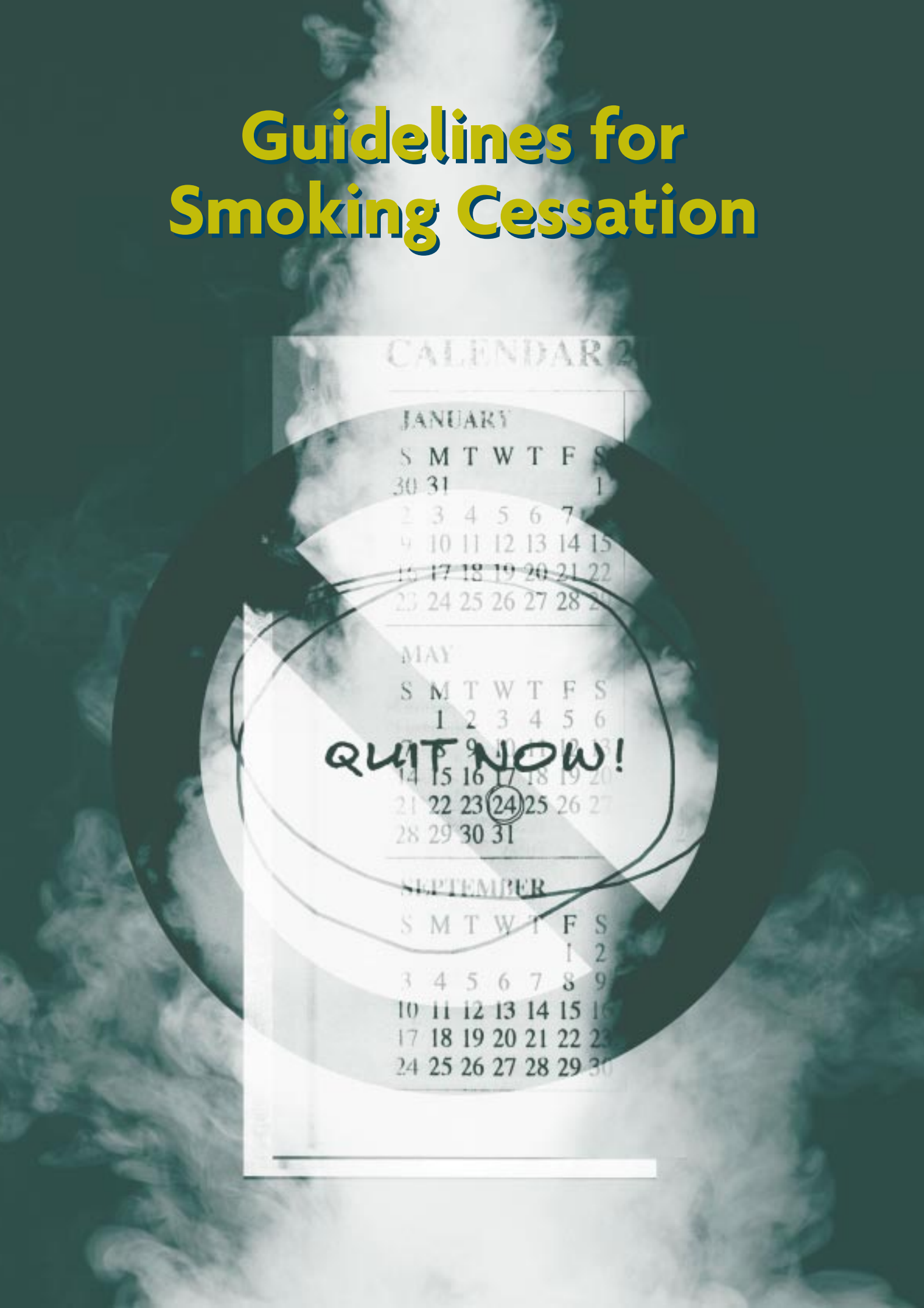
Guidelines for Smoking Cessation



Background

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Guidelines for Smoking Cessation

"Remember, smokers aren't the problem. Tobacco is the problem. Smokers can be part of the solution even if they can't quit at this time. Smokers can provide a smokefree environment for their family and fellow workers by smoking outside and not smoking in the car. This reduces the 'vertical transmission' of smoking-related illness and puts smokers in a win:win situation, assisting them to become active participants in a smokefree strategy."

Dr Paparangi Reid
Public Health Medicine Specialist and Maori Health Researcher

Endorsements

The following organisations have endorsed these guidelines:

Action on Smoking and Health (ASH)
The Asthma and Respiratory Foundation of New Zealand (Inc.) Te Taumatua Huango, Mate Ha o Aotearoa
Australian and New Zealand College of Anaesthetists
Cancer Society of New Zealand
Child Cancer Foundation
Health Funding Authority
Ministry of Education
Ministry of Health
National Advisory Committee on Health and Disability (National Health Committee)
National Heart Foundation of New Zealand
New Zealand College of Clinical Psychologists
New Zealand Occupational Health Nurses Association
New Zealand Society of Physiotherapists
Pharmaceutical Society of New Zealand
Pharmacy Guild of New Zealand (Inc)
Rotorua General Practice Group
Royal Australasian College of Physicians
Royal New Zealand College of General Practitioners
Smokefree Coalition
Social and Behavioural Research in Cancer Group, Dunedin School of Medicine
The Stroke Foundation of New Zealand Inc.
Te Ohu Rata o Aotearoa (Maori Medical Practitioner Association)

