

## Chapter 3. Behavioural and advice-based support for smoking cessation

The benefits of quitting smoking are well established. Patients should be advised that unassisted quitting has a very low success rate (3–5%),<sup>1</sup> and professional advice can greatly increase their chances of success of prolonged abstinence.<sup>1–4</sup> Ideally, they should be offered the most effective method and use it as soon as possible. The most successful quit approach for those who are nicotine dependent is counselling and behavioural support combined with first-line pharmacotherapy and follow-up.<sup>1,5–8</sup> Health professionals should offer to assist their patients with a quit attempt, using pharmacotherapy and counselling, either within the health service or by referring them for intensive support to a telephone Quitline (13 78 48), a smoking clinic or a health professional with special expertise in smoking cessation.

The following smoking cessation interventions have been proven to be effective.

### Brief advice from health professionals

There is strong evidence that any advice from health professionals (ie doctors, nurses, nurse practitioners, Aboriginal health workers, medical assistants, dentists, hygienists, respiratory therapists, mental health counsellors, pharmacists) is effective in encouraging smoking cessation.<sup>9–15</sup> Health professionals can encourage those who smoke to quit with minimal (<3 minutes) intervention; one in every 33 such conversations will lead to a patient successfully quitting smoking.<sup>12</sup> Examples of how to start the conversation about quitting smoking with a patient is available at Start the Conversation (<http://starttheconversation.org.au>).

More intensive interventions can result in better outcomes, but may not be practical in many clinical contexts.<sup>2</sup> Brief advice has a reduced impact on those who smoke, if they have tried and failed numerous times to quit.<sup>16</sup> These patients will need help with advice that includes strong recommendations about the use of pharmacotherapy and active referral to Quitline or other cessation programs. Refer to [Chapter 1, 'The role of health professionals'](#).

Those who smoke should be offered at least a brief intervention for smoking cessation<sup>17</sup> that is consistent with the three-step brief intervention model ([Chapter 1, Figure 1.3](#)):

1. Ask and record smoking status
2. Advise all patients who smoke to quit and provide advice on the most effective methods
3. Help by offering to arrange referral, and encouraging use of behavioural support and evidence-based smoking cessation medications.

Options for behavioural support include the Quitline (13 78 48) or a tobacco treatment specialist.

As noted in [Chapter 1, Recommendation 3](#), offer brief cessation advice in routine consultations and appointments, whenever possible (*strong recommendation, high certainty*).

## Counselling

There is clear evidence that both individual counselling (risk ratio [RR]: 1.57; 95% confidence interval [CI]: 1.40, 1.77)<sup>18</sup> and group counselling (RR: 1.88; 95% CI: 1.52, 2.33)<sup>19</sup> significantly increase quit rates compared with minimal intervention such as brief advice, usual care or provision of self-help materials.

Depending on the time available, counselling strategies could include:

- information about smoking, quitting and withdrawal
- strategies for coping with smoking triggers
- addressing barriers to quitting
- lifestyle changes
- support from family and friends
- rewards
- setting a quit date.

Table 3.1 gives practical tips for patients attempting to quit.

**Table 3.1. Practical tips to assist quitting and staying quit**

Challenge	Strategy
Psychological cues for smoking (eg stress, anger)	<ul style="list-style-type: none"> <li>• Use muscle relaxation and breathing techniques</li> </ul>
Social cues for smoking (eg peer pressure)	<ul style="list-style-type: none"> <li>• Avoid smoking friends and situations early in quit attempt</li> <li>• Rehearse how to say no to a cigarette offer</li> </ul>
Smoking triggers (eg alcohol, caffeine)	<ul style="list-style-type: none"> <li>• Avoid or minimise alcohol consumption early in quit attempt</li> <li>• Avoid or reduce coffee and other caffeine-containing drinks</li> </ul>
Risk of lapse in quit attempt	<ul style="list-style-type: none"> <li>• Apply 'not a puff' rule</li> </ul>
Maintaining motivation	<ul style="list-style-type: none"> <li>• Implement reward system from money saved</li> <li>• Enlist social support from family and friends</li> </ul>
Minimising weight gain	<ul style="list-style-type: none"> <li>• Have a healthy diet, avoid high-fat and high-sugar foods, substitute water or low-calorie drinks for snacking, exercise regularly</li> </ul>

## Individual counselling

Individual counselling interventions typically include the following components:

- review a patient's smoking history and motivation to quit
- help identify high-risk situations
- generate problem-solving strategies to deal with high-risk situations.

