



Behavioral Health &  
Wellness Program

University of Colorado Anschutz Medical Campus  
School of Medicine

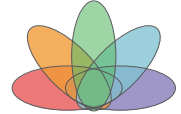
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# DIMENSIONS: Tobacco Free Toolkit for Healthcare Providers



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The DIMENSIONS: Tobacco Free Toolkit for Healthcare Providers was developed by the  
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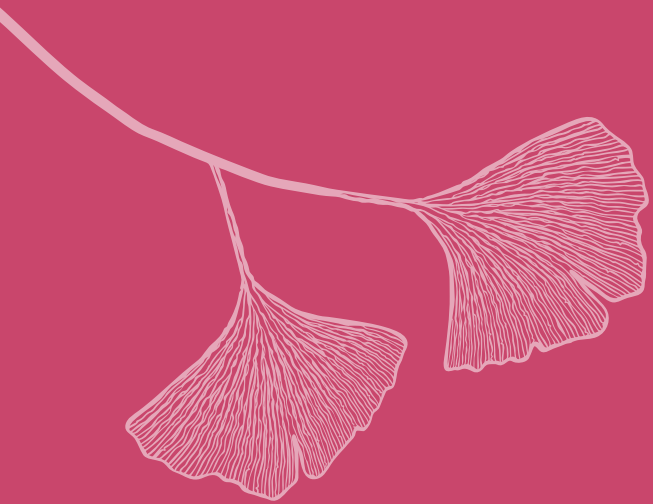
#### Acknowledgements:

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## Overview

1. Why is a Tobacco Cessation Toolkit Needed?
  - The State of Affairs—Tobacco Cessation Saves Lives
  - People Who Use Tobacco Want to Quit
  - Health Providers Have an Important Role to Play
  - Tobacco Use in the U.S.
  - Rates of Smoking
  - Economics of Smoking
2. About This Toolkit
  - Who is This Toolkit For?
  - How Do I Use This Toolkit?

## Why is a Tobacco Cessation Toolkit Needed?

Although rates of tobacco use have generally decreased in recent years, this trend is slowing. In addition, the negative health effects of tobacco only grow. It is vital that healthcare providers understand why people use tobacco, the health effects of use, and how to assist in healthy lifestyle changes for those they serve. Healthcare providers are on the front lines for tobacco cessation and for reversing the related health disparities in priority populations.

Tobacco use is a chronic condition, and like other chronic conditions, every tobacco user should be offered treatment.<sup>1</sup> An easy and cost effective way to identify individuals at risk of and currently using tobacco is through screening. Screening for tobacco use and adding tobacco use as one of the vital signs in primary care clinics can identify 80% or more of individuals currently smoking.<sup>2</sup>

As healthcare reimbursement changes, **now is the time** to expand these services in primary care and other healthcare settings. Advancements are being made in coding for primary care providers who provide cessation treatment. In 2010, the Centers for Medicare and Medicaid Services (CMS) began covering tobacco cessation counseling for outpatient and hospitalized Medicare beneficiaries, regardless of whether patients have signs and symptoms of tobacco-related disease.<sup>3</sup> In addition, in most states, Medicaid covers cessation medications.<sup>4</sup> The Patient Protection and Affordable Care Act will include expansion of prevention and wellness services, including treatment for tobacco cessation.

### The State of Affairs—Tobacco Cessation Saves Lives

- Tobacco use remains the single largest preventable cause of death and disease in the United States.<sup>5</sup>
- According to the 2010 U.S. Surgeon General's report, approximately 443,000 U.S. adults die from smoking-related illnesses each year.<sup>6</sup>



## People Who Use Tobacco Want to Quit

Most tobacco users want to quit. However, many tobacco users are not utilizing treatment because they are not given access to evidence-based cessation counseling and FDA-approved cessation medications. Healthcare providers can make the difference in helping individuals quit by providing cessation education and treatment.

- As many as 70% of current smokers have expressed a desire to stop smoking.<sup>7</sup>
- 80% of individuals who are currently smoking report having tried to quit smoking at least once. This estimate may even be low because people often failed to report a quit attempt if it lasted less than a day.<sup>8</sup>
- Among current smokers and those who recently quit, the majority had quit attempts lasting more than one day during the preceding year.<sup>9</sup>
- As many as 50% of all people using smokeless tobacco would like to quit in the next year.<sup>10</sup>

“If only half of the 2.3 million U.S. nurses could help one person a month to quit smoking, every year nurses could help some 12 million smokers overcome their addictions.”<sup>11</sup>

## Health Providers Have an Important Role to Play

Although healthcare providers are aware of the negative effects of tobacco use, they do not always view themselves as the agents of change to assist in ending tobacco use. Healthcare settings, especially primary care, can have a significant impact on helping individuals to avoid or reduce chronic illness through increased attention to tobacco cessation.

- Despite individuals' desire to quit, unaided quit attempts have poor outcomes. In some studies, as high as 62% of individuals who try to quit alone relapse within two weeks.<sup>12</sup>
- Physicians and other providers can play a significant role in helping patients quit.<sup>13</sup>

## About This Toolkit

### Who is this toolkit for?

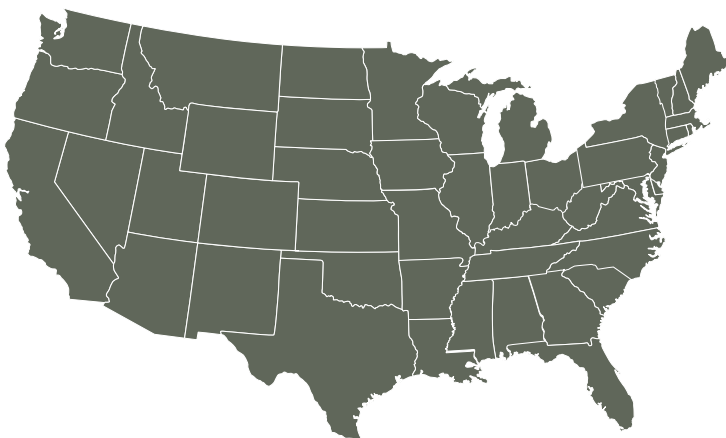
This toolkit is designed for a broad continuum of healthcare providers. Materials are intended for direct providers, as well as administrators and healthcare organizations.

### How do I use this toolkit?

The toolkit contains a variety of information and step-by-step instructions about:

- Education about tobacco use;
- Skills for engaging individuals in tobacco cessation discussions;
- Efficient methods for assessing people's readiness to quit;
- Information and research on treatments.

