

# Cancers – All Types

*Cancer was the leading cause of death in Contra Costa.*

- The most commonly diagnosed cancers in the county were prostate, breast, lung and colorectal cancer.
- Lung, colorectal, breast and pancreatic cancers were the most common causes of cancer death.
- Blacks and whites were more likely to be diagnosed with cancer than county residents overall.
- African Americans were most likely to die from cancer.
- Males were more likely to be diagnosed with and die from cancer than females.

## Deaths

Between 2005–2007, cancer was the leading cause of death in Contra Costa accounting for one-quarter (25.0%) of all deaths (see Leading Causes of Death section). In Contra Costa, 5,131 residents died from cancer. This means that an average of 1,710 Contra Costa residents died from cancer each year. Contra Costa’s age-adjusted cancer death rate (162.0 per 100,000) was lower than California’s age-adjusted rate (168.6 per 100,000) and was not significantly higher than the Healthy People 2010 objective (158.6 per 100,000).

**Table 1 ■ Cancer deaths by race/ethnicity**  
Contra Costa County, 2005–2007

	Deaths	Percent	Rate	
White	3,799	74.0%	175.6*	In this report, a cancer case is defined as a primary malignant tumor that originated in the site or organ where it was identified rather than having spread from another location.
African American	512	10.0%	228.0*	
Asian/Pacific Islander	404	7.9%	16.2**	
Hispanic	360	7.0%	100.6**	
<b>Total</b>	<b>5,131</b>	<b>100.0%</b>	<b>162.0</b>	

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.

The highest number of deaths from cancer in the county occurred among whites (3,799) followed by African Americans (512), Asians/Pacific Islanders (404) and Hispanics (360).

African Americans had the highest cancer death rate (228.0 per 100,000); higher than the rates for the county overall (162.0 per 100,000) and all other racial/ethnic groups listed. Whites (175.6 per 100,000) had a higher cancer death rate than the county overall. Asians/Pacific Islanders (116.2 per 100,000) and Hispanics (100.6 per 100,000) had lower cancer death rates than the county overall.

The number of cancer deaths was higher among females (2,630) than males (2,501) yet males (188.5 per 100,000) had a higher cancer death rate than females (146.0 per 100,000).

Among males, African Americans (258.7 per 100,000) had the highest cancer death rate; higher than the rates for males in the county overall (188.5 per 100,000) and all other racial/ethnic groups listed. White males (206.6 per 100,000) also had a higher cancer death rate than males in the county overall. Hispanic (126.1 per 100,000) and Asian/Pacific Islander males (119.6 per 100,000) had lower cancer death rates than county males overall.

**Table 2 ■ Male cancer deaths by race/ethnicity**

Contra Costa County, 2005–2007

	Deaths	Percent	Rate
White	1,864	74.5%	206.6*
African American	228	9.1%	258.7*
Asian/Pacific Islander	187	7.5%	119.6**
Hispanic	192	7.7%	126.1**
<b>Total</b>	<b>2,501</b>	<b>100.0%</b>	<b>188.5</b>

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

Total includes males in racial/ethnic groups not listed above.

\* Significantly higher rate than county males overall.

\*\* Significantly lower rate than county males overall.

Among females, African Americans (216.5 per 100,000) had the highest cancer death rate; higher than the rates for females in the county overall (146.0 per 100,000) and females of all other racial/ethnic groups listed. Hispanic females (83.6 per 100,000) had the lowest cancer death rate; lower than females in the county overall and than all other racial/ethnic groups listed. Asian/Pacific Islander females (114.6 per 100,000) also had a lower cancer death rate than county females overall.

**Table 3 ■ Female cancer deaths by race/ethnicity**

Contra Costa County, 2005–2007

	Deaths	Percent	Rate
White	1,935	73.6%	156.7
African American	284	10.8%	216.5*
Asian/Pacific Islander	217	8.3%	114.6**
Hispanic	168	6.4%	83.6**
<b>Total</b>	<b>2,630</b>	<b>100.0%</b>	<b>146.0</b>

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

Total includes females in racial/ethnic groups not listed above.

\* Significantly higher rate than county females overall.

\*\* Significantly lower rate than county females overall.

The greatest number of deaths from cancer occurred among people living in Walnut Creek (746), Concord (614), Richmond (486) and Antioch (430). These four cities accounted for 44.4% of all cancer deaths in the county.

