

# GLIOBLASTOMA IN ADULTS (AGE 20 YEARS AND OLDER)



## What is Glioblastoma?

Glioblastoma is a cancer of the glial, or supportive, tissue of the brain. Glioblastoma is the most frequent brain tumor accounting for approximately 12 percent to 15 percent of all brain tumors. Glioblastoma is also called "glioblastoma multiforme," "grade IV astrocytoma," and "GBM".

## What are the Risk Factors for Glioblastoma?

Risk factors alter a person's chance of getting a disease. However, having a risk factor does not mean you will get the disease. Risk factors for glioblastoma, as well as other types of brain tumors, are largely unknown. Abnormalities on chromosomes 10 and 17 (structures containing DNA or genetic material) may contribute to glioblastoma development. Scientists continue to conduct environmental, occupational, familial and genetic research to identify glioblastoma risk factors.

## What are the Symptoms for Glioblastoma?

The following symptoms could be caused by glioblastoma. A doctor should be consulted if any of these problems occur. Symptoms of brain tumors are usually due to increased pressure in the brain and include:

- Headaches
- Seizures
- Memory loss
- Behavior changes

## Who gets glioblastoma?

An incidence or mortality rate is the rate at which new cancer cases or deaths occur in a population. In California, glioblastoma incidence

rates have remained relatively constant over the last two decades. The five-year age-adjusted incidence rate for glioblastoma in California is 3.6 per 100,000 population.

- Men are more frequently diagnosed with glioblastoma than women.
- Less than 10 percent of cases occur in children with incidence peaking between the ages of 60 and 84 years.
- Incidence rates are highest in non-Hispanic whites followed by Hispanics, non-Hispanic blacks, and Asian/Pacific Islanders.

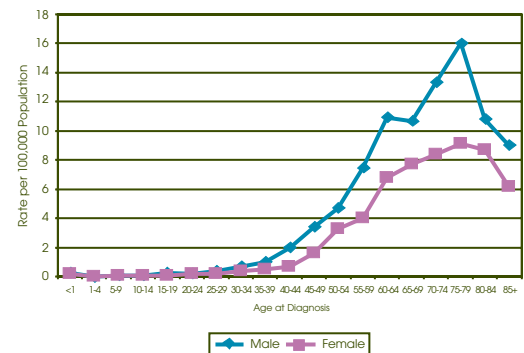
## What are the Treatments for Glioblastoma?

Standard treatments include surgery plus radiation or surgery plus radiation and chemotherapy. A variety of other treatments including variations of radiation therapy, radiosurgery, and brachytherapy are currently under investigation in clinical trials.

## Who survives glioblastoma?

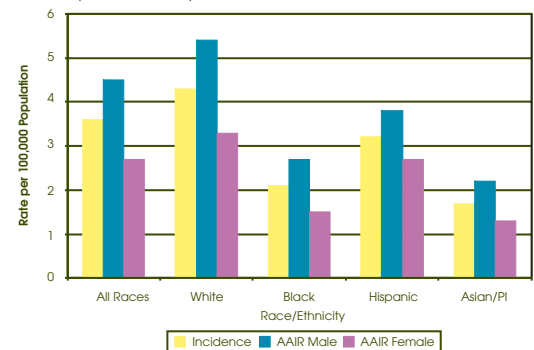
Relative survival compares survival between a group of cancer patients and a group of cancer-free individuals. Values less than 100 percent indicate cancer shortens life in the given population. The five-year relative survival rate for glioblastoma is 4.8 percent in California and varies little by sex or race/ethnicity.

Five-year Age-Specific Glioblastoma Incidence Rates, by Sex, California, 2001-2005



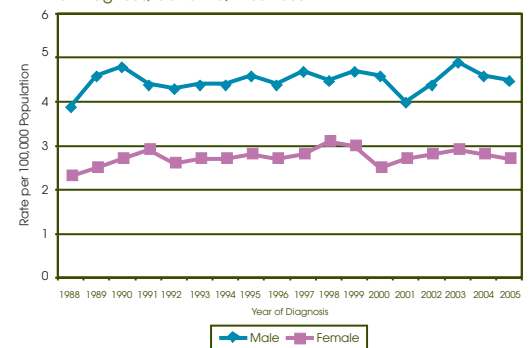
Prepared by the California Department of Public Health, Cancer Surveillance Section.

Glioblastoma Five-year Age-Adjusted Incidence Rates (AAIR), by Race/Ethnicity and Sex, California, 2001-2005



Prepared by the California Department of Public Health, Cancer Surveillance Section.

Age-Adjusted Glioblastoma Incidence Rates, by Sex and Year of Diagnosis, California, 1988-2005



Prepared by the California Department of Public Health, Cancer Surveillance Section.



Arnold Schwarzenegger, Governor  
State of California

Sandra Shewry, Director  
Department of Health Sciences

Kimberly Belshé, Secretary  
California Health and Human Services Agency