

Stroke

Stroke was the third leading cause of death.

- African Americans were most likely to die of stroke.
- People living in San Pablo, Pittsburg and Richmond were more likely to die from stroke compared to the county overall.

From 2005–2007, 1,462 Contra Costa residents died of stroke, accounting for 7.1% of all deaths in Contra Costa. This means that on average, 487 residents of Contra Costa died from stroke each year.

The age-adjusted death rate from stroke in Contra Costa (46.7 per 100,000) was lower than California's age-adjusted rate (49.5 per 100,000) and met the Healthy People 2010 objective (50 per 100,000).

Table 1 ■ Stroke deaths by race/ethnicity

Contra Costa County, 2005–2007

	Deaths	Percent	Rate
White	1,043	71.3%	45.6
African American	161	11.0%	80.5*
Asian/Pacific Islander	141	9.6%	47.1
Hispanic	107	7.3%	36.1**
Total	1,462	100.0%	46.7

These are age-adjusted rates per 100,000 residents.

Total includes racial/ethnic groups not listed above.

* Significantly higher rate than the county overall.

** Significantly lower rate than the county overall.



Editor's note: In this report, stroke and heart disease are discussed as separate topics. Some health reports group stroke and heart disease together under the heading “cardiovascular disease.”

In Contra Costa, the greatest number of deaths from stroke occurred among whites (1,043), followed by African Americans (161), Asians/Pacific Islanders (141) and Hispanics (107).

Although African Americans died in fewer numbers than whites, African Americans had the highest death rate from stroke (80.5 per 100,000); higher than the county overall (46.7 per 100,000) and all other racial/ethnic groups listed. Hispanics (36.1 per 100,000) had a lower death rate from stroke than the county overall.

Table 2 ■ Stroke deaths by gender

Contra Costa County, 2005–2007

	Deaths	Percent	Rate
Females	910	62.2%	46.5
Males	552	37.8%	46.1
Total	1,462	100.0%	46.7

These are age-adjusted rates per 100,000 residents.

More than half (62.2%) of all deaths from stroke occurred among females (910), yet the death rates from stroke were similar for females (46.5 per 100,000) and males (46.1 per 100,000).

Table 3 ■ Stroke deaths by selected cities

Contra Costa County, 2005–2007

	Deaths	Percent	Rate
Walnut Creek	238	16.3%	43.1
Concord	180	12.3%	51.9
Richmond	162	11.1%	61.5*
Antioch	109	7.5%	56.1
Pittsburg	97	6.6%	71.9*
San Pablo	71	4.9%	99.9*
Pleasant Hill	51	3.5%	40.0
Martinez	50	3.4%	48.6
El Cerrito	49	3.4%	37.4
Brentwood	44	3.0%	44.9
Pinole	31	2.1%	45.1
Hercules	25	1.7%	48.1
Oakley	23	1.6%	51.5
Bay Point	14	1.0%	NA
Contra Costa	1,462	100.0%	46.7

These are age-adjusted rates per 100,000 residents.

Contra Costa total includes cities not listed above.

* Significantly higher rate than the county overall.

The greatest number of deaths from stroke was in Walnut Creek (238), followed by Concord (180), Richmond (162) and Antioch (109).

Three cities had significantly higher death rates from stroke than the county overall (46.7 per 100,000): San Pablo (99.9 per 100,000), Pittsburg (71.9 per 100,000) and Richmond (61.5 per 100,000).

What is a stroke?

A stroke occurs when a blood vessel that carries oxygen and nutrients to the brain is either blocked by a clot or bursts. Without oxygen brain cells begin to die, resulting in possible death or permanent disability. Ischemic strokes, which are caused by blood clots and plaque buildup in the arteries, are the most common type of stroke, accounting for about 85% of all strokes.¹

Why is it important?

In Contra Costa, stroke is the third leading cause of death for the county overall, men, women, African Americans, whites and Asians/Pacific Islanders, and the fourth leading cause of death for Hispanics. Stroke accounts for 7.1% of all deaths in the county.

Stroke is also a leading cause of serious, long-term disability.¹ In the United States every year, about 610,000 people have a stroke for the first time and 185,000 stroke survivors have another stroke.² Recovery from a stroke can take months or years and many survivors never fully recover.¹

The social and financial costs from stroke take a toll on families and communities. In 2009, stroke episodes cost the United States \$68.9 billion in health care services costs, medications and missed days of work.²

Who is most impacted?

