

Do Not Smoke

Recommendations	Grades of Recommendations^
1. Educate all on harms of tobacco smoking, including cigarette, e-cigarette, waterpipe, and second-hand smoke ¹	B
2. Ask about tobacco use by all clients and/or family member(s) at every opportunity ¹	A
3. Advise all smokers to quit ¹	A

¹ Scottish Intercollegiate Guidelines Network (SIGN) classification

Recommended Care Components

For Who?	Recommended Care Components ^a	By Whom? ^b	How Often?
Empowerment			
All	Educate all on harms of tobacco smoking, including cigarette, e-cigarette, waterpipe, and second-hand smoke ¹	Primary Healthcare Providers	Opportunistically
Smokers who are planning for pregnancy, or are pregnant	Provide messages of the significant maternal and perinatal risks associated with tobacco use ² + Offer referral to a cessation service	Primary Healthcare Providers	Opportunistically and At each antenatal visit
Assessment			
All smokers	Assess (Table 1.): (1) Smoking habit ³ (2) Readiness to quit ³	Trained Healthcare Professionals	Opportunistically

For Who?	Recommended Care Components ^a	By Whom? ^b	How Often?
Management			
Non-pregnant smokers who are <u>Not Ready</u> to quit	Motivate to make a quit attempt by (1) Brief Interventions¹ - 5R's intervention (Table 2.) (Relevance, Risk, Rewards, Roadblocks, and Repetition) OR (2) Motivational Interviewing	Trained Healthcare Professionals	At every visit
Smokers who are <u>Ready</u> to quit	Offer counselling (Table 1.): + pharmacotherapy such as: - Nicotine replacement therapy[@] ("NRT", including patch, gum and lozenge), or - Varenicline^{^4} + Offer referral to a cessation service	Trained Healthcare Professionals @Pharmacists ^Doctors	At every visit

5R = Relevance, Risk, Rewards, Roadblocks, and Repetition; NRT = Nicotine Replacement Therapy

^a **Grade of recommendation according to colour code:**

Recommended (Strong)	Conditionally recommended	Practice points	Generally not recommended	Not recommended (Strong)
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^b

Primary Healthcare Providers – All providers of health services in primary healthcare settings

Primary Healthcare Professionals – Includes doctors, dentists, chinese medicine practitioners, nurses, pharmacists, physiotherapist, occupational therapist, dietitians

"Trained" Healthcare Professionals – Additional post-qualification training required to deliver the respective care component(s)

Collaborative Care

Consider Referral to Smoking Cessation Services in the Community

Smoking Cessation Service

- ♦ Counselling and medications ("Mail to Quit" Programme included)
- ♦ Hospital Authority Smoking Cessation and Counselling Centres (Paid services)
- ♦ Smoking Cessation Outreach Programme in Workplace
- ♦ Free One-week Smoking Cessation Drugs (Nicotine Replacement Therapy "NRT") Trial Packs

Smoking Cessation Hotline

- ♦ Integrated Smoking Cessation Hotline 1833 183
- ♦ Youth Quitline 3400 3799 (<https://sctc.nursing.hku.hk/youth-quitline/https://www.polyuyql.com>)

NRT = Nicotine Replacement Therapy

Table 1. 5A's Model⁵

The 5A's model (Ask, Advise, Assess, Assist, and Arrange) can be applied to assess smokers' readiness to quit, and assist smokers who are ready to quit.