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Introduction

- There is good evidence that even brief advice from health professionals has a significant effect on smoking cessation rates. A supportive, ongoing relationship with a health professional is often an essential precursor to successful quitting. Success in quitting smoking depends less on any specific type of intervention than on delivering personalised smoking cessation advice to smokers, and repeating it in different forms from several sources over a long period.
- Smoking cessation is a dynamic process that occurs over time rather than a single event. Smokers cycle through the stages of contemplation, quitting and relapse an average of three to four times before achieving permanent success.
- These guidelines are designed principally for primary care providers to help determine appropriate advice for smokers. The guidelines will also be useful in other settings. The guidelines contain the best information available at the time of publication.
- The guidelines are not meant to replace clinical judgement and the recommendations may not be appropriate for use in all circumstances. How the recommendations are implemented remains the provider's decision in the context of the individual smoker's circumstances. Each provider is encouraged to individualise the way they develop or modify their systems to implement these guidelines.

Summary

THE FOUR A's: ASK, ADVISE, ASSIST, ARRANGE

I. ASK

The smoking status of every adult should be identified and prominently documented in the medical record. For current smokers and those who have quit in the past year, smoking status should be updated at clinical encounters.

II. ADVISE

Provide brief cessation messages at nearly every encounter. These messages should be:

- clear and supportive
- non-confrontational but unambiguous
- specific to the smoker's readiness to quit.

III. ASSIST

Provide additional support for those with some interest in quitting:

- offer self-help material
- assist in setting a quit date
- explore barriers to successful cessation and strategise solutions
- offer referral to organised cessation support (e.g. the free QUITLINE – 0800 778 778)
- offer nicotine replacement therapy.

IV. ARRANGE (follow-up)

Arrange follow-up with smokers who are ready to quit:

- conside scheduling a brief follow-up contact around the time of quit date (phone call, visit, letter)
- reinforce staying quit during visits in the first year post-cessation.

The Four A's

I. Ask

Identify and document smoking status

Identify every adult's smoking status **Identify the smoking status of a child's parents/caregivers at Well Child visits, and at acute care visits for conditions potentially impacted by second-hand smoke** **POSTIVELY REINFORCE non-smoking, particularly with adolescents**	Determine if a person: • does not smoke • does smoke • recently quit smoking (<1 year). Ask "Do you currently smoke?" If no, ask "Have you quit in the past year?" Ask adults accompanying children, "Does anyone in your/this child's household smoke?" Ask children over the age of 10, "Have you ever smoked a cigarette?"
Prominently notate smoking status and/or exposure to second-hand smoke in the medical record	Place a smoking status and/or second-hand smoke sticker on the master problem list.
Obtain a smoking history on all smokers	A smoking history could be completed by people while waiting. This assessment would gather information on addiction level, readiness to quit, prior quit attempts and barriers to cessation. Attach the completed form to the person's chart or record for doctor/nurse review (where relevant).
For identified smokers and recent quitters (within one year), update smoking status at clinical encounters	Brief, repetitive, consistent, positive reminders to quit from multiple providers (or reinforcement of a recent quit attempt) double success rates.

II. Advise

Offer cessation advice on a regular basis, over an extended period, to all smokers

Advise those people who smoke to stop	Use messages that are clear, supportive, non-confrontational and unambiguous. Determine the smoker's readiness to quit. *Examples of useful opening questions:*[1] • "Have you ever thought of giving up smoking?" • "What do you know about the effects of smoking on health?" • "What would it take for you to quit?" *Examples of advice:* • For a person not considering quitting: "As your doctor/nurse, I strongly advise you to stop smoking." • For a person strongly considering quitting: "I encourage you to set a quit date in the next month." Use history, physical exam findings and significant life events to further personalise advice. Provide reinforcement via consistent/repeated advice to stop smoking.

III. Assist

Offer appropriate treatment and assistance to smokers or recent quitters

Offer nicotine replacement therapy

Provide assistance according to the person's readiness to quit	**Not considering quitting** • Advise that you are available to help when they are ready. • Suggest cutting down as an option. • Time permitting, explore barriers to considering quitting. • Discuss effects of second-hand smoke on children; discuss consideration of smoking outside at home, not smoking in the car. **Planning to quit in the next six months** • Advise that you are available to help. • Give them the free QUITLINE number (0800 778 778) and self-help materials. • Encourage them to set a quit date. • Time permitting, explore barriers to cessation and solutions that have worked in other arenas, and reinforce individual strengths. Reinforce the value of stopping i.e. rewards. **Ready to quit soon** As above, plus: • Discuss nicotine replacement therapy. • Offer referral to the free QUITLINE number (0800 778 778) or other smoking cessation support. • Arrange follow-up (see below). **Quit in the past year** • Congratulate! • Ask how they are doing; any recent lapses? • Reinforce the importance of permanent cessation. **Recently relapsed** • Reaffirm person's ability to quit. • Encourage them to set another quit date. • Provide them with the free QUITLINE number (0800 778 778). • Time permitting, explore circumstances of relapse.
Encourage nicotine replacement therapy (NRT) *except under exceptional circumstances (refer page 14)*	NRT is effective for addicted smokers who are motivated to quit, especially when used as an adjunct to counselling/ support with organised follow-up. Inform NRT users not to smoke at all while using NRT and provide with copy of relevant 'information sheet' from these guidelines.