Counsellors may also provide non-specific support and encouragement, and patients may find additional components such as written materials, video and audiotapes beneficial.<sup>18</sup>

More intensive support, usually combined with pharmacotherapy, may involve weekly face-to-face sessions between the patient who smokes and a counsellor trained in smoking cessation for a minimum of four weeks after the quit date. Smoking cessation counselling is in part based on the principles of cognitive behavioural therapy (CBT), an evidence-based treatment that also forms the basis of Quitline counselling.<sup>20,21</sup> CBT is a psychological intervention that aims to:

- show patients how their thinking affects their mood
- help patients identify and challenge unhelpful thoughts
- learn practical self-help strategies.

## Motivational interviewing and mindfulness-based interventions

Motivational interviewing is an approach widely used to help people quit smoking. It supports those attempting to quit by strengthening their own motivation and commitment to change their reactions to the urge to smoke.<sup>22</sup>

Motivational interviewing generally requires more time per session than approaches using brief interventions and individual counselling. It is an evidence-based counselling technique based on a therapeutic partnership that acknowledges and explores a patient's ambivalence about their smoking behaviour. Motivational interviewing allows those who smoke to clarify what goals are important to them and organise their reasons in a way that supports action. Motivational interviewing values patient autonomy and mutual respect, and uses open-ended questions, affirmations, reflection and summarising.<sup>22-24</sup>

For motivational interviewing strategies, refer to Chapter 3, 'Clinical interventions for tobacco use and dependence' and Table B1, page 58 in *Treating tobacco use and dependence: 2008 update* ([www.tobaccoprogram.org/clientuploads/documents/Consumer%20Materials/Clinicians%20Systems%20Mat/2008-Guidelines.pdf](http://www.tobaccoprogram.org/clientuploads/documents/Consumer%20Materials/Clinicians%20Systems%20Mat/2008-Guidelines.pdf)).<sup>2</sup>

Mindfulness-based interventions may have an important role in helping those who smoke to deal with treatment and abstinence by moderating the relationship between craving and smoking, and promoting the development of coping strategies to deal with triggers to smoke. Mindfulness-based cognitive therapy and relapse prevention appear to reduce negative affect, craving and cigarette use among those who are trying to quit smoking.<sup>25,26</sup>

## Group counselling

Group behaviour therapy involves scheduled meetings (typically four to eight) where patients receive information, advice and encouragement and some form of behavioural intervention to support quitting smoking.<sup>17</sup> Group counselling can provide the opportunity to learn behavioural techniques for smoking cessation and provide mutual social support.<sup>27</sup>

Group therapy is better for helping people to stop smoking than self-help and other less intensive interventions for quitting; however, there is not enough evidence to evaluate whether it is more effective or cost-effective than intensive individual counselling.<sup>12</sup>

In some states and territories, Quitline will have registers of local support programs led by approved providers.

## Telephone counselling and Quitline

Telephone counselling provides individual advice, encouragement and support by specialist counsellors to those who want to quit or have recently quit. Quitline is a clinical service that uses evidence-based guidelines set by the World Health Organization (WHO). Counsellors on Quitline use behaviour change techniques (eg CBT, motivational interviewing) over multiple calls to plan for, assist and sustain quit attempts. Usually, counsellors proactively call the client several times over the period leading up to, and the month following, a quit attempt. Alternatively, the client can call the service. Quitline telephone counselling is provided in each state and territory in Australia. A review of Cochrane systematic reviews of the cost-effectiveness of a variety of interventions found that proactive telephone support is highly cost-effective.<sup>28</sup>

Some of the advantages of Quitline include:

- accessible throughout Australia
- confidential
- no cost to patient

- one-stop shop for resources
- easy intervention
- evidence-based program
- capacity for frequent follow-up and support.

