

Chapter 4. Smoking cessation for high-prevalence groups

Overall smoking prevalence in Australia has continued to decline since the early 1990s, when smoking rates were at 24%.¹ Smoking prevalence has continued to decrease, albeit at a slower rate, reaching 16.6% in 2007 and 12.2% in 2016.² However, the proportion of Australians who smoke is inversely related to the socioeconomic status of where they live and in some populations smoking prevalence far exceeds the national prevalence rate. For instance, in 2016, 17.7% of people in areas with the lowest socioeconomic status smoked daily, compared with 6.5% in areas with the highest socioeconomic status.²

There is extensive evidence that tobacco use contributes to poverty and inequality, and a clear relationship exists between smoking and socioeconomic status.¹ Disadvantaged population groups are more likely to start smoking and remain smoking in the longer term. In particular, the likelihood of smoking daily is:¹

- three times as high in the lowest socioeconomic areas of Australia, compared with the highest
- twice as high in remote areas compared to major cities
- almost three times higher for Aboriginal and Torres Strait Islander peoples, compared with non-Indigenous Australians
- almost six times as high for prison entrants, compared with the general population.

The same guidelines for quitting smoking apply to all patient groups. Every opportunity should be taken to offer all who smoke advice and support to stop smoking.³ Counselling and behavioural interventions may be modified to be appropriate for individuals. Quitline and other service providers have been trained for clients from many high-prevalence groups, including Aboriginal and Torres Strait Islander peoples. All who smoke with nicotine dependence should be offered pharmacotherapy, unless otherwise contraindicated.

Aboriginal and Torres Strait Islander peoples

Prevalence

- Approximately 45% of Aboriginal and Torres Strait Islander people are daily smokers – a prevalence rate almost three times that of non-Indigenous Australians.^{4,5}
- Similar reductions in smoking prevalence have been made across both Aboriginal and Torres Strait Islander populations and non-Indigenous Australian populations, with reductions of around 10% for both groups over the last 20 years.⁴
- However, after controlling for age, sex, remoteness, state/territory and education, the annual relative decrease in smoking was significantly slower for Aboriginal and Torres Strait Islander populations (1% per year) compared with the non-Indigenous Australian population (2.7%) per year.⁴
- Tobacco smoking accounts for 23% of the health gap between Aboriginal and Torres Strait Islander peoples and non-Indigenous Australians.⁶

Aboriginal and Torres Strait Islander peoples are also highly represented in many categories of those with special needs for smoking cessation:

- women who are pregnant⁵
- adolescents⁴
- prisoners^{7,10}
- people with substance use problems¹⁰
- people with smoking-related diseases (eg diabetes).⁶

Barriers to smoking cessation

Specific barriers to accessing smoking cessation treatment for Aboriginal and Torres Strait Islander peoples (eg social contexts that normalise smoking) are being addressed by health workers across Aboriginal and Torres Strait Islander communities.¹⁰ Aboriginal and Torres Strait Islander peoples tend to use medicines at a lower rate than non-Indigenous Australians.⁶ Barriers to the success of smoking cessation strategies for Aboriginal and Torres Strait Islander communities include:^{8,9,10}

- high levels of stress within Aboriginal and Torres Strait Islander communities
- lack of availability and access to culturally appropriate health services
- language barriers and high rates of smoking among Aboriginal health workers.

Data from the Talking About The Smokes project¹¹ indicate that, compared with non-Indigenous Australians who smoke, Aboriginal and Torres Strait Islander people are just as likely to:

- want to quit
- have tried to quit in the past year
- know about the most harmful health effects
- hold negative attitudes to smoking.

However, findings also showed that compared with non-Indigenous Australians, fewer Aboriginal and Torres Strait Islander people:¹¹

- have ever sustained longer quit attempts
- report social norms disapproving of smoking
- report using cessation pharmacotherapies.

Compared with non-Indigenous Australians, more Aboriginal and Torres Strait Islander people who smoke reported having been advised to quit by a health professional in the past year.¹¹

Appropriate interventions

Although various smoking cessation methods are effective across different racial and ethnic groups, there has been less research and evaluation of tobacco interventions within Aboriginal and Torres Strait populations.^{10,12} Smoking cessation methods identified as being effective (eg brief advice, pharmacotherapy) should be provided for all those who smoke, unless otherwise contraindicated, as these are likely to be effective, especially if delivered in culturally sensitive ways.

