4	10.2
3-5.....	4.7	53.1	1.0	.6	.4	.8	1.3	4.0	21.4	10.1
5 and under.....	8.9	47.7	1.0	.6	.7	1.0	2.6	4.5	21.4	9.5
Males:										
6-11.....	4.6	68.7	.9	.5	.4	.7	1.2	3.7	21.1	10.1
12-19.....	5.8	95.1	.8	.4	.3	.6	1.1	3.4	20.7	9.8
20-29.....	7.3	95.1	.7	.4	.3	.6	.9	3.1	20.7	9.5
30-39.....	8.3	94.8	.7	.4	.3	.6	1.0	3.1	20.4	9.4
40-49.....	7.0	84.5	.6	.3	.2	.5	.9	2.9	20.1	9.4
50-59.....	4.6	80.5	.6	.3	.2	.5	.9	2.7	19.7	9.3
60-69.....	3.4	72.5	.6	.3	.3	.6	1.0	2.9	19.7	9.2
70 and over.....	3.4	63.1	.7	.4	.3	.6	1.0	3.0	20.0	9.5
20 and over.....	33.9	85.5	.7	.3	.3	.6	1.0	3.0	20.2	9.4
Females:										
6-11.....	4.4	61.2	.9	.5	.4	.8	1.2	3.7	21.0	10.1
12-19.....	5.6	64.0	.8	.4	.3	.7	1.2	3.4	20.6	9.6
20-29.....	7.0	61.0	.7	.4	.3	.6	1.0	3.1	20.1	9.3
30-39.....	8.8	58.2	.7	.4	.3	.6	1.2	3.1	20.1	9.3
40-49.....	6.9	58.6	.7	.3	.3	.6	1.3	3.0	19.6	9.1
50-59.....	5.2	54.8	.6	.3	.3	.6	1.2	2.9	19.3	8.9
60-69.....	4.1	50.8	.7	.4	.3	.6	1.0	2.9	19.6	9.2
70 and over.....	4.9	45.2	.7	.4	.3	.6	1.0	2.9	19.6	9.2
20 and over.....	36.8	55.8	.7	.4	.3	.6	1.1	3.0	19.8	9.2
All individuals.....	100.0	68.8	.7	.4	.3	.6	1.2	3.2	20.3	9.4

Continued

Table 3.--Fatty acids: Mean percentages of total contributed by individual fatty acids, by sex and age, 1 day, CSFII 1994-96--continued

Sex and age (years)	16:1	18:1	20:1	22:1	18:2	18:3	18:4	20:4	20:5	22:5	22:6
----- Percent -----											
Males and females:											
Under 1.....	.5	31.2	*	*	20.4	2.3	†*	*	*	†*	†*
1-2.....	2.1	36.0	.1	*	14.7	1.6	*	.1	*	*	.1
3-5.....	2.0	38.1	.2	.1	16.1	1.6	*	.1	*	*	.1
5 and under.....	1.9	36.5	.1	*	16.2	1.7	*	.1	*	*	.1
Males:											
6-11.....	2.0	38.8	.2	.1	16.5	1.6	*	.1	*	*	.1
12-19.....	2.0	39.2	.2	.1	17.3	1.7	*	.2	*	*	.1
20-29.....	2.1	38.8	.2	.1	18.6	1.8	*	.2	*	*	.1
30-39.....	2.1	38.6	.2	.1	19.1	1.9	*	.2	.1	*	.1
40-49.....	2.1	39.0	.2	.1	19.4	2.0	*	.2	.1	*	.1
50-59.....	2.1	39.0	.2	.1	20.2	2.1	*	.2	.1	*	.2
60-69.....	2.1	38.6	.2	.1	20.2	2.1	†*	.2	.1	*	.1
70 and over.....	2.0	38.9	.2	.1	19.4	2.0	*	.2	.1	*	.1
20 and over.....	2.1	38.8	.2	.1	19.4	2.0	*	.2	.1	*	.1
Females:											
6-11.....	1.9	38.6	.2	.1	16.9	1.6	*	.1	*	*	.1
12-19.....	2.0	38.6	.2	.1	18.2	1.8	*	.2	*	*	.1
20-29.....	2.0	38.3	.2	.1	19.7	2.0	*	.2	.1	*	.1
30-39.....	2.0	38.0	.2	.1	20.0	2.1	*	.2	.1	*	.1
40-49.....	1.9	37.8	.2	.1	20.8	2.1	*	.2	.1	*	.1
50-59.....	1.9	38.0	.2	.1	21.2	2.2	†*	.2	.1	*	.2
60-69.....	2.0	38.1	.2	.1	20.8	2.3	*	.2	.1	*	.2
70 and over.....	2.0	38.5	.2	.1	20.5	2.2	*	.2	.1	*	.2
20 and over.....	2.0	38.1	.2	.1	20.4	2.1	*	.2	.1	*	.1
All individuals.....	2.0	38.3	.2	.1	19.0	1.9	*	.2	.1	*	.1

