

# Heart Disease and Stroke Facts: Heart Attack and Stroke and Cigarette Smoking in Alaska

## Does Smoking Cause Cardiovascular Disease?<sup>1</sup>

A heart attack occurs when a plaque ruptures and the body's defenses form a mass of cells and clots which can block blood flow completely. Smoking increases the risk of this happening through a variety of mechanisms:

- Smoking accelerates the formation of plaques, a fatty buildup, in your arteries.
- Plaques decreases blood flow through vessels.
- A decrease in blood flow causes the heart to work harder which increases blood pressure.
- Increasing blood pressure can damage arterial walls, which begins the process of plaque formation.
- The nicotine in cigarette smoke also increases heart rate and oxygen demand.
- The blood's ability to carry oxygen decreases due to the carbon monoxide in tobacco smoke.
- Smoking increases the likelihood your blood will clot abnormally.

Thus smoking not only damages arteries which contributes to the formation of a plaque s, but contributes to the final clot that will stop your heart . All of this applies to the blood vessels in your brain as well, which can lead to stroke

Some statistics about smoking related to heart disease and stroke:

- Smoking accounts for as many as 30% of deaths from ischemic heart disease each year<sup>2,3</sup> and 18% of strokes.<sup>4</sup>
- Smoking even 1-3 cigarettes per day increases the risk of heart disease by about 64%. Those smoking about a pack of cigarettes each day increase their risk of death by about 100%.<sup>5</sup>
- Smoking increases the risk of stroke by 80%.<sup>6</sup>
- One year after quitting, a smoker's risk of ischemic heart disease is cut in half. Within 15 years, the risk

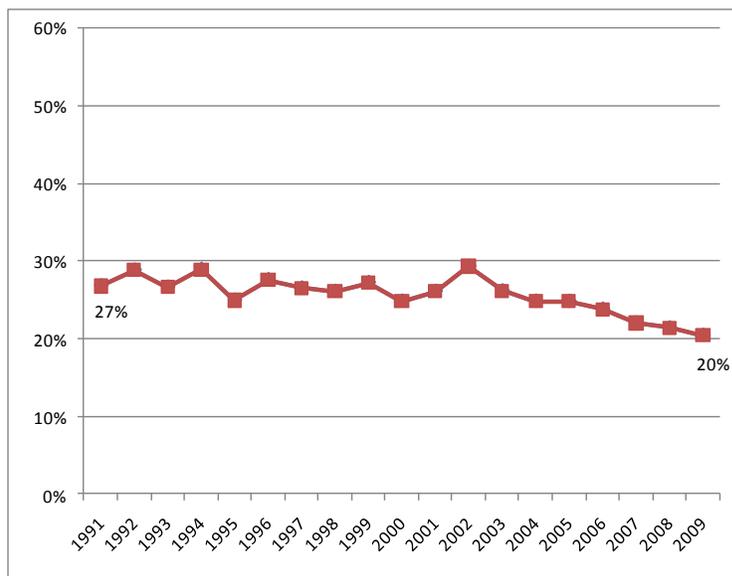
approaches that of someone who never smoked.<sup>7</sup>

Produced by the Heart Disease and Stroke Prevention Program, Division of Public Health, Alaska Department of Health and Social Services (7/21/2010)



## Cigarette Smoking and Cardiovascular Disease in Alaska

- Heart diseases was the 2<sup>nd</sup> leading cause of death in Alaska in 2006<sup>8</sup>
- Heart disease accounted for over 1/3 of the total hospitalization costs for Alaska in 2007 at \$515 million<sup>9</sup>
- Stroke was the 4<sup>th</sup> leading cause of death in Alaska in 2006<sup>8</sup>
- Stroke is also a leading cause of function impairments, with 15-30% being permanently disabled<sup>10</sup>
- The percentage of Alaskans who smoke has declined from around 29% in 1991 to 21% in 2009. The national rate is 18%<sup>8</sup>



- Alaska natives are more than twice as likely to smoke as those of other racial backgrounds<sup>8</sup>
- Alaska men are more likely to smoke than Alaskan women<sup>8</sup>
- Smoking rates decrease with increasing family income and higher education<sup>8</sup>

## What Can I Do?

Quit. Quit smoking. You can start by calling Alaska's Quit Line. Alaska's Tobacco Quit Line provides free one-on-one counseling, information on how to quit, nicotine replacement therapy, and referral services seven days a week. Current tobacco users are encouraged to use this free resource to help them quit. Simply call 888-842-QUIT (7848).

To learn more about the State of Alaska's efforts to reduce smoking in our state, please visit the Alaska Tobacco Prevention and Control Program webpage at: <http://www.hss.state.ak.us/dph/chronic/tobacco/>.

<sup>1</sup>Cigarette Smoking and Cardiovascular Diseases. American Heart Association, available at: <http://www.americanheart.org/presenter.jhtml?identifier=4545>. Accessed July 27, 2010; <sup>2</sup>US Dept of Health and Human Services. Reducing the Health Consequences of Smoking: 25 years of Progress. A Report of the Surgeon General, US Department of Health and Human Services, Public Health Service, Centers for Disease Control, Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 1989. DHHS Publication (CDC) 89-8411; <sup>3</sup>US Dept of Health and Human Services. The Health Benefits of Smoking Cessation. A Report of the Surgeon General, US Department of Health and Human Services, Public Health Service, Centers for Disease Control, Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 1990. DHHS Publication (CDC) 90-8416;

<sup>4</sup>Goldstein LB, Adams R, Becker K, et al. Primary prevention of ischemic stroke: a statement for healthcare professionals from the Stroke Council of the American Heart Association. *Circulation* 2001;103:163-182; <sup>5</sup>Pope CA 3rd, Burnett RT, Krewski D, et al. Cardiovascular mortality and exposure to airborne fine particulate matter and cigarette smoke. Shape of the exposure-response relationship. *Circulation* 2009;120:941-948; <sup>6</sup>Wolf PA, D'Agostino RB, Belanger AJ, et al. Probability of stroke: a risk profile from the Framingham Study. *Stroke* 1991;22:312-318; <sup>7</sup>US Department of Health and Human Services. The Health Consequences of Smoking: A Report of the Surgeon General. US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2004; <sup>8</sup>Alaska Behavioral Risk Factor Surveillance System; <sup>9</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>10</sup>American Heart Association. *Heart Disease and Stroke Statistics-2004 Update*