

Intakes of Selenium, Caffeine, and Theobromine by Adults, 1994-1996

Table Set 18



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The selenium, caffeine, and theobromine intakes provided here are from the combined 3 years of USDA's 10th nationwide food consumption survey, the Continuing Survey of Food Intakes by Individuals (CSFII), also known as the *What We Eat in America Survey*. Intakes in the table are for adults age 20 years and over. Intakes of these nutrients by children are provided in Table Set 17 on this web site. Selenium, caffeine, and theobromine were added to the Survey Nutrient Database in 1998 and applied to data collected in 1994-96 for presentation here.

The table provides national probability estimates for the U.S. population. The results are weighted to adjust for differential rates of sample selection and nonresponse, to calibrate the sample to match population characteristics that are correlated with eating behavior, and to equalize intakes over the 4 quarters of the year and the 7 days of the week. The CSFII 1994-96 overall day-1 response rate was 80.0 percent. Mean intakes in the table are based on respondents' intakes on the first of 2 survey days; a 24-hour recall was used to collect the data. The design, methodology, and operation of the survey are reported elsewhere (Tippett and Cypel 1997). That report is available on the Products page of this web site under "Reports."

Notes

The estimated nutrient intakes presented in the table are weighted means (averages) for the group of individuals identified in the left-hand column. For each dietary component identified in the column head, intakes for each individual in a day were totaled, and a group mean was calculated. The selenium intakes presented in the table do not include selenium from vitamin and mineral supplements; although data were collected on the frequency and type of vitamin and mineral supplements used, amounts were not obtained.

Selenium intakes by individuals were expressed as percentages of the 1989 RDA, then averaged for the group. "The RDAs provide a safety factor appropriate to each nutrient [1.3 for selenium] and exceed the actual requirements of most individuals" (FNB/NRC 1989, p. 2). "If a population's habitual intake approximates or exceeds the RDA, the probability of deficiency is quite low" (FNB/NRC 1989, p. 21).

Data for the selenium, caffeine, and theobromine contents of foods were compiled by the ARS Nutrient Data Laboratory. The selenium content of plants, in particular cereal grains, is strongly influenced by the quantity of biologically available selenium in the soil in which they grow and, hence, their geographical origin (Holden et al. 1991). Values for major dietary contributors of selenium are based on laboratory analyses of food samples drawn from retail outlets according to nationwide sampling plans, in order to provide average values appropriate for national food surveys (Holden et al. 1991, Gebhardt et al. 1990).

Counts of respondents

Unweighted counts of survey respondents are provided in the table by sex-age group. The estimates are based on data from all appropriate respondents. Fasters (that is, individuals reporting no foods or beverages consumed for the day) were included in the calculations.

Statistical notes

Estimates based on small cell sizes may tend to be less statistically reliable than estimates based on larger cell sizes. All estimates in this table are reliable based on statistical guidelines for nationwide survey data (FASEB/LSRO 1995).

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.

FNB/NRC (Food and Nutrition Board, National Research Council). 1989. Recommended Dietary Allowances. 10th edition. National Academy Press, Washington, DC.

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Suggested citation: U.S. Department of Agriculture, Agricultural Research Service. 2000. Intakes of Selenium, Caffeine, and Theobromine by Adults, 1994-96. Online: ARS Food Surveys Research Group; available on the Products page at <http://www.barc.usda.gov/bhnrc/foodsurveys/home.htm> [accessed year, month date].

June 2000

Selenium, caffeine, and theobromine: Mean intakes and, for selenium, mean intake as a percentage of the 1989 RDA, adults age 20 years and over, 1 day, 1994-96

Sex and age (years)	Sample size	Selenium		Caffeine	Theobromine
	<i>Number</i>	<i>Micrograms</i>	<i>% RDA</i>	<i>-----Milligrams-----</i>	
Males:					
20-29.....	781	140.7	201.1	183.5	33.5
30-39.....	889	138.1	197.3	280.5	45.1
40-49.....	862	133.0	190.0	324.9	42.5
50-59.....	888	124.3	177.5	318.8	37.4
60-69.....	845	114.2	163.1	276.5	29.4
70 and over.....	791	100.9	144.2	194.9	27.2
20 and over.....	5,056	129.6	185.2	264.9	37.7
Females:					
20-29.....	720	87.7	156.2	142.8	35.8
30-39.....	816	87.2	156.8	208.5	29.0
40-49.....	902	87.5	158.4	250.0	31.8
50-59.....	864	87.1	158.4	245.9	26.8
60-69.....	789	84.6	153.9	197.0	26.1
70 and over.....	725	75.9	137.9	170.2	22.2
20 and over.....	4,816	85.5	154.4	202.7	29.3
Males and females:					
20 and over.....	9,872	106.7	169.2	232.5	33.3

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