

Heart Disease in Minnesota

What is heart disease?

- **Heart Disease** includes a number of conditions which affect blood flow to and functioning of the heart. The most common type of heart disease is coronary artery disease, also known as coronary heart disease.
- A **myocardial infarction**, also known as **heart attack**, occurs when the vessels supplying blood to the heart become blocked. Heart muscle tissue is deprived of oxygen, resulting in tissue death.

What are the signs and symptoms of a heart attack?

Someone having a heart attack may experience only one, or several of these warning signs:

- **Chest discomfort.** Most heart attacks involve discomfort in the center of the chest that lasts more than a few minutes, or that goes away and comes back. It can feel like uncomfortable pressure, squeezing, fullness or pain.
- **Discomfort in other areas of the upper body.** Symptoms can include pain or discomfort in one or both arms, the back, neck, jaw or stomach.
- **Shortness of breath.** May occur with or without chest discomfort.
- **Other signs:** These may include breaking out in a cold sweat, nausea or lightheadedness.

What do I do if I think I am having a heart attack?

If you are possibly having a heart attack, it is an emergency. Call 9-1-1 immediately!



What are the risk factors for heart disease that cannot be changed?

Age: About 4 out of 5 heart disease deaths are in people older than 65 years of age. Unfortunately, the cumulative effects of aging increase heart disease risk.

Sex: Heart disease is more prevalent in men than in women, and men are at greater risk before age 65. After age 65, this difference largely disappears.

Race/Ethnicity: Heart disease is the number one cause of death nationally. African Americans die from heart disease at a 31% higher rate than whites, but American Indians, Asians, and Hispanics all die of heart disease at lower rates than whites.¹

Family History. Several studies have shown that heart disease risk is increased for individuals with family members who have heart disease. This includes not only the genetic inheritance of heart disease risk factors, but also the sharing of cultural, environmental, and lifestyle factors within families that increase risk of heart disease.

What are the major modifiable risk factors for heart disease?²

High Blood Cholesterol: Increasing levels of total cholesterol are associated with higher rates of ischemic heart disease. However, low HDL- cholesterol is also an important risk factor for heart disease, particularly for men. Approximately 34% of adults in Minnesota report they have high cholesterol (2009 data).

High Blood Pressure: High blood pressure, also known as hypertension, is a major risk factor for heart disease. About 69% of people who have a first heart attack have high blood pressure.³ Controlling hypertension (through increased physical activity, improved diet and nutrition, quitting smoking, and medications) is associated with a significant reduction in heart disease incidence. Approximately 22% of adults in Minnesota report they have high blood pressure, lower than any other state (2009 data).

Center for Health Promotion
85 East 7th Place Suite 400
P.O. Box 64882
St. Paul, MN 55164-0882
(651) 201-5405
www.health.state.mn.us/cvh

Heart Disease in Minnesota – page 2

Cigarette Smoke: Smoking doubles to triples the risk of dying from coronary heart disease. In addition, over 35,000 non-smokers in the US die from coronary heart disease each year due to environmental exposure to smoke from tobacco.⁴ In 2010, 14.9% of Minnesota adults were current cigarette smokers.

Diabetes: The risk for heart disease is two-to-four times higher among people with diabetes. People with diabetes can lower their risk of heart disease by controlling their blood pressure and cholesterol levels. Approximately 6.7% of adults in Minnesota have diabetes; one-third are unaware they have the disease (2010 data).

Overweight and Obesity: A growing body of evidence is showing that heart disease risk increases with increased weight. In Minnesota, 60% of adults are overweight, including 24% who are obese (2010 data).⁵

Physical Inactivity: Several studies have shown that physical inactivity increases the risk of heart disease anywhere from 1.5 to 2.4 times – comparable to the risk observed in high blood cholesterol, high blood pressure, or cigarette smoking. Fewer than half of all Minnesotan adults get the recommended amount of exercise or physical activity. As of 2010, 19% of adults in Minnesota are not physically active at all.

Are there disparities in heart disease rates in Minnesota?

- Most notably in Minnesota, American Indian men experience a 39% higher **heart disease** death rate than white men, and American Indian women have a 34% higher death rate than white women.⁶
- Although stroke death rates are significantly higher in African Americans than whites in Minnesota, the difference between these groups in heart disease death rates is relatively small. This is very unusual, compared to significant disparities seen in heart disease between African Americans and whites across the nation.

How common is heart disease?

- As of 2010, approximately 3.4% of adults in Minnesota reported ever having had a heart attack during their lifetime – more than 135,000 people.²

- Angina (chest pain or discomfort due to inadequate blood supply to the heart) or coronary heart disease was also reported by 3.6% of Minnesota adults – more than 144,000 people (2010 data).²
- Approximately 19% of all deaths in Minnesota are due to heart disease, making it the second-leading cause of death in the state behind cancer.⁶
- In 2009, Minnesotans experienced over 50,000 acute heart disease hospitalizations.⁷
- Minnesota has the lowest overall heart disease mortality rate in the United States, and has declined faster than almost every other state from 1999 to 2007.³

What is the economic cost of heart disease?

- In the United States, Americans incurred over \$177 billion in total medical costs related to heart disease in 2007. \$82 billion was due to direct costs for clinical care and medications; while \$95 billion was due to indirect costs such as lost productivity due to mortality.³
- Minnesotans incurred over \$1.79 billion in charges for inpatient hospitalizations due to heart disease in 2009.⁷

¹ CDC. Deaths: Final Data for 2007. National Vital Statistics Reports 2010; 58(19).

² Minnesota Behavioral Risk Factor Surveillance System Survey.

³ Roger VL, et al. Heart Disease and Stroke Statistics – 2011 Update. A report from the American Heart Association Statistics Committee and Stroke Statistics Subcommittee. *Circulation*. 2011; 123:e18-e209.

⁴ MMWR, Vol 54, No. 25, 2005, CDC.

⁵ Based on Body Mass Index (BMI), defined as weight in kilograms divided by height in meters squared. BMI > 25 = Overweight, BMI > 30 = Obese.

⁶ Vital Statistics, 2005-2009, Minnesota Center for Health Statistics, Minnesota Department of Health.

⁷ Minnesota Hospital Uniform Billing (UB) Claims Data, Health Economics Program, Minnesota Department of Health and Minnesota Hospital Association.