Four cities had significantly higher cancer death rates than the county overall (162.0 per 100,000): San Pablo (269.6 per 100,000), Oakley (219.2 per 100,000), Martinez (207.0 per 100,000) and Antioch (200.8 per 100,000).

**Table 4 ■ Cancer deaths by selected cities**  
Contra Costa County, 2005–2007

	Deaths	Percent	Rate
Walnut Creek	746	14.5%	180.3
Concord	614	12.0%	172.4
Richmond	486	9.5%	177.7
Antioch	430	8.4%	200.8*
Pittsburg	268	5.2%	180.0
Martinez	234	4.6%	207.0*
San Pablo	190	3.7%	269.6*
Brentwood	190	3.7%	169.2
Pleasant Hill	190	3.7%	160.7
El Cerrito	160	3.1%	137.8
Oakley	122	2.4%	219.2*
Pinole	114	2.2%	169.9
Hercules	94	1.8%	149.1
Bay Point	60	1.2%	130.2
<b>Contra Costa</b>	<b>5,131</b>	<b>100.0%</b>	<b>162.0</b>

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 leading causes of cancer deaths were lung, colorectal, breast, pancreas and prostate cancers. These five cancer types accounted for more than half (53.8%) of all cancer deaths in the county. *Note: The top five cancers are covered in more detail in other cancer-specific sections of this report.*

**Table 5 ■ Cancer deaths by cancer type**

Contra Costa County, 2005–2007

	Deaths	Percent
Lung	1,218	23.7%
Colorectal	517	10.1%
Breast	417	8.1%
Pancreas	341	6.6%
Prostate	270	5.3%
Non-Hodgkins lymphoma	212	4.1%
Leukemia	206	4.0%
Liver and intrahepatic bile ducts	187	3.6%
Bladder	159	3.1%
Ovary	145	2.8%
<b>Total</b>	<b>5,131</b>	<b>100.0%</b>

Total includes deaths from all cancers, including but not limited to those listed above.

## New Cases

To understand the impact of cancer on the community's health it is important to assess both cancer diagnoses and deaths. Information about cancer deaths indicates the ultimate toll this disease takes on people's lives, but many more people develop cancer than die from it. Information about new cancer cases provides a sense of how much and among whom the disease is diagnosed and highlights the need for prevention, screening and treatment programs.

Between 2003–2007, 23,065 new cases of invasive cancer were diagnosed in Contra Costa; an average of 4,613 new cases per year. The age-adjusted rate of new invasive cancer cases was higher in Contra Costa (454.2 per 100,000) than California (433.6 per 100,000). Both males and females in the county had higher rates of new invasive cancer cases (519.3 and 409.0 per 100,000) than males and females statewide (500.4 and 387.4 per 100,000).

Approximately half (50.5%) of all new invasive cancer cases in the county were among males. Males in Contra Costa experienced a higher rate of new cancer cases compared to females (519.3 and 409.0 per 100,000, respectively).

**Table 6 ■ New invasive cancer cases by gender**  
Contra Costa County, 2003–2007

	Cases	Percent	Rate
Males	11,651	50.5%	519.3 *
Females	11,414	49.5%	409.0
<b>Total</b>	<b>23,065</b>	<b>100.0%</b>	<b>454.2</b>

Invasive cancer is cancer that has spread beyond the tissue where it developed to surrounding, healthy tissue.

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

\* Significantly higher rate than county females.

The greatest number of new invasive cancer cases in Contra Costa occurred among whites (16,676) followed by Hispanics (2,015), Asians/Pacific Islanders (1,920) and blacks (1,914). Blacks (485.6 per 100,000) and whites (481.2 per 100,000) had higher rates of new invasive cancer cases than the county overall (454.2 per 100,000). Asians/Pacific Islanders (298.3 per 100,000) had the lowest rate in the county; lower than the county overall and the other groups listed. Hispanics (361.1 per 100,000) also had a lower rate of new invasive cancer cases than the county overall.

**Table 7 ■ New invasive cancer cases by race/ethnicity**  
Contra Costa County, 2003–2007

	Cases	Percent	Rate
White	16,676	72.3%	481.2 *
Hispanic	2,015	8.7%	361.1 **
Asian/Pacific Islander	1,920	8.3%	298.3 **
Black	1,914	8.3%	485.6 *
<b>Total</b>	<b>23,065</b>	<b>100.0%</b>	<b>454.2</b>

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.

