

Table 23. Cholesterol among adults aged 20 and over, by selected characteristics: United States, selected years 1988–1994 through 2013–2016

Excel version (with more data years and standard errors when available): https://www.cdc.gov/nchs/hus/contents2018.htm#Table_023.

[Data are based on interviews and laboratory data of a sample of the civilian noninstitutionalized population]

Sex, race and Hispanic origin, ¹ percent of poverty level, and age	1988–1994	1999–2002	2003–2006	2009–2012	2013–2016
20 years and over, age-adjusted ²	Percent of population with hypercholesterolemia (serum total cholesterol greater than or equal to 240 mg/dL or taking cholesterol-lowering medications) ³				
Both sexes ⁴	22.8	25.0	27.7	27.8	27.1
Male	21.1	25.3	27.7	27.9	29.1
Female	24.0	24.3	27.4	27.5	25.3
Not Hispanic or Latino:					
White only	22.9	25.8	28.5	28.2	28.0
Male	21.1	26.0	28.7	28.1	30.0
Female	24.2	25.1	28.2	28.2	26.1
Black or African American only	21.3	21.3	23.2	25.9	24.2
Male	18.6	20.1	22.8	25.6	25.0
Female	23.1	22.0	23.3	26.3	23.7
Asian only	---	---	---	---	25.7
Male	---	---	---	---	27.3
Female	---	---	---	---	24.4
Hispanic or Latino	---	---	---	28.3	24.8
Male	---	---	---	29.4	26.8
Female	---	---	---	27.1	22.8
Mexican origin	20.0	20.6	24.2	26.7	24.7
Male	19.9	21.6	24.2	27.2	28.2
Female	19.8	19.3	24.1	26.2	21.1
Percent of poverty level: ⁵					
Below 100%	23.0	25.0	27.9	28.7	26.0
100%–199%	22.1	25.9	27.6	27.1	26.5
200%–399%	23.1	26.5	27.5	28.1	28.8
400% or more	21.7	23.1	27.9	27.4	27.3
20 years and over, crude					
Both sexes ⁴	21.5	25.0	28.0	29.5	29.4
Male	19.6	25.1	27.5	28.8	30.6
Female	23.2	24.8	28.5	30.1	28.4
Not Hispanic or Latino:					
White only	22.3	26.9	30.3	32.2	32.7
Male	20.0	26.8	29.7	30.9	33.8
Female	24.5	27.0	30.8	33.4	31.6
Black or African American only	18.1	19.3	21.7	25.0	24.1
Male	16.0	18.5	21.3	24.4	24.3
Female	19.7	19.9	21.9	25.5	23.8
Asian only	---	---	---	---	24.7
Male	---	---	---	---	26.0
Female	---	---	---	---	23.5
Hispanic or Latino	---	---	---	22.7	21.0
Male	---	---	---	23.5	22.9
Female	---	---	---	21.9	19.1
Mexican origin	15.6	15.5	19.0	20.7	20.7
Male	16.2	17.0	19.3	21.9	24.3
Female	14.9	13.8	18.7	19.4	17.0
Percent of poverty level: ⁵					
Below 100%	19.4	21.6	24.1	24.1	23.8
100%–199%	21.3	25.4	28.3	28.2	28.5
200%–399%	21.3	26.2	28.1	30.5	30.8
400% or more	21.9	24.2	28.7	31.6	31.5

Table 23. Cholesterol among adults aged 20 and over, by selected characteristics: United States, selected years 1988–1994 through 2013–2016

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[Data are based on interviews and laboratory data of a sample of the civilian noninstitutionalized population]