IV. Arrange (follow-up)

Arrange follow-up for smokers ready to quit

For smokers ready to quit	Most smokers quit 'on their own', but support and follow-up contacts increase success rates. Follow-up by nurses, community workers and other health workers as well as doctors can be effective. Letters/phone calls may be more cost-effective than follow-up visits at the practice. Taking part in an organised programme increases the chance of success for any quit attempt. Especially encourage participation in an organised programme for smokers who have had multiple prior quit attempts or who have organ damage. People planning to take part in a structured programme may benefit from a follow-up call in a week to ensure contact has been made. The free national QUITLINE (0800 778 778) provides brief (about 10 minutes) support for people quitting smoking. Callers can join a call-back service for continuing support during the quitting period.
People on NRT should be reassessed	People who smoke at all during the first two weeks do not do nearly as well as those who don't. The NRT dose may need adjusting if there are symptoms of overdose or underdose (refer page 15).

Considerations For Special High-risk Populations

Parents/ caregivers of children	• Ask about exposure to second-hand smoke at Well Child visits, and give parents smoking cessation advice. • Discuss the relationship of second-hand smoke to illness at potentially related acute care visits, such as asthma, otitis media and bronchiolitis. • Children educated about the health effects of smoking can play an important role in convincing their parents to quit.
Preadolescents and adolescents	• Ninety percent of smokers start before the age of 21. Smoking rates are increasing among adolescents. Parental, sibling and peer smoking, as well as any experimentation, is a major risk factor. • No cessation programme for teen smokers has been shown to work, so prevention is the key (e.g. repeated positive reinforcement of abstinence).
Pregnant women	• Encourage pregnant women who smoke to quit and those who have quit to remain non-smokers after delivery. Raise at every visit. Give the free QUITLINE number 0800 778 778. • Self-help manuals have been shown to be helpful in this group. Most pregnant women who quit smoking while pregnant begin again after delivery – intervene with new parents often. Discuss nicotine delivery through breast milk.
People with smoking-related organ damage, and those who have relapsed repeatedly	• Specialists can greatly assist smokers by advising them to quit and relating their smoking to disease progression. Written follow-up emphasising this message and reporting results, such as lung function tests, have been shown to be effective.
Hospitalised smokers	• A hospitalisation provides a powerful opportunity to quit. Hospitalised patients are forced to cut down or quit and may be more motivated to remain so after discharge. Consider prescribing NRT during hospital stay.
Maori	• Maori are more likely to be in a smoking environment and less likely to have a supportive environment for quitting. • Maori may respond to different styles of cessation intervention e.g. cognitive-behavioural skill development, group support, marae-based programmes etc. • Consider referral to culturally appropriate provider where possible; the QUITLINE (0800 778 778) provides Maori advisors.
Smokers with concurrent mental health problems or other chemical dependencies	• There is some evidence that smokers are at increased risk of depression and anxiety symptoms (when controlling for stressors and socioeconomic characteristics).[2] • Many people with mental health disorders, such as depression, anxiety and schizophrenia, and other chemical dependencies, also smoke. • Nicotine is not an effective treatment for depression, anxiety and schizophrenia. • There is no evidence that addressing nicotine use jeopardises sobriety; the opposite may be true. • Smokers should be asked about mental health problems and other chemical use, and referred to counsellors, mental health services or drug and alcohol services if indicated, in addition to being encouraged to quit.

Recommendations for Primary Care Providers

- Implement a practice-wide system that ensures the smoking status of every patient is updated at every visit.
- Include smoking status in routine data collected.
  - Document smoking status as: Current Former Never
  - For providers using patient charts, use smoking status stickers
  - Notate on computer records: Smoker Non-smoker
- Have a structured and agreed approach to assisting smokers who are ready to quit. For instance, advice on a handout could include:

  - Set a quit date, ideally within two weeks
  - Inform friends, family, co-workers of plans and ask for support to quit
  - If the urge to smoke is strong, then: **D**elay (acting on the urge to smoke), **D**eep Breathe, **D**rink water, **D**o something else
  - Remove cigarettes from home, car and workplace and avoid smoking in these places
  - Review previous quit attempts – what helped, what didn't help, reasons for relapse
  - Anticipate challenges, particularly during the first few weeks, including nicotine withdrawal
  - Totally stopping is essential – not even a single puff
  - Drinking alcohol is strongly associated with starting smoking again
  - The free QUITLINE number – **0800 778 778.**

- Be aware that the most important variable determining how smokers will respond to any intervention is their **readiness to change.**
- **Anticipate barriers** and address them as appropriate e.g. fears about weight gain.
- Have culturally and educationally **appropriate materials** on smoking cessation (where available) in consulting rooms.
- Arrange **training for all health workers** on smoking cessation.
- Offer smoking cessation support for health workers who smoke.
- Make **health facilities smokefree.**

Process of Cessation: Some Theoretical Background

Smoking cessation is a process occuring over time. A commonly accepted model is Prochaska & DiClemente's 'stages of change',[3] in which smokers are seen as moving through a series of stages. These are summarised in the table below:[1]

Pre-contemplative	• No intention of quitting and may actively resist being advised about smoking.
Contemplative	• Thinking about quitting (e.g. in the next six months) but not soon (e.g. the next 30 days). • Weighing up the pros and cons for them personally. • Health problems, an operation or other life events are often what shifts smokers from ambivalence to action.[1]
Action	• Preparing to quit in the next month or so.
Maintenance/relapse	• Seventy-five percent of relapses occur in the first six months. Even after being abstinent for a year, about one-third of ex-smokers may relapse. After two years, the probability of relapse decreases dramatically (to about four percent). • A 1991 US survey indicated that 70 percent of smokers had quit for at least 24 hours in the past year; 38 percent had quit for more than six months previously. [14] • Smokers averaged four serious attempts to quit. Quit attempts were twice as likely to occur among smokers who reported receiving smoking cessation advice from their doctors.[14] • The 1996/7 NZ Health Survey found that 22 percent of all smokers were thinking about or doing things that would help them quit.[15] Among 15 to 24 year-old adults, 29 percent were in the 'action' stage.

