Quitting smoking – How to go about it

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Abstract

Cigarette smoking has become a major cause of morbidity and mortality worldwide. Cigarette smoking kills half of the lifetime users, and half of those die in middle age. Sudden death is more frequent in heavy smokers than in nonsmokers and is often the first manifestation. A steady fall in death rate occurs in those who stop smoking. Timely intervention in smoking cessation not only reduces the risk of major disease, but also modifies the clinical course and outcome of certain diseases. There are various pharmacological and non pharmaceutical measures available which need to be implemented properly and timely. These measures at the clinic level and community level will help in reduction of morbidity & mortality. In the present article we have discussed some of these measures.

Introduction

Cigarette smoking is a major public health problem globally. According to the WHO, smoking is the second most important cause of death worldwide and is currently responsible for 5 million death each year. There are three billion cigarette smokers worldwide of which 112 million are in India. Cigarette smoking is estimated to cause 800,000 deaths annually in India. The WHO predicts that tobacco deaths in India may exceed 1.5 million annually by 2020.

Cigarette is packed with harmful and additive substances. Smoking is responsible for 90% of lung cancer, 75% COPD, 25% CHD, and peripheral vascular diseases and many other fatal and nonfatal diseases. The adverse effect of smoking is well known and documented. Cigarette addiction is growing despite measures to curb it. The benefits of smoking cessation are invaluable, whatever the time. This article intends to focus on the aids to achieve absolute smoking cessation. Before delving into the methods of aiding smoking control, it would be wise to understand that cessation of smoking is indeed beneficial.

Benefits of quitting smoking

Within 20 minutes – Blood pressure and heart rate decrease.
Within 12 hours – Carbon monoxide level decreases to normal.
After 3 months – Lung function improves.
After 9 months – Decrease in cough as well as shortness of breath.
After 2 years – Excess risk is half that of a regular smoker.
After 5 to 15 years – Risk of stroke is reduced to that of nonsmokers.
After 10 years – Risk of developing lung cancer is reduced to half.
After 15 years – Risk of CHD is similar to that of never smokers.

How to help people quit smoking?

Tobacco use is the most common preventable cause of death. About half the people who do not quit smoking will die of smoking-related problems. Some people try to quit smoking several times before they finally succeed.

For many, the direct instruction by the doctor to quit smoking results in immediate and effective cure especially when motivation is high, as after a coronary attack. It is surprising how many patients with CHD have never been advised to quit smoking. A straightforward explanation of the harmful effects of smoking on the heart, suited to the patient’s intelligence, should always be given. A 2008 Guideline Meta-analysis estimated that physician advice to quit smoking led to a quit rate 10.2% as opposed to a quit rate of 7.9% among patients who did not receive physician advice to quit smoking. Stopping smoking must be seen to be as important as any other therapy prescribed. The follow-up is as vital in the control of smoking as in diabetes. A single admonition to reduce smoking is often regarded as adequate for the smokers.

“No smoking as long as you live” is the prescription. A daily record of smoking should be kept. Advice should be given to the family who may also be at risk and can help the patient by providing a smoke free home. Half to two-thirds of smokers surviving a myocardial infarction can be persuaded to stop smoking. In Edinburgh 62% of 125 male

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survivors of acute myocardial infarctions who had been smokers persuaded to abandon the habit completely and were still nonsmokers, another 20% reduced or switched over to cigar or pipe over a two-year follow-up period. Quitting smoking is an ongoing process which needs high motivation and self-denial which can be limited due to varied reasons.

**Measures to help quit smoking**

There are pharmacological and non-pharmacological measures available for those who want to quit. Pharmacotherapy of smoking control can be based at the clinic level or it could be community based.

Five ‘A’ steps of intervention:

1. **Ask** for tobacco use to identify smokers.
2. **Advise** to quit.
3. **Assess** willingness to make a quit attempt.
4. **Assist** in quit attempt.
5. **Arrange** follow-up after quit attempt.

To identify smokers, tests like breath carbon monoxide monitoring test and estimation of biomarkers like Cotinin in urine, blood, saliva and hair sample are used at community level.

**Help to develop the ‘quit plan’**

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<tr>
<th>Action</th>
<th>Element of plan ‘STAR’</th>
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<tbody>
<tr>
<td>Help the patient to</td>
<td>Set a quit date, ideally within the next two weeks</td>
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<tr>
<td>develop the quit plan</td>
<td>Tell family and friends and ask for social support</td>
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<td>Anticipate challenge including withdrawal symptoms</td>
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<td></td>
<td>Remove all tobacco products before quitting, avoid smoking in places where you spend a lot of time (work, place, home, car)</td>
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**Pharmacological measures to quit smoking**

There are three types of treatment available:

1. **Psychotherapy**
2. **Nicotine replacement therapy**
3. **Psychopharmacology**

**Psychotherapy**

A study from the Mayo Clinic nicotine dependant centre looked at the results of 45-minute consultations with nicotine dependence counsellor and development of an individualised treatment plan for 96 adolescent smokers. The result showed abstinence rates were 18% at 6 months, 7% at 12 months, and 10% in long-term follow-up. For person-to-person counselling sessions, duration of each session, total amount of contact time and number of sessions, all correlate with effectiveness of smoking cessation. High-intensity counselling (> 10 min) produced a quit rate of 22.1% as opposed to 10.9% for no contact.

