

# Smoking Cessation

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## Purpose

The purpose of this course is to provide the healthcare provider with a review of smoking cessation, including the healthcare provider's role, benefits of smoking cessation, steps to cessation, medical approaches, support resources, and problems related to cessation.

## Goals

Upon completion of this course, the healthcare provider should be able to:

- List at least 5 adverse effects of tobacco smoking.
- List and describe the 5 steps to the US Department of Health and Human Services Guidelines.
- Describe at least 4 benefits from smoking cessation
- List and describe at least 5 steps in smoking cessation.
- Describe 5 types of nicotine replacement therapy.
- List and describe at least 3 other medicines used to control cravings or reduce withdrawal symptoms.
- Describe 3 types of complementary medicine used for smoking cessation.
- Discuss at least 5 motivational techniques to use with people unwilling to quit smoking.
- List and describe 5 types of support resources and 3 smoking cessation tools.

- Describe 5 problems associated with smoking and approaches to reducing these problems.

## Introduction

By now, most people are aware that smoking is bad for them—even if they pointedly ignore the warning on the cigarette package. Many smokers have quit . . .over and over and over and over. . . .

Therein lies the problem.

Despite the fact that smoking reduces life expectancy up to 15 years, is the leading cause of lung cancer and chronic obstructive lung disease (COPD), and increases risk of heart disease and stroke by up to 4 times, people keep smoking or resume smoking.



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According to the CDC, about 21% of Americans 18 or older still smoke (23% of males and 18% of females). The reality is: Smokers are addicts, and addicts are hard to treat. Nicotine is just as addictive as heroin or cocaine, and for some people even more so. For smoking cessation to be successful, people need support and a variety of different options to fit individual needs.

## Healthcare provider's responsibility

Healthcare providers must take a proactive role in helping people quit smoking. Asking people if they smoke and recording information about smoking without responding to this information does a disservice to the smoker and misses an opportunity to help them quit. Simply reciting the negative effects of smoking often has little effect on smokers because most of them already know! What they are looking for is a plan that will help them do these things:

- Stop smoking.
- Ease cravings.
- Eliminate the effects of withdrawal.
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Not as simple as it sounds.



<b>US Department of Health and Human Services Guidelines</b>	
<b>Ask</b>	Ask every adolescent/adult at every visit about smoking and record status.
<b>Advise</b>	Strongly advise all smokers to stop smoking and provide explanation of smoking's affect on health and benefits of quitting.
<b>Assess</b>	<ul style="list-style-type: none"><li>• Assess general readiness to quit smoking by questioning patient and if the patient is willing to try to quit, providing resources and information.</li><li>• If patient is not willing to stop smoking, provide support and try to motivate the patient to quit.</li></ul>
<b>Assist</b>	<ul style="list-style-type: none"><li>• Assist the smoker with a plan to quit smoking. This plan should include setting a target date (within 2 weeks), removing cigarettes, enlisting family and friends, reviewing past efforts at quitting, and anticipating challenges the person will face during withdrawal (nervousness, craving).</li><li>• Advise the smoker about the necessity for abstinence and the association between smoking and drinking.</li><li>• Provide aids, such as nicotine replacement products or other prescription drugs.</li></ul>
<b>Follow-up</b>	<ul style="list-style-type: none"><li>• Monitor the person to provide encouragement and reinforcement and to determine progress.</li></ul>

The healthcare provider needs to have a plan in place to encourage and help smokers to quit and should be armed with facts about the benefits of smoking cessation. At an average cost of \$5 per pack, a

one-pack-a-day smoker burns up about \$1825 annually and a two-pack-a day smoker, \$3650. This is not small change.

Smoking is increasingly less socially acceptable and is now effectively banned or restricted in many public gathering places, such as theaters, as well as (in some states) restaurants and bars. Smoking is also banned in many work places. As the effects of environmental (second-hand) tobacco smoke have become better understood, non-smokers have demanded a smoke-free environment for themselves and their children.