For smokers not wanting to quit, remember:

- In comparing quitting smoking with curing disease, we often do not take into account the highly addictive nature of nicotine and the smoking habit reinforced by millions of inhalations, and strongly bound up with lifestyle habits over many years.[1]
- Change is a process, not an 'all or nothing' phenomenon.
- Success is progress through the stages, not just the act of quitting.
- People in all stages of change can be helped.
- Intervention must be matched to the stage of change.
- Relapse is a normal part of the process, not a failure.
- Hope is a vital ingredient, both for the smoker and the health professional.[1] Given the array of effective interventions, there is excellent reason for believing that repeated quit attempts will be successful.

Evidence Summary

- Smoking causes the premature death of an estimated 4,700 New Zealanders every year.[4] Nearly half of these deaths occur in middle age (35-69 years).[5]
- Most of those killed by tobacco are not particularly heavy smokers, but most did start as teenagers.[5]
- Smoking kills one in two of those who continue to smoke past age 35.[6]
- Those who die early from smoking die, on average, 14 years early.[4]
- An estimated 31 percent of Maori deaths are attributable to tobacco use.[5]
- Second-hand smoke (environmental tobacco smoke or ETS) is a Class A carcinogen and contains approximately 4,000 chemicals.[7,8] Exposure of children to second-hand smoke:
  - can cause middle ear effusion[9]
  - increases the risk of croup, pneumonia and bronchiolitis by 60 percent in the first 18 months of life[10]
  - increases the frequency and severity of asthma episodes[11]
  - is a risk factor for induction of asthma in asymptomatic children.[12]

Benefits of smoking cessation

These points may be helpful in motivating people to quit smoking. Many smokers deny being at increased risk of cancer and heart disease and more accurate perception of risk may assist cessation efforts.[13]

- It is beneficial to stop smoking at any age. The earlier smoking is stopped, the greater the gain.[6]
- Smoking cessation has major and immediate health benefits for smokers of all ages. Former smokers have fewer days of illness, fewer health complaints, and view themselves as healthier.[14,15]
- Within **one day** of quitting, the chance of a heart attack decreases.
- Within **two days** of quitting, smell and taste are enhanced.
- Within **two weeks to three months** of quitting, circulation improves and lung function increases by up to 30 percent.
- Former smokers live longer: after 10 to 15 years' abstinence, the risk of dying almost returns to that of people who never smoked.[16] Risk of premature death is reduced by smoking cessation at all ages, including in older people.[16]
- Men who smoke are 17 times more likely than non-smokers to develop lung cancer.[5] After 10 years' abstinence, former smokers' risk is only 30 to 50 percent that of continuing smokers, and continues to decline.[14]
- Excess risk of heart disease is reduced by half after one year's abstinence. The risk of a major coronary event reduces to the level of a never smoker within five years.[17] In those with existing heart disease, cessation reduces the risk of recurrent infarction or death by half.[14]
- Women who stop smoking before or during the first trimester of pregnancy reduce risks to their baby to a level comparable to that of women who have never smoked.[14] Around one in four low birth weight births could be prevented by eliminating smoking during pregnancy.[14]
- The average weight gain of three kg and the adverse temporary psychological effects of quitting are far outweighed by the health benefits.[18]

Evidence for effectiveness of health professional intervention

- A Cochrane review of 16 randomised controlled trials found simple advice from doctors had a significant effect on cessation rates (odds ratio for quitting 1.73; 95% confidence interval 1.47-2.02).[20]
- When trained providers are routinely prompted to intervene with people who smoke, they achieve significant reductions in smoking prevalence (up to 15 percent cessation rates compared with 5 to 10 percent in non-intervention sites).[14]
- Doctors and other health professionals using multiple types of intervention to deliver individualised advice on multiple occasions produce the best results. Frequency and consistency of interventions over time are more important than type of intervention.[14]
- Provider training and knowledge are not enough to change cessation rates; this requires systems to remind and support provider interventions.[14]

Consumer satisfaction

- When smokers in a clinic implementing a comprehensive tracking and follow-up system for smokers were asked about their response to the programme, 75 percent were more satisfied with their overall care because of the stop-smoking efforts.[19]

Nicotine replacement therapy (NRT)

- Systematic review shows that all forms of NRT commercially available in New Zealand (nicotine gum, transdermal patch, nicotine nasal spray and nicotine inhaler) increase quit rates at 12 months approximately 1.5 to 2 fold compared with placebo, regardless of the setting.[20]
- There is little evidence that NRT is effective in people smoking less than 10-15 cigarettes per day.[20]
- Long-term cessation rates with NRT are improved when NRT is used as part of a structured behavioural intervention.
- A more extensive discussion of evidence for the effectiveness of NRT is given in the Smoking Cessation Guidelines Evidence Review and Background (see inside front cover for details on how to obtain this document).

Cost-effectiveness of smoking cessation

- Ershoff et al[21] found that women in a Health Maintenance Organisation (HMO) given access to a self-help programme were more likely to achieve cessation for most of their pregnancy (22.2 percent versus 8.6 percent), and that this had impacted favourably on pregnancy outcomes, and generated cost savings. The HMO saved approximately $3 for every $1 spent on the self-help programme.
- Multiple studies have evaluated the cost-effectiveness of various smoking cessation interventions. Puget Sound Group Health Co-operative smoking cessation interventions cost less than US$1,000 per year of life saved.[14] For comparison, cost estimates for the treatment of moderate hypertension and drug therapy for hyperlipidemia are approximately US$10,000 and US$60,000 per year of life saved, respectively.