## Tobacco Use in the U.S.



**25.2% of adults in the U.S. currently use tobacco products.<sup>14</sup>**

- 19.5%** Cigarettes
- 6.6%** Cigars, cigarillos, or small cigars
- 3.4%** Chew, snuff, or dip
- 1.4%** Snus
- 1.5%** Water pipes
- 1.1%** Pipes

## Rates of Smoking

- 19.5% or 43.8 million of U.S. adults are current cigarette smokers. Of these, 77.8% or 34.1 million smoke every day. Another 22.2% or 9.7 million smoke some days.<sup>15</sup>
- An estimated 8.7 million U.S. adults use smokeless tobacco.<sup>16</sup>
- Although tobacco use rates are declining over all, smokeless tobacco and e-cigarettes rates are increasing.<sup>17</sup>

“Smoking kills more people than alcohol, AIDS, car accidents, illegal drugs, homicides, and suicides combined, with thousands more dying from [smokeless] tobacco use.”<sup>18</sup>

## Economics of Smoking

- Total annual public and private HEALTHCARE EXPENDITURES caused by smoking: \$96 billion.<sup>19</sup>
- \$97 billion in LOST PRODUCTIVITY each year.<sup>20</sup>
- SOCIAL COST of smoking in 2000 was around **\$40/pack of cigarettes**, distributed as follows:<sup>21</sup>
  - » **\$33 private cost:** borne by the individual, primarily through a substantially shortened lifespan;
  - » **\$5.50 social cost:** borne by the smokers’ family through increased health costs, slightly lower wages and other factors;
  - » **\$1.50 societal cost:** borne by society, and representing the net effect of societal programming including taxes paid, Medicaid and Medicare payments, and Social Security.

# End Notes

- <sup>1</sup> Fiore, M. C., Bailey, W. C., Cohen, S. J., et. al. (2000). Treating tobacco use and dependence: Clinical practice guidelines. U.S. Department of Health and Human Services. Public Health Service.
- <sup>2</sup> Fiore, M. C., Jorenby, D. E., Schensky, A. E., Smith, S. S., Bauer, R. R., & Baker, T. E. (1995). Smoking status as the new vital sign: Effect on assessment and intervention in patients who smoke. *Mayo Clinic Proceedings*, 70(3), 209-213.
- <sup>3</sup> U.S. Department of Health and Human Services. (2010). Decision memo for counseling to prevent tobacco use (CAG-00420N). Retrieved from [www.cms.gov/mcd/viewdecisionmemo.asp?from2=viewdecisionmemo.asp&id=242](http://www.cms.gov/mcd/viewdecisionmemo.asp?from2=viewdecisionmemo.asp&id=242) &.
- <sup>4</sup> American Lung Association. (2009). State tobacco coverage database. Retrieved from [www.lungusa.org/cessationcoverage](http://www.lungusa.org/cessationcoverage).
- <sup>5</sup> Agaku, I., King, B., & Dube, S. R. (2012). Current Cigarette Smoking Among Adults — United States, 2011. Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control. *Weekly*, 61(44), 889-894.
- <sup>6</sup> U.S. Department of Health and Human Services. (2010). How Tobacco Smoke Causes Disease: The Biology and Behavioral Basis for Smoking-Attributable Disease: a report of the Surgeon General. Retrieved from [www.cdc.gov/tobacco/data\\_statistics/sgr/2010/index.htm](http://www.cdc.gov/tobacco/data_statistics/sgr/2010/index.htm).
- <sup>7</sup> Fiore, M. C., Bailey, W. C., Cohen, S. J. et. al. (2000). Treating tobacco use and dependence: Clinical practice guidelines. U.S. Department of Health and Human Services. Public Health Service.
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- <sup>9</sup> Agaku, I., King, B., & Dube, S. R. (2012). Current Cigarette Smoking Among Adults — United States, 2011. Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control. *Weekly*, 61(44), 889-894.
- <sup>10</sup> American Cancer Society. (2009). Smokeless tobacco and how to quit. Retrieved from [www.cancer.org/docroot/PED/content/PED\\_10\\_13X\\_Quitting\\_Smokeless\\_Tobacco.asp](http://www.cancer.org/docroot/PED/content/PED_10_13X_Quitting_Smokeless_Tobacco.asp).
- <sup>11</sup> Bialous, S. A. & Sarna, L. (2004). Sparing a few minutes for tobacco cessation. *The American Journal of Nursing*, 104(12), 54-60.
- <sup>12</sup> Garvey, A. J., Bliss, R. E., Hitchcock, J. L., Heinold, J. W., & Rosner, B. (1992). Predictors of smoking relapse among self-quitters: A report from the Normative Aging Study. *Addictive Behaviors*, 17(4), 367-377.
- <sup>13</sup> Fiore, M. C., Bailey, W. C., Cohen, S. J., et. al. (2000). Treating tobacco use and dependence: Clinical practice guidelines. U.S. Department of Health and Human Services. Public Health Service.
- <sup>14</sup> King, B. A., Dube, S. R., & Tynan, M. A. (2012). Current tobacco use among adults in the United States: Findings from the National Adult Tobacco Survey. *American Journal of Public Health*, 102(11), 93-100.
- <sup>15</sup> Centers for Disease Control and Prevention. (2012). Current cigarette smoking among adults—United States 2011. *MMWR*, 61(44), 889-894.
- <sup>16</sup> Substance Abuse and Mental Health Services Administration. (2009). Results from the 2008 National Survey on Drug Use and Health: National findings. *Office of Applied Studies NSDUH Series H-36, HHS Publication No. SMA 09-4434*.
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- <sup>20</sup> Fiore, M. C., Jaén, C. R., Baker, T. B., Bailey, W. C., Benowitz, N. L., Curry, S. J., & Wewers, M. E. (2009). Treating tobacco use and dependence: 2008 update. Quick reference guide for clinicians. U.S. Department of Health and Human Services. *Respiratory Care*, 53(9), 1217-1222.
- <sup>21</sup> Sloan, F. A., Ostermann, J., Conover, C., Taylor Jr, D. H., & Picone, G. (2004). *The Price of Smoking*. Cambridge, MA: MIT press.





# Tobacco and Addiction

## Nicotine Causes a Chemical and Behavioral Addiction

- Nicotine is the addictive substance in tobacco.
- Nicotine activates reward pathways—the circuits in the brain that regulate feelings of pleasure. It does this primarily by increasing levels of the neurotransmitter dopamine.<sup>1</sup>
- Behaviors that naturally stimulate the reward pathway include eating to relieve hunger, drinking to alleviate thirst, or engaging in sexual activity. Stimulation of the reward pathway reinforces behavior so that it will be repeated. Obviously, these behaviors are necessary for continued survival of the organism. The reward pathway can also be stimulated by drugs of abuse such as cocaine, opiates, amphetamine, and nicotine.
- Long-term use of nicotine can result in brain changes that contribute to addiction.<sup>2</sup> These include the increase of nicotinic acetylcholine receptor (nAChRs) in the brain and the desensitization of receptors.



Dopamine induces feelings of euphoria and pleasure and is responsible for activating the dopamine reward pathway.<sup>3</sup>

### Dopamine Reward Pathway

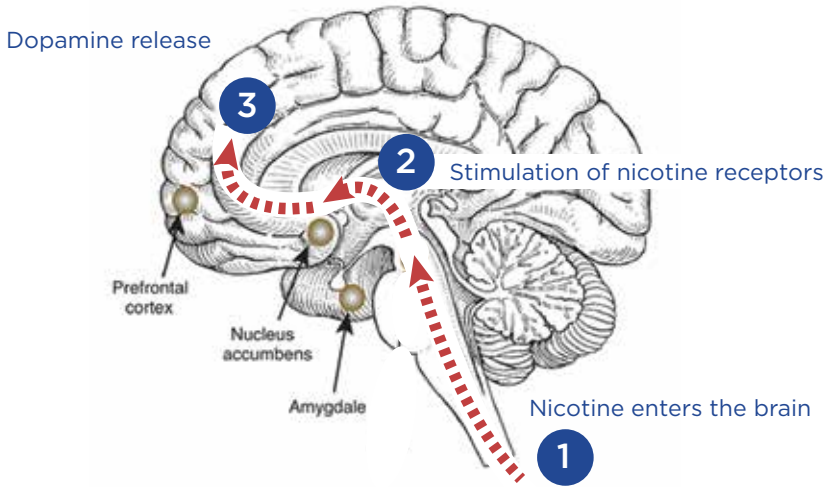


Image adapted from: Wand, G. (2008). The influence of stress on the transition from drug use to addiction. *Alcohol Research & Health*, 31(2), 119-136.