Women who smoke are more likely to have babies with low-birth weight, and the child is at increased risk of childhood asthma. Children exposed to environmental tobacco smoke have increased respiratory infections and ear infections. Smoke may also cause eye irritation, nausea, dizziness, and headaches. Infants are at increased risk of sudden infant death syndrome (SIDS). Additionally, children who grow up in households where a parent smokes are more likely to start smoking.

<b>Benefits of smoking cessation over time</b>	
<b>20 minutes</b>	Heart rate and blood pressure decrease.
<b>12 hours</b>	Carbon monoxide level in blood falls to normal.
<b>2-12 weeks</b>	General circulation and lung function improve.
<b>1-9 months</b>	Respiratory symptoms (cough, shortness of breath) decrease and lung function improves. Damaged tissue regenerates.
<b>1 year</b>	Risk of coronary heart disease drops 50% from the risk of smokers.
<b>5-15 years</b>	Risk of stroke drops to the same as non-smokers.
<b>10 years</b>	Risk of lung cancer drops to 50% the rate for those who continue smoking.
<b>15 years</b>	Risk of coronary heart disease drops to the same rate as non-smokers.

## **Steps to quitting**

Some people are able to make the decision to quit smoking and just throw away the cigarettes and never smoke again, but it's unrealistic to believe that this is an option for most people. Nicotine is addictive. It provides a sense of pleasure, but the body develops a tolerance to nicotine after a time, and the person needs more and more nicotine to feed the body's need. This is the essence of addiction. It's also the reason that people who think they can quit by "cutting down" are

rarely successful. It's almost impossible to treat addiction by continuing to use the addictive substance. Most people need a plan to help them quit. They need to know what to do when they wake up that first morning with an overwhelming need for a cigarette—and all the mornings afterward.

<b>Get ready, get set, STOP SMOKING</b>	
<b>Make preparations: START</b>	<ul style="list-style-type: none"> <li>• Set a quit date.</li> <li>• Tell family, friends, and co-workers.</li> <li>• Anticipate challenges and make a plan to deal with them.</li> <li>• Remove all cigarettes and cigarette products (ashtrays, lighters) from the environment at home, at work, and in motor vehicles.</li> <li>• Talk to a physician about getting help to quit.</li> </ul>
<b>Deal with quit day</b>	<ul style="list-style-type: none"> <li>• Make use of support systems.</li> <li>• Keep busy (Exercise, go to a movie, take a walk, visit with friends). If possible, go to places where no smoking is allowed.</li> <li>• Compensate: Hold something, suck on candy, chew on a toothpick, and drink plenty of fluids (but avoid alcohol).</li> </ul>
<b>Reduce temptation</b>	<ul style="list-style-type: none"> <li>• Avoid situations that trigger the habit of smoking (most helpful). If, for example, eating is followed by smoking, get up from the table and take a walk.</li> <li>• If drinking and smoking are always done together, stop drinking.</li> <li>• Go to smoke-free environments as often as possible.</li> <li>• Stick with non-smokers.</li> </ul>
<b>Control cravings</b>	<ul style="list-style-type: none"> <li>• Wait out the urge—it may pass.</li> <li>• Substitute other things (carrots, candy, gum) for cigarettes.</li> <li>• Do something or go somewhere—wash clothes, mow the lawn, take a walk.</li> <li>• Practice relaxation exercises.</li> </ul>
<b>Find new activities</b>	<ul style="list-style-type: none"> <li>• Take up hobbies.</li> <li>• Exercise.</li> <li>• Take classes.</li> <li>• Learn a new skill.</li> <li>• Keep hands busy.</li> </ul>
<b>Review benefits</b>	<ul style="list-style-type: none"> <li>• Focus on fresh breath, improved sense of smell and taste, social acceptance, better health.</li> </ul>