Culturally appropriate smoking cessation services for Aboriginal and Torres Strait Islander communities can be found at Tackling Indigenous Smoking (<https://tacklingsmoking.org.au>). This Australian Government program funds 37 regional Tackling Indigenous Smoking teams. The teams do not provide individualised smoking cessation services; however, they can

provide considerable support to general practitioners (GPs) and other health professionals who are working with Aboriginal and Torres Strait Islander communities. Australian Indigenous HealthInfoNet (<https://healthinfonet.ecu.edu.au>) maintains comprehensive information on programs, resources and publications related to Aboriginal and Torres Strait Islander health, including information on tobacco.

People who identify as Aboriginal or Torres Strait Islander qualify for the Pharmaceutical Benefits Scheme (PBS) authority listing for nicotine replacement therapy (NRT), which provides up to two courses of nicotine patches or oral forms of NRT (ie gum, lozenge) per year for a maximum of 12 weeks. Under this listing, participation in a support and counselling program is recommended but not mandatory.

Closing the Gap PBS co-payment measure

The Closing the Gap (www.pbs.gov.au/info/publication/factsheets/closing-the-gap-pbs-co-payment-measure) measure is part of the Australian Government's Indigenous Chronic Disease Package. It was established to improve Aboriginal and Torres Strait Islander peoples' access to medicines by reducing the cost of PBS medicines for those who are living with or at risk of chronic disease.

Under this measure, eligible patients must be registered at an Indigenous health service or a general practice that participates in the Indigenous Health Incentive under the Practice Incentives Program to receive a Closing the Gap-annotated PBS prescription.

Depending on the Aboriginal and Torres Strait Islander patient's concessional status, the patient pays a lower, or nil, co-payment for all PBS medicines when a Closing the Gap-annotated prescription is dispensed at a pharmacy. A concession patient's co-payment reduces to nil and a general patient's co-payment reduces to that of a concessional patient. Some pharmacists impose a brand premium on some medicines, which the patient must pay. Brands that carry a manufacturer's surcharge are indicated by a 'B' on the PBS Schedule.

For further information, email PBS-Indigenous@health.gov.au or visit www.medicareaustralia.gov.au/provider/pbs/prescriber/closing-the-gap.jsp

Culturally and linguistically diverse groups

Prevalence

The patterns of tobacco use and types of products used differ markedly between different ethnic groups, and these are influenced by complex psychosocial and cultural factors.¹³

Appropriate interventions

Tailoring smoking cessation interventions to consider relevant cultural dimensions such as values, beliefs and smoking practices improves cultural acceptability; however, this may not necessarily result in improved quit rates.¹⁴

Health professionals should offer advice, support and pharmacotherapy for all those who smoke, unless otherwise contraindicated. Support for cessation for these groups should use culturally appropriate resource materials.^{14,15}

Quitline provides printed resources in 13 languages other than English, and those who call can ask to have their calls returned with an interpreter, in a range of languages other than English. Bilingual educators from Quit Victoria (www.quit.org.au) conduct information sessions in a number of community languages. The NSW Multicultural Health Communication Service (www.mhcs.health.nsw.gov.au) provides information and services to help health professionals communicate with non-English speaking communities.

Community language Quitline telephone numbers

- Arabic – 1300 7848 03
- Chinese (Cantonese and Mandarin) – 1300 7848 36
- Greek – 1300 7848 59
- Italian – 1300 7848 61
- Korean – 1300 7848 23
- Spanish – 1300 7848 25
- Vietnamese – 1300 7848 65

Smoking cessation in populations with special needs

There are particular implications regarding nicotine dependence and the effects of smoking, and medicines for smoking cessation for several population groups. Many of these groups have not been extensively studied in clinical trials of pharmacotherapy for smoking cessation:

- women who are pregnant or breastfeeding
- adolescents and other young people
- lesbian, gay, bisexual, transgender and intersex (LGBTI) people
- people with mental illness
- people with substance use disorders
- people in prison
- people with smoking-related diseases
- people who smoke and are in hospital.