### Nicotine Affects the Levels of Many Neurotransmitters

Nicotine	Dopamine	Pleasure, Appetite Suppression
	Norepinephrine	Arousal, Appetite Suppression
	Acetylcholine	Arousal, Cognitive Enhancement
	Glutamate	Learning, Memory Enhancement
	Serotonin	Mood Modulation, Appetite Suppression
	Beta-Endorphin	Reduction of Anxiety and Tension
	Gaba	Reduction of Anxiety and Tension

Nicotine receptor activation promotes the release of neurotransmitters, which may then mediate various effects of nicotine use. Adapted from Benowitz, N. L. (2008). Neurobiology of nicotine addiction: Implications for smoking cessation treatment. *American Journal of Medicine*, 121(4), 3.

### How Does Nicotine Affect Bodily Function?

- Smoking harms almost every organ in the body.<sup>4</sup>
- Nicotine can cause immediate changes such as heightened blood pressure, increased pulse rate, and cough.
- Nicotine also has immediate effects on oral health causing bad breath and staining of teeth.
- Nicotine leads to reduction in the secretion of insulin that is essential in absorption of carbohydrates in the body.

## Nicotine Increases Risk for Specific Medical Disorders

- 2 to 4 times increased risk for coronary heart disease.<sup>6</sup>
- 2 to 4 times increased risk for stroke.<sup>7</sup>
- The relative risk for lung cancer death among smokers is now 25 times higher than for non-smokers for both men and women.<sup>8</sup>
  - » 25 times increased risk for lung cancer for men.<sup>9</sup> Mortality from lung cancer in men who smoke is 12 times as high as men who never smoked.<sup>10</sup>
  - » 24 times increased risk of lung cancer for women.<sup>11</sup>
- 12 to 13 times increased risk of death from chronic obstructive lung diseases.<sup>12</sup>
- Since the 80's, the relative risk of death from Chronic Obstructive Pulmonary Disease (COPD) among male smokers has more than doubled.<sup>13</sup> This is likely a result of changes to products that allow for deeper inhalation.
- The relative risk of death from lung disease and COPD in current smokers as compared to those who never smoked increases according to the number of cigarettes smoked per day and the number of years of smoking.<sup>14</sup>
- Nicotine dependence is associated with suicide attempts in the general population (independent of comorbid mental disorders and physical disease). Nicotine cessation is associated with a decreased likelihood of suicide.<sup>15</sup> In fact, tobacco use is one of three risk factors for suicide.<sup>16</sup>



**LINK:** Use this quick visual aid to teach patients about brain chemistry and nicotine.

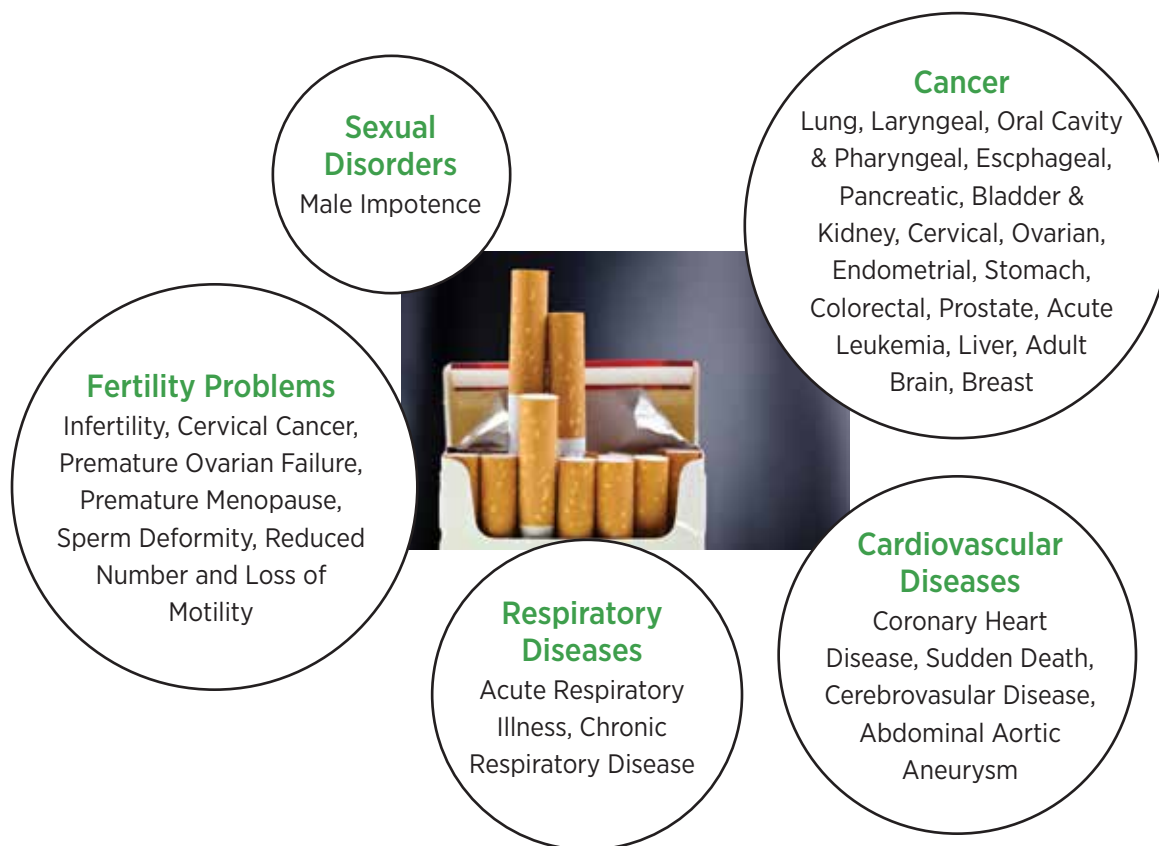
You Tube: “Visualization award winner in science - Nicotine addiction and molecule diffusion.”<sup>15</sup>

[www.youtube.com/watch?v=yd46Hs7pTow](http://www.youtube.com/watch?v=yd46Hs7pTow)



The relative risk for lung cancer death among smokers is now 25 times higher than for non-smokers for both men and women.<sup>8</sup>

## Other Chronic Medical Disorders Associated with Tobacco Use:<sup>17</sup>



THE RATE OF DEATH from smoking-related diseases is three times higher among current smokers than those who have never smoked.<sup>18</sup>

## Tobacco Interactions With Common Medications

It is important to realize that most tobacco-medication interactions are due to changes in tobacco use and not changes in nicotine use. Therefore, most of the interactions listed in the table on the following page will occur when individuals transition from tobacco use to total abstinence or nicotine replacement.

**Note:** Tobacco affects many psychotropic/psychiatric medications in important ways. Please see the BHWP's Priority Population: Behavioral Health Supplement regarding specific information about the interaction with these medications and how to monitor medications during cessation treatment.