* Value less than 0.05 but greater than 0.

† Indicates a statistic that is potentially unreliable because of small sample size or large coefficient of variation.

NOTE: Mean percentage calculations excluded thirteen individuals with no fatty acid intake on day 1.

SOURCE: USDA Continuing Survey of Food Intakes by Individuals, 1994-96;

ARS, Beltsville Human Nutrition Research Center, Food Surveys Research Group.

Table 4.1--Saturated fatty acids from selected food groups: Mean intakes, individuals 20 years and older, 1 day, CSFII 1994-96

Sex and age (years)	4:0	6:0	8:0	10:0	12:0	14:0	16:0	18:0	Total saturated fatty acids
----- Grams -----									
Men: (N = 5,056)									
Males 20 and over:									
Grain products.....	.11	.05	.04	.07	.13	.44	3.86	1.99	6.8
Vegetables.....	.03	.01	.01	.02	.08	.13	1.84	.62	2.8
Fruits.....	† *	† *	† *	*	† *	*	.08	.01	.1
Milk and milk products.....	.35	.19	.13	.27	.40	1.14	3.03	1.36	7.1
Meat, poultry, fish.....	.03	.02	.01	.06	.08	.60	5.98	2.96	10.0
Eggs.....	.01	.01	*	.01	.01	.04	.63	.26	1.0
Legumes.....	*	† *	† .01	† *	*	.01	.25	.12	.4
Fats and oils.....	.05	.03	.02	.04	.05	.18	1.18	.49	2.1
Nuts and seeds.....	.0	† *	† *	† *	† .01	.01	.21	.08	.4
Sugars and sweets.....	*	*	.01	.01	.05	.04	.24	.21	.6
Beverages.....	† *	† *	*	*	.02	.01	.02	.01	.1
Females: (N = 4,816)									
Females 20 and over:									
Grain products.....	.07	.03	.03	.05	.10	.29	2.59	1.33	4.6
Vegetables.....	.02	.01	.01	.01	.04	.09	1.10	.39	1.7
Fruits.....	† *	† *	*	*	*	*	.08	.01	.1
Milk and milk products.....	.23	.12	.09	.19	.32	.79	2.05	.94	4.9
Meat, poultry, fish.....	.02	.01	.01	.03	.05	.33	3.39	1.66	5.6
Eggs.....	.01	*	*	*	.01	.02	.40	.16	.6
Legumes.....	*	*	† *	† *	*	.01	.15	.08	.2
Fats and oils.....	.03	.02	.01	.03	.03	.11	.88	.36	1.5
Nuts and seeds.....	.0	† .0	† *	† *	† *	*	.12	.05	.2
Sugars and sweets.....	*	*	.01	.01	.05	.03	.21	.18	.5
Beverages.....	† *	*	*	*	.02	.01	.02	*	.1

† Indicates a statistic that is potentially unreliable because of small sample size or large coefficient of variation.

* Value less than 0.005 but greater than 0.

SOURCE: USDA Continuing Survey of Food Intakes by Individuals, 1994-96;

ARS, Beltsville Human Nutrition Research Center, Food Surveys Research Group.

