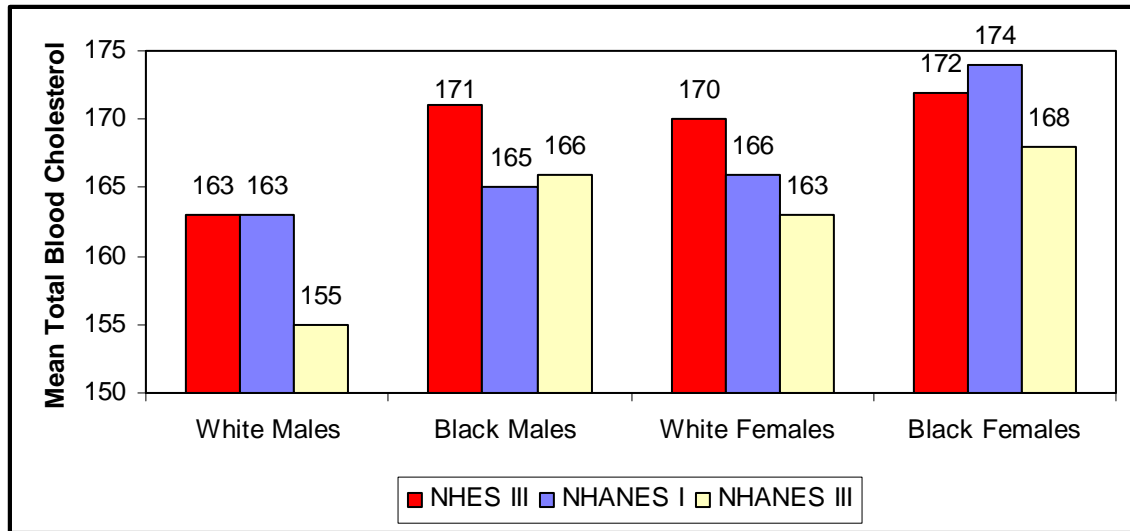


Statistical Fact Sheet — Risk Factors

High Blood Cholesterol and Other Lipids

Trends in Mean Total Blood Cholesterol Among Adolescents Ages 12-17 by Sex, Race and Survey

United States: 1966-70, 1971-74, 1988-94



Source: NHES III (1966-70), NHANES I (1971-74), NHANES III (1988-94), CDC/NCHS. Hickman TB, et al. Distributions and trends of serum lipid levels among United States children and adolescents ages 4-19 years: data from the Third National Health and Nutrition Examination Survey. *Prev Med.* 1998;27:879-890.

- Among children and adolescents ages 4-19,
 - Females have significantly higher average total cholesterol and low-density lipoprotein (LDL) or “bad” cholesterol than do males.
 - Non-Hispanic black children and adolescents have significantly higher mean total cholesterol, LDL cholesterol, and high-density lipoprotein (HDL) or “good” cholesterol levels when compared with non-Hispanic white and Mexican-American children and adolescents.

(NHANES III [1988-94], CDC/NCHS)

- Among children and adolescents ages 4-19, the mean total blood cholesterol level is 165 milligrams per deciliter (mg/dL). For boys it’s 163 mg/dL and for girls it’s 167 mg/dL. The racial/ethnic breakdown is:
 - For non-Hispanic whites, 162 mg/dL for boys and 166 mg/dL for girls.
 - For non-Hispanic blacks, 168 mg/dL for boys and 171 mg/dL for girls.
 - For Mexican Americans, 163 mg/dL for boys and 165 mg/dL for girls.

(NHANES [1988-94], CDC/NCHS)

- About 10 percent of adolescents ages 12-19 have total cholesterol levels exceeding 200 mg/dL. (NHANES III [1988-94], CDC/NCHS)

- The prevalence of cholesterol screening during the preceding 5 years increased from 67.3 percent in 1991 to 70.8 percent in 1999. For the 47 states that participated in the BRFSS study in all years from 1991 through 1999, the age-standardized prevalence of high blood cholesterol awareness among persons screened increased from 25.7 percent in 1991 to 28.6 percent in 1999. (BRFSS, *MMWR*, Vol. 50, No. 35;754-758, Sept. 7, 2001, CDC/NCHS)

- A 10-percent decrease in total cholesterol levels may result in an estimated 30-percent reduction in the incidence of coronary heart disease. (*MMWR*, Vol. 49, No. 33, Aug. 25, 2000, CDC/NCHS)

- About 105 million Americans age 20 and older have total blood cholesterol levels of 200 milligrams per deciliter (mg/dL) and higher:
 - 50 million men.
 - 55 million women.

Of these, about 42 million have total blood cholesterol levels of 240 mg/dL or higher:

- 18 million men.
- 24 million women.

In adults, total cholesterol levels of 240 mg/dL or higher are considered high risk. Levels from 200 to 239 mg/dL are considered borderline-high risk. (NHANES III [1988-94], CDC/NCHS)

- Among Americans age 18 and older, the median percentages who've been told by a health professional that they have high blood cholesterol are
 - For Hispanics, 25.6 percent.
 - For Asian/Pacific Islanders, 27.3 percent.
 - For American Indians/Alaska Natives in Alaska, 26.0 percent; in Oklahoma, 28.6 percent; in Washington, 26.5 percent.

