

ATHEROSCLEROSIS FACT SHEET

ABOUT ATHEROSCLEROSIS

- Atherosclerosis, or athero for short, is the progressive buildup of plaque – fatty deposits and other cells – in the walls of your arteries.¹
 - Its name comes from the Greek words *athero* (meaning gruel or paste) and *sclerosis* (hardness).²
- For many people, the disease may start early in life.² As we get older, arterial plaque can build up and restrict blood flow. Over time this disease can eventually clog your arteries, limiting or blocking blood flow.¹
- There are two types of plaque that can form in the artery walls:
 - **Stable** plaque has a thick fibrous cap made of smooth muscle cells. As plaque grows, it can reduce blood flow to the brain, heart, or other parts of the body.
 - **Unstable** plaque is more dangerous because it has a thin cap. As a result, it may rupture, causing an acute, life-threatening heart attack.
 - Whether the plaque in your arteries is stable or unstable, all plaque contains a lipid core – fatty deposits made of cholesterol and other cells.

CONSEQUENCES

- Because plaque tends to build up slowly in the arteries, atherosclerosis may have no symptoms until the artery becomes severely narrowed or completely blocked.¹ The consequences of atherosclerosis can be severe and far-reaching, including:
 - **Coronary artery disease** (CAD) can result when blood flow is restricted to parts of the heart.³ Restricted blood flow may cause chest pain (also called angina) and heart attack, while other complications include weakened heart muscles or heart failure.¹
 - **Stroke and transient ischemic attack** (TIA) can occur if blood supply is blocked to part(s) of the brain. Stroke can be very serious. TIA often has some of the same symptoms as stroke, although symptoms normally pass within one hour up to 24 hours. It may not be as serious as stroke, but it is considered a warning for future attacks and stroke.⁴
 - **Peripheral arterial disease** (PAD) occurs when blood flow to the arms or legs is limited. PAD can cause pain and numbness and, if left unchecked, can result in tissue death, or gangrene.⁵

RISK FACTORS

- Because atherosclerosis usually has no symptoms until the artery becomes completely blocked or severely narrowed, it is important to work with a physician to identify controllable and uncontrollable risk factors for atherosclerosis.
- Controllable risks factors include⁶:
 - High blood pressure
 - High LDL cholesterol
 - Smoking
 - Lack of physical activity
 - Obesity
 - Poor diet
 - Diabetes
- Uncontrollable risk factors include family history and age.

PREVALENCE

- Before turning 35, two out of three Americans will have some degree of plaque build-up in their arteries.⁷
- Atherosclerosis is usually a slow and progressive condition¹ that often causes coronary heart disease (CHD) – the leading cause of death in the United States.⁸
- CHD and stroke were responsible for more than 589,000 deaths in 2005.⁸ Together, CHD and stroke kill more Americans every year than all cancers *combined*.
- Approximately 785,000 Americans will have their first heart attack in 2009, and 470,000 Americans will have a recurring attack.⁸ One American will suffer a coronary event about every 25 seconds, and about every minute someone will die from one.⁸
- Atherosclerosis is also an underlying cause of stroke, which afflicts about 795,000 Americans every year.⁸

COSTS

- The total estimated direct and indirect cost of coronary heart disease and stroke in 2009 is \$234.3 billion.⁸

MORE INFORMATION

- US AGAINST ATHERO is a national education program designed to raise awareness of atherosclerosis and how this chronic, progressive disease can destroy the health of our arteries and lead to heart attack, stroke, and other dangerous consequences. To learn more about what AstraZeneca is doing to educate people about atherosclerosis, log on to www.athero.com.

¹ “What is Atherosclerosis?” National Heart, Lung and Blood Institute. Available at:

http://www.nhlbi.nih.gov/health/dci/Diseases/Atherosclerosis/Atherosclerosis_WhatIs.html. Accessed January 15, 2009.

² “Atherosclerosis.” The American Heart Association. Available at: <http://www.americanheart.org/presenter.jhtml?identifier=4440>. Accessed January 15, 2009.

³ “Coronary Artery Disease.” National Institute of Health. Available at: <http://www.nlm.nih.gov/medlineplus/coronaryarterydisease.html>. Accessed January 15, 2009.

⁴ “Transient Ischemic Attack Information Page.” National Institute of Neurological Disorders and Stroke. Available at: <http://www.ninds.nih.gov/disorders/tia/tia.htm>. Accessed January 15, 2009.

⁵ “What is Peripheral Arterial Disease?” National Heart, Lung and Blood Institute. Available at: http://www.nhlbi.nih.gov/health/dci/Diseases/pad/pad_what.html. Accessed January 15, 2009.

⁶ “Risk Factors and Coronary Heart Disease.” American Heart Association. Available at: <http://www.americanheart.org/presenter.jhtml?identifier=235>. Accessed January 15, 2009.

⁷ Strong, et al., 1999. Prevalence and Extent of Atherosclerosis in Adolescents and Young Adults. The Journal of the American Medical Association. 730-731, Table 3.

⁸ Heart Disease and Stroke Statistics: 2009 Update. American Heart Association. January 13, 2009.