Smoking cessation programmes

- Cross-sectional studies indicate that 90 percent of former smokers used individual methods rather than organised programmes to help them quit.[22] However, formal cessation programmes play a number of important roles:
  - they tend to be utilised by more heavily addicted smokers who have made multiple quit attempts
  - for the individual smoker, taking part in a structured programme increases the likelihood of successfully becoming a non-smoker for any given quit attempt
  - they take pressure off the health care system by reducing or removing the need for multiple follow-up visits.

Nicotine Replacement Therapy (NRT)

Rationale

NRT decreases withdrawal symptoms and improves cessation outcomes in appropriate people. NRT is currently available in New Zealand as nicotine nasal spray (prescription medicine), nicotine inhaler (pharmacist only), nicotine patches and nicotine gum (both over-the-counter at pharmacies). All these forms effectively increase the likelihood of successfully quitting for any given quit attempt.

Suggested criteria for prescribing NRT

The smoker

- is motivated to quit, and
- agrees to 100 percent cessation, quit date, and follow-up, and
- smokes more than half a pack per day, and
- understands the benefits and risks and agrees to take NRT.

Steps to providing NRT

1. assess **level of addiction**/motivation
2. discuss **different types of NRT** (patch, gum, nasal spray or inhaler)
3. consider **contraindications**/factors altering dosing
4. give free **QUITLINE number** 0800 778 778 and/or smoking cessation resources
5. prescribe **appropriate dose** of NRT, reviewing use and common side-effects
6. underscore **absolutely no smoking** while on NRT both to avoid overdose symptoms and because studies have shown that smoking while using NRT markedly decreases likelihood of successful quit attempt
7. ensure **follow-up** within three to five days to assess correct dosing
8. ensure person receives **further follow-up** to increase likelihood of success.

Note: if person continues to smoke any cigarettes, recommend stopping NRT.

More than eight weeks' treatment with NRT is not routinely recommended as there is no evidence that treatment beyond 8 to 12 weeks increases the success rate.[20, 23]

Nicotine patches

- *Nicabate TTS* and *Nicotinell TTS* doses: 7 mg, 14 mg, 21 mg (24 hours)
- *Nicorette* doses: 5 mg, 10 mg, 15 mg (16 hours)
- one 21 mg patch/day is roughly equivalent to smoking one cigarette/hour
- after 24 hours use, patch retains 73 percent of original dose
- toxic to children, small pets
- consider number of cigarettes smoked per day and body weight.

Recommended dose

Smoking more than one pack per day (ppd)	21 mg (or 10mg if Nicorette)
half to one ppd	14 mg (or 5mg if Nicorette)
less than half ppd	none

Recommendation: start with highest dose for two to four weeks, then decrease to next dose for two weeks etc. No studies have shown that more than eight weeks treatment increases treatment effectiveness.

Skin reactions: up to 50 percent of people using the patch will have local skin reactions. Fewer than five percent will need to discontinue treatment.

Note: smoking activates the P450 system, cessation deactivates it. Theoretically then, many drugs would need adjusting. Potential drugs affected include theophylline, coumadin and insulin, and caffeine metabolism is also affected. However, clinically this has not been found to have a significant impact.

Nicotine gum

General consensus is that the patch is preferable to the gum; there are fewer compliance problems, the patch requires less time and effort on the part of the provider, and it is easier to use. Gum can be used if the person prefers it, has failed the patch and other modes of delivery, or has severe skin reaction or other contraindications to patch use.

Gum comes in two doses – 2mg and 4mg. The 4mg dose is reserved for highly dependent smokers or those who have failed the 2mg dose. Prescribing considerations are generally similar to those for the patch. The gum is chewed until a peppery taste emerges, then 'parked' between the cheek and gum. The gum should be slowly and intermittently chewed and 'parked' for about 30 minutes on a fixed schedule (one piece every one to two hours) for one to three months. The 2mg dose maximum is 30/day; the 4mg maximum is 20/day.

Nicotine nasal spray

Nicotine nasal spray is designed to deliver nicotine more rapidly than patches, gum or inhaler, and utilises a device similar to nasal antihistamine sprays.[24] It is not available over-the-counter and must be prescribed by a doctor.

Smokers use one to three doses per hour for two to three months. Peak levels occur within 10 minutes and are about two-thirds those of cigarettes.[25] The large majority of smokers initially experience nasal and throat irritation, rhinitis, sneezing, coughing and watering eyes. Tolerance to these effects occurs in the first week.[24]

Nicotine inhaler

The inhaler is a plastic rod with a nicotine plug providing a nicotine vapour when puffed on. Although designated an inhaler, this is a misnomer because the device does not deliver a significant amount of nicotine to the lungs; rather it delivers nicotine to the mouth when either deep or shallow puffs are taken.[26] Peak levels are about half those of cigarettes. The inhaler delivers roughly the same amount of nicotine as 2mg gum.