**Hang in there**

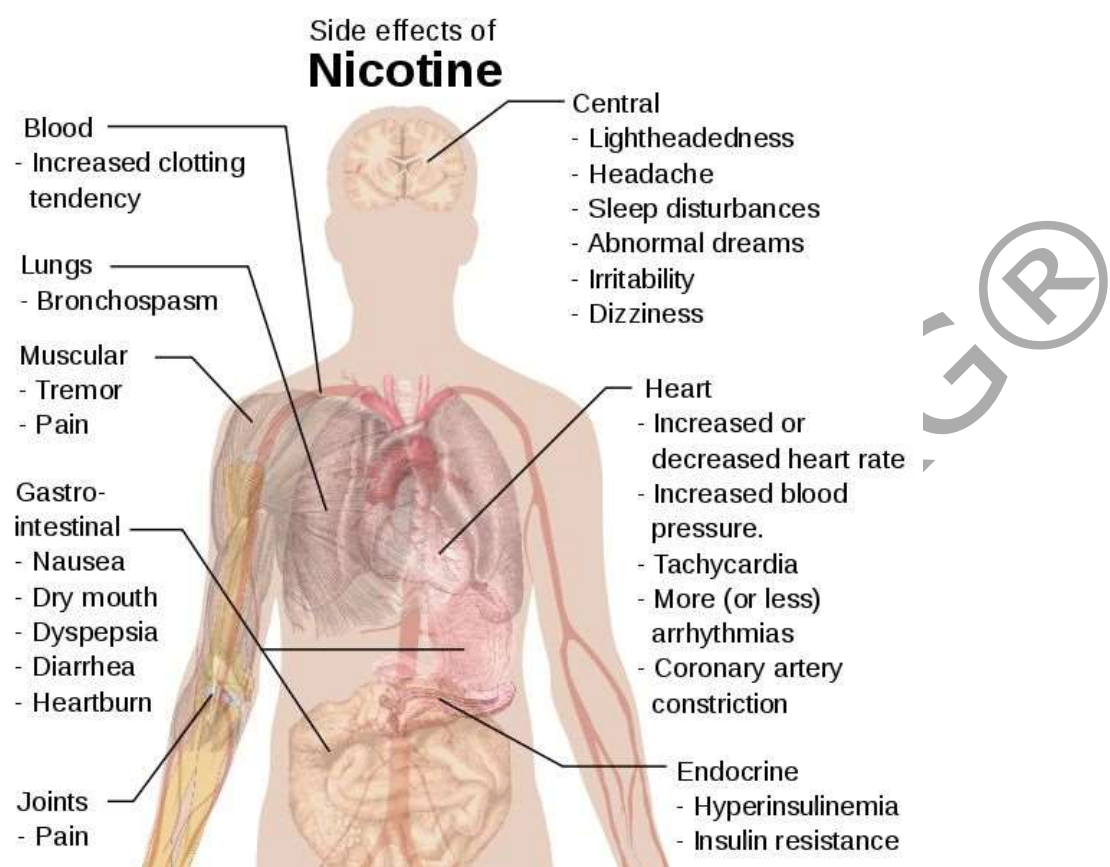
- Remember that it gets easier!

## Medical approaches

Many smokers find that they need medication in order to stop smoking. The primary types of drugs for smoking cessation include nicotine replacement, nicotine blocker, and antidepressant. During withdrawal, patients may experience irritability and anxiety as well as severe nicotine craving. Nicotine replacement therapy (the treatment most commonly used), such as the nicotine patch, releases nicotine more slowly so that people don't get the immediate nicotine "rush" they get from smoking cigarettes. While people still may suffer some negative effects from nicotine, they avoid irritation to the lining of the lungs and such toxins as tar and carbon monoxide, so nicotine replacement therapy is a better health choice than smoking.