The same guidelines for quitting smoking should apply to all groups, and every opportunity should be taken to offer all those who smoke advice and support to stop smoking. Counselling and behavioural interventions may be modified to be appropriate for the individual. In addition, all those who smoke with nicotine dependence should be offered pharmacotherapy unless otherwise contraindicated, and referred to Quitline for intensive treatment, other cessation programs or local face-to-face services, where available.

Pregnant or breastfeeding women

Prevalence and risks

- The rate of smoking during pregnancy in Australia continues to fall; however, approximately 10% of women smoke during pregnancy.⁷
- Teenagers, women living outside major cities, Aboriginal women and those with mental illness are significantly less likely to quit smoking during pregnancy.¹⁶
- A systematic review of smoking cessation interventions during pregnancy concluded that only 13% of women are abstinent at term and, of these women, 43% resume smoking by six months postpartum.¹⁷

There is no safe level of smoking in pregnancy because any level of exposure to tobacco smoke increases the risk of adverse effects to the expectant mother, fetus and pregnancy.^{5,18–20} The greatest gain in health benefits comes from quitting rather than cutting down.^{21–23}

In addition to the serious long-term health consequences for the mother, tobacco smoking during pregnancy is the most common preventable risk factor for pregnancy complications. It is associated with poorer perinatal outcomes, including low birthweight, being small for gestational age, pre-term birth, perinatal death, placental abruption, sudden infant death, cleft palate, cleft lip and childhood cancers.^{5,24,25} The long-term health effects on child health due to either parent smoking during pregnancy include neurodevelopmental and behavioural problems, obesity, hypertension, type 2 diabetes, impaired lung function, asthma and wheezing.^{24,26}

Barriers to smoking cessation

Women who have tried to quit smoking during pregnancy are an important group to identify and support, as they are more likely to be motivated to try another quit attempt. Health professionals should understand and address the barriers to smoking cessation for pregnant women, including:²⁷

- lack of understanding of risk to themselves and their babies
- influence of close relationships on smoking status
- use of smoking as a way of coping with stress.

Women who are pregnant may feel unsupported or even stigmatised if advice and support provided do not recognise the emotional and psychological stressors associated with pregnancy, and do not seek to address the altered physiological processes that occur during pregnancy.²⁸ Concern about stigma may lead to some pregnant women being reluctant to disclose their smoking status.

Appropriate interventions

All women of childbearing age should be encouraged to stop smoking, ideally before conception. Smoking cessation policy is intended to minimise the effects of smoking for all women; long-term reduction in tobacco exposure during pregnancy can be achieved only by encouraging adolescent girls and young women not to start smoking.²⁷ It is also important to advise partners of pregnant women not to smoke around them, and to encourage them to quit, as this can improve quit rates for women who are pregnant and smoke.²⁷

First-line treatment

Quitting before conception is most ideal; otherwise, quitting should be encouraged as soon as possible during the pregnancy. Quitting during early pregnancy (eg within the first trimester) has been shown to result in similar rates of adverse pregnancy outcomes compared with those who do not smoke.²⁹ These health benefits are not realised if quitting occurs later in pregnancy, as the rates of adverse pregnancy outcomes are more similar to those who continue to smoke during pregnancy.³² Therefore, to optimise the health benefits of quitting smoking during pregnancy, health professionals should offer cessation interventions and ongoing support to pregnant women as early as possible.

Health professionals should inform women who are pregnant and new mothers of the dangers of second-hand (passive) smoke to newborn babies, young children and adolescents.²⁴

Psychosocial smoking cessation interventions (eg counselling, feedback, financial incentives) can:³⁰

- increase the proportion of women who stop smoking in late pregnancy
- reduce the proportion of infants born with low birthweight and complications during pregnancy
- reduce the rate of postpartum smoking resumption.

Assessing smoking status and providing advice about the harms of continued tobacco use are recommended in routine antenatal care. However, there is no current framework for providing financial incentives based on biochemical measures of abstinence. There is convincing evidence of the effectiveness of financial incentives as a motivational and

engagement strategy for tobacco cessation during pregnancy. Providing financial incentives will likely play an important role in future public health strategies to support pregnant women to quit smoking.³¹

Women who are pregnant should be encouraged to use Quitline, which has special programs of support in some states and territories, and extend into the postpartum period when risk of relapse is high.