Sex, race and Hispanic origin, ¹ percent of poverty level, and age	1988–1994	1999–2002	2003–2006	2009–2012	2013–2016
	Percent of population with hypercholesterolemia (serum total cholesterol greater than or equal to 240 mg/dL or taking cholesterol-lowering medications) ³				
Male					
20–44 years	13.1	16.1	16.5	12.6	13.1
20–34 years	8.2	10.4	10.2	6.6	7.6
35–44 years	21.0	23.1	25.2	21.2	22.4
45–64 years	30.1	36.0	35.7	39.8	39.5
45–54 years	29.6	34.1	32.4	35.7	31.2
55–64 years	30.8	39.1	41.6	44.5	48.3
65–74 years	27.4	36.3	49.4	50.7	56.7
75 years and over	24.4	29.0	37.1	51.2	56.4
Female					
20–44 years	9.9	11.4	12.9	9.4	8.2
20–34 years	7.3	9.1	10.8	6.3	6.1
35–44 years	13.5	14.4	15.8	14.0	11.2
45–64 years	36.4	31.7	37.3	42.4	35.7
45–54 years	28.2	27.2	29.6	31.2	29.9
55–64 years	45.8	39.2	49.2	55.3	42.1
65–74 years	46.9	51.9	55.3	57.7	58.5
75 years and over	41.2	44.0	47.3	53.3	56.9
	Percent of population with high cholesterol (serum total cholesterol greater than or equal to 240 mg/dL) ⁶				
20 years and over, age-adjusted²					
Both sexes ⁴	20.8	17.3	16.3	12.9	11.7
Male	19.0	16.4	15.1	11.7	11.0
Female	22.0	17.8	17.1	14.0	12.2
Not Hispanic or Latino:					
White only	20.8	17.5	16.9	13.2	12.1
Male	18.8	16.5	15.5	11.6	10.9
Female	22.2	18.1	18.0	14.7	13.2
Black or African American only	19.5	15.5	12.2	10.0	8.9
Male	16.9	12.4	10.9	9.0	9.1
Female	21.4	17.7	13.3	10.8	8.7
Asian only	---	---	---	---	11.3
Male	---	---	---	---	11.8
Female	---	---	---	---	11.0
Hispanic or Latino	---	---	---	14.4	11.5
Male	---	---	---	14.7	12.7
Female	---	---	---	13.9	10.2
Mexican origin	18.7	15.8	16.1	13.2	11.2
Male	18.5	17.4	17.6	13.5	13.9
Female	18.7	13.8	14.4	12.8	8.4
Percent of poverty level ⁵					
Below 100%	20.6	18.3	18.1	13.4	10.9
100%–199%	20.6	19.1	16.7	13.2	11.5
200%–399%	20.8	18.9	15.8	13.2	12.9
400% or more	19.5	14.4	15.9	12.3	11.7

Table 23. Cholesterol among adults aged 20 and over, by selected characteristics: United States, selected years 1988–1994 through 2013–2016

Excel version (with more data years and standard errors when available): https://www.cdc.gov/nchs/hus/contents2018.htm#Table_023.

[Data are based on interviews and laboratory data of a sample of the civilian noninstitutionalized population]

Sex, race and Hispanic origin, ¹ percent of poverty level, and age	1988–1994	1999–2002	2003–2006	2009–2012	2013–2016
	Percent of population with high cholesterol (serum total cholesterol greater than or equal to 240 mg/dL) ⁶				
20 years and over, crude					
Both sexes ⁴	19.6	17.3	16.4	13.4	11.8
Male	17.7	16.5	15.2	11.8	10.7
Female	21.3	18.0	17.5	14.9	12.9
Not Hispanic or Latino:					
White only	20.3	18.0	17.4	14.2	12.5
Male	18.0	16.9	15.7	11.8	10.4
Female	22.5	19.1	18.9	16.5	14.5
Black or African American only	16.7	14.4	11.7	9.9	9.0
Male	14.7	12.2	10.8	8.8	9.0
Female	18.2	16.1	12.5	10.6	9.0
Asian only	---	---	---	---	11.2
Male	---	---	---	---	11.7
Female	---	---	---	---	10.8
Hispanic or Latino	---	---	---	13.2	11.2
Male	---	---	---	14.1	13.1
Female	---	---	---	12.3	9.4
Mexican origin	14.9	12.9	14.2	12.0	11.1
Male	15.4	15.0	15.7	13.0	14.3
Female	14.3	10.7	12.6	10.9	7.8
Percent of poverty level: ⁵					
Below 100%	17.6	16.4	16.8	12.0	10.3
100%–199%	19.8	18.2	16.0	12.9	11.2
200%–399%	19.3	18.7	15.8	13.9	12.8
400% or more	19.9	15.5	17.1	13.6	12.7
Male					
20–44 years	12.5	14.2	14.1	10.0	10.4
20–34 years	8.2	9.8	9.5	6.0	6.7
35–44 years	19.4	19.7	20.5	15.8	16.6
45–64 years	27.2	22.2	19.1	16.2	13.9
45–54 years	26.6	23.6	20.8	18.0	15.8
55–64 years	28.0	19.9	16.0	14.1	11.8
65–74 years	21.9	13.7	10.9	8.1	6.4
75 years and over	20.4	10.2	9.6	*5.5	2.9
Female					
20–44 years	9.4	10.4	11.3	7.6	6.7
20–34 years	7.3	8.9	10.3	5.7	5.6
35–44 years	12.3	12.4	12.7	10.4	8.3
45–64 years	33.4	23.0	23.9	22.4	18.6
45–54 years	26.7	21.4	19.7	18.7	18.8
55–64 years	40.9	25.6	30.5	26.6	18.3
65–74 years	41.3	32.3	24.2	19.6	18.4
75 years and over	38.2	26.5	18.6	16.2	13.8

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[Data are based on interviews and laboratory data of a sample of the civilian noninstitutionalized population]

