

MAKE SMOKING HISTORY[®]

Facts on Smoking and Lung Cancer

About lung cancer

Lung cancer is one of the most common cancers in Australia.

In 2007, lung cancer was the fourth most commonly occurring cancer in men (5,948 new cases) and women (3,755 new cases).¹ Between 1982 and 2007 the incidence rate of lung cancer in Australia decreased by 32% in males but increased by 72% in females, most likely due to their diverse smoking histories.¹ In Western Australia, there were 976 new cases of lung cancer in 2009 (583 in men and 393 in women respectively).²

Lung cancer is a leading cause of cancer death in Australia.

In 2007, lung cancer was the most common cause of cancer death in both men and women (4,715 and 2,911 deaths respectively).¹ Between 1982 and 2007 the death rate from lung cancer had decreased by 41% among Australian males, while the rate in females had increased by 56% in the same period, again reflecting historical differences in smoking behaviour.¹ In Western Australia lung cancer was the leading cause of cancer death for both men and women in 2009, with 483 men and 320 women dying from lung cancer.²

Lung cancer survival rates are low in Australia.

Lung cancer has often reached an advanced stage by the time symptoms appear. Relative survival following diagnosis remains very poor in comparison to other cancers.³ Australian data for the period 1998-2004 found that only 10.7% of males and 14% of females diagnosed with lung cancer survive five years or more.¹

Causes of lung cancer

Lung cancer is primarily a preventable disease with active cigarette smoking by far the main cause.

It is estimated that 88% of lung cancer deaths in Australian men and 75% in Australian women (aged over 35) are caused by smoking.⁴ The risk of lung cancer increases with years of smoking and amount smoked. Lung cancer occurs most often in 'older' people as it usually takes decades for cancer-causing agents in tobacco smoke to take full effect.⁵ Younger people can also develop lung cancer but it is rare. Less than 1% of lung cancers occur in people under the age of 40.³

Non-smokers can also get lung cancer.

Evidence is conclusive that exposure to second hand smoke is a cause of lung cancer in non-smokers.⁶ Other factors known to increase lung cancer risk include occupational exposure to certain industrial carcinogens including asbestos, radon, arsenic, nickel and chromium. However, in industrialised nations such exposures are well controlled.⁷ Some genetic factors may influence a person's lung cancer risk. Genetic susceptibility is thought to play a greater role in those who develop lung cancer at an early age.⁸

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Studies suggest that women may be at increased risk of lung cancer

There is much debate around this and the possible explanations. Exposure to second hand smoke may be a cause in some cases. Other theories suggest differences between men and women in: metabolism of carcinogens; repair of DNA damage from carcinogens; genetic mutations associated with lung cancer; and hormonal influences on lung tumour growth. This area warrants further research, but it should be remembered that smoking is by far the main cause of lung cancer in both women and men.⁹

Benefits of quitting for lung cancer risk

Quitting smoking has immediate and more long term benefits at any age. Research shows that the risk of dying from lung cancer at 75 is reduced by 87.5% if a person quits at 30, by 81% if quitting occurs at 40, 62.5% at 50 and 37.5% at 60.¹⁰ A recent review also found that smoking cessation can improve prognostic outcomes in early stage lung cancer. Based on the data from the review, it was estimated that 29% of continuing smokers would survive for five years compared with 63% of quitters.¹¹

For more information and help to quit

- For information about lung cancer, call the Cancer Council Helpline on 13 11 20.
- For help to quit smoking, call the Quitline on 13 7848 which offers free information, confidential counselling and a 6 session quit call-back service.
- Cancer Council Western Australia also offers *Fresh Start* courses that are run in workplaces and the community. If you are interested in attending a course, call the Quitline or the Cancer Council Helpline to find out where courses are running. You can also access information at www.cancerwa.asn.au/prevention/tobacco/freshstart/.

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¹ AIHW (Australian Institute of Health and Welfare) & AACR (Australasian Association of Cancer Registries). Cancer in Australia: an overview, 2010. AIHW Cancer Series No. 60. Cat. No. CAN 56. Canberra: AIHW; 2010.

² Threlfall TJ, Thompson JR. Cancer incidence and mortality in Western Australia, 2009. Statistical series number 91. Perth, Western Australia: Department of Health; 2011.

³ AIHW, AACR. Cancer survival in Australia, 2001 - Part 1: National summary statistics. AIHW Cancer Series No. 18. Cat. No. CAN 13. Canberra: AIHW; 2001.

⁴ Scollo MM, Winstanley MH (editors). Tobacco in Australia: Facts and Issues. 3rd ed. Melbourne: Cancer Council Victoria; 2008.

⁵ AIHW. Mortality over the twentieth century in Australia: trends and patterns in major causes of death. AIHW Mortality Surveillance Series No. 4. Cat. No. PHE73. Canberra: AIHW; 2005.

⁶ International Agency for Research on Cancer (IARC). Tobacco Smoke and Involuntary Smoking, IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Vol. 83. Lyon, France: IARC; 2004.

⁷ Alberg AJ, Samet JM. Epidemiology of lung cancer. Chest. 2003;123(1 Suppl): 21S-49S.

⁸ American Cancer Society. American Cancer Society responds to the death of Dana Reeve. c2006. Available from http://www.cancer.org/docroot/MED/MED_0.asp (Press Room).

⁹ Thomas L, et al. Lung cancer in women: emerging differences in epidemiology, biology and therapy. Chest. 2005;128(1): 370-81.

¹⁰ Peto R, et al. Smoking, smoking cessation, and lung cancer in the UK since 1950: combination of national statistics with two case-control studies. British Medical Journal. 2000;321(7257): 323-9.

¹¹ Parsons A, Daley A, Begh R, Aveyard P. Influence of smoking cessation after diagnosis of early stage lung cancer on prognosis: systematic review of observational studies with meta-analysis. BMJ. 2010;34:b5569: 1-7.