**Nicotine addiction**

The major obstacle to quitting is the addictive nature of nicotine. Addiction begins when nicotine acts on nicotinic acetylcholine receptor leading to down-regulation of CNS Ach receptor, needing nicotine reinforcement to maintain elevated mood and thus causing dependence. Nicotine activates the brain reward centre (in nucleus accumbens) by increasing dopamine release. When smokers try to quit, lack of nicotine leads to withdrawal symptoms – both physical as well as mental. Physically, the body reacts to absence of nicotine. Mentally, smokers are, faced with giving up a habit, which calls for a major change in behavior. Both must be addressed in order to make the quitting process work. The most comprehensive guidelines prepared on smoking cessation advocate by treating withdrawal symptoms like weight gain, depression. 2008 guidelines suggest sustained release bupropion. Nicotine gum and nicotine lozenges are used to delay weight gain and treat the depression associated with quitting.

**Nicotine replacement therapy (NRT)**

At present, NRT is the most common form of medication used for treatment of tobacco dependence which is approved by the US FDA.

**Five types of NRTs for quitting are:-**

1. Transdermal nicotine patches
2. Nicotine chewing gum (7 - 21 mg)
3. Nicotine polacrilex lozenge (2 - 4 mg)
4. Nicotine nasal spray
5. Nicotine oral inhaler

Fast acting NRTs, e.g., spray, chewing gum, and inhaler are a self-dosing system to be used *ad libitum* and help reduce craving. In contrast, transdermal patches deliver a constant, low level of nicotine, and thus help reduce unpleasant effect of nicotine withdrawal symptoms. These 5 NRTs, in a Cochrane review, increased the chances of quitting smoking by 50 - 70% compared to placebo or to no treatment. The 2008 guideline specifies that 3 combination of medication are effective:

1. Long-term nicotine patch and *ad libitum* NRT gum or spray.
2. Nicotine patch and nicotine inhaler.
3. Nicotine patch and bupropion.
A 2009 systematic review by researchers at the University of Birmingham found that gradual NRT was effective in smoking.

**Psychopharmacology**

Depression may be a symptom of nicotine withdrawal and smoking cessation sometimes precipitates depression. In some individuals, nicotine may have an anti-depressant effect that keeps them addicted to smoking. Antidepressants could substitute for this effect. At present sustained release bupropion (Bupropion SR) is the only antidepressant currently approved by the US FDA for smoking cessation; it is a dopamine and NE uptake inhibitor and ameliorates the extent of withdrawal symptoms during abstinence. SR Bupropion should given in a dose of 150 mg once daily for 6 days, then increase to twice daily on the seventh day. The maximum dose for a patient with predisposing risk factor for seizure is 150 mg.

Other drugs used are nicotine receptor partial agonist like cystine, verenicline which reduce the urge to smoke and reduce the withdrawal symptoms. Recently, non-nicotine pharmacotherapies like bromocrtptine, glucose tablets, anabasine, veboxetine, rimonabant (and other formulations under development include nicotine buccal adhesive tablets, nicotine solution drops) are also available.

**Non-pharmacological methods to help quit smoking**

1. Unassisted method – “Cold Turkey” is the mostly frequently used method advanced by Wayne et al. Cold Turkey means abrupt cessation of all nicotine use. A 1995 meta-analysis estimated that the quit rate from unaided method was 7.3% after an average 10 minutes of follow-up.

2. Substitute for cigarette – Electronic cigarette shaped like a cigar or cigarette to satisfy the habitual tactile craving significantly decrease tar & carbon monoxide. National Institute of Health (NIH) recommends chewing cinnamon sticks to help curb the urge to smoke.


4. Method used for children and adolescents – Motivational enhancement, psychological support, youth anti-tobacco activities such as sports involvement, family communication, school-based curricula such as life-skills training are promising. A Cochrane review which mainly studied combining motivational enhancement, psychological support concluded that this “complex approach” for smoking cessation among youth shows promise.


6. Cut-down to quit – Gradual reduction involves slowly reducing one’s daily need of nicotine by applying Nicobloc drops on cigarette filter which absorbs 99% of tar and nicotine. A 2010 Cochrane review found that abrupt cessation and gradual reduction with pre-NRT produced a similar quit rate whether or not pharmacotherapy or counselling was used.

**For community intervention, the following measures are recommended**:-

1. General practitioners – Give impetus to quit and maintain smoking cessation.

2. Social workers – Tackle individual problems and help in longer duration of interaction.

3. Telephone call back – follows-up active calls made frequently in the initial phase of quitting.

4. Health education – Essential for sustained progress in tobacco control. Start from school – the ideal platform not only to teach about the harmful effects of smoking but to change beliefs, attitudes, and intentions.