Please see [www.tobaccoatlas.org/harm/harm\\_from\\_smoking/how\\_tobacco\\_harms\\_you/](http://www.tobaccoatlas.org/harm/harm_from_smoking/how_tobacco_harms_you/) for more information on tobacco's impact on the body.



## DRUG INTERACTIONS WITH TOBACCO SMOKE

Many interactions between tobacco smoke and medications have been identified. Note that in most cases it is the tobacco smoke—not the nicotine—that causes these drug interactions. Tobacco smoke interacts with medications through pharmacokinetic (PK) and pharmacodynamic (PD) mechanisms. PK interactions affect the absorption, distribution, metabolism, or elimination of other drugs, potentially causing an altered pharmacologic response. The majority of PK interactions with smoking are the result of induction of hepatic cytochrome P450 enzymes (primarily CYP1A2). PD interactions alter the expected response or actions of other drugs. The amount of tobacco smoking needed to have an effect has not been established, and the assumption is that any smoker is susceptible to the same degree of interaction. The most clinically significant interactions are depicted in the shaded rows.

DRUG/CLASS	MECHANISM OF INTERACTION AND EFFECTS
<b>Pharmacokinetic Interactions</b>	
Alprazolam (Xanax)	<ul style="list-style-type: none"> <li>Conflicting data on significance, but possible ↓ plasma concentrations (up to 50%); ↓ half-life (35%).</li> </ul>
Bendamustine (Treanda)	<ul style="list-style-type: none"> <li>Metabolized by CYP1A2. Manufacturer recommends using with caution in smokers due to likely ↓ bendamustine concentrations, with ↑ concentrations of its two active metabolites.</li> </ul>
Caffeine	<ul style="list-style-type: none"> <li>↑ Metabolism (induction of CYP1A2); ↑ clearance (56%). Caffeine levels likely ↑ after cessation.</li> </ul>
Chlorpromazine (Thorazine)	<ul style="list-style-type: none"> <li>↓ Area under the curve (AUC) (36%) and serum concentrations (24%).</li> <li>↓ Sedation and hypotension possible in smokers; smokers may require ↑ dosages.</li> </ul>
Clopidogrel (Plavix)	<ul style="list-style-type: none"> <li>↑ Metabolism (induction of CYP1A2) of clopidogrel to its active metabolite.</li> <li>Clopidogrel's effects are enhanced in smokers (≥10 cigarettes/day): significant ↑ platelet inhibition, ↓ platelet aggregation; while improved clinical outcomes have been shown, may also ↑ risk of bleeding.</li> </ul>
Clozapine (Clozaril)	<ul style="list-style-type: none"> <li>↑ Metabolism (induction of CYP1A2); ↓ plasma concentrations (18%).</li> <li>↑ Levels upon cessation may occur; closely monitor drug levels and reduce dose as required to avoid toxicity.</li> </ul>
Erlotinib (Tarceva)	<ul style="list-style-type: none"> <li>↑ Clearance (24%); ↓ trough serum concentrations (2-fold).</li> </ul>
Flecainide (Tambocor)	<ul style="list-style-type: none"> <li>↑ Clearance (61%); ↓ trough serum concentrations (25%). Smokers may need ↑ dosages.</li> </ul>
Fluvoxamine (Luvox)	<ul style="list-style-type: none"> <li>↑ Metabolism (induction of CYP1A2); ↑ clearance (24%); ↓ AUC (31%); ↓ plasma concentrations (32%).</li> <li>Dosage modifications not routinely recommended but smokers may need ↑ dosages.</li> </ul>
Haloperidol (Haldol)	<ul style="list-style-type: none"> <li>↑ Clearance (44%); ↓ serum concentrations (70%).</li> </ul>
Heparin	<ul style="list-style-type: none"> <li>Mechanism unknown but ↑ clearance and ↓ half-life are observed. Smoking has prothrombotic effects.</li> <li>Smokers may need ↑ dosages due to PK and PD interactions.</li> </ul>
Insulin, subcutaneous	<ul style="list-style-type: none"> <li>Possible ↓ insulin absorption secondary to peripheral vasoconstriction; smoking may cause release of endogenous substances that cause insulin resistance.</li> <li>PK &amp; PD interactions likely not clinically significant; smokers may need ↑ dosages.</li> </ul>
Irinotecan (Camptosar)	<ul style="list-style-type: none"> <li>↑ Clearance (18%); ↓ serum concentrations of active metabolite, SN-38 (~40%; via induction of glucuronidation); ↓ systemic exposure resulting in lower hematologic toxicity and may reduce efficacy.</li> <li>Smokers may need ↑ dosages.</li> </ul>
Mexiletine (Mexitil)	<ul style="list-style-type: none"> <li>↑ Clearance (25%; via oxidation and glucuronidation); ↓ half-life (36%).</li> </ul>
Olanzapine (Zyprexa)	<ul style="list-style-type: none"> <li>↑ Metabolism (induction of CYP1A2); ↑ clearance (98%); ↓ serum concentrations (12%).</li> <li>Dosage modifications not routinely recommended but smokers may need ↑ dosages.</li> </ul>
Propranolol (Inderal)	<ul style="list-style-type: none"> <li>↑ Clearance (77%; via side-chain oxidation and glucuronidation).</li> </ul>
Ropinirole (Requip)	<ul style="list-style-type: none"> <li>↓ C<sub>max</sub> (30%) and AUC (38%) in study with patients with restless legs syndrome.</li> <li>Smokers may need ↑ dosages.</li> </ul>
Tacrine (Cognex)	<ul style="list-style-type: none"> <li>↑ Metabolism (induction of CYP1A2); ↓ half-life (50%); serum concentrations 3-fold lower.</li> <li>Smokers may need ↑ dosages.</li> </ul>
Theophylline (Theo Dur, etc.)	<ul style="list-style-type: none"> <li>↑ Metabolism (induction of CYP1A2); ↑ clearance (58–100%); ↓ half-life (63%).</li> <li>Levels should be monitored if smoking is initiated, discontinued, or changed. Maintenance doses are considerably higher in smokers.</li> <li>↑ Clearance with second-hand smoke exposure.</li> </ul>
Tricyclic antidepressants (e.g., imipramine, nortriptyline)	<ul style="list-style-type: none"> <li>Possible interaction with tricyclic antidepressants in the direction of ↓ blood levels, but the clinical significance is not established.</li> </ul>
Tizanidine (Zanaflex)	<ul style="list-style-type: none"> <li>↓ AUC (30–40%) and ↓ half-life (10%) observed in male smokers.</li> </ul>
Warfarin	<ul style="list-style-type: none"> <li>↑ Metabolism (induction of CYP1A2) of R-enantiomer; however, S-enantiomer is more potent and effect on INR is inconclusive. Consider monitoring INR upon smoking cessation.</li> </ul>
<b>Pharmacodynamic Interactions</b>	
Benzodiazepines (diazepam, chlordiazepoxide)	<ul style="list-style-type: none"> <li>↓ Sedation and drowsiness, possibly caused by nicotine stimulation of central nervous system.</li> </ul>
Beta-blockers	<ul style="list-style-type: none"> <li>Less effective antihypertensive and heart rate control effects; possibly caused by nicotine-mediated sympathetic activation.</li> <li>Smokers may need ↑ dosages.</li> </ul>
Corticosteroids, inhaled	<ul style="list-style-type: none"> <li>Smokers with asthma may have less of a response to inhaled corticosteroids.</li> </ul>
Hormonal contraceptives	<ul style="list-style-type: none"> <li>↑ Risk of cardiovascular adverse effects (e.g., stroke, myocardial infarction, thromboembolism) in women who smoke and use oral contraceptives. Ortho Evra patch users shown to have 2-fold ↑ risk of venous thromboembolism compared to oral contraceptive users, likely due to ↑ estrogen exposure (60% higher levels).</li> <li>↑ Risk with age and with heavy smoking (≥15 cigarettes per day) and is quite marked in women ≥35 years old.</li> </ul>
Opioids (propoxyphene, pentazocine)	<ul style="list-style-type: none"> <li>↓ Analgesic effect; smoking may ↑ the metabolism of propoxyphene (15–20%) and pentazocine (40%). Mechanism unknown.</li> <li>Smokers may need ↑ opioid dosages for pain relief.</li> </ul>

