

Smoking

Policy endorsed by the 48th RACGP Council 9 August 2006

The Royal Australian College of General Practitioners' position on smoking as set out in the *Guidelines for preventive activities in general practice* (red book) and *Smoking, Nutrition, Alcohol and Physical activity: a population health guide to behavioural risk factors in general practice* (SNAP guide). Intervention techniques for assisting smokers are also included in *Putting prevention into practice: guidelines for the implementation of prevention in the general practice setting* (green book).



THE ROYAL AUSTRALIAN
COLLEGE OF
GENERAL PRACTITIONERS

Background

Smoking status

The Australian Institute of Health and Welfare's 2004 National Drug Strategy Household Survey found that 1 in 6 Australians (17.4%, 2.9 million) aged 14 years and older smoked on a daily basis in 2004.¹ This has decreased from 19.5% (3.1 million people) in the 2001 survey. Smoking rates in Australia have declined since the early 1970s.²

In every age group except in 14–19 year olds, the rate was higher for males than females. Smoking rates peaked in the 20–29 years age group for both males and females. There were 4.3 million exsmokers in 2004, 29.2% of males and 23.6% of females aged 14 years and older.¹

The average age of their first full cigarette was 15.2 years for males, and 16.5 years for females, however, daily smoking commenced at an average age of 17.9 years for males and 19.1 years for females.¹

The average number of cigarettes per week was 99 (103 for males, 93 for females).¹

Characteristics of smokers

People living in the most socioeconomically disadvantaged areas were most likely to smoke (27.3%), compared with 15.1% of those living in the most advantaged areas.¹ Those in socioeconomically disadvantaged areas also smoked more cigarettes on average per week (120 compared to 76).¹ A higher proportion of people living in remote and very remote places smoked than those living elsewhere. Indigenous Australians are also more likely than other Australians to smoke (39.0% versus 20.4%),¹ and smoke more cigarettes on average (130 versus 97 per week).¹

Impact on health

There are at least 25 diseases for which tobacco is a known or probable cause.³ Smoking increases the risk of coronary heart disease, stroke and peripheral vascular disease, and a range of cancers and other diseases and conditions.⁴ Smoking is also associated with chronic obstructive pulmonary disease (COPD) and other chronic respiratory diseases, as well as higher rates of wound infection following surgery.³ In 1998, approximately 19 000 people died in Australia as a result of tobacco smoking.²

Burden of disease

The World Health Organisation (WHO) has predicted that by 2030 smoking will be the single biggest cause of death in the world.⁵ Tobacco smoking is the risk factor responsible for the greatest burden of disease in Australia, responsible for approximately 12% of the total burden of disease and injury in males and 7% in females.⁴

In 1996, smoking was responsible for the loss of approximately 227 000 disability adjusted life years (DALYs), or 9.7% of all DALYs in 1996.⁴ One DALY is equivalent to a lost year of 'healthy' life, lost through both premature mortality and disability.

Lung cancer, COPD and ischaemic heart disease make up 72% of the attributable burden of tobacco smoking and almost 7% of all DALYs.⁴ The remainder is due to other forms of cancer, circulatory diseases and respiratory diseases.

Economic impact

It was estimated that the direct cost of treating the proportion of major diseases attributable to smoking was \$2.25 billion in 1998–1999.⁶ This figure is considered to be conservative, as it does not include ambulance services, domiciliary care and allied health professional services. Social costs to the Australian community of tobacco use are estimated to be at least \$21.1 billion per year, including passive smoking.⁷

Tobacco expenditure is a significant cost to low income households and reduces money available for other purposes including long term expenditure such as retirement savings and home ownership.⁶

In 2004–2005, tobacco excise revenue for the Australian Government was \$5.237 billion.⁸

Smoking in pregnancy

Smoking in pregnancy results in higher rates of both miscarriage and complications during both pregnancy and labour, as well as twice the risk of a low birth weight baby.³ It can also result in abnormalities of lung development, reducing lung capacity.⁹ Exposure to maternal smoking in utero results in a higher risk to the child of Sudden Infant Death Syndrome (SIDS), as does exposure to smoke after birth. Children with parents who smoke are more likely to have respiratory and middle ear infections, asthma and meningococcal infections.³

Passive smoking

Passive smoking is 'breathing in environmental tobacco smoke, which consists of sidestream smoke directly from the burning tobacco and exhaled mainstream smoke'.¹² It has been associated with health problems such as lower respiratory tract infections, lung cancer and coronary heart disease. Severity of asthma is greater in children with asthma who are exposed to smoke at home.¹⁰ Nonsmokers living with a smoker are estimated to have a 24% higher risk of heart attack or death from coronary heart disease.¹¹ Reduced exposure of children to environmental smoke at home has been associated with reduced school absenteeism and improved school performance, as well as reduced uptake of smoking.¹²

Role of general practitioners

Advice from health professionals is effective in assisting smoking cessation and motivating an attempt to quit.³ General practitioners (GPs) can make a significant difference in smoking cessation for a number of reasons.³ They have the opportunity, with 80% of Australians visiting their GP at least once each year. General practitioners also have credibility and are seen by patients as playing a key role in supporting smoking cessation. Successful strategies will adopt a patient centred approach, actively involving the patient and encouraging a greater patient role in decision making.