Ask	<ul style="list-style-type: none">♦ Ask ALL patients at each consultation about their smoking status, daily consumption and years of smoking, and record the information accordingly♦ Include smoking status of the patient as one of the vital signs and record such information prominently
Advise	<ul style="list-style-type: none">♦ Convince the patient to quit smoking with a clear, personalised and strong manner, e.g. "Quitting smoking is the most important thing you can do to protect your health", "Quitting smoking can delay the progression of COPD"
Assess	<ul style="list-style-type: none">♦ Assess each patient's desire and readiness to quit<ol style="list-style-type: none">1. Would you like to quit smoking?2. Do you think you have a chance of quitting successfully?♦ If answer to either question is YES, can move on to the next step "Assist"♦ If answer to both question is NO, or if patient is unsure if they want to quit smoking, can deliver 5R's intervention
Assist	<ul style="list-style-type: none">♦ Work out with the patient on the smoking cessation plan, e.g. set a quit day and encourage the patient to tell family members, colleagues and friends to enlist their support and encouragement♦ Provide appropriate techniques on problem solving and give advice for successful quitting♦ Recommend the use of pharmacotherapy for smoking cessation and assist in making referral♦ Provide relevant smoking cessation information such as pamphlets or quit-line card
Arrange	<ul style="list-style-type: none">♦ Work out with the patient on follow-up schedule and approaches such as interviews and telephone calls♦ Recognise the efforts of those who have successfully remained tobacco-free, and remind those who are still unable to kick the habit to regard occasional "slips" as an alert♦ If a relapse occurs, encourage the client to repeat quit attempt and review cause of relapse

COPD = Chronic Obstructive Pulmonary Disease

Table 2. 5R's Model⁵

The 5R's intervention (Relevance, Risk, Rewards, Roadblocks, and Repetition) can be delivered to those who are not ready to quit tobacco.

Relevance	♦ Get the patient to understand why his/ her quitting is relevant to him/ her personally and to the people around
Risk	♦ Guide the patient to identify potential negative consequences of tobacco use that are relevant to him/ her
Rewards	♦ Get the patient to understand the personally relevant benefits brought about by smoking cessation
Roadblocks	♦ Guide the patient to assess various barriers to quitting, e.g. experience of withdrawal symptoms or fear of repeated failure, and provide counselling accordingly
Repetition	♦ Make good use of every contact opportunity by repeating motivational intervention

Further Readings

Harms of Tobacco Smoking

- ♦ Tobacco smoke contains at least 69 recognised carcinogens, toxic substances such as tar and carbon monoxide, and the highly addictive stimulant nicotine, which can inflict damages on nearly every organ system, increase the risk of cardiovascular diseases and cancers, particularly lung cancer.^{6, 7} Smoking during preconception period and pregnancy is associated with increased risks of infertility, ectopic pregnancy, miscarriage, preterm birth, and low birth weight (**S Table 1.1.**).^{8, 9}
- ♦ E-cigarette vaporizes e-liquid that contains nicotine, flavorings and solvents, and can generate harmful substances (e.g. carcinogenic aldehydes and chromium) when heated. The amount of nicotine inhaled may exceed that of traditional cigarettes, and some marketed as nicotine-free have been found to actually contain nicotine.¹⁰ Vaping can also result in specific complications such as lipoid pneumonia, subacute bronchiolitis, acute eosinophilic pneumonia, multiple reactive pulmonary nodules, hypersensitivity pneumonia, diffuse alveolar haemorrhage, and organising pneumonia.¹¹
- ♦ Waterpipe tobacco (also known as *shisha*, *goza*, *narghile*, *ghalyoon*, or *hookah*) involves heating a tobacco product (with or without flavorings) by hot charcoal to emit smoke that the user inhales by puffing on a hose connected to a water container. During a typical 1-hour long waterpipe smoking session, large volume of smoke is produced, which contains high level of toxins, including nearly nine times the carbon monoxide and 1.7 times the nicotine found in a single cigarette, and poses serious health risks comparable to traditional cigarette smoking.¹²⁻¹⁵
- ♦ The inhalation of environmental tobacco smoke, refers as secondhand smoke, raises the likelihood of developing lung cancer, heart disease and respiratory symptoms among non-smokers.⁷
- ♦ Nicotine and other chemicals from cigarette and e-cigarette use can linger on the skin, clothing, and surfaces, exposing children and family members of smokers to the harmful effects of these substances, even when the person is not actively smoking or vaping in their presence.⁷
- ♦ Prolonged exposure to nicotine leads to dependence, marked by withdrawal symptoms

such as irritability, anxiety, increased appetite, and cravings when not smoking.¹⁶