Adapted and updated, from Zevin S, Benowitz NL. Drug interactions with tobacco smoking. *Clin Pharmacokinet* 1999;36:425–438.

# Who is More at Risk of Tobacco Use?

## Demographic Risk Factors

There are several demographic characteristics that may influence patterns of tobacco use among the U.S. population. Tobacco companies have invested billions of dollars in marketing tobacco (in 2006 they spent **34 million dollars each day** on marketing).<sup>19</sup> Many populations with higher rates of tobacco use have been specifically targeted by marketing campaigns to encourage tobacco use. Here are a few key statistics to remember:

### Age

- Smoking rates are highest among adults aged 22-44 (22%) and lowest among adults older than 65 (7.9%).<sup>20</sup>
- Most people (nearly 100%) of adults who are daily smokers started using tobacco by young adulthood (prior to turning 26).<sup>21</sup>

### Socioeconomic Status

- Individuals who are working class, low income, and have low educational levels have the highest percentages of smoking behaviors.<sup>23</sup> This is in part due to targeted marketing to this population by tobacco companies.<sup>24</sup>
- Rate of smoking among individuals who are homeless is 70%.<sup>25</sup>

### Race

- 31.5% of Native American and Alaska Native adults smoke—more than any other racial or ethnic group.<sup>26</sup>
- Over 45,000 African Americans die from tobacco-related diseases each year.<sup>27</sup> This is the highest tobacco-related disease burden of any U.S. group.
- African Americans are more likely to smoke menthol cigarettes. A potential factor is tobacco company marketing campaigns for menthol cigarettes often target African Americans.<sup>28,29</sup>
- Individuals who experience racial discrimination may be more likely to smoke, in part, because of the distress caused by these experiences.<sup>30</sup>

“Women who smoke like men die like men.” Although historically women had lower death rates from smoking, the relative and absolute risk of death from smoking continues to increase for women and death rates are now similar between the genders.<sup>22</sup>

## Sexual Orientation

- Numerous studies demonstrate that gay, lesbian and bisexual men and woman have higher rates of smoking than heterosexual men and women.<sup>31,32</sup>
- Lesbian women are more than twice as likely as heterosexual women to engage in tobacco use regardless of age (under age 50 and over age 50).<sup>33</sup>
- Bisexual women are more than twice as likely as heterosexual women to engage in tobacco use when they are younger; however, after age 50, bisexual and heterosexual women tobacco use rates are not significantly different.<sup>34</sup>
- Gay men at age 18 are 80% more likely than heterosexual men to be current smokers.<sup>35</sup>
- Gay men younger than 50 are 60% more likely to be current smokers than heterosexual men.<sup>36</sup>

## Geographic Area

- In rural areas, prevalence of smokeless tobacco use is about three times that of urban areas.<sup>37</sup>

## Behavioral Health Status

Persons with behavioral health conditions:

- Are nicotine dependent at rates 2-3 times higher than the general population;<sup>38,39</sup>
- Represent over 44% of the U.S. tobacco market;<sup>40,41</sup>
- Consume over 34% of all cigarettes smoked (1/3 of all cigarettes smoked).<sup>42,43</sup>

Please see the supplement to this toolkit, [Priority Populations: Behavioral Health](#) for more specific information on tobacco use and cessation treatment for individuals with behavioral health conditions.

<http://www.bhwellness.org/toolkits/TF-Toolkit-Supp-Behavioral-Health.pdf>



PROJECT SCUM was a plan proposed by R.J. Reynolds Tobacco Company (RJR) to sell cigarettes to members of the “alternative lifestyle” areas of San Francisco. SCUM was an acronym that stood for “Sub-Culture Urban Marketing”, and the targeted populations included gay, homeless, and immigrant groups. Documents from RJR describing Project Scum can be viewed at the “RJR Documents online” website. Enter “Project Scum” into the search area “RJRT Public.” [www.rjrtdocs.com](http://www.rjrtdocs.com)



# Why Do People Use Tobacco?

## Biological Considerations

- Nicotine enhances concentration, information processing and learning.
- Other biological factors include nicotine's positive effects on mood, feelings of pleasure and enjoyment.
- Some evidence also suggests that smoking is associated with a reduced risk of antipsychotic-induced Parkinsonism.

## Psychological Considerations

- Tobacco use may temporarily relieve feelings of tension and anxiety and is often used to cope with stress.
- People engage in a daily habit of smoking or tobacco use.
- Tobacco use may allow people to temporarily escape unpleasant emotional states.
- Smoking may be a way to manage body image and food intake, particularly for women.<sup>44</sup>

## Reasons for Continued Tobacco Use:

- Improved Concentration/Alertness
- Sense of Relaxation
- Sense of Euphoria
- Stress Reduction
- Social Acceptance
- Relief from Withdrawal Symptoms
- Weight Management

## Social and Cultural Considerations

- People may smoke to feel “part of a group.”
- Social networks (family, friends, co-workers) can be a powerful influence on the initiation of tobacco use, continued tobacco use, and tobacco cessation.
- Smoking behavior spreads through close and distant social ties, groups of interconnected people stop smoking jointly, and those who continue to smoke are increasingly socially isolated.<sup>45</sup>
- Social connections and peer influence may be particularly important for youth who use tobacco.
- Smoking has been shown to affect who adolescents select as friends—youth tend to select friends whose smoking level is similar to their own.<sup>46</sup>
- Smoking can even enhance popularity. In a study on friend selection, adolescents were more likely to select individuals with higher levels of smoking as friends—in essence, smoking was a source of popularity.<sup>47</sup>
- Smoking is often associated with social activities such as gatherings outside, restaurants, holidays, etc. After long-term use in specific environments and situations, the mere sight of the social activity causes urges (both at a chemical and behavioral level) to use tobacco.

## Discrimination Directed at Individuals Who Use Tobacco

People who use tobacco—particularly smokers—are more and more the target of discrimination. This may lead to a sense of isolation and shame, making it harder to talk about their tobacco use. Furthermore, consequences of discrimination may reduce access to necessary resources and treatments for cessation.