Table 4.2--Monounsaturated fatty acids from selected food groups: Mean intakes, individuals 20 years and older, 1 day, CSFII 1994-96

Sex and age (years)	16:1	18:1	20:1	22:1	Total monounsaturated fatty acids
----- Grams -----					
Men: (N = 5,056)					
Males 20 and over:					
Grain products.....	.24	9.99	.02	*	10.3
Vegetables.....	.09	3.58	.02	.03	3.7
Fruits.....	.01	.12	† *	† .0	.1
Milk and milk products.....	.27	2.89	*	† .0	3.3
Meat, poultry, fish.....	1.01	11.16	.08	.02	12.4
Eggs.....	.07	1.12	.01	*	1.2
Legumes.....	.02	.48	*	*	.5
Fats and oils.....	.05	2.58	.01	*	2.7
Nuts and seeds.....	*	.98	.02	.0	1.0
Sugars and sweets.....	*	.38	*	*	.5
Beverages.....	† *	.01	† .0	.0	*
Females: (N = 4,816)					
Females 20 and over:					
Grain products.....	.16	6.71	.02	*	6.9
Vegetables.....	.06	2.20	.01	.01	2.3
Fruits.....	.01	.12	*	† .0	.1
Milk and milk products.....	.18	1.96	*	.0	2.2
Meat, poultry, fish.....	.57	6.42	.05	.02	7.2
Eggs.....	.05	.71	*	*	.8
Legumes.....	.02	.30	*	*	.3
Fats and oils.....	.04	2.07	.01	*	2.1
Nuts and seeds.....	† *	.58	.01	.0	.6
Sugars and sweets.....	*	.34	*	*	.4
Beverages.....	† *	.01	† .0	.0	*

* Value less than 0.005 but greater than 0 or in the last column a value less than 0.05 but greater than 0.

† Indicates a statistic that is potentially unreliable because of small sample size or large coefficient of variation.

SOURCE: USDA Continuing Survey of Food Intakes by Individuals, 1994-96;

ARS, Beltsville Human Nutrition Research Center, Food Surveys Research Group.

Table 4.3--Polyunsaturated fatty acids from selected food groups: Mean intakes, individuals 20 years and older, 1 day, CSFII 1994-96

Sex and age (years)	18:2	18:3	18:4	20:4	20:5	22:5	22:6	Total polyunsaturated fatty acids
----- Grams -----								
Men: (N = 5,056)								
Males 20 and over:								
Grain products.....	5.37	.41	† *	.02	*	*	*	5.8
Vegetables.....	2.40	.23	.0	*	*	.0	*	2.6
Fruits.....	.10	.03	.0	.0	†.0	.0	†.0	.1
Milk and milk products.....	.30	.14	†.0	*	†.0	†.0	*	.4
Meat, poultry, fish.....	3.67	.38	.01	.12	.04	.02	.07	4.3
Eggs.....	.48	.03	†.0	.03	*	†.0	.01	.6
Legumes.....	.32	.04	.0	*	.0	.0	†.0	.4
Fats and oils.....	2.92	.34	.0	†*	.0	.0	.0	3.3
Nuts and seeds.....	.61	.01	.0	†*	.0	.0	.0	.6
Sugars and sweets.....	.10	*	.0	†.0	.0	.0	.0	.2
Beverages.....	.02	.01	.0	†.0	.0	.0	.0	*
Females: (N = 4,816)								
Females 20 and over:								
Grain products.....	3.72	.29	.0	.01	*	*	*	4.0
Vegetables.....	1.54	.17	.0	*	*	.0	*	1.7
Fruits.....	.10	.03	.0	.0	.0	.0	.0	.1
Milk and milk products.....	.22	.10	†.0	*	†.0	†.0	*	.3
Meat, poultry, fish.....	2.28	.23	*	.07	.03	.01	.05	2.7
Eggs.....	.32	.02	†.0	.02	*	†.0	*	.4
Legumes.....	.20	.03	.0	*	.0	.0	†.0	.2
Fats and oils.....	2.44	.28	†.0	†*	.0	.0	†.0	2.7
Nuts and seeds.....	.38	.01	.0	†.0	.0	.0	.0	.4
Sugars and sweets.....	.09	*	.0	†.0	.0	.0	.0	.1
Beverages.....	.01	.01	.0	.0	.0	.0	.0	*

† Indicates a statistic that is potentially unreliable because of small sample size or large coefficient of variation.

* Value less than 0.005 but greater than 0 or in the last column a value less than 0.05 but greater than 0.

SOURCE: USDA Continuing Survey of Food Intakes by Individuals, 1994-96;

ARS, Beltsville Human Nutrition Research Center, Food Surveys Research Group.