Advice should be adapted to the level of the patient's motivation to quit. Patients who are not interested in quitting should be offered brief advice on the risks of smoking and encouraged to consider quitting. Patients who are interested in quitting smoking but are unsure should be offered information on smoking cessation. Smokers who are ready to quit should be assisted by setting a quit date, identifying smoking triggers, and discussing strategies.¹³ The 'stages of change' model can be used to determine patient readiness for change, recognising that behaviour change does not occur in a linear fashion, and patient progress through stages of change before being ready for action.¹⁴

Issues

Pharmacology of tobacco

Over 4000 chemicals are contained in tobacco smoke, many of which are toxic and some are carcinogenic. These include tar, carbon monoxide, nicotine, arsenic, and ammonia.³ Nicotine causes addiction to smoking, but is not the major chemical factor in diseases caused by smoking.³

When nicotine enters the brain and bloodstream, changes in heart rate occur, skin temperature drops, blood pressure rises, peripheral blood circulation slows, brain waves are altered, and skeletal muscle relaxation takes place. Nicotine can provide perceptions of relaxation or alertness, depending on the mental and physical state of the smoker. Once the body becomes accustomed to functioning with nicotine in the blood, it seeks to maintain this level.¹⁵

Benefits of quitting

Within 12 hours, all the nicotine will have been metabolised, and after 24 hours blood carbon monoxide levels will drop significantly. After 5 days, sense of smell and taste improve, and after 6 weeks, the risk of wound infection after surgery is reduced. After 1 year, the risk of coronary heart disease is halved compared to continuing smokers, and after 10 years the risk of lung cancer is also half that of continuing smokers. After 10–15 years, the all cause mortality in former smokers is at the same level as people who have never smoked.³ Similarly, there is an immediate benefit for people with respiratory disease in the rate of loss of functioning lung tissue.

People with smoking related disease who continue to smoke have a greatly increased risk of further illness or increasing severity of disease, eg. patients are more likely to have a second heart attack if they continue to smoke.³ Smoking cessation should therefore be included in the management of people with smoking related illnesses.

Barriers to quitting

Withdrawal symptoms. Nicotine withdrawal symptoms will be experienced by more than 80% of smokers, the most common being cravings and irritability. These can be lessened by pharmacotherapy such as nicotine replacement therapy or bupropion or cognitive and behavioural strategies. The worst of the symptoms are over within 2–3 days, and most have passed after 10–14 days.

Stress. Smokers may benefit from learning other ways to cope with stress and learning relaxation and breathing techniques.

Fear of failure. Most smokers try and relapse 3–4 times before successfully quitting smoking. Each attempt should be viewed as a learning experience that increases the chances of success next time.

Peer/social pressure. It can be suggested that situations that are strongly associated with smoking, such as social environments, should be avoided early in the process, and patients encouraged to spend more time with nonsmokers.

Weight gain. Weight gain affects about 75% of those who stop smoking. The average gain is 2–4 kg, and 10% of people experience major weight gain of more than 13 kg.³

Smoking cessation advice

General practitioners should discuss issues that are relevant to the smoker, and personalise the health effects of smoking, both for the person and those around them.³ The AIHW survey asked respondents who reported undertaking a change in their smoking behaviour in the past 12 months what motivated them to change. Half of these had done so because smoking was affecting their health, and the second most common motivation was cost (43.9%). 16% changed on advice from a doctor.¹

As many smokers are sensitive about their smoking, when raising the issue, confrontation can be minimised by:

- avoiding lecturing
- allowing the patient time and space to consider the information
- understanding their perspective and how they feel about it
- providing advice based on their readiness to quit.
- following up at future opportunities.¹⁶

The '1 minute for prevention' approach

There is considerable evidence that brief interventions for prevention can increase uptake and improve outcomes.¹⁴ Spending 1 minute on prevention allows GPs to discuss prevention with more patients, rather than more time with fewer patients, and is a more effective strategy as it can result in more quitters for less time spent.¹⁶ The green book includes a 1 minute approach to smoking cessation, using the reality pyramid as a model.¹⁴ A practice infrastructure that emphasises teamwork and utilises reminder systems will increase the effectiveness of brief interventions. The pyramid shows best time use during a consultation, with a very brief intervention for most patients, and more intense strategies with fewer patients.