Quitline during pregnancy

Quitline provides an extended call-back service specifically for women who are pregnant. A Quitline adviser calls at agreed times and provides information, offers help to deal with problems, and gives encouragement and practical support with quitting. The adviser schedules calls during pregnancy and after the birth. Quitline callers may receive between four and 10 calls as part of the extended call-back service.

In some states and territories, Quitline also provides online training to midwives to help those who are pregnant to quit smoking.

Health professionals should encourage women who are pregnant and smoke to attempt cessation using counselling, advice and behavioural support interventions before using pharmacological approaches. The current evidence is insufficient to assess the safety of pharmacological approaches during pregnancy.³²

Second-line treatment

If quit attempts are unsuccessful without the use of pharmacological approaches, and the woman is motivated to quit, pharmacotherapy (usually oral forms of NRT) should be considered.^{27,33}

Oral forms of NRT and nicotine patches are approved by the Therapeutic Goods Administration (TGA) for use in pregnancy. The findings of a Cochrane systematic review (2015), which included eight randomised controlled trials and 2199 participants, found no increase in adverse effects (ie miscarriage, stillbirth, pre-term birth, low birthweight, neonatal care unit admission, neonatal death).³³ However, given the small number of available studies, no firm conclusions on safety can be made. Improvements to smoking outcomes using NRT were modest,³³ and given that there may be potential for fetal harm from intrauterine nicotine exposure, NRT should only be considered if and when:

- the woman has not been able to stop with non-pharmacological assistance
- the uncertainty about the benefits and risks have been explained to the woman.

For further information, refer to [Chapter 2, 'Use of NRT in pregnancy'](#).

Varenicline and bupropion have not been shown to be effective or safe for smoking cessation treatment in women who are pregnant and breastfeeding. If a woman becomes pregnant while taking either agent, treatment should be ceased. With her express consent, reporting her pregnancy outcome to health authorities and the manufacturer may over time help better understand any risk.

While nicotine passes from mother to child in breastmilk, it is unlikely to be harmful.^{34,35} Women who continue to smoke after the birth should be encouraged to breastfeed their babies and be provided with strategies to minimise the potential harm to their child through breastmilk and from second-hand smoke.³⁶

Key points

- Any level of tobacco smoke exposure increases the risk of adverse outcomes for the mother, fetus and pregnancy.
- Women who are pregnant should be encouraged to stop smoking completely.
- Women who are pregnant should be offered intensive behavioural support and proactive face-to-face or telephone counselling.
- If these interventions are not successful, NRT may be considered in pregnancy, after clear explanation to the woman of the risks involved.
- Women who quit should be supported to stay smoke-free in the long term.

Adolescents and other young people

Prevalence and risks

Most adults who smoke become addicted to nicotine as teenagers.^{37–39}

Accumulating evidence that suggests nicotine adversely affects adolescent development provides a strong incentive to protect children and adolescents from nicotine exposure.¹⁹ Nicotine exposure during adolescence is associated with:¹⁹

- deficient working memory
- deficient attention
- deficient auditory processing
- increased impulsivity
- increased anxiety.

It is also suggested that nicotine has a priming effect that increases addiction liability for other drugs.¹⁹ The popularity of alternative tobacco products and e-cigarettes are creating new health challenges in this age group.

The reasons young people commence smoking are varied and relate to genetic factors, peer influence, parental smoking, desire for weight control and stress.³⁷ Recruitment and retention of adolescents in formal smoking cessation programs are difficult and major determinants of interventions targeting young people. Computer and internet cessation programs are potential vehicles for programs aimed at young people, but there is no clear evidence of efficacy as yet.⁴⁰

Appropriate interventions

There is increasing evidence that starting to smoke at a younger age is associated with lower success rates of quitting, regardless of treatment.⁴¹ Many adolescent anti-tobacco programs focus on preventing teenagers from starting to smoke, rather than quitting.⁴² There is insufficient evidence to show that smoking cessation programs to help teenagers who already smoke are effective.⁴³ There are also few studies that provide evidence of effectiveness of pharmacological interventions for adolescents who smoke. Reducing parental smoking rates is the intervention with the clearest effect on youth smoking uptake.⁴⁴