<b>Nicotine replacement therapy</b>	
<b>Medication</b>	<b>Use</b>
<b>Nicotine gum (OTC)</b>	<ul style="list-style-type: none"><li>• Available in 2 mg and 4 mg dosages and is intended for use <math>\leq 12</math> weeks.</li><li>• People who smoke <math>\leq 24</math> cigarettes daily can use <math>\leq 24</math> pieces of 2 mg gum daily.</li><li>• People who smoke <math>\geq 25</math> cigarettes daily can use <math>\leq 24</math> pieces of 4 mg gum.</li><li>• Side effects include mouth irritation, jaw pain, and indigestion.</li></ul>
<b>Nicotine patch (OTC &amp; prescription)</b>	<ul style="list-style-type: none"><li>• The patch is used for about 8 weeks in decreasing doses:<ul style="list-style-type: none"><li>• 21mg/24 hours for 4 weeks</li><li>• 14 mg/24 hours for 2 weeks</li><li>• 7 mg/24 hours for 2 weeks.</li></ul></li><li>• Side effects include insomnia, abnormal dreams, agitation, and local dermatitis.</li></ul>
<b>Nicotine inhaler (Prescription)</b>	<ul style="list-style-type: none"><li>• Six to 16 cartridges of nicotine may be used daily for <math>\leq 6</math> months.</li><li>• Side effects include mouth and throat irritation.</li></ul>
<b>Nicotine lozenge (OTC)</b>	<ul style="list-style-type: none"><li>• Available in 2 and 4 mg doses for use <math>\leq 12</math> weeks.</li><li>• People who smoke <math>&gt;30</math> minutes after awakening can use <math>\geq 10</math> 2-mg lozenges in 24 hours.</li><li>• People who smoke <math>&lt;30</math> minutes after awakening can use 5 4-mg lozenges in 24 hours.</li><li>• Side effects include local irritation to the throat, hiccups, nausea, indigestion, and heartburn.</li></ul>
<b>Nicotine nasal</b>	<ul style="list-style-type: none"><li>• Intended for 3 to 6 month of use with 8-40 nasal sprays</li></ul>

<b>spray (Prescription)</b>	in 24 hours. • Side effects include nasal irritation.
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Some people are not able to quit smoking by using nicotine replacement products, so a different approach may be needed. The two other primary drugs used are bupropion and varenicline. Studies show that bupropion has approximately the same success rate as nicotine replacement drugs, but varenicline is about 60% more effective than both nicotine replacement therapy and bupropion. However, varenicline may cause severe neuropsychiatric symptoms and has been associated with suicide, so patients should be carefully monitored. Some patients benefit from a combination of medical treatments, such as the nicotine patch as well as nicotine nasal spray or gum and bupropion. Treatment should be tailored to the individual.

<b>Other medications (Prescription only)</b>	
<b>Medication</b>	<b>Use</b>
<b>Bupropion SR</b> (Zyban®)	<ul style="list-style-type: none"> <li>• This antidepressant helps to alleviate the side effects associated with nicotine withdrawal.</li> <li>• Initially used for 7 to 12 weeks with maintenance dose <math>\leq 6</math></li> </ul>

	<p>months.</p> <ul style="list-style-type: none"> <li>• Patient begins taking medications t weeks prior to smoking cessation with 150 mg each AM for 3 days, increasing to 150 mg BID.</li> <li>• Contraindications include history of seizures, eating disorders, and MAO inhibitor use within 2 weeks.</li> <li>• Side effects include insomnia, anxiety, headache, irritability, dry mouth, and seizures (rare).</li> </ul>
<b>Varenicline</b> (Chantix®)	<ul style="list-style-type: none"> <li>• Intended for use for 12 to 24 weeks with maintenance <math>\leq 6</math> months.</li> <li>• Treatment begins with 5 to 7 days prior to quitting at 0.5 mg daily, increased to 0.5mg BID 1-4 days before quitting. On the day of quitting smoking, the dose is increased to 1 mg daily.</li> <li>• Side effects include nausea, flatulence, constipation, abnormal dreams, insomnia, and headache.</li> <li>• Neuropsychiatric symptoms such as changes in behavior, hostility, agitation, depressed mood, and suicide-related events, including ideation, behavior, and attempted suicide may occur.</li> </ul>
<b>Clonidine</b> (Catapres®)	<p>Studies show that clonidine (a drug normally used to treat hypertension) can help reduce withdrawal symptoms and craving for nicotine.</p> <ul style="list-style-type: none"> <li>• Start drug (oral or transdermal) <math>\leq 3</math> days before quit date.</li> <li>• Dosage varies.</li> <li>• Side effects include dizziness and drowsiness.</li> </ul>
<b>Nortriptyline</b>	<p>This second-line drug may help decrease tobacco dependency:</p> <ul style="list-style-type: none"> <li>• 25mg day initially increasing to 75-100 mg daily for 12 weeks although may be extended to 6 months if necessary.</li> <li>• Side effects include sedation, dry mouth, blurred vision, urinary retention, lightheadedness, and hand tremors. Must not be given with MAO inhibitors.</li> </ul>