The major difference between the inhaler and other forms of NRT is that the inhaler substitutes for some of the behavioural features of smoking.[24]

Cost

Nicotine products and their approximate cost per day

Type	Manufacturer	Brand name	Nicotine dose	Nicotine released/24 hours (equivalent number of cigarettes)	Approximate retail price *per day* of use
Cigarettes	Rothmans BAT	Winfield Holiday B&H	1.2 to 2.4 mg per cigarette	12-48 mg (10-20 cigarettes/day)	$3.15-$7.90 (10-20 cigarettes/day)
Gum	Pharmacia & Upjohn	Nicorette	2mg 4 mg	Chew 1 per hour 8/day (13-26)	$4.80 $6.45
Inhaler	Pharmacia & Upjohn	Nicorette	10mg (max. ~4 mg is absorbed)	24-48 mg (6-12 cartridges/day = 10-40 cigarettes)	Starter kit $15.40 $8.00 per day (6 cartridges)
Patch	Pharmacia & Upjohn	Nicorette	15 mg 10 mg 5 mg	15 mg (6-12) 10 mg (4-8) 5 mg (2-4)	$5.05 $4.45 $4.20
Patch	Novartis	Nicotinell	30 sq cm 20 sq cm 10 sq cm	21 mg (9-18) 14 mg (6-12) 7 mg (3-6)	$5.50 $4.80 $4.50
Patch	SmithKline Beecham	Nicabate	21 mg 14 mg 7 mg	21 mg (9-18) 14 mg (6-12) 7 mg (3-6)	$5.00 $4.95 $4.55
Nasal Spray	Pharmacia & Upjohn	Nicorette (1 dose = 1 spray each nostril)	100 doses of 1 mg (2 sprays) in each bottle	8-12 doses of 1 mg per day (3-10)	$3.20 – $4.55 + doctor consultation fee (prescription medicine)

Note: A version of this table first appeared in: Laugesen M. Cigarettes in the Auckland region. Cause of disease or item of trade? *Auckland Healthcare Public Health Quarterly Report* 1999 5:2. Used with permission. Information on the nicotine inhaler added and prices updated. Prices are based on average use and on recommended or actual retail prices in April 1999.

Relative contraindications/relevant medical conditions

There are no absolute medical contraindications to NRT use. Properly dosed NRT supplies nicotine at a lower dosage than a smoker receives through smoking. NRT supplies none of the other 4,000 noxious chemicals in tobacco smoke.

Myocardial infarction/coronary artery disease

Start at a lower dose. Dose may be increased if withdrawal symptoms occur. Follow closely. *Note: use cautiously (after discussion with specialist) in people in the immediate post-MI period (four weeks), those with serious arrhythmias, or those with severe or worsening angina.*

Pregnancy

Pregnant and lactating women should be encouraged to attempt cessation without pharmaceutical treatment. If this fails, NRT should be considered and followed closely.

Overdose symptoms of NRT

Upset stomach/abdominal pain, nausea/vomiting, diarrhoea, dizziness, tachycardia, change in hearing/vision, bad headache, flushing, confusion, hypotension.

Withdrawal symptoms/underdose of NRT

Craving, irritability, anxiety, sleep disturbance, impaired concentration, hunger, weight gain, depression, minor somatic complaints.

Resources

QUITLINE 0800 778 778 (toll-free)

The QUITLINE offers free quit packs and support from trained quit advisors, encouraging smokers to plan smoking cessation and, when ready, set a date for quitting. QUITLINE advisors assist with strategies for success and offer follow-up telephone support. Printed materials and other support resources are sent to callers.

Other sources of smoking cessation materials and programme information:

ASH – Action on Smoking and Health	Ph: 09-520 486 Fax: 09-520 4891 ashnz@clear.net.nz
The Asthma and Respiratory Foundation of New Zealand	PO Box 1459, Wellington Ph: 04-499-4592 arf@ashmanz.co.nz
Affiliated Asthma Societies	See your local white pages
The Cancer Society	See your local white pages
Local Public Health Service	See your local white pages under 'Public Health Service or 'Public Health Promotion'
Te Hotu Manawa Maori	PO Box 17-160, Greenlane, Auckland. Ph: 09-529-2522 Fax: 09-524-5830 tehotu@ihug.co.nz

Further background information

- The Evidence Review and Background Document to these guidelines can be obtained from the National Health Committee, Box 5013, Wellington.
- Agency for Health Care Policy & Research, Smoking Cessation Clinical Practice Guideline. Published in *JAMA* 1996; 275(16): 1270-80. Also available on the Internet at http://text.nlm.gov/ftrs/dbaccess/smkc.
- Smoking Cessation Guidelines for Health Professionals. A guide to effective smoking cessation interventions for the health care system. Published in *Thorax* 1998; 53 (Suppl 5, Part 1): S3- S19. Summary published in *BMJ* 1999; 319: 183-185.

Information for People Using Nicotine Patches

Nicotine patches are a form of nicotine replacement therapy (NRT). NRT is the use of a product containing nicotine to replace nicotine previously taken in by smoking. NRT helps certain people reduce the withdrawal or 'craving' for nicotine while they quit the smoking habit. We believe NRT works best when used with a programme that teaches you how to change certain habits to allow you to live without nicotine. The free **QUITLINE (0800 778 778)** can help you learn these skills. QUITLINE's trained advisors can also help you plan and prepare for quitting smoking and support you during the quit process.

Nicotine skin patches allow nicotine to be absorbed continually through the skin. The patch provides a continual level of nicotine throughout the day. The level is less than from your cigarettes, but usually enough to reduce craving and nicotine withdrawal.

Your doctor has advised you to receive NRT as nicotine skin patches:

Your starting dose is a _____ mg patch/day for _____ weeks.

You will then reduce to a _____ mg patch/day for _____ weeks.

You will then reduce to a _____ mg patch/day for _____ weeks.