Some smoking cessation medications can be used by younger people who smoke. NRT is approved for use from 12 years of age, and can be offered if the adolescent who smokes is nicotine dependent and ready to quit.³ Although NRT has been shown

to be safe in adolescents, there is little evidence that these medications, and bupropion or varenicline, are effective in promoting long-term quitting in this population group.³ The majority of studies included an intensive counselling component (>6 sessions). Adherence is likely to be a major factor in this age group.³

Good listening skills are important in creating a trusting relationship to deal successfully with adolescents (refer to [Chapter 3, 'Motivational interviewing and mindfulness-based interventions'](#)):

- ask open-ended questions
- be non-judgemental and affirm their experiences
- summarise what you have heard to help them understand what they want.

Strategies for health professionals helping young people quit smoking

- Provide information about nicotine addiction and difficulties with quitting once symptoms of nicotine addiction appear.
- Provide information about the harms of smoking.
- Reinforce messages that smoking is not 'cool'.
- Discuss the immediate effects of smoking. The long-term health effects of smoking (eg cancer, heart disease) are less relevant to young people. Focus instead on immediate issues, including:
 - bad breath, smelly hair, yellow teeth, discoloured skin
 - increased wrinkles
 - reduced fitness
 - shortness of breath, wheezing
 - higher stress levels
 - reduced sense of taste and smell
 - more coughs and colds
 - being unattractive to non-smoking peers
 - the cost of smoking.
- Discuss weight control, particularly for young women. Smoking does help control weight, but it also causes many unhealthy effects that outweigh any perceived benefits, as opposed to weight management with exercise and healthy eating.
- Identify triggers and discuss coping skills.
- Refer the young person who smokes to Quitline.

Key points

- Reducing parental smoking rates is the intervention with the clearest effect on youth smoking uptake.
- Counselling is considered to be vital in this age group.
- Health professionals should ask adolescents about smoking and provide a strong anti-smoking message.
- NRT can be offered if the adolescent who smokes, in conjunction with behavioural support, is nicotine dependent and willing to make a quit attempt.
- Bupropion and varenicline are not approved for use by those under 18 years of age.

Lesbian, gay, bisexual, transgender and intersex people

Prevalence and risks

- Homosexual or bisexual people are more likely to smoke cigarettes (18.7%) compared with the general population of Australia (12.8%).²
- LGBTI youth are more likely to smoke (23%) compared with the general youth population (5%).²

It should be noted that LGBTI people have substantially higher smoking rates than the general population.¹ LGBTI people may begin to smoke or continue to smoke for a variety of reasons, including higher levels of psychological stress than heterosexual adults.¹

Identifying and reporting on the health of the LGBTI population is extremely challenging, due to a lack of data sources that include information on sex, gender and sexual orientation. While LGBTI people are recognised as a specific minority population group, they come from all walks of life and are part of all other population groups.¹

People with mental illness

Prevalence and risks

- Population surveys indicate much higher smoking prevalence rates among those with mental disorders (meeting ICD-10 criteria), of approximately 33% for those with anxiety disorder, 43% for those with affective disorders and 54% for those with substance use disorders.⁴⁵
- In 2016, Australian adults who reported having been diagnosed or treated for mental illness in the past year were more than twice as likely to smoke regularly as the rest of the population (24% versus 10%).¹
- For people with psychotic illness, the prevalence of current tobacco smoking rate is up to 66%.⁴⁶

Mental illness is associated with both higher rates of smoking and heavier smoking.⁴⁸ People with mental illness (eg schizophrenia, depression, bipolar disorder, anxiety) often experience physical, financial and social disadvantages because of their illness.^{47,48} There are links between smoking and mental health; smoking and mental health and physical illness; and smoking, mental health, debt and poverty.⁴⁹

Appropriate interventions

Actively encouraging and assisting smoking reduction and cessation are important to improve the quality of life of all who smoke.⁵⁰ Treating tobacco dependence is an important intervention for people with severe mental health illness; however, cessation rates are generally lower in this group for any given level of assistance.⁴⁴ A mix of face-to-face help augmented by Quitline calls is as effective as intensive face-to-face help.⁵¹ Smoking cessation should not worsen the mental health illness of people with stable psychiatric conditions.^{52,53} In fact, smoking cessation is associated with reduced depression, anxiety and stress together with improved mood, compared with continuing to smoke. This finding is true in those with and without a diagnosed psychiatric disorder.⁵¹