While medications help many people to quite smoking, the combination of medications and support is most effective, so healthcare providers should always provide information about support services.

## Complementary medicine

Some people turn to complementary medicine to help them stop smoking. While there is a variety of different vitamin and herb preparations that purport to help people stop smoking, most of these have no evidence to support claims, and some herbal preparations



contain drugs that may be harmful, especially if combined with other medications, Some complementary medical approaches have gained in popularity.

<b>Complementary medicine</b>	
<b>Hypnosis</b>	Hypnotherapy usually involves a series of treatments in which the patient is educated about the dangers of smoking and then hypnotized to break the emotional attachment to cigarettes and to provide alternatives to smoking.
<b>Acupuncture</b>	Acupuncture treatments involve the insertion of fine needles into the ear lobes and/or other parts of the body to reduce craving and symptoms of withdrawal. In some cases, pellets are taped over acupoints so that the patient can apply pressure manually if craving develops.
<b>Meditation</b>	Various meditation techniques help the patient to be aware of the body and sensations and to change thought processes and behavior.

## Support

While some people are able to make the decision to quit and stick with it without support, most people benefit from a support system that can help them resist the urge to resume smoking. Studies show a correlation between the number of counseling sessions combined with medications and abstinence, so the more counseling sessions the better. People often respond to motivational techniques, so strongly encouraging people to quit may be effective, especially for light smokers. Healthcare providers should be persistent with those who are unwilling to quit smoking.

<b>Motivational techniques for those unwilling to quit</b>	
<b>Empathize</b>	Use reflective listening (“You think that smoking isn’t hurting you” and open-ended rather than yes/no questions to elicit feelings. Support the right to choose while stating availability to help if the person decides to quit.
<b>Highlight discrepancies</b>	Patients often express a wish for good health but continue to smoke or express devotion to children while exposing them to environmental smoke.
<b>Deal with resistance</b>	Avoid pushing, express empathy, and ask permission to provide educational materials.
<b>Support self-</b>	Point out past efforts. Suggest steps toward change,

<b>efficacy</b>	such as avoiding smoking within the home.
<b>Question relevance</b>	Ask the patient to indicate why smoking cessation is personally important.
<b>Identify risk</b>	Ask the patient to identify risks associated with continued smoking.
<b>Identify benefits</b>	Make suggestions regarding those most relevant to the patient, such as better health.
<b>Identify barriers</b>	Explore the patient's concerns and barriers to quitting (fear of failure, withdrawal symptoms, weight gain).
<b>Remain persistent</b>	Try again at every contact with patient.

Patients must be apprised of available support systems, including those in the real and virtual communities. Many programs are available to assist people to stop smoking. Much information is available on the Internet. Patient should be provided with lists of support programs before stopping as part of the plan they make for quitting. Not everyone is comfortable with the same type of support program, so the healthcare provider should provide a number of options.