Interventions for Smoking Cessation

- ♦ Quitting smoking is beneficial at any age, yielding immediate and progressive health improvements. Substantial health improvements and reduced disease risk were observed among those who stop, regardless of when they quit.¹⁷ Within 20 minutes, blood pressure and heart rate return to normal. After 10 years, the risk of dying from lung cancer is about half that of smokers, and by 15 years, the risk of coronary heart disease matches that of a non-smoker.¹⁸
- ♦ Structural interventions such as brief intervention and motivational interviewing provided by healthcare professionals have been shown to be effective in helping smokers to quit smoking.¹⁹
- ♦ A meta-analysis in 2022 concluded that varenicline alone was more effective for smoking cessation compared to placebo (OR 2.88, 95% CI 2.10-3.96) and counselling (OR 3.27, 95% CI 1.48-7.21).²⁰
- ♦ A Cochrane review of 65 trials demonstrated that enhancing behavioural support for individuals already using smoking cessation medication could further improve their likelihood of quitting. Approximately 17% of participants with minimal or no support managed to quit, while around 20% in the groups that received additional support succeeded. Moreover, providing support through personal interactions, whether in person or via phone, proved beneficial.²¹

S Table 1. Adverse Effects of Smoking on Women's Health across Life Stages

Life Stage(s)	Adverse Health Effects	Relative Risks (RR) (95%C.I.)	Level of Evidence
All	<p><u>Cigarette:</u></p> <p>Cancer</p> <ul style="list-style-type: none"> Lung Cancer Oral Cavity Cancer Cervical Cancer[@] Esophageal Cancer Bladder Cancer Breast Cancer[@] Colon and Rectum Cancer <p>Cardiovascular</p> <ul style="list-style-type: none"> Coronary heart disease Stroke <p>Respiratory</p> <ul style="list-style-type: none"> Chronic Obstructive Pulmonary Disease <p><u>e-Cigarette:</u></p> <ul style="list-style-type: none"> Myocardial infarction Periodontal disease Cracked/broken teeth <p><u>Waterpipe:</u></p> <ul style="list-style-type: none"> Lung Cancer Esophageal Cancer Head and neck cancer Gastric cancer 	<p>5.11 (1.84 – 14.99)</p> <p>3.43 (2.37 – 4.94)</p> <p>2.37 (1.23 – 4.79)</p> <p>1.96 (1.20 – 3.32)</p> <p>1.90 (1.31 – 2.81)</p> <p>1.17 (1.04 – 1.31)</p> <p>1.19 (0.97 – 1.46)</p> <p>3.12 (2.15 – 4.52)</p> <p>2.09 (1.51 – 2.89)</p> <p>3.17 (1.60 – 6.55)</p> <p>OR = 1.33 (1.14 – 1.56)</p> <p>OR = 2.34 (1.52 – 3.59)</p> <p>aOR = 1.65 (1.19 – 2.27)</p> <p>OR = 4.58 (2.61 – 8.03)</p> <p>OR = 3.63 (1.39 – 9.44)</p> <p>OR = 0.55 (0.24 – 1.27)</p> <p>OR = 2.35 (1.11 – 5.01)</p>	<p>2++^{22, 23}</p> <p>2+²⁴</p> <p>2++²⁵</p> <p>2++²⁵</p> <p>2++²⁶</p>
Reproductive years	<ul style="list-style-type: none"> Infertility 	1.85 (1.08 – 3.14)	2++ ²⁷
Pregnancy	<ul style="list-style-type: none"> Low birth weight Preterm birth Small size for gestational age Ectopic pregnancy Miscarriage 	<p>1.89 (1.8 – 1.98)</p> <p>1.08 (1.02 – 1.15)</p> <p>2.15 (2.07 – 2.23)</p> <p>Pooled OR = 1.77 (1.31 – 2.22)</p> <p>Summary RR = 1.32 (1.21 – 1.44)</p>	<p>2++²⁸</p> <p>2++²⁹</p> <p>2+³⁰</p> <p>2++³¹</p>
Menopause	<ul style="list-style-type: none"> Premature menopause Early menopause 	<p>2.05 (1.73 – 2.44)</p> <p>1.80 (1.66 – 1.95)</p>	2+ ³²

@ Adverse Health Effects Specific for Women

RR = Relative Risk; OR= Odd Ratio; aOR = Adjusted Odd Ratio

*****The corresponding list of References is available on HKRF webpage*****