Health professionals should offer people with a mental illness smoking cessation interventions that have been shown to be effective in the general population. Mental illness is not a contraindication to stopping smoking; however, the illness and its treatment needs to be monitored carefully during smoking cessation.^{51,54,55} This is particularly important as neuropsychiatric symptoms are more common during quit attempts in this population compared to those who smoke but do not have a history of mental health illness.⁵⁶ Higher levels of dependence in people with mental illness

may need more intensive treatment (eg higher doses of NRT, closer follow-up and monitoring). Varenicline has been found to be safe and effective for smoking cessation in people with stable mental illness or a past history of mental illness.⁵⁷

Smoking and drug interactions in people with a mental illness

Nicotine does not interact with psychiatric medications. However, the tar in tobacco smoke induces certain liver enzyme activity (cytochrome P450 1A2 [CYP1A2]), which increases the metabolism of certain medications, including some psychotropic drugs. Those who smoke may therefore require larger doses of these medications.^{58,59} In the event of smoking reduction or cessation, the dose of drugs metabolised by the CYP1A2 system may require dose reduction and increased monitoring.⁶⁰

Key points

- Intensive smoking cessation counselling and close follow-up are important in this patient population group.
- Consultation with a psychiatrist or addiction specialist may be considered for advice on use of medicines for smoking cessation in people with significant mental health illness, including:
 - advice on use of smoking cessation medicines
 - need for adjustment of psychotropic medications
 - monitoring of neuropsychiatric symptoms.
- NRT is safe and effective for people with a mental health illness. Combination NRT is generally needed as people with mental illness have higher levels of nicotine dependence.
- Both varenicline and bupropion can be used in people with significant mental illness. A large randomised trial showed no increase in neuropsychiatric adverse events attributable to varenicline or bupropion relative to a nicotine patch or placebo.⁵⁹

People with substance use disorders

Prevalence and risks

- Smoking rates in people with alcohol and other drug dependencies are two to four times those of the general population.
- Cannabis and tobacco are often used together as a way of smoking cannabis. As rates of cigarette smoking decline, it is now more common for cannabis dependence to lead to tobacco dependence than was previously the case.⁶¹

Appropriate interventions

Smoking cessation has not been a major part of clinical interventions for people with alcohol and other drug dependencies, as the attention is usually focused on the alcohol or illicit drug use. There is good evidence that smoking cessation can enhance short-term abstinence, rather than compromise the outcome of drug and alcohol treatments,^{62,63} and that smoking cessation efforts may actually support long-term drug and alcohol abstinence.⁵³

People with alcohol dependence typically have lower success rates in smoking cessation, compared with the general population.^{16,64} Continued smoking has been found to adversely affect treatment for cannabis dependence. Success in smoking cessation for people with opiate dependence is lower than the general population. However, the conclusion from a Cochrane review suggests that providing tobacco

cessation interventions targeted to smokers in treatment and recovery for alcohol and other drug dependencies increases tobacco abstinence.⁶⁵

Monitoring and support are needed for smoking cessation in people with substance use problems who may benefit from the involvement of other health professionals. This may include drug and alcohol counsellors, addiction specialists or psychiatrists with an interest in substance use disorders and intensive counselling from Quitline.

Key points

- Health professionals should offer encouragement, motivation, advice and counselling to people with substance use disorders who smoke.
- NRT is effective for quit attempts.
- Bupropion should be monitored carefully when used concurrently with alcohol use.
- Varenicline can be used; however, prescribers should ask patients to report any mood or behaviour changes.³

People in prison

Prevalence and risks

The prevalence of smoking in the prison population is 5.7 times higher than in the general population (74%).⁶⁶

Although smoking rates have fallen dramatically in recent decades in the general Australian population, rates remain high among those in prison.^{3,66} There is a clear association between smoking tobacco and social disadvantage; people from low socioeconomic groups, including Aboriginal and Torres Strait Islander peoples, people who use drugs, those with low levels of education and those experiencing mental health illness are overrepresented in the prison system. Each of these factors predicts higher smoking rates.⁶⁶

