

Signs & Symptoms of Heart Attack and Stroke

Heart disease is the leading cause, and stroke is the fourth leading cause, of death in both Connecticut and the United States.^{1,2} Heart disease and stroke are also major causes of disability among adults. The *Healthy People 2020* national objectives for both heart disease and stroke include increasing the proportion of persons who are aware of the early warning symptoms and signs of heart attack (objective HDS-16) and stroke (objective HDS-17) and the necessity of calling 911 when persons are suffering from either of these conditions.³ Early recognition and calling 911 increase the likelihood of immediate emergency transport to the hospital and timely medical care that can reduce disability and death.

The Behavioral Risk Factor Surveillance System telephone survey (BRFSS) gathers information about heart attack and stroke awareness in its telephone survey of adults 18 years and older. Findings from the Connecticut 2009 BRFSS suggest that Connecticut adults are likely to recognize some signs of heart attack and stroke but not others. For example, about 94% of adults recognize chest pain or discomfort, but only about 55% of adults recognize jaw, neck or back pain as symptoms of heart attack (Table 1). About 95% of adults recognize sudden numbness or weakness of the face, arm, or leg, but only 57% recognize severe headache as signs of stroke (Table 2).

Table 1: Percentage of Connecticut Adults Who Recognize Heart Attack Warning Signs and the Need to Call 911 (CT BRFSS, 2009)⁴

Heart Attack Sign/Symptom	Percentage		
	All	Males	Females
Jaw, neck, back pain *	55.0	44.1	65.0
Lightheaded, faint	61.4	60.8	61.9
Shortness of breath	84.3	83.6	85.0
Arm or shoulder discomfort *	88.1	84.7	91.3
Chest pain or discomfort *	93.6	92.2	95.0

* Significant difference between men and women (p <0.05)

Females are more likely than males to recognize the signs and symptoms of heart attack and stroke. For example, about 65% of women but only about 44% of men recognize jaw, neck, or back pain as symptoms of a heart attack (Table 1). About 61% of women but only about 52% of men recognize severe headache with no apparent cause as a warning sign of stroke (Table 2).

Table 2: Percentage of Connecticut Adults Who Recognize Stroke Warning Signs and the Need to Call 911 (CT BRFSS, 2009)⁴

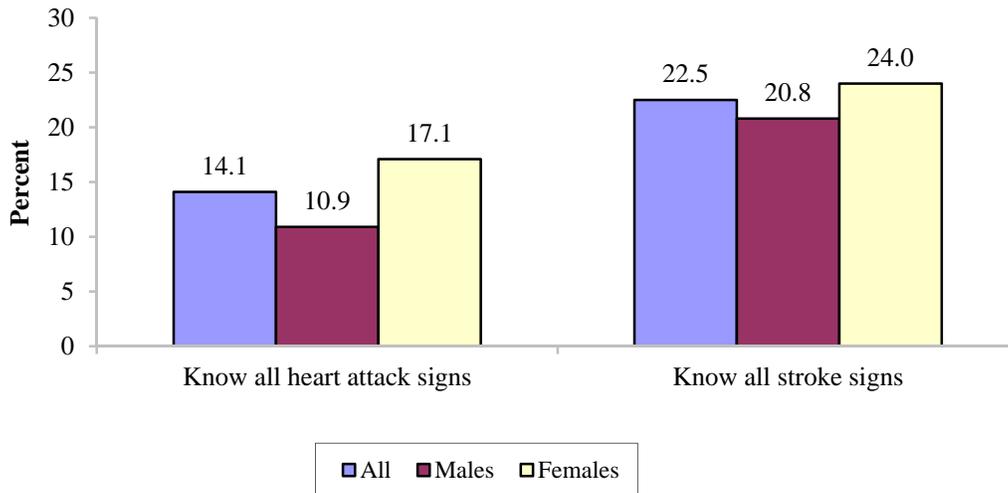
Stroke Sign/Symptom	Percentage		
	All	Males	Females
Severe headache with no known cause *	56.7	51.7	61.4
Trouble seeing in one or both eyes	70.6	69.1	72.1
Trouble walking, dizziness, or loss of balance*	85.2	83.2	87.1
Confusion, trouble speaking	90.6	89.2	91.9
Sudden numbness/weakness of face, arm, or leg*	94.7	93.3	96.0

* Significant difference between men and women (p <0.05)

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People should know all the signs and symptoms for heart attack and stroke. The percentage of Connecticut adults who know all the signs and symptoms for heart and stroke tends to be very low. Overall, only 14% of Connecticut adults know all the proper heart attack signs and only 23% know all the proper stroke signs. Women are more knowledgeable than men about the signs and symptoms of heart attack ($p < 0.001$). While a greater percentage of women compared with men are knowledgeable of the signs and symptoms of stroke, the difference is not statistically significant (Figure 1).

Figure 1: Percentage of Connecticut Adults Who Know All the Signs and Symptoms of Stroke, by Gender (CT BRFSS, 2009)⁴



The Connecticut Department of Public Health Heart Disease and Stroke Prevention Program (HDSP) aims to reduce the burden of heart disease and stroke among Connecticut residents. The HDSP focuses on priorities and strategies established by the Centers for Disease Control and Prevention (CDC) to reduce the incidence of, and death and disability from, heart disease and stroke. For further information, contact the Connecticut Department of Public Health Heart Disease and Stroke Prevention Program at: 860-509-7801.**

1. Connecticut Department of Public Health. 2010. *Vital Records Mortality Files*. Connecticut Department of Public Health, Hartford, CT. Available at <http://www.ct.gov/deathdata>.
2. Miniño AM, Xu JQ, Kochanek KD. 2010. *Deaths: Preliminary data for 2008*. National Center for Health Statistics, Hyattsville, MD. *National Vital Statistics Reports* vol 59 no 2. Available at www.cdc.gov/nchs/data/nvsr/nvsr59/nvsr59_02.pdf.
3. U.S. Department of Health and Human Services (HHS). 2011. *Healthy People 2020*. HHS, Washington, DC. Available at www.healthypeople.gov/2020/default.aspx.
4. Connecticut Department of Public Health, Behavioral Risk Factor Surveillance System (BRFSS) Program. 2011. *Unpublished data for Connecticut*. Connecticut Department of Public Health, Hartford, CT.

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