- Individuals are denied employment because of tobacco use.<sup>48</sup>
- More and more companies are penalizing individuals who smoke by requiring them to pay a greater percentage of their health care insurance, essentially decreasing their income.<sup>49,50</sup>

## Why is Nicotine THAT Hard to Quit?

As healthcare providers it is important to have empathy and understanding when working with individuals currently using tobacco. Everyone, including the individual trying to quit, may underestimate how hard it is to quit tobacco, especially if the individual is not ready to quit. It is important to remember that individuals are addicted to tobacco through neurobiology and behavioral components.<sup>51</sup> Therefore, the positive effects of smoking are both chemical and behavioral. Understanding why people like to use tobacco and why it may be hard to quit is key to helping them to quit.

Friends, family, and healthcare providers often wonder “WHY DON’T THEY JUST QUIT!!!” “It Can’t be THAT HARD!”

### Have Empathy—Change is Hard<sup>52,53</sup>

- 67% of gym memberships are never used.
- 45% of people make New Year’s Resolutions and only 8% successfully complete them.
- Two-thirds of dieters regain the weight lost within 2-5 years.



## Withdrawal Symptoms are Real

An individual in nicotine withdrawal may experience decreased concentration, irritability, anxiety, depressed mood, insomnia, increased eating, and difficulty with personal relationships.<sup>54</sup> Withdrawal symptoms can last several weeks and can be severe.

## Personal Costs to Quitting

Part of the reason that quitting tobacco is so hard is that the individual has to dramatically change aspects of life. Because of the way in which our brains make connections, many aspects of our day-to-day world become associated with tobacco use and therefore, become triggers. When individuals decide to quit tobacco, they may lose many routines, habits, places, and relationships in order to avoid triggers.

- Food and alcohol are often associated with tobacco use, so specific foods, beer, wine, and other beverages may need to be avoided.
- Place is often associated with tobacco use, so an individual's car, home, or work environment may trigger tobacco use.
- Relationships are often associated with tobacco use, so individuals may have to avoid specific friends, family events, or outings in order to avoid triggers.
- Activities are often associated with tobacco use, so individuals may have to avoid specific activities (e.g., watching television, hanging out in the park, going to a bar with friends, holiday events with friends and family, etc.).

When you are trying to QUIT, the WHOLE WORLD is a CUE to SMOKE.

## Common Behavioral Health Issues That Increase Risk for Tobacco Use and Reduce Cessation Rates

### Depression

Among patients seeking tobacco cessation treatment, 25-40% have a history of Major Depressive Disorder and many have symptoms of dysthymia. Depression has been shown to predict poorer tobacco cessation rates. Consider starting or restarting psychotherapy or pharmacotherapy for symptoms of depression in patients who state that depression started or intensified when they stopped using tobacco.

Cognitive behavioral therapy and antidepressants have been found to improve tobacco cessation rates for those with a history of Major Depressive Disorder or symptoms of depression. For a smoker with a history of depression currently taking antidepressant medication, it is important to note that some antidepressant levels will increase with smoking cessation.

## Anxiety

Individuals may report feelings of anxiety after they have started using tobacco. Anxiety is known to rise when nicotine levels decrease, leading people to want to have more nicotine to calm them. Social Anxiety Disorder is associated with nicotine dependence, increased risk of use, and decreased tobacco cessation success. This is particularly true when the social anxiety existed before the individual started using tobacco.<sup>55</sup> Other forms of anxiety tend to occur after tobacco use has been initiated.<sup>56</sup> Individuals with social anxiety are more likely to engage in heavy smoking and are less likely to successfully quit in comparison to individuals without social anxiety, depression, and other substance use disorders.<sup>57</sup>

## Trauma

- Individuals with a diagnosis of post-traumatic stress disorder (PTSD) have higher rates of smoking (45%) when compared to individuals with no mental health diagnosis (23%).<sup>58</sup>
- Individuals with PTSD also have a shorter cessation period before relapse.<sup>59</sup>
- Childhood sexual abuse is associated with early cigarette use in adolescent girls even when family influences are controlled.<sup>60</sup>

Other findings that trauma may influence tobacco use:

- For youth living in military families, higher numbers of family deployments are associated with higher levels of lifetime tobacco use.<sup>61</sup>
- Following the 2004 hurricanes, Department of Health workers in Florida demonstrated increased tobacco use when they had probable PTSD from the experience. 4% had probable PTSD, and of that, 50% had increased tobacco use.<sup>62</sup>

## Co-occurring Substance Abuse and Dependence

Tobacco use is strongly correlated with development of other substance use disorders and with more severe substance use disorders.<sup>63, 64</sup> Nicotine affects the same neural pathway—the mesolimbic dopamine system—as alcohol, opioids, cocaine, and marijuana.<sup>65</sup> Tobacco use impedes the recovery of brain function among patients whose brains have been damaged by chronic alcohol use.<sup>66</sup> If someone is actively using alcohol and drugs, they are less likely to successfully quit tobacco use.<sup>67</sup> Although tobacco use rates have generally declined in recent years, rates of daily use have not declined for individuals with a substance use disorder.<sup>68</sup>

Please see the supplement to this toolkit, [Priority Populations: Behavioral Health](#) for more specific information on tobacco use and cessation treatment for individuals with behavioral health conditions.

<http://www.bhwellness.org/toolkits/TF-Toolkit-Supp-Behavioral-Health.pdf>

ANY TOBACCO USE is a signal to screen for trauma, substance use, and other behavioral health needs.

# Policies and Practices That Affect Tobacco Use Rates

Policies that support tobacco cessation have demonstrated positive effects on tobacco cessation rates and quit rates.<sup>69,70</sup> These policies include:

1. Increases in coverage for cessation treatment and expanded provider reimbursement;
2. Adequate funding for the use and marketing of telephone quitlines;
3. Incentives for healthcare systems supporting brief, evidenced-based provider interventions;
4. Anti-smoking or anti-tobacco sentiment in cities and communities;
5. Increases in taxes on tobacco;
6. Tobacco-free work and public environments;
7. Private tobacco-free settings (e.g., non-smoking residence, family members with a no smoking policy);
8. Tobacco-free healthcare facilities.

The Behavioral Health and Wellness Program publishes a Tobacco Free Toolkit for Community Health Facilities.<sup>71</sup> This resource can be found at: [www.bhwellness.org/resources-2/for-providers/a-tobacco-free-toolkit-for-community-health-facilities/](http://www.bhwellness.org/resources-2/for-providers/a-tobacco-free-toolkit-for-community-health-facilities/).



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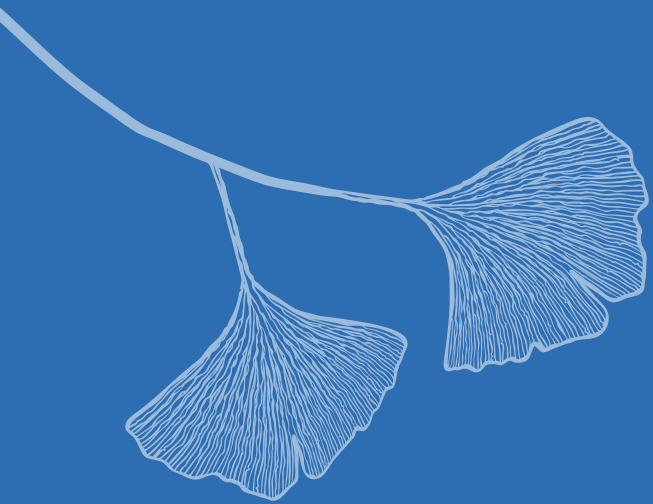
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# Assessment and Planning for Change

1. Assessment
  - Stages of Change
  - Readiness for change and motivational interviewing
  - Listen for Change Talk
2. Planning for Change
  - The 5 A's: Ask, Advise, Assess, Assist and Arrange
3. The 5 R's: Addressing Tobacco Cessation for Individuals Not Yet Ready to Quit
4. Cultural Considerations
5. Clinic Screening for Tobacco Use
6. Quitline Referral Form
7. Decisional Worksheet

# Assessment

As you prepare to talk with patients about stopping their tobacco use, it is important to know where they are in terms of their readiness for change. You will need to adjust your approach and intervention based upon a person's readiness for change.