The 1 minute approach can be used for:

- focusing on specific evidence based guidelines
- justifying why an additional consultation is worthwhile (you may suggest to patients that the unassisted quit rate is around 3–7%, but with GP assistance and support, this success rate can be boosted 4–6 fold. Given the difficulty with quitting, anything that helps to maximise success seems a sensible choice provided it is acceptable to patients)
- justifying why seeing someone else (eg. practice nurse) may be helpful
- outlining the value and effectiveness of the Quitline.¹⁴

Recommendations

The key college statements about smoking are contained in the red book on pages 27–29 (see extract below) and the *SNAP guide*. The RACGP green book provides a framework for prevention and strategies to improve prevention activities.

Red book

6.1 Smoking

Smoking status should be assessed for every patient over 10 years of age.¹⁷⁰ Patients who smoke, regardless of the amount they smoke, should be offered regular brief advice to stop smoking **(A)**.⁴⁷

Who is at higher risk of developing smoking related complications?	What should be done?	How often?	Level of evidence and references
Average risk All people 10 years of age or over	Ask about smoking of cigarettes, pipes or cigars	Every 12 months	I A 47,171
Increased risk <ul style="list-style-type: none"> Aboriginal and Torres Strait Islander peoples People with mental illness People with other chemical dependencies 	Include smoking status as part of all routine history taking	Every 6 months	I A 47 III A

Identified smoking risk	What should be done?	How often?	Level of evidence and references
<ul style="list-style-type: none"> Smoker at any age 	<ul style="list-style-type: none"> Assess readiness to quit and nicotine dependence Offer brief nonjudgmental advice to quit Refer to Quitline 131 848 	At first consultation Follow up monthly	I A 47,172–174
<ul style="list-style-type: none"> Smokers who are physically addicted People with smoking related diseases People with diabetes or other cardiovascular risk factors who smoke 	Add to the above: <ul style="list-style-type: none"> offer Quit book suggest nicotine replacement therapy (NRT) or bupropion depending on clinical suitability and patient choice 	At every consultation	III B 47
Passive smoking <ul style="list-style-type: none"> Pregnant women Parents of babies and young children 	Counselling nonsmokers, especially parents of babies and young children, and pregnant women, to avoid exposure to tobacco smoke	At every consultation	III B 175,176

Intervention	Technique	References
Advice	<p>Patients who are not interested in quitting should be offered brief advice on the risks of smoking and encouraged to consider quitting</p> <p>Patients who are interested in quitting should be offered information on smoking cessation including Quitline, motivational counselling, NRT or bupropion if they are dependent, and suggest a follow up visit to discuss further (see RACGP <i>SNAP guide</i> and <i>Smoking cessation guidelines for Australian general practice</i>)</p> <p>Consider implementing practice changes to identify in the medical record smokers/those who have quit within the past year</p>	47,177
Drug therapy	<p>Both NRT and bupropion (Zyban) produce a 2-fold increase in smoking cessation at 3–5 months. Both have been shown to be effective when combined with behavioural therapies. See RACGP <i>SNAP guide</i> and <i>Smoking cessation guidelines for general practice</i></p>	173,178

Implementation

Inequality

Aboriginal and Torres Strait Islander peoples have higher rates of smoking. Smoking is more common among low socioeconomic patients including the unemployed, those with lower education, and those living in rural and remote areas. Low income and less educated patients are less likely to be offered interventions^{179,180}

Strategy

Strategies to increase screening and effective motivational and behavioural interventions in this group are discussed in the RACGP *Putting prevention into practice* (green book). Consider complementing strategies targeted at individuals with Aboriginal and Torres Strait Islander community based approaches to tobacco control

The red book is available on the RACGP website at www.racgp.org.au/guidelines/redbook.

SNAP guide

The RACGP *SNAP guide* is compatible with the red book and offers a '5As' process for GP management involving:

1. Ask and Assess: at every opportunity
2. Advise and Assist: offer brief advice to stop smoking
3. Arrange: provide referrals as required
4. Follow up: review within 1 week and then again at 1 month after quitting.

The green book provides an example of how to use the *SNAP guide's* '5A' framework in a 1 minute intervention for assisting smokers:

Ask	Assess	Advise	Assist	Arrange
Do you smoke?	<ul style="list-style-type: none"> • Interest in quitting • Barriers to quitting • Nicotine dependence 	Provide brief, nonjudgmental personalised and clear advice to aid quitting	Offer relevant pamphlets	Refer to organisations or colleagues that may help

The *SNAP guide* is available at www.racgp.org.au/guidelines/snap/.

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