Important: You must **quit** smoking when you start using the patch and must not smoke during patch use. If you smoke while using a patch, you could overdose on nicotine!

How to use nicotine patches

- Apply daily at the same time each day.
- Choose a **non-hair, clean, dry** area above the waist (front or back) or upper part of arm. Do not put on skin that is burned, broken out, cut or irritated in any way.
- You may experience some mild itching, burning, or tingling initially, but this is normal and usually goes away within an hour.
- Water will not harm the patch so you may shower or bathe; but avoid perfumed soaps or skin lotions – these make the skin oily and can cause the patch to fall off. The patch can be taped back on if it does fall off.
- Wash hands well after application and removal of patch.
- Dispose of patch by folding it in half and placing it into the plastic holder. **Keep the patch out of reach of children and pets.**
- **Do not smoke while using a nicotine patch.**
- Sleep disturbances, vivid dreams or nightmares may occur with patches that are designed to be worn overnight. The patch can be removed overnight should this problem occur.

Precautions

Tell your health professional if you are pregnant or are trying to get pregnant. Special caution should be taken if you have any of the following conditions. Be sure to tell your health professional if you have experienced any of the problems listed below.

recent heart attack (myocardial infarction)	skin diseases
irregular heart beat (arrhythmia)	very high blood pressure
severe or worsening heart pain (angina pectoris)	stomach ulcers
allergies to drugs	overactive thyroid
rashes from adhesive tape or bandages	diabetes requiring insulin
kidney or liver disease	

Important side-effects of nicotine patches

Common side-effects include skin irritation, itching, abnormal dreams or difficulty sleeping, diarrhoea, indigestion. These often reduce over time. It is normal for the patch to cause some tingling or mild burning when first applied. This should go away in an hour. The skin under the patch may be red for a day after removal. If this persists or becomes swollen, contact your doctor or nurse since it may be an allergic reaction.

You may need your dose adjusted if you are experiencing side-effects. These should be reported to your health professional.

Overdose symptoms of NRT

Upset stomach/abdominal pain, nausea/vomiting, diarrhoea, dizziness, tachycardia (racing heart), change in hearing/vision, bad headache, flushing, confusion, hypotension (low blood pressure).

Withdrawal symptoms/underdose of NRT

Craving, irritability, anxiety, sleep disturbance, impaired concentration, hunger, weight gain, depression, minor somatic complaints.

The daily cost of nicotine patches compared with cigarettes as at April 1999

Type	Manufacturer	Brand name	Nicotine dose	Nicotine released/24 hours (equivalent number of cigarettes)	Approximate retail price *per day* of use
Cigarettes	Rothmans BAT	Winfield Holiday B&H	1.2 to 2.4 mg per cigarette	12-48 mg (10-20 cigarettes/day)	$3.15-$7.90 (10-20 cigarettes/day)
Patch	Pharmacia & Upjohn	Nicorette	15 mg 10 mg 5 mg	15 mg (6-12) 10 mg (4-8) 5 mg (2-4)	$5.05 $4.45 $4.20
Patch	Novartis	Nicotinell	30 sq cm 20 sq cm 10 sq cm	21 mg (9-18) 14 mg (6-12) 7 mg (3-6)	$5.50 $4.80 $4.50
Patch	SmithKline Beecham	Nicabate	21 mg 14 mg 7 mg	21 mg (9-18) 14 mg (6-12) 7 mg (3-6)	$5.00 $4.95 $4.55

Information for People Using Nicotine Gum

Nicotine gum is a form of nicotine replacement therapy (NRT). NRT is the use of a product containing nicotine to replace nicotine previously taken in by smoking. NRT helps certain people reduce the withdrawal or 'craving' for nicotine while they quit the smoking habit. We believe NRT works best when used with a programme that teaches you how to change certain habits to allow you to live without nicotine. The free **QUITLINE (0800 778 778)** can help you learn these skills. QUITLINE's trained advisors can also help you plan and prepare for quitting smoking and support you during the quit process.

Once you are ready to quit, begin using your NRT.

- Starting now, you must give up smoking completely.
- Anticipate, don't wait. Figure out when you usually smoke and use gum 20 minutes prior to your usual smoking time. Establish a nicotine chewing gum schedule (e.g. one piece of gum per hour or half-hour).
- Soften and 'park'. **This medicine should not be chewed like regular gum**. Place the gum in your mouth, moisten and bite down once or twice to release a peppery taste. Then 'park' the gum, placing it between cheek and gum.
- Massage or roll to reactivate. Massage the gum (or bite into it) every few minutes to expose a new surface and 'park' again in the same area of your mouth.
- After about 30 minutes of massaging and gentle chewing, the nicotine is used up. Throw the gum away and use a fresh piece at your scheduled time.
- Symptoms such as indigestion or stomach upset probably indicate that you are swallowing too much nicotine with your saliva. This should not happen if you 'park' the gum as above.
- Do not drink acidic liquids such as coffee, orange juice or Coke before or during use of gum. These kinds of liquids will interfere with the effectiveness of the medication.
- Do not chew more than 30 pieces a day. Most people find 12 pieces of gum a day will control the urge to smoke.
- Begin cutting down on gum use after four to six weeks, reducing gradually over the next six weeks.

Overdose symptoms of NRT

Upset stomach/abdominal pain, nausea/vomiting, diarrhoea, dizziness, tachycardia (racing heart), change in hearing/vision, bad headache, flushing, confusion, hypotension (low blood pressure).

Withdrawal symptoms/underdose of NRT

Craving, irritability, anxiety, sleep disturbance, impaired concentration, hunger, weight gain, depression, minor somatic complaints.