## Stages of Change

The Stages of Change Model (also known as the Transtheoretical Model)<sup>1,2</sup> is a known and researched model of the process of change. The stages applied to tobacco cessation include:

Stage	Definition	Intervention
<b>Pre-contemplation</b>	No change is intended in the foreseeable future. The individual is not considering quitting.	Educate/Inform
<b>Contemplation</b>	The individual is not prepared to quit at present but is considering quitting and has intention to do so in the next six months.	Encourage/Motivate
<b>Preparation</b>	The individual is actively considering quitting in the immediate future or within the next month.	Assist with goal setting
<b>Action</b>	The individual is making overt attempts to quit. However, quitting has not been in effect for longer than six months.	Provide support, assist as needed to overcome barriers
<b>Maintenance</b>	The individual has quit for longer than six months.	Continued support, set new goals when ready



## Stages of Change

As a patient's readiness to change shifts through these five stages, you will want to adjust your intervention. When your intervention matches the person's readiness for change, you are more likely to increase that individual's motivation for change. (See Figure 1). When your intervention does not match the person's readiness for change, the patient may not engage with you in the change process.

Often the way in which people move through these stages is less linear and more organic or fluid than Figure 1 indicates. Individuals may need to cycle and re-cycle through specific stages, and they may skip stages or very briefly move through a stage. Figure 2 depicts a more fluid process with the general progression of the stages of change in blue arrows and the organic process in purple arrows.

In addition, individuals may be in different stages of change for different aspects of their lives. For example, a person may be in contemplation regarding their heart disease and changes needed while still in pre-contemplation regarding their tobacco use.

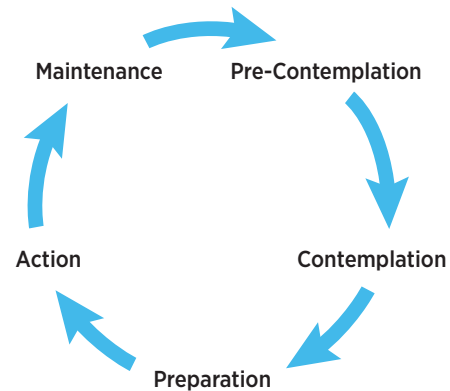


Figure 1

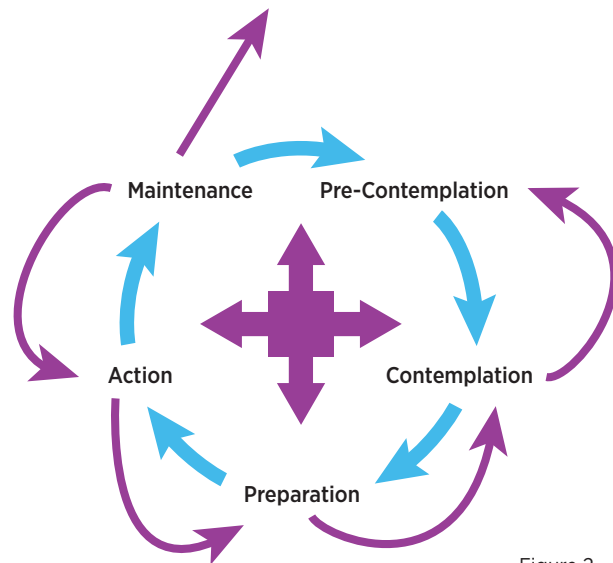


Figure 2

Understanding where individuals are within the process of change for specific aspects of their health is an essential part of quality care and to helping individuals become healthier.

## Readiness for Change and Motivational Interviewing

Once a person has been identified as a tobacco user, individual readiness to quit can be determined. The stages of change model is useful in recognizing that *nicotine dependence is a chronic, relapsing disorder with most tobacco users in the general population requiring multiple attempts before they finally quit for good.*<sup>3,4</sup>

Many patients do not realize that it usually takes several attempts to stop using tobacco and will need motivation to quit if they have been unsuccessful in the past. In addition, individuals may not accurately report their history of quit attempts which may affect how providers view their level of motivation. In a study on quit attempts, the results indicate that individuals are likely to under-report their quitting history, especially if they are unable to quit for longer periods of time. As time passed, if they did not quit for a long period of time, they tended not to “count” the quit attempt.<sup>5</sup>

Providers need to listen and ask detailed questions to explore their patient’s motivation. Providers need to be aware that a significant proportion of quit attempts are unplanned and that these attempts can be a successful path to cessation.<sup>6</sup> **What is important is that individuals are offered treatment and support whether they contemplate change for long periods of time or whether they make a quick decision to quit.**

Tobacco users who are not considering quitting need different interventions than those who are ambivalent about quitting or those presently interested in quitting. Tobacco users in the Pre-contemplation stage (not considering quitting) can be moved to the Contemplation stage (considering quitting) by asking them to consider the negative consequences of tobacco use as well as the advantages of tobacco cessation (this information has to be personalized).

Questions such as:

“What do you like about your tobacco use?”

“What do you wish you could change about your tobacco use?”

“What do you dislike about your tobacco use?”<sup>8</sup>

**Providers need to be careful about how they ask questions. Research has shown that the more people hear themselves talk about the disadvantages of changing, the more committed they become to the status quo .<sup>9</sup>**



**TIP:** It is useful to think of tobacco cessation as a process rather than an event.

“It may be the case that those with the most difficulty staying quit may have multiple short quit attempts that will go unreported; thus, those patients may seem unmotivated to quit although this may not be an accurate reflection of their attitudes or behaviors.”<sup>7</sup>

It is important for physicians to know that they are in a uniquely powerful position in terms of tobacco cessation. Research tells us that when a physician advises a patient to stop using tobacco as compared to other healthcare providers and clinicians, the patient is twice as likely to have a successful quit attempt.<sup>10</sup>

It is worthwhile to actively encourage quitting and offer support and treatment as well as convey the message that individuals can successfully quit using tobacco. These messages need to be communicated with empathy and in a tone that guides individuals rather than lectures them.

Motivational interviewing is aligned with Self-Determination Theory (SDT), which suggests that providers can assist patients in becoming autonomously motivated and competent to make cessation attempts.<sup>11</sup> Providers can elicit and acknowledge patients' perspectives, support their initiative, offer choice regarding treatment, and provide relevant information, while minimizing pressure and control.<sup>12</sup> This approach stands in contrast to strategies focused on pressure through threats of negative health consequences, shame, or guilt.<sup>13</sup> It may be helpful to use the handout in the back of this section entitled, "[Decisional Worksheet](#)" with patients to understand unique advantages and disadvantages to quitting for each person.

