CANCER FACTS

Lung Cancer

Lung Cancer begins when abnormal cells grow and multiply in an uncontrolled way in one or both of the lungs.

Queensland^{1,2}

- In 2017, 2780 Queenslanders (1578 males and 1202 females) were diagnosed with lung cancer.
- There were 1862 deaths due to lung cancer in 2017. Of these deaths, 1122 were males, and 740 were females.
- Lung cancer was the leading cancer-related cause of death among both males and females in 2017.
- Lung cancer is the fourth most commonly diagnosed cancer for males after prostate cancer, melanoma and colorectal cancer.
- Lung cancer is also the fourth most commonly diagnosed cancer in females after breast cancer, melanoma and colorectal cancer.
- The approximate lifetime risk for a diagnosis of lung cancer by the age of 85 is one in 15 (one in 12 for males and one in 18 for females).
- On average, people diagnosed with lung cancer were 21 per cent as likely to live for another five years compared to the general population (17 per cent of males and 26 per cent of females).

Trends in Queensland²

- Between 1982 and 2017, lung cancer diagnosis rates in males have significantly declined by 1.3 per cent per year. The rates for females increased by 2.2 per cent from 1982-2017.
- Lung cancer death rates among males decreased by 1.6 per cent annually from 1982-2017 while for females the lung cancer death rates were stable from 2005-2017. The rates increased by 2.9 per cent each year for females between 1982 and 2004.

Australia³

- 12,216 Australians were diagnosed with lung cancer in 2017 6933 males and 5283 females.
- In 2018, 8586 Australians died from lung cancer 5000 males and 3586 females.

Types of lung cancer⁴

There are two main types of primary lung cancer. These are classified according to the types of cells affected.

Non-small cell lung cancer (NSCLC)

Non-small cell lung cancer is the most common type of lung cancer, accounting for around 85% of lung cancers. It may be classified as:

- Adenocarcinoma begins in mucus-producing cells. More often found in the outer part of the lungs.
- Squamous cell (epidermoid) carcinoma begins in thin, flat cells, most often found in larger airways.
- Large cell undifferentiated carcinoma the cancer cells are not clearly squamous cell or adenocarcinoma.

Small cell lung cancer (SCLC)

Small cell lung cancer makes up about 15% of lung cancers. It tends to start in the middle of the lungs and usually spreads more quickly than non-small cell lung cancer.

Symptoms⁴

The main symptoms of lung cancer are:

- a persistent new cough (lasting more than three weeks), or a change in a cough you've had for a long time
- breathlessness
- pain in the chest or shoulder
- a chest infection that lasts more than three weeks or that keeps coming back
- coughing or spitting up blood.

A person diagnosed with lung cancer may also have symptoms such as fatigue, weight loss, hoarse voice, wheezing, difficulty swallowing, abdominal or joint pain, and enlarged fingertips (finger clubbing). Having any one of these symptoms does not necessarily mean that you have lung cancer. Some of these symptoms may be caused by other conditions or from side effects of smoking, however, if you have symptoms, see your doctor without delay.

Sometimes there are no symptoms and the cancer is found during routine tests (often x-ray or CT scan) for other conditions.



Lung Cancer

Diagnosis

Your doctor will arrange several tests to make a diagnosis and work out if the cancer has spread beyond the lung. Tests include:

- Chest X-ray a chest x-ray is painless and can show tumours one centimetre wide or larger.
- CT scan a computerised tomography (CT) scan uses x-ray beams to create detailed cross-sectional pictures of the inside of your body. This scan can detect smaller tumours than those found with chest x-rays. It provides detailed information about the tumour, the lymph nodes in the chest and other organs.
- Lung function test (spirometry) this test checks how well the lungs are working.

If a tumour is suspected after an x-ray or CT scan, you will need further tests to work out if it is lung cancer. They may include:

- Biopsy a small sample of tissue will be taken from the lung, the nearby lymph nodes, or both.
- Sputum cytology this test examines a sample of mucus (sputum) from your lungs to see if there are any cancer cells.

If you have lung cancer, you will have further tests to see whether the cancer has spread to other parts of your body. These include:

• PET-CT scan – this scan combines a PET (positron emission tomography) scan with a CT scan in one machine. It can provide detailed information about the cancer.

Risk factors^{5,6}

The causes of lung cancer are not fully understood, and some people develop lung cancer without having any known risk factors. The factors listed below are known to increase the risk of developing the disease.