Sex, race and Hispanic origin, ¹ percent of poverty level, and age	1988–1994	1999–2002	2003–2006	2009–2012	2013–2016
20 years and over, age-adjusted ²	Mean serum total cholesterol level (mg/dL)				
Both sexes ⁴	206	203	200	195	191
Male	204	202	198	192	188
Female	207	204	202	198	193
Not Hispanic or Latino:					
White only	206	204	201	196	192
Male	205	202	198	192	188
Female	208	205	203	199	194
Black or African American only	205	199	194	190	184
Male	202	195	193	188	183
Female	207	202	195	192	185
Asian only	---	---	---	---	191
Male	---	---	---	---	190
Female	---	---	---	---	192
Hispanic or Latino	---	---	---	197	192
Male	---	---	---	196	192
Female	---	---	---	196	191
Mexican origin	206	202	202	196	191
Male	206	204	203	197	193
Female	206	199	200	194	190
Percent of poverty level: ⁵					
Below 100%	205	201	203	196	187
100%–199%	205	204	201	194	191
200%–399%	207	205	199	195	191
400% or more	205	202	201	196	193
20 years and over, crude					
Both sexes ⁴	204	203	200	196	191
Male	202	202	198	193	188
Female	206	204	202	199	194
Not Hispanic or Latino:					
White only	206	205	202	197	192
Male	203	203	198	193	187
Female	208	206	205	202	197
Black or African American only	200	197	193	190	184
Male	198	194	192	187	183
Female	201	199	194	191	185
Asian only	---	---	---	---	191
Male	---	---	---	---	190
Female	---	---	---	---	192
Hispanic or Latino	---	---	---	195	191
Male	---	---	---	197	193
Female	---	---	---	194	190
Mexican origin	199	197	198	196	191
Male	199	200	200	198	194
Female	198	194	196	193	188
Percent of poverty level: ⁵					
Below 100%	200	198	200	192	186
100%–199%	202	202	199	193	190
200%–399%	205	204	199	196	190
400% or more	206	204	203	199	195

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[Data are based on interviews and laboratory data of a sample of the civilian noninstitutionalized population]

Sex, race and Hispanic origin, ¹ percent of poverty level, and age	1988–1994	1999–2002	2003–2006	2009–2012	2013–2016
20 years and over, crude	Mean serum total cholesterol level (mg/dL)				
Male					
20–44 years	194	196	196	191	187
20–34 years	186	188	186	182	179
35–44 years	206	207	209	204	200
45–64 years	216	213	206	200	196
45–54 years	216	215	208	203	201
55–64 years	216	212	202	198	192
65–74 years	212	202	191	184	176
75 years and over	205	195	187	173	168
Female					
20–44 years	189	191	192	187	181
20–34 years	184	185	188	180	177
35–44 years	195	198	197	196	188
45–64 years	225	215	213	212	207
45–54 years	217	211	208	209	207
55–64 years	235	221	219	216	206
65–74 years	233	224	214	206	202
75 years and over	229	217	206	201	196

--- Data not available.

¹Persons of Hispanic and Mexican origin may be of any race. Starting with 1999 data, race-specific estimates are tabulated according to the 1997 *Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity* and are not strictly comparable with estimates for earlier years. The non-Hispanic race categories shown in the table conform to the 1997 Standards. Starting with 1999 data, race-specific estimates are for persons who reported only one racial group. Prior to data year 1999, estimates were tabulated according to the 1977 Standards. Estimates for single-race categories prior to 1999 included persons who reported one race, or if they reported more than one race, identified one race as best representing their race. See Appendix II, Hispanic origin; Race.

²Estimates are age-adjusted to the year 2000 standard population using five age groups: 20–34 years, 35–44 years, 45–54 years, 55–64 years, and 65 years and over. Age-adjusted estimates may differ from other age-adjusted estimates based on the same data and presented elsewhere if different age groups are used in the adjustment procedure. See Appendix II, Age adjustment.

³Hypercholesterolemia is defined as measured serum total cholesterol greater than or equal to 240 mg/dL (6.20 mmol/L) or reporting taking cholesterol-lowering medications. Respondents were asked, "Are you now following this advice [from a doctor or health professional] to take prescribed medicine [to lower your cholesterol]?" See Appendix II, Cholesterol.

⁴Includes persons of all races and Hispanic origins, not just those shown separately.

⁵Percent of poverty level was calculated by dividing family income by the U.S. Department of Health and Human Services' poverty guidelines specific to family size, as well as the appropriate year, and state. Persons with unknown percent of poverty level are excluded (7% in 2013–2016). See Appendix II, Family income; Poverty.

⁶High cholesterol is defined as serum total cholesterol greater than or equal to 240 mg/dL (6.20 mmol/L), regardless of whether the respondent reported taking cholesterol-lowering medications. See Appendix II, Cholesterol.

NOTES: Standard errors for selected years are available in the spreadsheet version of this table. Data for additional years are available. See the Excel spreadsheet on the *Health, United States* website at: <https://www.cdc.gov/nchs/hus.htm>.

SOURCE: NCHS, National Health and Nutrition Examination Survey. See Appendix I, National Health and Nutrition Examination Survey (NHANES).