The daily cost of nicotine gum compared with cigarettes as at April 1999

Type	Manufacturer	Brand name	Nicotine dose	Nicotine released/24 hours (equivalent number of cigarettes)	Approximate retail price *per day* of use
Cigarettes	Rothmans BAT	Winfield Holiday B&H	1.2 to 2.4 mg per cigarette	12-48 mg (10-20 cigarettes/day)	$3.15-$7.90 (10-20 cigarettes/day)
Gum	Pharmacia & Upjohn	Nicorette	2mg 4 mg	Chew 1 per hour 8/day (13-26)	$4.80 $6.45

Information for People Using Nicotine Nasal Spray

Nicotine nasal spray is a form of nicotine replacement therapy (NRT). NRT is the use of a product containing nicotine to replace nicotine previously taken in by smoking. NRT helps certain people reduce the withdrawal or 'craving' for nicotine while they quit the smoking habit. We believe NRT works best when used with a programme that teaches you how to change certain habits to allow you to live without nicotine. The free **QUITLINE (0800 778 778)** can help you learn these skills. QUITLINE's trained advisors can also help you plan and prepare for quitting smoking and support you during the quit process.

Once you are ready to quit, begin using your NRT.

- Starting now, you must give up smoking completely.
- The nasal spray is the fastest-acting form of NRT.
- The nasal spray is most effective when used correctly – directed at an angle into the nostril rather than held upright.
- Each spray releases 0.5 mg of nicotine solution and each dose consists of one spray into each nostril, a total of 1 mg of nicotine.
- You will probably experience some nasal irritation, sneezing, coughing or watering eyes when you first start using the nasal spray but these side-effects will usually disappear as you get used to the spray.
- You will normally need one to two doses of spray each hour when you start using it. You should not use more than three doses per hour.
- The spray should be used for two to three months reducing the dose gradually. After this you should be able to stop using the spray completely.

Overdose symptoms of NRT

Upset stomach/abdominal pain, nausea/vomiting, diarrhoea, dizziness, tachycardia (racing heart), change in hearing/vision, bad headache, flushing, confusion, hypotension (low blood pressure).

Withdrawal symptoms/underdose of NRT

Craving, irritability, anxiety, sleep disturbance, impaired concentration, hunger, weight gain, depression, minor somatic complaints.

The daily cost of nicotine nasal spray compared with cigarettes as at April 1999

Type	Manufacturer	Brand name	Nicotine dose	Nicotine released/24 hours (equivalent number of cigarettes)	Approximate retail price *per day* of use
Cigarettes	Rothmans BAT	Winfield Holiday B&H	1.2 to 2.4 mg per cigarette	12-48 mg (10-20 cigarettes/day)	$3.15-$7.90 (10-20 cigarettes/day)
Nasal Spray	Pharmacia & Upjohn	Nicorette (1 dose = 1 spray of 0.5 mg each nostril)	100 doses of 1 mg in each bottle	8-12 doses of 1 mg per day (3-10)	$3.20 – $4.55 + doctor consultation fee (prescription medicine)

Information for People Using Nicotine Inhaler

Nicotine inhaler is a form of nicotine replacement therapy (NRT). NRT is the use of a product containing nicotine to replace nicotine previously taken in by smoking. NRT helps certain people reduce the withdrawal or 'craving' for nicotine while they quit the smoking habit. We believe NRT works best when used with a programme that teaches you how to change certain habits to allow you to live without nicotine. The free **QUITLINE (0800 778 778)** can help you learn these skills. QUITLINE's trained advisors can also help you plan and prepare for quitting smoking and support you during the quit process.

Once you are ready to quit, begin using your NRT.

- Starting now, you should give up smoking completely.
- NRT using a nicotine inhaler helps you control cravings and keeps your hand occupied with the familiar hand-to-mouth ritual.
- The inhaler consists of a mouthpiece and a nicotine-impregnated cartridge flavoured with menthol.
- It is designed for you to 'puff' on in the same way you would a cigarette. The device not only delivers nicotine to your blood to relieve your cravings but also, because it is held in your hand like a cigarette, offers regular hand-to-mouth activity so you are less likely to miss the action of smoking.
- You can inhale from the inhaler as and when you need, using either shallow or deep draws. Both provide a similar amount of nicotine to the mouth and back of the throat.
- The recommended dose is 6 to 12 cartridges a day.
- You should use the inhaler for two to three months reducing the dose gradually.

Overdose symptoms of NRT

Upset stomach/abdominal pain, nausea/vomiting, diarrhoea, dizziness, tachycardia (racing heart), change in hearing/vision, bad headache, flushing, confusion, hypotension (low blood pressure).

Withdrawal symptoms/underdose of NRT

Craving, irritability, anxiety, sleep disturbance, impaired concentration, hunger, weight gain, depression, minor somatic complaints.

The daily cost of nicotine inhaler compared with cigarettes as at April 1999

Type	Manufacturer	Brand name	Nicotine dose	Nicotine released/24 hours (equivalent number of cigarettes)	Approximate retail price *per day* of use
Cigarettes	Rothmans, BAT	Winfield Holiday. B&H	1.2 to 2.4 mg per cigarette	12-48 mg (10-20 cigarettes/day)	$3.15-$7.90 (10-20 cigarettes/day)
Inhaler	Pharmacia & Upjohn	Nicorette	10mg (max. ~4 mg is absorbed)	24-48 mg (6-12 cartridges/day = 10-40 cigarettes)	Starter kit $15.40 $8.00 per day (6 cartridges)

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