

Smoking and head and neck cancers

Fact sheet for health professionals

Introduction

Tobacco smoking is a major cause of 16 types of cancer, including head and neck cancers. These include cancers of the oral cavity, nasal cavity, sinuses, pharynx and larynx.¹ People who smoke are at increased risk of head and neck cancer.^{2,3}

Key facts and figures

- Tobacco use is the single **leading cause** of preventable death and disease in Australia.⁴ In 2019, **12.4%** of Victorians aged 18 and over smoked tobacco daily.

- Tobacco exposure is a risk factor and a cause for the majority of head and neck cancers.⁶ An estimated **5,212** people were diagnosed with a head and neck cancer in 2019.¹

- People who smoke are at a **3.5–5.5 times** higher risk of head and neck cancers compared with people who have never smoked.^{2,3}

- In 2019 in Victoria, laryngeal cancer accounted for **3.6%** and **1.6%** of total cancer incidence (new diagnoses) in males and females, respectively.

Although survival from almost all cancers increased significantly between 1989–1993 and 2014–2018, there were no improvements in laryngeal cancers, and the five-year relative survival for Victorians with laryngeal cancer in 2014–2018 is 67%.⁷

- Most people who smoke want to stop, and there is strong evidence that advice from a health professional is a major external trigger in prompting a quit attempt.

Learn more at: quit.org.au/generalpractice

How does smoking cause head and neck cancer?

Carcinogens from tobacco smoke lead to DNA mutations and chromosomal changes in the cells of the larynx, and nasal and oral tissue. This leads to dysregulation of cellular processes and uncontrolled cell growth, underlying tumour growth, and the development of head and neck cancers.⁸

What is the link between smoking and laryngeal cancer (cancer of the voice box)?

Smoking is particularly strongly associated with laryngeal cancer:

- Approximately 77% of laryngeal cancers are caused by smoking.⁹
- The risk of laryngeal cancer is nine times greater for current smokers than people who have never smoked.²

What is the impact of smoking cessation on a person's risk of head and neck cancer?

Stopping smoking reduces the risks of cancers of the larynx, oral cavity and pharynx.¹⁰ Research indicates that a 30% reduction in the risk of developing a head and neck cancer can be achieved within 1–4 years of stopping smoking. This risk is reduced to that of a non-smoker after 20 years of stopping smoking.¹¹

Can people with head and neck cancer still benefit from stopping smoking?

Continued smoking is associated with poorer treatment outcomes for head and neck cancer patients. Patients who stop smoking while receiving treatment have improved local-regional control,¹² increased disease-free survival^{12,13} and increased overall survival¹²⁻¹⁵ compared with those who continue to smoke. Cessation after diagnosis also reduces the risk of a secondary primary tumour in the region.⁶

How can I best support my patients to stop smoking?

- You can support your patients to stop smoking by providing smoking cessation brief advice, using the Ask, Advise, Help model, included in the RACGP's [Supporting smoking cessation: A guide for health professionals](#). Brief advice promotes cessation and connects people who smoke with evidence-based tobacco dependence treatment (a combination of behavioural intervention through Quitline and pharmacotherapy, if clinically appropriate).

Brief advice can be delivered in as little as 3–5 minutes via the following steps:

- **Ask** all patients about their smoking status and document this in their medical record.
- **Advise** all patients who smoke to stop smoking in a clear, non-confrontational, personalised way, and advise of the most effective way to do so.
- **Help** all patients who smoke to stop smoking by offering an opt-out referral for behavioural intervention through Quitline (13 7848) and by prescribing stop smoking pharmacotherapy (as clinically appropriate).

What is the Quitline and how can it help my patients?

- **Quitline (13 7848)** is an evidence-based telephone counselling service. Highly skilled Quitline counsellors deliver behavioural interventions over multiple sessions to help people plan, make and sustain a quit attempt.
- **Aboriginal Quitline** is also available to support Aboriginal and Torres Strait Islander people who smoke.
- Making a proactive referral to Quitline increases the likelihood of patients enrolling in treatment.¹⁶ Refer your patients using Quit's online referral form: quit.org.au/referral-form
- Quitline also provides information and advice to health professionals about smoking cessation.

Where can I find more information for myself or my patients?

- Quit has developed brief advice online training and a range of resources for you, your practice and your patients. Access these at: quit.org.au/generalpractice
- The Quit website has a range of tools, tips and information to support your patients to stop smoking. Visit quit.org.au
- For more information about the link between smoking and head and neck cancer, visit: www.tobaccoinaustralia.org.au/chapter-3-health-effects/3-5-other-cancers
- For information and updates about tobacco use, follow Quit on [Twitter](#) or [LinkedIn](#).

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