Appropriate interventions

A number of corrective services systems have implemented free or subsidised smoking cessation pharmacotherapy.⁶⁷ In New Zealand, smoke-free prisons have been successfully implemented since 2011, including freely available NRT for those in prison and staff who smoke.⁶⁸ Since 2016, a complete smoking ban has been introduced in most Australian prisons (except in Western Australia, the ACT and South Australia).⁶⁵ NRT may be provided on entry in some smoke-free prisons. Cessation support in the form of free or subsidised NRT, smoking cessation groups and telephone support from Quitline is available for people in some Australian prisons.⁶⁸

Motivation to quit smoking is high among the prison population. Half (50%) of all prison entrants who were current smokers reported that they would like to quit smoking.⁶⁶ Of those who have been discharged from prisons with smoking bans, 59% intended to smoke after release.¹ Trends among Australians in prison are comparable with the growing body of literature that suggests that smoking bans have no gross impact on post-release cessation. A Queensland study found 72% of those who have been discharged relapsed within the first day of release, and 94% had returned to smoking within two months.⁶⁹

Smoking cessation programs conducted in prisons should address prison-specific difficulties by including items (eg stressor pack) to assist those in prison during transfer to other prisons and court appearances.⁷⁰ Support programs should also discuss how to prevent relapse on release from prison.

Key points

- Health professionals should take every opportunity to offer brief advice to quit.
- Health professionals should advise proactive telephone counselling (eg Quitline).
- Health professionals should closely follow up those attempting to quit or maintain cessation post-release.

People with smoking-related diseases

Prevalence and risks

- Tobacco smoking significantly increases the risk of cardiovascular disease, respiratory diseases and other health problems.⁷¹
- In Australia, 80% of lung cancer burden and 75% of chronic obstructive pulmonary disease (COPD) burden are attributable to tobacco smoking.⁷²

There is clear evidence that people with a smoking-related disease or with other risk factors for cardiovascular disease (eg diabetes, lipid disorders, hypertension) who continue to smoke greatly increase their risk of further illness. It is important to target these people for quit interventions, given the role that smoking plays in exacerbating their conditions.^{5,73} For example, second heart attacks are more common among cardiac patients who continue to smoke. Additionally, people with successfully treated cancers who continue to smoke are at increased risk of a second cancer.⁷⁴ Ceasing smoking also improves cancer treatment efficacy and reduces treatment side effects.

Quitting smoking after a heart attack or cardiac surgery can decrease a person's risk of death by at least one-third.⁷⁵

Appropriate interventions

Offering smoking cessation support should be central to the clinical encounter with those who smoke and have cardiovascular, respiratory and other health comorbidities. Those who smoke need to quit completely rather than cut down in order to avoid most of the risk associated with heart disease and stroke.²⁵

It is important that smoking cessation is integrated into the routine chronic disease management programs for these patients. High-intensity behavioural interventions, coupled with appropriate pharmacotherapy, are effective in this group.⁷⁶⁻⁷⁸

Smoking cessation is the most important treatment for those who smoke with COPD. Smoking in those with COPD is associated with a faster decline in lung function, increase in symptoms, and increased risk for respiratory tract infection and hospitalisation.^{74,79} There is strong evidence that a combination of behavioural treatment and pharmacotherapy is effective in helping those who smoke with COPD to quit smoking.⁸⁰

In people with asthma, smoking further impairs lung function, increases symptoms and impairs the effectiveness of treatment.^{61,81,82} First-line management of all who smoke with asthma should always be strong encouragement to quit. Providing personalised quitting strategies, and inpatient NRT and counselling, have been shown to be effective for smokers who are hospitalised for asthma.⁸³

Cigarette smoking is linked to the development of diabetes, impaired glycaemic control and diabetic complications.²² Smoking cessation is a crucial aspect of diabetes care.²² People with diabetes who smoke increase their risk of cardiovascular disease, peripheral vascular disease, progression of neuropathy and nephropathy.²²

Key points

- Health professionals should advise those who smoke that there is no safe level of smoking for smoking-related diseases (eg cardiovascular disease, COPD, asthma).
- Use the medical condition as an opportunity to integrate quitting into a management program for other diseases.
- Encourage the use of a combination of behavioural support and pharmacotherapy after assessment of nicotine dependence and clinical suitability.

