

# Smoking causes 16 cancers

## Tobacco smoking is the leading cause of cancer in Australia

Lung cancer was the first major disease linked to tobacco smoking.<sup>1</sup> There is now evidence that **smoking causes 16 types of cancer; lung, mouth (oral cavity), throat (pharynx), oesophagus, stomach, bowel (colorectal), liver, pancreas, nose and sinuses, voice box (larynx), cervix, ovary, bladder, kidney, ureter and bone marrow (myeloid leukaemia).**<sup>2-5</sup>

Tobacco smoking is the leading cause of illness and death from cancer in Australia.<sup>6,7</sup> It accounted for almost 1 in 8 of all cancer cases in Australia in 2013. This equates to 16,610 cases of cancer.<sup>8</sup>

By the age of 80 years, it's estimated that 1 in 2 people who smoke will have been diagnosed with cancer.<sup>9</sup> The earlier you stop smoking, the lower your risk for cancer.<sup>4,9</sup>

## How does smoking tobacco cause cancer?

Tobacco smoke contains more than 7,000 chemicals, including 69 chemicals known to cause cancer.<sup>2,3,10</sup> When you inhale cigarette smoke, these chemicals enter your lungs and spread through your body. Many of the chemicals in tobacco smoke are toxic and can cause damage to your cells leading to the development of diseases like cancer.<sup>5,11</sup>

Cancer causing chemicals in tobacco smoke damage the DNA in the cells in your body causing mutations in a gene called p53. The p53 gene helps to prevent cancers forming and growing.<sup>5</sup> Damage to the p53 gene can lead to



cells dividing in an uncontrolled way that leads to cancer.<sup>12</sup> Mutations in this gene are found in over half of all tumours, including 60% of lung cancers.<sup>13</sup>

## Smoking-related deaths

Research estimates that 2 in 3 lifetime smokers will die from a disease caused by their smoking.<sup>14-17</sup> Smoking is a leading cause of preventable death in Australia.<sup>7</sup> It's estimated that tobacco use caused nearly 20,500 deaths in Australia in 2018.<sup>7</sup> Besides cancer, smoking is also a cause of heart attack, stroke, lung disease and many other fatal or disabling diseases.<sup>3,5</sup>

## The 16 cancers caused by smoking

### Cancer of the lung

Lung cancer is the leading cause of cancer death in Australia and is the 4th most common cancer diagnosed in men and women.<sup>6</sup> In Australia, it is estimated that 4 in 5 lung cancer cases are due to smoking.<sup>18</sup>



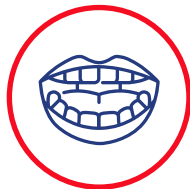
By the age of 80 years, it's estimated that the risk for being diagnosed with lung cancer is:

- 1 in 13 (8%) for people who smoke 1 to 5 cigarettes per day
- 1 in 4 (26%) for people who smoke more than 35 cigarettes per day compared to 1 in 100 (1%) for people who have never smoked.<sup>9</sup>

After you have quit for 10 to 15 years, your risk for lung cancer is half that of someone of the same age who keeps smoking.<sup>4</sup>

### Cancers of the mouth, throat, voice box and nose and sinuses

In Australia, 65% of cancers of the mouth and throat in men and 45% in women are caused by smoking. Smoking causes 77% of cancers of the larynx (voice box).<sup>18</sup> If you regularly drink alcohol as well as smoke tobacco, this increases your risk of head and neck cancers even further.<sup>2</sup> Smoking also causes sinus cancer and cancer of the nose.<sup>2</sup> Within 10 years of quitting, your risk for head and neck cancers is half that of someone who keeps smoking, and your risk keeps going down over time.<sup>4</sup>



### Cancers of the oesophagus

Smoking causes 60% of all cancers of the oesophagus (food pipe).<sup>18</sup> After you stop smoking, your risk for cancer of the oesophagus steadily decreases compared to someone who keeps smoking.<sup>4</sup>



### Cancers of the bladder, kidney and ureter

Smoking causes cancer of the kidney, the bladder and the ureter (the tube that goes from the kidney to the bladder).<sup>2</sup> Smoking causes 34% of bladder cancers in men and 26% in women. Once you have quit for more than 10 years, your risk for bladder cancer is half that of someone who keeps smoking.<sup>4</sup> For cancers of the kidney and ureter combined, 26% of cancers in men and 11% in women are due to smoking.<sup>18</sup> After you stop smoking, your risk for kidney cancer steadily decreases compared to someone who keeps smoking.<sup>4</sup>



### Cancer of the pancreas

Pancreatic cancer has very poor outcomes with only 12% of patients surviving the first five years after diagnosis.<sup>6</sup> Smoking causes 23% of cancers of the pancreas.<sup>18</sup> Your risk for pancreatic cancer decreases steadily after you quit and after 20 years is close that for someone who has never smoked.<sup>4</sup>



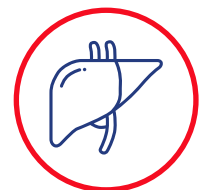
### Cancer of the stomach

Smoking causes 23% of stomach cancers in men and 11% of cancers in women.<sup>18</sup> After you stop smoking, your risk for stomach cancer steadily decreases compared to someone who keeps smoking.<sup>4</sup>



### Cancer of the liver

Smoking causes 24% of liver cancers in men and 11% of cancers in women.<sup>18</sup> Stopping smoking reduces your risk of liver cancer compared to someone who keeps smoking.<sup>4</sup>



### Cancer of the cervix and ovary

Smoking causes 17% of mucinous ovarian cancers, a common subtype of ovarian cancer among young women.<sup>18,19</sup> Smoking causes 7% of cancers of the cervix.<sup>18</sup>



Stopping smoking reduces your risk of cancer of the cervix compared to someone who keeps smoking.<sup>4</sup>

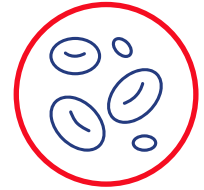
### Cancer of the bowel (colorectal cancer)

Colorectal cancer includes cancers of the colon and the rectum.<sup>3</sup> It is the 3rd most common cancer to be diagnosed in men and the 2nd in women.<sup>6</sup> Around 6% of cases in men and 7% of cases in women are due to smoking.<sup>18</sup> After you stop smoking, your risk smoking-related bowel cancers steadily decreases compared to someone who keeps smoking.<sup>4</sup>



### Acute myeloid leukaemia (AML)

Smoking is a cause of acute myeloid leukaemia (cancer of the bone marrow), accounting for 16% of cases in men and 4% in women.<sup>18</sup> The risk increases with the number of cigarettes smoked and the number of years of smoking.<sup>2,5</sup> After you stop smoking, your risk for AML steadily decreases compared to someone who keeps smoking.<sup>4</sup>



**By the age of 80 years, it's estimated that 1 in 2 people who smoke will have been diagnosed with cancer.<sup>9</sup> The earlier you stop smoking, the lower your risk for cancer.<sup>4,9</sup>**





## For help to stop smoking, contact Quitline 13 7848.

Quitline counsellors are qualified experts in helping people break free from smoking. They will find quit strategies that work for you. Quitline counsellors can also support you if you are using e-cigarettes to stop smoking and can help you stop vaping.

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