Despite the demonstrated efficacy of Quitline,<sup>29–31</sup> the rate of uptake in Australia is typically low. For example, an economic evaluation of the Victorian Quitline by Deakin University found that in 2015–16 referrals by health professionals to Quitline were an estimated 0.26% of the Victorian smoking population over age 14.<sup>31</sup> Further research is needed to understand barriers resulting in the low reach of Quitlines and to examine this in the context of current levels of government investment in anti-smoking public health education mass media campaigns.<sup>31–34</sup>

## Quitline services in Australia

Quitline (13 78 48) exists in all Australian states and territories. Quitline can provide a free quit pack and confidential, multi-session behavioural intervention over the phone. In some states and territories, Quitline can also assist in linking callers into community programs. Counsellors can help callers find a course and email the link to them.

- All Quitline services in Australia have agreed to national minimum standards of service delivery.
- In most states and territories, those who smoke are offered free proactive telephone counselling. Proactive or call-back counselling protocols usually allow up to two sessions pre-quit and four session post-quit over the first month, with two in the first week. However, this can vary among states and territories.
- Online referral is available (those who smoke can be referred by all health professionals to the Quitline for extended support using the online referral sheet). Services provide feedback to health professionals regarding patients referred to a Quitline.
- Processes for online referral to Quitline through patient management software (Best Practice, Medical Director) are available in some states and territories.
- Callers have direct access to an appropriately trained Quitline counsellor, course leader or coach.
- Adolescent protocols are available for young people.
- Aboriginal and Torres Strait Islander counsellors or liaison people are available.
- Self-help books are available.

## Services for people from culturally and linguistically diverse backgrounds

In some states and territories, bilingual educators conduct information sessions in a number of community languages (eg Quit Victoria). Community language-specific Quitline telephone numbers are also available:

- 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

## Web-based material

- Quitline referral form ([www.quit.org.au/referral-form](http://www.quit.org.au/referral-form))
- iCanQuit ([www.icanquit.com.au](http://www.icanquit.com.au))
- Quit Coach ([www.quitcoach.org.au](http://www.quitcoach.org.au))
- More resources are available at [www.quitnow.gov.au](http://www.quitnow.gov.au)

**Recommendation 16** – Referral to telephone call-back counselling services should be offered to all people who smoke. *Strong recommendation, high certainty*

## Self-help materials

Self-help interventions for smoking cessation in the form of structured programs in written (eg books, brochures, manuals) or electronic (eg CDs, online, mobile phone apps) formats provide support and advice without the help of health professionals, counsellors or group support. There is moderate-certainty evidence that ‘written self-help materials help more people to stop smoking than no intervention’.<sup>35</sup>

The most recent Cochrane review notes that the tailoring of self-help materials, compared with untailored or generic materials delivered similarly, produced no evidence of additional benefit.<sup>35</sup>

Current evidence supports a beneficial effect of mobile phone-based smoking cessation interventions on six-month cessation outcomes.<sup>36</sup> Studies have found the effectiveness of text message mobile phone support programs in the short and long term.<sup>34,37</sup> Combined internet and mobile telephone programs can be effective for up to 12 months for assisting people who smoke to quit.<sup>34,38</sup>

Mobile phone-based apps are listed on the Australian Government’s quit site ([www.quitnow.gov.au](http://www.quitnow.gov.au)).

Online smoking cessation interventions are low cost and have the potential to reach a large number of people who smoke.<sup>39,40</sup> A major advantage of the internet over printed material is its interactivity and ability to tailor information to individual needs. However, relatively few sites make use of this possibility – QuitCoach ([www.quitcoach.org.au](http://www.quitcoach.org.au)) is an example of tailored information. Research shows the structured planning intervention, QuitCoach, can significantly reduce relapse to smoking.<sup>41</sup> Web-based programs are a promising delivery system for assisting and motivating those who smoke to quit; however, further research is needed to identify their most effective use.

## Unproven approaches to smoking cessation

There are some approaches that have the potential to assist with maintaining long-term smoking cessation, but have not been adequately investigated for use.

Health professionals should be aware of extravagant claims of success for interventions that have not been subjected to rigorous testing and for which there is no clinical evidence.

