

# Heart Disease and Stroke Facts: Heart Attack and Stroke and High Cholesterol in Alaska

## What is High Blood Cholesterol?<sup>1</sup>

Cholesterol is a fatty waxy substance found in all cells. Cholesterol is made by the body and is acquired from foods. Though some is necessary for proper cell functions, too much cholesterol can lead to cardiovascular disease.

## Why is High Blood Cholesterol a Risk Factor for Cardiovascular Disease?<sup>1</sup>

Blood transports cholesterol through the body. Cholesterol combines to high-density or low-density lipoproteins. You may be familiar with the acronyms HDL (high density lipoprotein) and LDL (low density lipoprotein).

- HDL carries cholesterol out of the body. Thus, high HDL levels are an indicator of good cardiovascular health as HDL acts to reduce cholesterol in your blood stream. HDL is known as the “good” cholesterol.
- LDL carries cholesterol throughout the body. When too high, LDL particles can accumulate on the walls of arteries, beginning a process that can eventually lead to obstruction of blood flow in that vessel. LDL is the “bad” cholesterol.

## How do I know if I Have High Blood Cholesterol?<sup>2</sup>

There are no symptoms of high blood cholesterol. A blood test is taken to look at LDL, HDL, and total cholesterol. LDL cholesterol is considered first and is the primary target of therapy if high. Total cholesterol is considered next, then HDL cholesterol. The following summarizes classifications of cholesterol levels:

- LDL Cholesterol – Primary Target of Therapy
  - <100 Optimal
  - 100-129 Near optimal/above optimal
  - 130-159 Borderline high
  - 160-189 High
  - >190 Very high
- Total Cholesterol
  - <200 Desirable
  - 200-239 Borderline high
  - >240 High
- HDL Cholesterol
  - <40 At risk for men
  - <50 At risk for women
  - >60 Desirable

Whether you undergo lifestyle changes, drug therapy, or both, will be determined by a doctor and depends primarily on your LDL cholesterol levels, then total and HDL cholesterol, followed by the presence of other risk factors such as smoking or high blood pressure.

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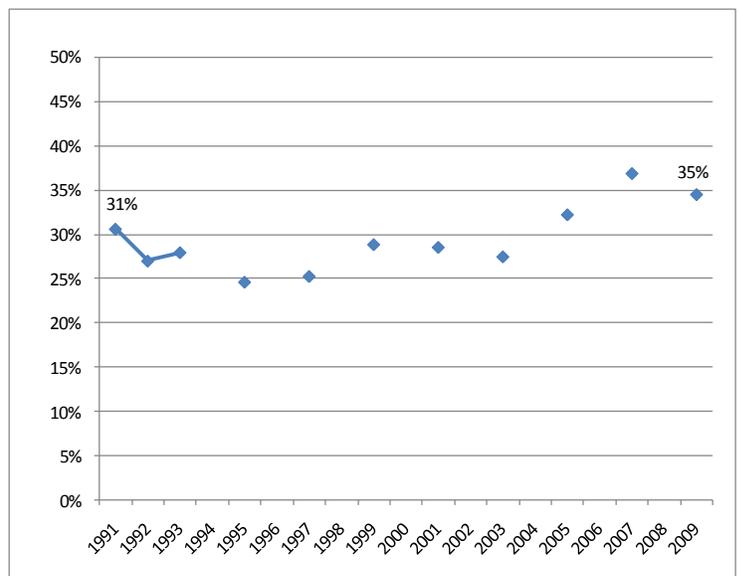
much and how quickly does reduction in serum cholesterol concentration lower risk of ischaemic heart disease? *Br Med J* 1994;308:367-372; <sup>5</sup>De Caterina B, Scarano M, Marfisi R, et al. Cholesterol-lowering interventions and stroke: insights from a meta-analysis of randomized controlled trials. *J Am Coll Cardiol* 2010;55(3):198-211; <sup>6</sup>Alaska Behavioral Risk Factor Surveillance System; <sup>5</sup>Take Heart Alaska available at: [www.takeheart.alaska.gov](http://www.takeheart.alaska.gov)

## High Blood Cholesterol and Cardiovascular Disease in the United State

- Elevated total cholesterol accounts for 27% of new cases of heart disease in men and 34% of new cases in women<sup>3</sup>
- A 10% decrease in population wide total cholesterol may result in a 30% reduction in incidence of coronary heart disease<sup>4</sup>
- Use of drugs to reduce total and LDL cholesterol reduces overall risk of stroke<sup>5</sup>

## High Blood Cholesterol in Alaska?

- The percentage of Alaskans told they have high cholesterol has increased about 10% since 2000<sup>6</sup>
- There are no significant differences in reported cholesterol lev-



els based on race, gender, income, or education<sup>6</sup>

- Rates of reported high cholesterol increase with increasing age<sup>6</sup>
- The percentage of those who report not having their cholesterol screened has been dropping since the early 1990s<sup>6</sup>

## What Can You Do?

In addition to taking prescribed medication, the American Heart Association recommends the following steps to lower your cholesterol:

- Eat a diet low in saturated and trans fats
- Also, eat a heart-healthy diet rich in vegetables, fruits, whole grains, high-fiber foods, lean meats, poultry, fish and low or fat-free dairy products.
- Exercise at least 30 minutes a day or 150 minutes per week
- Avoid tobacco smoke

<sup>1</sup>The Burden of Heart Disease and Stroke in Alaska: Mortality, Morbidity, and Risk Factors, available at: [http://www.hss.state.ak.us/dph/chronic/chp/pubs/burden\\_Dec09.pdf](http://www.hss.state.ak.us/dph/chronic/chp/pubs/burden_Dec09.pdf); <sup>2</sup>National Institutes of Health. ATP III Guidelines At-A-Glance Quick Desk Reference. NIH Publication No. 01-3305. May 2001. Available at: <http://www.nhlbi.nih.gov/guidelines/cholesterol/atglance.pdf>; <sup>3</sup>Wilson PWF, D'Agostino RB, Levy D, et al. Prediction of coronary heart disease using risk factor categories. *Circulation* 1998;97:1837-1847; <sup>4</sup>Law MR, Wald NJ, Thompson SG. By how