The greatest number of new invasive male cancer cases in Contra Costa occurred among white males (8,454) followed by Hispanic (987), black (977) and Asian/Pacific Islander (869) males. Black (592.7 per 100,000) and white (542.8 per 100,000) men had higher rates of new invasive cancer cases than males in the county overall (519.3 per 100,000). Asians/Pacific Islanders (317.7 per 100,000) had the lowest rate of new cancer cases among males; lower than males in the county overall and all other groups listed. The rate for Hispanic males (419.2 per 100,000) was also lower than males in the county overall.

**Table 8 ■ New invasive male cancer cases by race/ethnicity**

Contra Costa County, 2003–2007

	Cases	Percent	Rate
White	8,454	72.6%	542.8 *
Hispanic	987	8.5%	419.2 **
Black	977	8.4%	592.7 *
Asian/Pacific Islander	869	7.5%	317.7 **
<b>Total</b>	<b>11,651</b>	<b>100.0%</b>	<b>519.3</b>

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

Total includes males in racial/ethnic groups not listed above.

\* Significantly higher rate than county males overall.

\*\* Significantly lower rate than county males overall.

The greatest number of new invasive female cancer cases in Contra Costa occurred among white females (8,222) followed by Asian/Pacific Islander (1,051), Hispanic (1,028) and black (937) females. Compared to the rate of new invasive cancer cases among females in the county overall (409.0 per 100,000), white females had a higher rate of new cancer cases (438.6 per 100,000). Asian/Pacific Islander (287.3 per 100,000) and Hispanic (325.6 per 100,000) females had lower rates of new cases than females in the county overall.

**Table 9 ■ New invasive female cancer cases by race/ethnicity**

Contra Costa County, 2003–2007

	Cases	Percent	Rate
White	8,222	72.0%	438.6 *
Asian/Pacific Islander	1,051	9.2%	287.3 **
Hispanic	1,028	9.0%	325.6 **
Black	937	8.2%	410.7
<b>Total</b>	<b>11,414</b>	<b>100.0%</b>	<b>409.0</b>

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

Total includes females in racial/ethnic groups not listed above.

\* Significantly higher rate than county females overall.

\*\* Significantly lower rate than county females overall.

The most commonly diagnosed new invasive cancer cases in the county were prostate, breast, lung and colorectal cancers, which accounted for more than half (55.4%) of all new invasive cancers in the county.

**Table 10 ■ Most commonly diagnosed new invasive cancers**

Contra Costa County, 2003-2007

	Cases	Percent	Rate
Prostate	3,908	16.9%	170.0
Breast	3,836	16.6%	73.5
Lung	2,704	11.7%	55.1
Colorectal	2,325	10.1%	46.1
Melanoma of the skin	1,050	4.6%	20.7
Urinary bladder	1,025	4.4%	20.8
Non-Hodgkin's lymphoma	981	4.3%	19.3
Kidney and renal pelvis	657	2.8%	12.8
Corpus uteri	643	2.8%	22.6
Pancreas	575	2.5%	11.5
<b>Total</b>	<b>23,065</b>	<b>100.0%</b>	<b>454.2</b>

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

Total includes in situ bladder cancer and all new invasive cancers (except basal and squamous cell skin cancers) including but not limited to those listed above.

**Table 11 ■ Most commonly diagnosed new female invasive cancers**

Contra Costa County, 2003–2007

	Cases	Percent	Rate
Breast	3,820	33.5%	136.1
Lung	1,436	12.6%	52.6
Colorectal	1,160	10.2%	41.0
Corpus uteri	643	5.6%	22.6
Non-Hodgkin's lymphoma	447	3.9%	16.0
Melanoma of the skin	442	3.9%	16.1
Ovary	355	3.1%	12.7
Pancreas	310	2.7%	11.1
Thyroid	290	2.5%	10.8
Kidney and renal pelvis	247	2.2%	8.9
<b>Total</b>	<b>11,414</b>	<b>100.0%</b>	<b>409.0</b>

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

Total includes in situ bladder cancer and all new invasive cancers (except basal and squamous cell skin cancers) including but not limited to those listed above.

