Leukemia is a cancer that starts in the tissue that forms blood. In a person with leukemia, the bone marrow makes abnormal white blood cells, or leukemia cells. Unlike normal blood cells, leukemia cells do not die when they should. They may crowd out normal white blood and red blood cells, and platelets. This makes it hard for normal blood cells to do their work.

There are different types of leukemia, grouped by how quickly the disease develops and worsens. Leukemia is either chronic (which usually gets worse slowly) or acute (which usually worsens quickly). The types of leukemia can also be grouped by the type of white blood cell that is affected. Leukemia can start in lymphoid cells (lymphoid, lymphocytic, or lymphoblastic leukemia), or in myeloid cells (myeloid, myelogenous, or myeloblastic leukemia).

**Leukemia Incidence Rates, California, 2006–2010**

Between 2006 and 2010, the leukemia incidence rate for males in California was 15.7 new cases per 100,000 males per year. For females in California, the leukemia incidence rate was slightly lower at 9.7 new cases per 100,000 females per year. With respect to race/ethnicity, the highest leukemia incidence rates were found among both non-Hispanic white males and females (17.4 new cases and 10.4 new cases per 100,000 persons, respectively).

* Rates are age-adjusted to the 2000 U.S. Population.
* Source: California Cancer Registry, California Department of Public Health.
* Prepared by the California Department of Public Health, California Cancer Registry.
Leukemia Incidence and Mortality, California, 1988–2009

From 1988 to 2009, the incidence rate of leukemia for males in California declined slightly, albeit at a statistically significant rate. Among females, the incidence rate remained relatively stable over the same period.

Mortality rates for leukemia decreased at a statistically significant rate between 1988 and 2009, for both males and females in California.

Leukemia Mortality Rates, California 2006–2010

Between 2006 and 2010, the leukemia mortality rate for males in California was 8.7 deaths per 100,000 males per year, compared with the female leukemia mortality rate of 5.2 deaths per 100,000 females per year. With respect to race/ethnicity, the highest leukemia mortality rates were experienced by non-Hispanic white males and females (9.7 deaths and 5.4 deaths per 100,000 persons per year, respectively).

Leukemia Mortality Rates, California 2006–2010*

<table>
<thead>
<tr>
<th>Year</th>
<th>Leukemia Mortality Rate, Males</th>
<th>Leukemia Mortality Rate, Females</th>
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<tr>
<td>2006</td>
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</tr>
<tr>
<td>2009</td>
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</tbody>
</table>

Trends in Leukemia Incidence and Mortality, California, 1988–2009

From 1988 to 2009, the incidence rate of leukemia for males in California declined slightly, albeit at a statistically significant rate. Among females, the incidence rate remained relatively stable over the same period.

Mortality rates for leukemia decreased at a statistically significant rate between 1988 and 2009, for both males and females in California.

Leukemia Incidence and Mortality Trends, California 1988–2009*

- Leukemia Incidence Rate, Males
- Leukemia Mortality Rate, Males
- Leukemia Incidence Rate, Females
- Leukemia Mortality Rate, Females

Risk Factors

Certain factors have been shown to be associated with an increased risk of certain types of cancer. The majority of known cancer risk factors are related to individual characteristics (such as age, race/ethnicity, or family history/genetic susceptibility) and behaviors (such as smoking, diet, physical inactivity, unsafe sex, and sun exposure).

For more information on leukemia risk factors, prevention, screening, symptoms, and treatment:

- National Cancer Institute
  Check out the NCI’s What You Need to Know About™ Cancer Index at: www.cancer.gov/cancertopics/wyntk
  or call the NCI Cancer Information Service: 1-800-4-CANCER

- Centers for Disease Control and Prevention
  www.cdc.gov

- American Cancer Society (ACS)
  www.cancer.org
  or call 1-800-227-2345

* Rates are age-adjusted to the 2000 U.S. Population.
Source: California Cancer Registry, California Department of Public Health.
Prepared by the California Department of Public Health, California Cancer Registry.