Appendix A. Counts of day-1 respondents and population percentages, by sex and age, 1994-96

Interpreting information in appendix A--

- Appendix A shows unweighted counts of survey respondents in each sex-age group shown in tables 1 through 4, as well as the percentages of the population that they represent. One hundred and thirty-five breast-fed children are excluded from these counts and population percentages. Weights are used to account for differential rates of selection and nonresponse, to calibrate the sample to match population characteristics known to be correlated with eating behavior, and to equalize intakes over the 4 quarters of the year and the 7 days of the week.
- The statistics presented in tables 1 through 4 are based on the data from all appropriate respondents. In general, fasters (that is, individuals reporting no foods or beverages consumed for the day) were included in the calculations for the tables. However, five individuals were excluded from the calculations of sources of energy (table 1) because nonzero energy intakes are required from each person for the contribution to energy estimates and fasters are the only individuals reporting zero energy intake. Thirteen individuals who had zero intake of fatty acids were excluded from the mean percentage calculations in table 3 because the calculations required nonzero total nutrient intakes for each person.

Appendix A. Counts of Day 1 respondents and population percentages, by sex and age, 1994-96

Sex and age (Years)	Day-1 count (unweighted)	Day-1 percentage of population (weighted)
	--number--	--percent--
Males and females:		
Under 1.....	284	1.1
1-2.....	1,376	3.1
3-5.....	1,475	4.7
5 and under.....	3,135	8.9
Males:		
6-11.....	752	4.6
12-19.....	737	5.8
20-29.....	781	7.3
30-39.....	889	8.3
40-49.....	862	7.0
50-59.....	888	4.6
60-69.....	845	3.4
70 and over.....	791	3.4
20 and over.....	5,056	33.9
Females:		
6-11.....	740	4.4
12-19.....	732	5.6
20-29.....	720	7.0
30-39.....	816	8.8
40-49.....	902	6.9
50-59.....	864	5.2
60-69.....	789	4.1
70 and over.....	725	4.9
20 and over.....	4,816	36.8
All individuals.....	15,968	100.0

Excludes breast-fed children.

Source: USDA Continuing Survey of Food Intakes by Individuals, 1994-96;
ARS, Beltsville Human Nutrition Research Center, Food Surveys Research Group.

Appendix B. Statistical notes

Estimates based on small cell sizes may tend to be less statistically reliable than estimates based on larger cell sizes. Cell size refers to the unweighted number of individuals in a given sex-age group or demographic group (see appendix A). Guidelines for determining when a cell size is small take into account the average design effect for the survey. The design effect results from the complex sample design and from the procedures used to weight the data. When the design effect is 1.00, its effect on accuracy is negligible; a larger design effect implies a greater effect on variance. The guidelines derive from a policy statement (FASEB/LSRO 1995) that specifies the use of a broadly calculated design effect. In that role we are using a variance inflation factor. The variance inflation factor for the survey data set used to generate these tables is 1.41.

Daggers are used in the tables to flag estimates that may tend to be less statistically reliable than those that are not flagged. An estimated mean is flagged when it is based on a cell size of less than 30 times the average design effect or when its coefficient of variation (CV) is equal to or greater than 30 percent. The CV is the ratio of the estimated standard error of the mean to the estimated mean, expressed as a percentage. This rule has been applied to data in tables 1 through 4 to flag estimates that should be used with caution.

Standard errors of the mean for tables 1 through 4 will be available from the National Technical Information Service. For ordering instructions contact the Food Surveys Research Group, BHNRC, ARS, USDA, 4700 River Road, Unit 83, Riverdale, MD 20737. Phone: 301-734-5825; FAX: 301-734-5496; E-mail: fserg@rbhnrc.usda.gov.

Appendix C. Chemical names, trivial names, and abbreviations of reported fatty acids¹

Chemical name	Trivial name of most typical isomer ²	Abbreviation
SATURATED ACIDS		
Butanoic	Butyric	4:0
Hexanoic	Caproic	6:0
Octanoic	Caprylic	8:0
Decanoic	Capric	10:0
Dodecanoic	Lauric	12:0
Tetradecanoic	Myristic	14:0
Hexadecanoic	Palmitic	16:0
Octadecanoic	Stearic	18:0
MONOUNSATURATED ACIDS		
Hexadecenoic	Palmitoleic	16:1
Octadecenoic	Oleic	18:1
Eicosenoic	Gadoleic	20:1
Docosenoic	Erucic	22:1
POLYUNSATURATED ACIDS		
Octadecadienoic	Linoleic	18:2
Octadecatrienoic	Linolenic	18:3
Octadecatetraenoic	Parinaric	18:4
Eicosatetraenoic	Arachidonic	20:4
Eicosapentaenoic	Timnodonic	20:5
Docosapentaenoic	Clupanodonic	22:5
Docosahexaenoic	(no trivial name)	22:6

¹Nutrient information on the following 19 individual fatty acids in foods was provided by the Nutrient Data Laboratory, ARS, USDA.