**Table 12 ■ Most commonly diagnosed new male  
invasive cancers**

Contra Costa County, 2003–2007

	Cases	Percent	Rate
Prostate	3,908	33.5%	170.0
Lung	1,268	10.9%	59.7
Colorectal	1,165	10.0%	52.9
Urinary bladder	779	6.7%	37.0
Melanoma of the skin	608	5.2%	27.2
Non-Hodgkin's lymphoma	534	4.6%	23.7
Kidney and renal pelvis	410	3.5%	17.5
Pancreas	265	2.3%	11.8
Liver and intrahepatic bile duct	232	2.0%	9.8
Stomach	199	1.7%	9.2
<b>Total</b>	<b>11,651</b>	<b>100.0%</b>	<b>519.3</b>

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

Total includes in situ bladder cancer and all new invasive cancers (except basal and squamous cell skin cancers) including but not limited to those listed above.



### What is cancer?

Cancer includes more than 100 diseases, characterized by the uncontrolled growth and spread of abnormal cells. These cells typically form a lump or mass called a malignant tumor, although some cancers such as leukemia, a cancer of the bone marrow and blood, do not involve tumors.<sup>1,2</sup>

### Why is it important?

Cancer is the leading cause of death in Contra Costa and the second leading cause of death in California and the United States.<sup>1,3,4</sup> Cancer accounts for approximately one in four deaths locally, statewide and nationally.<sup>1,5,6</sup>

Despite declining rates of new cancer cases and cancer deaths in the state, cancer continues to impact many people.<sup>1</sup> More than 1.2 million Californians living today have survived or are living with cancer and it is estimated that one in two Californians born today will be diagnosed with cancer at some point in life.<sup>1</sup>

In addition to the human toll there are tremendous financial costs associated with cancer. The National Institutes of Health estimates that the overall costs of cancer in 2010 will be \$263.8 billion: direct medical costs (\$102.8 billion) and lost productivity due to illness (\$20.9 billion) and premature death (\$140.1 billion).<sup>5</sup>

### Who does it impact most?

A number of factors can increase a person's chance of developing cancer. However, the relationship between these factors and the disease is not straightforward. Some people with multiple risk factors for cancer do not develop the disease; others develop cancer despite the absence of any known risk factors.<sup>7</sup>

Cancer is a chronic disease that is heavily influenced by age.<sup>5,8</sup> More than three-quarters (78%) of all cancer diagnoses are among people 55 years of age and older.<sup>5</sup>

In Contra Costa, males are more likely to develop and die from cancer than females and African Americans are most likely to die from cancer.<sup>3,6</sup> White females in Contra Costa are more likely to be diagnosed with cancer than females in the county overall. Black and white males in Contra Costa are more likely to be diagnosed with cancer than males in the county overall.<sup>3</sup> Nationally, black males are more likely to be diagnosed with cancer than males of other racial/ethnic groups, including whites.<sup>6,9</sup>

Obesity and several key health behaviors, including smoking, eating an unhealthy diet and being physically inactive, are considered the most significant avoidable causes of cancer.<sup>1,5,8,10</sup> Approximately one in three cancer deaths is caused by tobacco use; another one in three is caused by poor diet, obesity and physical inactivity.<sup>1</sup> Other factors that can increase the chance of developing cancer include: a family history of cancer; excessive alcohol consumption; some viruses and bacteria; the use of certain hormones including estrogen; exposure to sunlight and other environmental toxins including secondhand smoke, radiation and certain kinds of chemicals including asbestos and others.<sup>8</sup>

### What can we do about it?

The following behaviors may help reduce the risk of developing cancer: refraining from smoking or using any tobacco products; being physically active; eating a healthy diet; maintaining a healthy weight, avoiding unprotected sun exposure; and limiting alcohol consumption.<sup>1</sup>

Policies and programs that improve access to affordable healthy foods, increase opportunities for safe, low- or no-cost physical activity, discourage smoking initiation, support smoking cessation and reduce exposure to secondhand smoke are important cancer prevention strategies.