People who smoke and are in hospital

Risks

People who smoke are at an increased risk for conditions requiring hospitalisation. Smoking also complicates outcomes for patients undergoing procedures in hospital.

Appropriate interventions

The period of hospitalisation can provide opportunities to encourage those who smoke to quit. All patients who smoke should have nicotine withdrawal symptoms managed while in hospital, and should be supported with brief advice and interventions that may lead to smoking cessation after leaving hospital.^{75,76,84}

Those who smoke who are admitted to hospital should be advised that complete cessation is the best approach for optimum outcomes. The smoking status of all patients being admitted to hospital should be noted in their medical record. Smoking cessation support and management of withdrawal symptoms should be offered during the hospital stay. Regular medications that interact with smoking should be reviewed, and doses adjusted for patients admitted to hospital.

There is convincing evidence that those who smoke who undergo surgery have higher risks of cardiac and respiratory complications, and increased wound infection rates.^{85,86} In order to reduce surgical complications and improve postoperative outcomes, those who smoke who are planning surgical procedures should be supported to quit smoking at least four to six weeks before their admission date.^{85,87}

Support to manage nicotine dependence for those who smoke and are in hospital includes the use of NRT (oral forms and patch) in adequate strength to control nicotine withdrawal symptoms throughout the day. An oral form of NRT is often required in addition to the patch to manage cravings and other withdrawal symptoms. Patients should be assessed for contraindications and precautions and monitored while in hospital for side effects and drug interactions.⁸⁷ Longer term smoking cessation rates are achieved when counselling and NRT that begin during hospitalisation are continued after hospital discharge for at least one month.⁷⁵

Key points

- Ask patients about their tobacco status and note it in their medical record.
- Offer assistance to every patient who smokes while admitted to hospital to begin treatment to quit or manage cravings and other nicotine withdrawal symptoms.
- For best outcomes, manage a patient's nicotine dependence while in hospital and encourage the patient to remain smoke-free after leaving hospital.
- For those who smoke with planned surgery, advise quitting four to six weeks before the surgery date.
- Monitor patients on NRT to assess response, provide support and modify treatment as needed.
- Recommend a referral to Quitline.

People exposed to second- and third-hand smoke

Second-hand smoke

Risks

Second-hand smoke, or environmental tobacco smoke or passive smoke, can affect the health of people who do not smoke. There is clear evidence of the harms of exposure to environmental tobacco smoke:^{24,27}

- in pregnancy
- to children – including higher rates of respiratory and middle ear infections, meningococcal infections and asthma
- to adults – including increased risk of lung cancer, coronary heart disease and stroke.

The evidence for the health effects of second-hand smoking has been summarised by a number of health authorities, including the National Health and Medical Research Council.^{88–91}

Any exposure to tobacco smoke – even an occasional cigarette or exposure to second-hand smoke – is harmful,²⁷ especially to children.⁹²

Appropriate interventions

There is a lack of evidence on the effectiveness of advising non-smokers to limit exposure to tobacco smoke. There is evidence that providing information to parents on the harms of exposing children to environmental tobacco smoke can reduce their exposure.⁵ Due to the evidence of harms from exposure, non-smokers, especially parents of babies and young children and pregnant women, should be strongly advised to limit exposure to tobacco smoke. Parents who smoke should be encouraged not to smoke in the house or confined space (eg motor vehicle) at any time.

Third-hand smoke

Third-hand smoke refers to residual tobacco smoke constituents that remain on surfaces and dust after tobacco has been smoked. These substances are then re-emitted as gases or react with other compounds in the environment to create new toxicants and carcinogens.⁹³ The main constituents of third-hand smoke are nicotine, 3-ethenylpyridine, phenol, cresols, naphthalene, formaldehyde and tobacco-specific nitrosamines.⁹⁴

Third-hand smoke exposure can take place over a longer time than second-hand smoke exposure. Third-hand smoke components are difficult to remove from carpets, furniture and surfaces, compared with second-hand smoke that is removed by ventilation. Further research is needed to understand and respond to the potential harms posed by third-hand smoke.

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