## Other nicotine-related agents

Nicobrevin is a patented product containing quinine (claimed to reduce cravings), menthyl valerate (supposed sedative properties), and camphor and eucalyptus oil (decongestants).<sup>42</sup> NicoBloc and Nicobrevin are occasionally recommended by some healthcare professionals. These products are available in some pharmacies,<sup>43</sup> despite a lack of any empirical evidence of effectiveness.<sup>44</sup>

## Aversive or rapid smoking

Aversive therapy aims to extinguish the urge to smoke through pairing the act of smoking with an unpleasant stimulus. In the context of smoking cessation, this is usually the use of rapid smoking. There is no evidence to suggest that rapid (or aversive) smoking may be effective.<sup>45</sup>

## Biomedical feedback

Strategies used as a motivational tool for smoking cessation in primary care include spirometry, expired carbon monoxide levels, vascular ultrasounds and genetic susceptibility. There is little scientific evidence of an effect on quitting smoking for most biomedical tests.<sup>46</sup>

Demonstrating the effects of smoking on estimates of lung age has not been shown to increase quit rates,<sup>47</sup> although it might increase levels of motivation in patients with chronic obstructive pulmonary disease (COPD) to quit smoking in the early stages of the disease.

## Physical activity

There are two major aspects to quitting tobacco use:

1. overcoming nicotine addiction
2. managing the cues for smoking.

It is known that increased physical activity has many benefits for a healthy life. Exercise has been investigated as a way of helping with symptoms of nicotine withdrawal and cravings during attempts to quit. Exercise may also help by increasing self-esteem, improving mental health and managing the weight gain that often follows quitting. However, there is currently no evidence to show higher abstinence rates in the long term with aerobic exercise, resistance exercise, physical activity, and combined aerobic and resistance exercise.<sup>48</sup> A slight positive effect on smoking cessation at the end of treatment has been shown where yoga plus CBT was used.<sup>49</sup>

Increased physical activity should be encouraged as part of a support program as it brings other health advantages to people who are trying to quit smoking. Exercise should be advised for everyone quitting.

## Allen Carr method

Although the Allen Carr method has considerable popular support, there has been a lack of high-quality, empirical evidence that it is effective.<sup>50</sup> A recent randomised controlled trial involving 300 adults who smoke in Ireland found that Allen Carr's 'easy way to stop smoking' was superior to a standard online national smoking cessation program at 12 months follow-up (22% versus 11%).<sup>51</sup> The intervention consisted of a one-off, five-hour group seminar with a maximum of 20 participants in a routine seminar session. Participants smoke during smoking breaks until there is a ritualistic final cigarette, followed by a 20-minute relaxation exercise. The mechanism of the effect found is not clear and further research is needed.

## St John's Wort

St John's Wort (*Hypericum perforatum*) is an antidepressant herb extract that has not been shown to aid in smoking cessation. As yet, there is no convincing evidence that St John's Wort, alone or with individual motivational and behavioural support, is likely to be effective as an aid in smoking cessation.<sup>40,52,53</sup>

## Ineffective approaches to smoking cessation

There are several smoking cessation methods that are in widespread use, but have not been shown in well-designed trials to be effective for quitting other than as a placebo effect, or more than the effect of any counselling and support provided at the same time.

### Hypnotherapy (without counselling)

Hypnotherapy is widely promoted as an effective way to stop smoking. It is said to assist smoking cessation by weakening the desire to smoke or strengthening the will to stop. Despite being in use for some decades, there are only a few well-designed studies to evaluate its use. A Cochrane meta-analysis was unable to show that hypnotherapy was superior to no treatment, and there are insufficient data to compare hypnotherapy with alternate effective treatments.<sup>54</sup>

### Acupuncture

People sometimes have acupuncture to quit smoking, with the aim of reducing withdrawal symptoms. Related therapies include acupressure, laser therapy and electrical stimulation. At present, there is no consistent evidence that acupuncture, or any related therapy, is better than doing nothing. Well-designed trials of acupuncture, acupressure and laser stimulation are needed before these treatments can be recommended as effective in smoking cessation.<sup>55</sup>

### Naltrexone

Naltrexone is a long-acting opioid antagonist used in the treatment of alcohol dependence. A meta-analysis of both published and unpublished studies indicates no beneficial effect of naltrexone alone or as an adjunct to nicotine replacement therapy (NRT) on short-term or long-term smoking abstinence.<sup>56,57</sup> Naltrexone may have a role in reducing post-cessation weight gain.<sup>58</sup>



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