(BRFSS [1997], *MMWR*, Vol. 49, No. SS-2, March 24, 2000. CDC/NCHS)

- Beginning at age 50, a higher percentage of women than men have total blood cholesterol of 200 mg/dL or higher.
- Among non-Hispanic whites ages 20-74, the following have total blood cholesterol levels over 200 mg/dL:
 - 52 percent of men.
 - 49 percent of women.

Of these, the following have levels of 240 mg/dL or higher:

- 18 percent of men.
- 20 percent of women.

Estimates are age-adjusted. (NHANES III [1988-94], CDC/NCHS)

- Among non-Hispanic blacks ages 20-74, the following have total blood cholesterol levels over 200 mg/dL:
 - 45 percent of men.
 - 46 percent of women.

Of these, the following have levels of 240 mg/dL or higher:

- 15 percent of men.
- 18 percent of women.

Estimates are age-adjusted. (NHANES III [1988-94], CDC/NCHS)

- Among Mexican Americans ages 20-74, the following have total blood cholesterol levels over 200 mg/dL:
 - 53 percent of men.
 - 48 percent of women.

Of these, the following have levels of 240 mg/dL or higher:

- 18 percent of men.
- 17 percent of women.

Estimates are age-adjusted. (NHANES III [1988-94], CDC/NCHS)

- Among elderly Japanese-American men ages 71 to 93, 42 percent have total cholesterol levels of 200 mg/dL or higher or are taking cholesterol-lowering medication. (HHP, Fourth Examination [1991-93], NHLBI)
- Among American Indians ages 45-74, the following have total blood cholesterol levels of 200 mg/dL or higher:
 - 37.7 percent of men.
 - 37.6 percent of women.

Of these, the following have levels of 240 mg/dL or higher:

- 8.6 percent of men.
- 12.7 percent of women.

(SHS [1989-92], NHLBI)

LDL (Bad) Cholesterol

- For children and adolescents ages 12-19, mean LDL cholesterol levels are
 - Among non-Hispanic whites, 91 mg/dL for boys and 100 mg/dL for girls.
 - Among non-Hispanic blacks, 99 mg/dL for boys and 102 mg/dL for girls.
 - Among Mexican Americans, 93 mg/dL for boys and 92 mg/dL for girls.

Higher LDL cholesterol levels combined with other risk factors increase the risks of heart disease, heart attack and stroke. (NHANES III [1988-94], CDC/NCHS)

- Among Americans age 20 and older, the following have an LDL cholesterol of 130 mg/dL or higher:
 - For non-Hispanic whites, 49.6 percent of men and 43.7 percent of women.
 - For non-Hispanic blacks, 46.3 percent of men and 41.6 percent of women.
 - For Mexican Americans, 43.6 percent of men and 41.6 percent of women.

Of these, an LDL cholesterol of 160 mg/dL or higher is found in

- For non-Hispanic whites, 20.4 percent of men and 17.0 percent of women.
- For non-Hispanic blacks, 19.3 percent of men and 18.8 percent of women.
- For Mexican Americans, 16.9 percent of men and 14.0 percent of women.

Low-density lipoprotein (LDL) or “bad” cholesterol levels of 130-159 mg/dL are considered borderline high. Levels of 160-189 mg/dL are classified as high, and levels of 190 mg/dL or higher are very high. Estimates are age-adjusted. (NHANES III [1988-94], CDC/NCHS)

HDL (Good) Cholesterol

- For children and adolescents ages 4-19, mean HDL cholesterol levels are
 - Among non-Hispanic whites, 48 mg/dL for boys and 50 mg/dL for girls.
 - Among non-Hispanic blacks, 55 mg/dL for boys and 56 mg/dL for girls.
 - Among Mexican Americans, 51 mg/dL for boys and 52 mg/dL for girls.

The higher a person's HDL cholesterol level is, the better. (NHANES III [1988-94], CDC/NCHS)

- Among Americans age 20 and older, the following have an HDL cholesterol of less than 40 mg/dL:
 - For non-Hispanic whites, 40.5 percent of men and 14.5 percent of women.
 - For non-Hispanic blacks, 24.3 percent of men and 13.0 percent of women.
 - For Mexican Americans, 40.1 percent of men and 18.4 percent of women.

High-density lipoprotein (HDL) or "good" cholesterol levels of less than 40 mg/dL are associated with a higher risk of coronary heart disease. Estimates are age-adjusted. (NHANES III [1988-91], CDC/NCHS)

- The risk of heart attack in both men and women is highest at lower HDL cholesterol (HDL-C) levels and higher total cholesterol levels, overall. However, those with lower levels of HDL-C (37 mg/dL or lower in men and 47 mg/dL or lower in women) are at a high risk regardless of their total cholesterol level. Conversely, those with high levels of total cholesterol have lower risks of heart attack when they also have higher levels of HDL-C (53 mg/dL or higher in men and 67 mg/dL or higher in women). (FHS, NHLBI)

Source Footnotes

BRFSS – Behavioral Risk Factor Surveillance System

CDC/NCHS – Centers for Disease Control and Prevention/National Center for Health Statistics

FHS – Framingham Heart Study

HHP – Honolulu Heart Program

MMWR – Morbidity and Mortality Weekly Report

NHANES III (1988-91) – National Health and Nutrition Examination Survey III, Phase I

NHANES III (1988-94) – National Health and Nutrition Examination Survey III

NHLBI – National Heart, Lung, and Blood Institute

SHS – Strong Heart Study