<b>Smoking cessation support resources</b>	
<b>Stop smoking programs</b>	Numerous programs are available, but successful programs usually involve at least 4 sessions of 15 to 30 minutes and last $\geq 2$ weeks or longer. Programs that promise quick results, "secret" miracle medications, and/or charge a high fee are generally suspect.
<b>Telephone hotlines and help-lines</b>	All states and the District of Columbia offer free telephone support to people trying to quit smoking. Many state helplines are only available if the person is calling from an in-state phone. A partial listing of state helplines is found at the Center for Social Gerontology website: <a href="http://www.tcsg.org/tobacco/hotline.htm">http://www.tcsg.org/tobacco/hotline.htm</a>  National helplines include: American Cancer Society: 1-800-227-2345 National Cancer Institute: 1-800-422-6237 National Quitline: 1-800-QUIT-NOW
<b>Online support groups</b>	A variety of web-based online support groups are available. Examples include: Quitnet.com

	Quitsmokingjournals.com
<b>Support groups</b>	Numerous support groups are available, such as Nicotine Anonymous®, a 12-step national support program, and Smart Recovery®, an addiction recovery support group. National groups, such as The American Lung Association and the American Cancer Society also sponsor support groups.
<b>Family/Friends/Co-workers</b>	A community support system may include family, friends, or co-workers.

Despite medical and support treatments available, some people feel the need for additional tools, and the market has responded with a variety of different devices that people can use to help them quit smoking. Whether or not these have real valuable is unclear, but if people think something helps, it may do so. For the most part, these devices appear to pose no risk to the user.

<b>Tools</b>	
<b>Artificial cigarettes</b>	E-Z Quit™ are plastic “cigarettes” that contain peppermint-menthol flavored capsules allow people with oral cravings to substitute a harmless item for the cigarette. South Beach Smoke™ and Firelight™ are electronic cigarettes that emit flavored water vapor.
<b>Rubber bands</b>	Some people find that wearing a rubber band about the wrist and snapping it whenever they want a cigarette provides a form of negative reinforcement.
<b>Computerized devices</b>	Handheld computerized devices, such as QuitKey™ create a personalized smoking cessation program once information is programmed into the device. It emits an alarm to let the person know when he/she is allowed to have a cigarette.

## **Problems associated with cessation**

The healthcare provider should be knowledgeable about common problems faced by those trying to quit smoking and should be prepared to deal with those issues.

<b>Common concerns/problems associated with quitting</b>	
<b>Depression</b>	Provide counseling and/or refer to psychologist or psychiatrist as indicated Some patients may need medications to elevate mood.

<b>Severe withdrawal</b>	Patient may need extended medical treatment or a combination of medications.
<b>Weight gain</b>	Weight gain is common but usually does not exceed 10 pounds. Encourage exercise regimen, refer to nutritional counselor, maintain patient on medications that delay weight gain (bupropion, nicotine replacement therapy), and suggest low-calorie foods/ food substitutes.
<b>Relapse</b>	Encourage patient to try again and reassure patient that relapses are common. Help the patient to determine the trigger that brought about the relapse. Continue medications. Refer for counseling if necessary.
<b>Inadequate support system</b>	Schedule follow-up visits and/or make telephone contact. Suggest support groups and telephone quitlines. Help patient to identify family, friends, or co-workers who might be supportive.

## Summary

Healthcare providers have a responsibility to help people quit smoking, ease cravings and eliminate effects of withdrawal. The US Department of Health and Human Services provides guidelines: Ask, advise, assess, assist, and follow-up. Steps to quitting include making preparations (START), dealing with quit day, reducing temptation, controlling cravings, finding new activities, reviewing benefits, and hanging in there. Medical approaches vary but may include nicotine replacement therapy (such as nicotine patches and gum), other medications (bupropion, varenicline, clonidine, and nortriptyline), and complementary medicine (hypnosis, acupuncture, and meditation). Support systems are especially important to encourage people to smoke and to prevent relapse. Support resources may include stop smoking programs, telephone hotlines and help-lines, online support groups, support groups, and family, friends, and co-workers. Some people benefit from tools, such as artificial cigarettes, rubber bands, and computerized devices. The healthcare provider should be prepared to deal with common problems and concerns associated with quitting: depression, severe withdrawal, weight gain, relapse, and inadequate support system.

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