Screening can help prevent cancer by identifying precancerous tissue, which can then be removed before it develops into cancer.<sup>5</sup> Screening can also help detect cancer early, when treatment options and the chance of survival are greatest. For some of the most common cancers, including breast, prostate, colorectal and cervical cancer, the five-year survival rate is at least 90% if the cancer is diagnosed before it spreads.<sup>1</sup>

Unfortunately, people without health insurance often postpone medical visits and cancer screenings due to costs. Residents without health insurance are twice as likely to be diagnosed with late-stage cancer compared to those who are insured.<sup>1</sup> In addition, one in four cancer patients postpone or do not seek treatment due to medical costs, which reduces their chance of survival.<sup>1</sup> Access to health insurance and affordable, culturally competent health care services is important to enable people to pursue appropriate cancer screenings and early treatment.

## Data Sources: Cancers – All Types

### TABLES

Tables 1-12: Data presented for Hispanics include Hispanic residents of any race. Data presented for whites, Asians/Pacific Islanders and African Americans (or blacks) include non-Hispanic residents. Not all races/ethnicities are shown but all are included in totals for the county, by gender and by city.

Tables 1–5: These tables include total deaths due to all cancers 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.

ICD10 coding for malignant neoplasms (ICD C00–C97) 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](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/>.

Tables 6–12: These tables include five-year case counts and age-adjusted average annual new case rates for 2003 through 2007. New case data from the California Cancer Registry. (2009). Cancer Incidence Rates in California. Based on October 2009 Quarterly Extract (Released October 08, 2009). Retrieved (12/10/09–12/24/09) from <http://cancer-rates.info/ca>. Note: Veterans Health Administration hospitals did not report cancer cases to the California Cancer Registry (CCR) in 2005–2007. Therefore, case counts and rates for adult males for 2005–2007 are underestimates and should be interpreted with caution. Although there is no way to know how many unreported cancer cases were diagnosed in these facilities, historically VHA-reported cases have accounted for approximately 4% of all new male cancers reported to the California Cancer Registry. (See [www.ccrca.org/publications/Vatechnotes](http://www.ccrca.org/publications/Vatechnotes)).

New case data for this section include in situ bladder cancer and all invasive cancers excluding basal and squamous cell skin cancers. For more information about the specific International Classification of Diseases for Oncology, Third Edition (ICD-O-3) coding for new cancer cases, see the National Cancer Institute's website: [http://seer.cancer.gov/siterecode/icdo3\\_d01272003](http://seer.cancer.gov/siterecode/icdo3_d01272003). Note: In this report, the term “lung cancer” refers to lung and bronchus cancer and the term “colorectal cancer” refers to colon and rectum cancer.

#### TEXT

1. American Cancer Society, California Department Public Health, California Cancer Registry (2009). *California Cancer Facts and Figures 2010*. Oakland, CA: American Cancer Society, California Division, September 2009.
2. National Cancer Institute, U.S. National Institutes of Health (2010). *Cancer Topics: What is Cancer?* Retrieved September 27, 2010 from <http://www.cancer.gov/cancertopics/what-is-cancer>
3. California Cancer Registry, 2009. Incidence data for 2003–07, based on October 2009 Quarterly Extract, released October 08, 2009.
4. Xu J, Kochanek K.D., Murphy S.L., Tejada-Vera B., Deaths: Final Data for 2007. U.S. Department of Health and Human Services. National Vital Statistics Reports Volume 58, Number 19. May 2010.
5. American Cancer Society. *Cancer Facts & Figures 2010*. Atlanta: American Cancer Society; 2010.
6. California Department of Public Health, Center for Health Statistics' Death Statistical Master File, 2005–2007.
7. Morris CR, Epstein J, Nassere K, Hofer BM, Rico J, Bates JH, Snipes KP. Trends in Cancer Incidence, Mortality, Risk Factors and Health Behaviors in California. Sacramento, CA: California Department of Public Health, Cancer Surveillance Section, January 2010.
8. National Cancer Institute, U.S. National Institutes of Health (2006). *What You Need to Know About™ Cancer—Risk factors?* Retrieved September 27, 2010 from <http://www.cancer.gov/cancertopics/wyntk/cancer>
9. U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 1999–2006 Incidence and Mortality Web-based Report*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2010. Data for 2006 retrieved August 31, 2010 at: [www.cdc.gov/uscs](http://www.cdc.gov/uscs).
10. *Cancer Trends Progress Report—2009/2010 Update*, National Cancer Institute, NIH, DHHS, Bethesda, MD, April 2010, <http://progressreport.cancer.gov>.