- Tobacco smoking in Australia, approximately 80 per cent of lung cancer cases reported in 2010 are estimated to be a result of smoking tobacco (83.5 per cent for men and 73.7 per cent for women).
- Second-hand smoking breathing in other peoples' tobacco smoke (passive or second-hand smoke) can cause lung cancer. Living with a smoker increases a nonsmokers' risk by up to 30 per cent. Approximately 6.4 per cent of lung cancers are attributable to non-smokers living with smokers.

- Exposure to asbestos people who are exposed to asbestos are more likely to develop lung cancer or pleural mesothelioma. Although the use of asbestos in building materials has been banned across Australia since 2004, there is still asbestos in some older buildings and fences.
- Exposure to other elements people exposed to radioactive gases (radon) such as uranium miners, have an increased risk of lung cancer. Air pollution is another risk factor. Contact with the processing of arsenic, steel and nickel, and exposure to diesel in the workplace may also be risk factors.
- Family history you may be at higher risk if a family member has been diagnosed with lung cancer.
- Personal history Having another lung disease (e.g. lung fibrosis, chronic bronchitis, pulmonary tuberculosis, emphysema) or HIV infection may increase the risk of lung tumours.
- Older age lung cancer is most commonly diagnosed over the age of 60, although it can occur in younger people.

Reducing cancer risk

While there is no proven way to prevent lung cancer, you can greatly reduce your risk by not smoking or quitting smoking tobacco, avoiding second-hand smoke and avoiding cancercausing agents (carcinogens) at work.

If you are a smoker, you should quit. There is no safe level of tobacco use and your smoking may harm others. There are many benefits to quitting smoking. Research indicates that quitting smoking, even after a cancer diagnosis, can increase your life expectancy^{7,8}.

Smoking is addictive and many smokers find quitting difficult. Seek support and don't be discouraged if it takes several attempts before you are able to quit for good.

Quitting smoking is hard, but there is a lot of support to help you. When you are ready to quit, contact Quitline 13 QUIT (13 78 48), or speak to a health professional. These services can help you:

- better understand why and when you smoke
- choose a quitting method that is safe, effective and suits you
- learn more about what to expect after quitting, including coping with withdrawal symptoms.



Lung Cancer

Information and support

Cancer Council 13 11 20

Being diagnosed with cancer or supporting a loved one can leave you with many questions. We want to help you find the answers. Call Cancer Council's 13 11 20 Information and Support line to talk with one of the team.

Our team can provide you with cancer information, emotional and practical support. We can also refer you to Cancer Council Queensland's support programs and services.

This confidential service is available Monday to Friday 9am-5pm (excluding public holidays).

Cancer Connect

Cancer Connect is a confidential telephone-based peer support service that connects you, your carer or loved ones with a peer support volunteer who has had a similar cancer experience. You can be matched with a Cancer Connect volunteer based on cancer diagnosis, treatment, family or work issues.

Cancer Counselling Service

Living with a cancer diagnosis, or supporting someone along the way, is rarely easy. Talking things through with a counsellor or psychologist can help you manage your cancer related concerns.

Our Cancer Counselling Service is available for anyone distressed by cancer at any stage. We deliver counselling via telephone and video, with face to face appointments available in some regional offices. Our team includes nurse counsellors and psychologists trained and experienced in helping people affected by cancer.



- 1. Queensland Cancer Register, 2020. Unpublished data (1982-2017).
- 2. Queensland Cancer Statistics On-Line, 2020. Viertel Cancer Research Centre, Cancer Council Queensland (<u>acsol.cancerqld.org.au</u>). Based on data released by the Queensland Cancer Register (1982–2017; released July 2020).
- Cancer data in Australia (web report), Australian Institute of Health and Welfare (AIHW), Last updated 02 Jun 2020 <u>https://www.aihw.gov.au/reports/cancer/ cancer-data-in-australia/contents/summary</u>.
- 4. Understanding lung cancer. Cancer Council (<u>https://www.cancer.org.au/about-</u> cancer/types-of-cancer/lung-cancer.html)
- Information and symptoms of lung cancer (https://cancerqld.org.au/cancerinformation/types-of-cancer/lung-cancer/#risks)
- Pandeya N et al. 2015, Aust NZ J Public Health. Cancers in Australia in 2010 attributable to tobacco smoke (https://www.ncbi.nlm.nih.gov/pmc/articles/ PMC4606760/)
- Taylor DH Jr et al 2002, Am J Public Health. Benefits of smoking cessation for longevity (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1447499/)
- Mannan H et al 2016, BMC Public Health. Improvements in life expectancy among Australians due to reduction in smoking: results from a risk percentiles approach (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4729127/)

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