5. Social attitude reforms – Ban films where the hero smokes.

6. Legislation – Banning smoking in public places, buses, cinemas, theatres, restaurants and bars is a sound public health measure to protect the health of non-smokers.

7. Price policy – There is an average 4% reduction in consumption for every 10% increase in cigarette tax. Price plays a major role in determining how many people will start smoking or will continue smoking.

8. Media – It is the most practical means to disseminate information and tobacco control message rapidly to a large population.

9. Health warnings – Health warning on every pack of cigarettes is required by law. This will motivate smokers to quit the habit.

10. Intervention to reduce supply – Control of smuggling, restricting access of minors to tobacco, crop substitution for tobacco farms, elimination of government subsidies for cultivation of tobacco.

**Impact of intervention on taking-up and quitting smoking**

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<th>Type of intervention</th>
<th>Quitting</th>
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<td>More than 10% increase in price</td>
<td>4% increase in quitting</td>
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2. Anti-smoking media: Increase in number of attempts to quit and success in quitting.

3. Ban on promotion: Complete ban reduces consumption by 6%.

4. Restriction on youth access: Absolute reduction in taking-up smoking.

5. Smoking restriction: Work & household restrictions are effective.

6. NRTs: Higher number of quit attempts.

**Self-techniques to help one quit smoking**

1. Deep breathing.
2. Taking plenty of fluids.
3. Staying away from alcohol, sugar, coffee.
4. Taking an oral substitute.
5. Regular physical exercise.
6. Yoga.
7. Asking for psychological and moral support.
8. Destroying all your cigarettes.
9. Writing down your resolve to quit smoking
10. Affirming several times a day – ‘I am a non-smoker’.
11. Holding out, i.e., controlling the urge.

Remember that if you quit, you will live longer and feel better. Quitting will lower your chances of heart attack, stroke, and cancer. The people you live with, especially children, will be healthier.

If you are pregnant, you will improve your chances of having a healthy baby and you will have extra money to spend on things other than cigarettes.

So get all the information and support you need to make the quitting process a lot easier. Seek the help of family and friends, and most importantly decide that you want to quit and visualise yourself as nonsmoker.

**Conclusion**

Nicotine addiction can be successfully treated with pharmacological and other non-pharmacological means. Only nicotine replacement traps and bupropion are recognised as standard drugs for smoking cessation therapy. New therapies have evolved with a better understanding of the pathogenesis of the addiction process but need more clinical trials to validate their claims. The doctor’s advice if given with authority and conviction, accompanied by a straightforward explanation, is probably the most effective method of helping the smoker to stop smoking. To achieve a smoke-free society, a comprehensive health programme is required which includes effective information and education activities, legislative restriction, fiscal measures, and smoking cessation programme.

Finally, to conclude, the 10 stages of quitting smoking are:

1. Think about cutting down.
2. Seek more information about quitting.
3. Modify your smoking risk.
4. Decide to quit.
5. Set a quitting date.
6. Refrain from smoking for 24 hrs.
7. Complete your first week as a non-smoker.
8. Complete your first month as a non-smoker.
9. Complete your first trimester as a non-smoker.
10. Complete your first year as a non-smoker.

**References**

What is ‘Health’?

Health, as defined in the Preamble to the Constitution of the World Health Organisation (1948), is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. Health and wellness are caused by a complex interaction of biological, psychological, and socio-cultural factors.

The ancient Indian traditional healing system called Ayurveda holds that healthcare is not only curative medical practice but also a holistic management of wellness and illness. Atharva Veda, one of India’s ancient holy books on philosophy contains a prayer for health and long life for humankind:-

“May you live for a hundred years.
You shall be free from harm.
You shall not die an untimely death.
Do not fear!”

The term “Medicine” is used in the context of illness. It is both the science and art of maintaining and restoring human health through the study, diagnosis, and treatment of patients. The term is derived from the Latin *ars medicina* – the art of healing. Medicine as a science relates to the prevention, cure, or alleviation of disease. It is a remedial agent, a medication, a medicament, a remedy.

(Courtesy: Journal of the Science of Healing Outcomes)
You might have tried to quit smoking before and not managed it, but don't let that put you off. Look back at the things your experience has taught you and think about how you’re really going to do it this time. Make a plan to quit smoking. Make a promise, set a date and stick to it. Sticking to the “not a drag” rule can really help. Whenever you find yourself in difficulty, say to yourself, "I won't even have a single drag", and stick with this until the cravings pass. Think ahead to times where it might be difficult (a party, for instance), and plan your act How to Quit Smoking. Articles On Smoking Cessation. Smoking Cessation. Smoking Cessation - How to Quit Smoking. Figure out your smoking triggers, and decide how you’re going to deal with them. How to Stay on Track. There will be days when all you want to do is give in to your cravings. Don’t do it. Quitting will be the best thing you ever do for yourself, but you have to stick with your plan. Follow these steps to stay on track to a smoke-free life. No doubt about it: Quitting helps your whole body. It can even improve your looks: You’ll be less likely to get wrinkles when you’re still young. And you’ll save money, too. What if I Start Smoking Again? It’s called a relapse, and a lot of people go through it before they kick the habit for good.