In Contra Costa, African Americans are most likely to die from a stroke. National data on the occurrence of strokes indicate that males are more likely to have a stroke than females. Blacks, Hispanics and American Indian/Alaska Natives are more likely to experience a stroke than whites or Asians.³ African Americans are also more likely than whites to become disabled and have difficulty with activities of daily living after surviving a stroke.⁴

The likelihood of having a stroke increases with age.³ Other factors that can increase the chance of having a stroke include: high blood pressure, high blood cholesterol, heart disease and diabetes.⁵ These conditions are linked to cigarette smoking, exposure to secondhand smoke, a diet high in salt, lack of exercise, overweight and obesity and consumption of too much alcohol.^{5,6} Personal and family history of a stroke also increase the chance of having a stroke.^{3,5}

What can we do about it?

It is important to recognize the symptoms of a stroke and respond quickly with medical attention. Stroke symptoms include sudden numbness in the face and extremities, trouble seeing in one or both eyes, trouble speaking and/or walking, severe headache with no known cause, loss of balance and sudden confusion.⁷ If given shortly after the start of symptoms, modern medications can reduce the long-term disability for many patients. Educating high-risk families about the symptoms of a stroke and encouraging them, when needed, to seek immediate medical care could save lives and prevent disability.

Strategies to reduce the risk of having a stroke include the following: do not smoke; limit alcohol consumption; be physically active; maintain a healthy weight; and eat a healthy, low-cholesterol, low-

sodium, high-fiber diet that includes plenty of fruits and vegetables.⁸ Managing and treating chronic conditions related to stroke including high blood pressure, high cholesterol and diabetes are also important stroke-prevention strategies.⁸

Programs and policies that improve access to healthy foods and opportunities for low- or no-cost physical activity, including those that support neighborhood-level changes to the built environment, can foster healthy behaviors that reduce the risk of stroke.⁹

Data Sources: Stroke

TABLES

Tables 1-3: These tables include total deaths due to cerebrovascular disease and age-adjusted average annual death rates per 100,000 residents for 2005 through 2007. Mortality data from the California Department of Public Health (CDPH), <http://www.cdph.ca.gov/>, Center for Health Statistics' Death Statistical Master File, 2005-2007. Any analyses or interpretations of the data were reached by the Community Health Assessment, Planning and Evaluation (CHAPE) Unit of Contra Costa Health Services and not the CDPH. Data presented for Hispanics include Hispanic residents of any race. Data presented for whites, Asians/Pacific Islanders and African Americans include non-Hispanic residents. Not all race/ethnicities are shown but all are included in totals for the county and for each gender and city. Rates were not calculated for any group with fewer than 20 cases due to unstable estimates.

ICD10 coding for cerebrovascular disease (ICD I60-169) from the Centers for Disease Control and Prevention National Center for Health Statistics, available online at: http://www.cdc.gov/nchs/data/nvsr/nvsr50/nvsr50_16.pdf

Population estimates for Contra Costa and its subpopulations (by age, gender, race/ethnicity, city/census place) for 2005-2007 were provided by the Urban Strategies Council, Oakland, CA. January, 2010. Data sources used to create these estimates included: U.S. Census 2000, Nielsen Claritas 2009, Association of Bay Area Governments (ABAG) 2009 Projections, and California Department of Finance Population Estimates for Cities, Counties and the State 2001–2009, with 2000 Benchmark.

California population estimate for state level rate from the State of California, Department of Finance, E-4 Population Estimates for Cities, Counties and the State, 2001–2009, with 2000 Benchmark. Sacramento, California, May 2009.

Healthy People 2010 objectives from the U.S. Department of Health and Human Services' Office of Disease Prevention and Health Promotion, available online at: <http://www.healthypeople.gov/>

TEXT

1. National Center for Chronic Disease Prevention and Health Promotion, Division for Heart Disease and Stroke Prevention (2010) *Stroke Facts*. Retrieved April 15, 2010 from the CDC website at: <http://www.cdc.gov/stroke/facts.htm>
2. Lloyd-Jones D, Adams R, Carnethon M, et al. *Heart Disease and Stroke Statistics—2009 Update. A Report From the American Heart Association Statistics Committee and Stroke Statistics Subcommittee*. *Circulation*. 2009;119:e21–e181.
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CHRONIC DISEASES

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9. Aboelata MJ, Mikkelsen L, Cohen L, (2004) *The Built Environment and Health: 11 Profiles of Neighborhood Transformation*. Prevention Institute, Oakland CA.