Australian Government
Cancer Australia

CANCER AUSTRALIA

Central Nervous System Cancers

Definition

- Central nervous system (CNS) cancers include brain (C71) and other central nervous system cancers (C70 and C72) including meninges and spinal cord.

Incidence and mortality

- Brain cancer accounts for the majority of CNS cases – in 2003 for example, brain cancer accounted for 1,360 of the 1,431 new cases of central nervous system (CNS) cancers.
- In 2006, 1,404 new cases of were brain cancer were reported, (1.3 per cent of all cancer cases).
- There were 800 new cases of brain cancer in males in 2006 (1.4 per cent of all cancer cases in males).
- There were 604 new cases of brain cancer in females in 2006, (1.3 per cent of all cancer cases in females).
- The lifetime risk of developing brain cancer before the age of 75 is 1 in 190, with a higher risk in males (1 in 160) than females (1 in 232).

- Brain cancer was responsible for 1,123 deaths in Australia in 2007 (2.8 per cent of all cancer deaths).
- Brain cancer caused the majority of CNS deaths, with 666 males and 457 females dying from brain cancer in 2007.

Trends

- The incidence and mortality rates of brain cancer in Australia over the last 20 years have remained relatively stable, with the exception of a decline of mortality rates in the last 2 years. In the last 20 years, the incidence rate in the population has increased by approximately 5 per cent, however the mortality rate has decreased by 12.5 per cent. These trends are seen in both genders.
- The incidence and mortality rates of brain cancer in males and females generally increase with age. It is interesting to note the incidence and mortality rates in younger Australians.

Relative survival

- Brain cancer has a low relative 5 year survival: 18.9 per cent of persons diagnosed with brain cancer between 1998 and 2004 were alive 5 years after their initial diagnosis.

- For both males and females, brain cancer has shown no significant change in survival between 1982–1986 and 1998–2004.

Risk factors

- There is no strong risk factor for brain cancer.
- Some factors may increase risk, including exposure to radiation, long-term exposure to certain chemicals such as vinyl chloride and petroleum products, and impairment of the immune system. There is some debate regarding the strength of the evidence linking these factors to the risk of developing brain cancer.
- There is no clear evidence that brain cancer is caused by head trauma or mobile phone use.

Sources: This factsheet draws on data published by the Australian Institute of Health and Welfare, including in:

- Australian Institute of Health and Welfare 2010. Australia's Health 2010. Australia's health series no. 12. Cat. no. AUS 122. Canberra: AIHW.
- Australian Institute of Health and Welfare, Cancer Australia & Australasian Association of Cancer Registries 2008. Cancer survival and prevalence in Australia: cancers diagnosed from 1982 to 2004. Cancer series no. 42 Cat. no. CAN 38. Canberra: AIHW.
- www.aihw.gov.au/cancer/data/acim_books (viewed 28/9/2010) - 2006 incidence and 2007 mortality data.

The figures quoted relate to cancers C71 as classified under the International Classification of Diseases (ICD – 10). CNS also includes C70 and C72, however 2006 incidence and 2007 mortality figures for these two cancers are not currently available.

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