²For monounsaturated and polyunsaturated fatty acids, the trivial name reflects the most typical isomer, although all isomers, including *cis* and *trans*, are included in the data.

Sources: Hilditch and Williams 1964, Swern 1979.

Appendix D. Examples of foods in food groups used in tables 4.1 to 4.3

General Note: Many foods are mixtures of two or more ingredients. Food mixtures reported as a single item by respondents are usually coded as a single item and tabulated under the food group of the primary ingredient.

GRAIN PRODUCTS: Includes yeast breads, rolls, cereals, pasta, quick breads, pancakes, French toast, cakes, cookies, pies, crackers, popcorn, pretzels, corn chips, ready-to-eat cereals, and mixtures having a grain product as a main ingredient, such as pizza or spaghetti with sauce.

VEGETABLES: Includes white potatoes, dark-green and deep-yellow vegetables, tomatoes, lettuce, green beans, corn, green peas, lima beans, and other vegetables; mixtures having vegetables as a main ingredient, such as vegetable soup, or creamed corn; and vegetable juices.

FRUITS: Includes citrus fruits and juices, dried fruits, and other fruits; mixtures having fruit as a main ingredient, such as fruit dessert or fruit salad; and fruit juices.

MILK AND MILK PRODUCTS: Includes milk and milk drinks, yogurt, cheese, milk desserts such as ice cream or pudding; fluid and whipped cream, half-and-half, sour cream, and milk sauces and gravies.

MEAT, POULTRY, AND FISH: Includes beef, pork, lamb, veal, game, organ meats, frankfurters, sausages, luncheon meats, poultry, fish, shellfish, and mixtures having meat, poultry, or fish as a main ingredient, such as tuna salad, chicken soup, or cheeseburger on a bun coded as a single item.

EGGS: Includes whole eggs, egg whites, egg yolks, egg substitutes, and mixtures having egg as a main ingredient, such as omelets, egg salad, or egg sandwiches coded as a single item.

LEGUMES: Includes cooked beans, peas, and lentils; mixtures having legumes as a main ingredient, such as baked beans, or lentil soup; soybean derived products, such as soy-based baby formulas, tofu, soy sauce, and soy-based meal replacements; and meat substitutes that are mainly vegetable protein.

NUTS AND SEEDS: Includes unroasted, roasted, and honey-roasted nuts and peanuts; coconut, peanut butter, peanut butter sandwiches coded as a single item, nut mixtures; and unroasted and roasted seeds.

FATS AND OILS: Includes table fats, cooking fats, vegetable oil, salad dressings, nondairy cream substitutes; and tartar sauce and other sauces that are mainly fat or oil.

SUGAR AND SWEETS: Includes sugar, sugar substitutes, syrups, honey, sweet toppings, frostings, sweet sauces, jellies, jams, preserves, fruit butters, marmalades, gelatin desserts, ices, fruit bars, popsicles, candy (including dietetic sweets), and chewing gum.

BEVERAGES: Includes alcoholic beverages, such as beer, wine, ale, liqueurs, cocktails, other mixed drinks, and distilled liquors; and nonalcoholic beverages, such as coffee, tea, fruit drinks and ades, and soft drinks.

Appendix E. References

FASEB/LSRO (Federation of American Societies for Experimental Biology, Life Sciences Research Office). 1995. Third report on nutrition monitoring in the United States: Volume 1. Prepared for the Interagency Board for Nutrition Monitoring and Related Research. U.S. Government Printing Office, Washington, DC, pages III-1 to III-10. Highlights, executive summary, and ordering information also available online: <<http://www.barc.usda.gov/bhnrc/foodsurvey/new3.htm>> [visited 1997, December 1].

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