#### **Motivational Interviewing Definition:**

Client-centered, directive method for enhancing intrinsic motivation to change by exploring and resolving ambivalence. A way of being versus doing.<sup>14</sup>

### How Can Motivational Interviewing Encourage and Support Change?

It is vital that healthcare providers think about their role in helping those they serve in making changes in their lives. In that role, providers need to have a stance of collaboration, empathy, and genuine partnership with the individual.

Does your advice equal action for your patients?



## Four Principles of Motivational Interviewing<sup>15</sup>

<b>Express empathy</b>	<ul style="list-style-type: none"> <li>• Unconditional acceptance</li> <li>• Reflective listening</li> <li>• Ambivalence is normal</li> </ul>
<b>Develop discrepancy</b>	<ul style="list-style-type: none"> <li>• Patient presents arguments for change</li> <li>• Create a change in perception without coercion</li> </ul>
<b>Roll with resistance</b>	<ul style="list-style-type: none"> <li>• Avoid arguing for change</li> <li>• Resistance is not directly opposed</li> <li>• Change perception through reframing/insight</li> <li>• Resistance is a signal to respond differently</li> </ul>
<b>Support self-efficacy</b> (person’s belief in their ability to carry out and succeed with a specific task)	<ul style="list-style-type: none"> <li>• Belief that change is possible</li> <li>• Patient carries out change</li> <li>• Provider’s belief in the person’s ability to change becomes a self-fulfilling prophecy</li> </ul>

Providers can **inform** individuals about negative consequences, treatment options, and choices. Providers can **guide** individuals towards making changes that make sense for their unique circumstances and personality. Providers can **empower** individuals to make changes, take small steps, and to be creative about how to manage the barriers to change that they face.<sup>16</sup>

Most importantly, providers need to LISTEN to individuals and hear about their motivation to change, their fears regarding change, and their current willingness to change.

As Rollnick et al. (2008) suggest, healthcare providers need to **resist the righting reflex**.<sup>17</sup> The righting reflex occurs when healthcare professionals have strong drives to fix things for people. As a result, these providers can jump to *telling* patients what to do or not to do. This tendency to jump to persuasion becomes a reflex—automatic and compelling. This can lead to lecturing people in this reflexive stance from a sense of urgency and desire to help or prevent further illness. Unfortunately, lecturing tends to make individuals resist persuasion and focus on the disadvantages of changing.

Instead, we need to LISTEN.

- R** **Resist** the righting reflex.  
*“How do you feel about your smoking?”*
- U** **Understand** your patient’s motivation.  
*“Why do you want to change?”*
- L** **Listen** to your patient.  
*“What is important to you?”*
- E** **Empower** your patient.  
*“What do you want to do?”<sup>18</sup>*



**TIP:** Use the Motivational Interviewing Acronym WAIT to help you listen: **WHY AM I TALKING?**

## Listen for Change Talk<sup>19</sup>

Change talk is the use of certain words that suggest a willingness or contemplation of change. Healthcare providers need to listen for these terms and hear where the individual is in the process of change and also what the person views as barriers to change.

**Desire** to Change: “I **wish**” “I **want**” “I **like** the idea.”

**Ability** to Change: “I **could** probably practice taking some ‘fresh air’ breaks instead of smoke breaks.” “I think I **can** come next week for group.” “I **might** be able to cut out smoking at lunch.”

**Reasons** for Change: “I’m sure I’d **feel better** if I quit.” “Smoking **keeps me** from hiking, which I love.”

**Need** to Change: “I **must** get healthier for my kids.” “I’ve **got** to get back to work.”

**Commitment** to Change: “I **will** try to decrease the number of cigarettes I smoke each day.” “I **promised** my daughter I would quit.” “I **plan** to try these patches and attend group.”

Commitment at **lower level**: “I **will** think about what you said.” “I’ll **consider** medication to help with withdrawal.” “I **hope** I can quit.”

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### Motivational Interviewing Resources:

- *Motivational interviewing in healthcare: Helping patients change behavior.* Rollnick, Miller and Butler (2008).
- *Motivational interviewing, second edition: Preparing people for change.* Miller & Rollnick (2002).
- *In search of how people change: Applications to addictive behaviors.* Prochaska et al (1992).

## Planning for Change

Once you have assessed a person's readiness to quit, you can start developing a plan of care. However, much of this planning involves continuing to assess an individual's motivation and potential barriers to change. In addition, the plan needs to be individualized. Motivational interviewing techniques will be vital to assisting individuals to take the next step.



**TIP:** While Preparing for Change, Keep Your Assessment Hat On! Use those Motivational Interviewing Tools.

## The 5 A's: Ask, Advise, Assess, Assist and Arrange



The *U.S. Public Health Service Clinical Practice Guideline: Treating Tobacco Use and Dependence* provides healthcare clinicians an onsite strategy for smoking cessation treatment that is built around the “5 A’s” (Ask, Advise, Assess, Assist and Arrange). Knowing that providers have many competing demands, the 5 A’s were created to keep steps simple. **Regardless of the patient’s stage of readiness for a cessation attempt, the 5 A’s are essential for every patient visit.**

The guideline recommends that all people entering a healthcare setting should be **asked** about their tobacco use status and that this status should be documented. Providers should **advise** all tobacco users to quit and then **assess** their willingness to make a quit attempt. Persons who are ready to make a quit attempt should be **assisted** in the effort. Follow-up should then be **arranged** to determine the success of quit attempts. The full 5 A’s model is most appropriate for agencies and organizations that

have tobacco cessation medications and/or counseling and behavioral interventions available. In particular, settings providing integrated care (primary care and behavioral health) services are ideal as they have the expertise necessary for combined cessation treatment approaches.

For agencies and organizations that do not have tobacco cessation services readily available, the recommendation is the use of the first two A’s (**ask** and **advise**) and then the agency can **refer** to available community services (this is referred to as the 2 A’s & R model).

Regardless of the patient’s stage of readiness for a cessation attempt, the 5 A’s are essential for every patient visit.



The following is adapted from *Treating Tobacco Use and Dependence. Quick Reference Guide for Clinicians, October 2000. U.S. Public Health Service. [www.ahrq.gov/professionals/clinicians-providers/guidelines-recommendations/tobacco/clinicians/treating\\_tobacco\\_use08.pdf](http://www.ahrq.gov/professionals/clinicians-providers/guidelines-recommendations/tobacco/clinicians/treating_tobacco_use08.pdf)*

ASK	
Action	Strategies for Implementation
<p><b>Ask</b> every patient at every visit, including hospital admissions, about tobacco use.</p>	<p>Identify all tobacco users at every visit.</p> <p>Establish an office system to consistently identify tobacco use status at every visit. (<a href="#">See Clinic Screening for Tobacco Use</a>)</p> <p>Determine what form of tobacco is used.</p> <p>Determine frequency of use.</p> <p>Determine tobacco use status.</p> <p>Make note of patients exposed to secondhand smoke.</p>

ADVISE	
Action	Strategies for Implementation
<p>In a <b>clear, strong</b> and <b>personalized</b> manner, <b>advise</b> every tobacco user to quit.</p>	<p><b>Clear:</b> “As your provider, I want to offer you some education about tobacco use and encourage you to consider quitting today.”</p> <p><b>Strong:</b> “As your provider, I need you to know that quitting smoking is the most important thing you can do to protect your health now and in the future.”</p> <p><b>Personalized:</b> Tie tobacco use to current health/illness, its social and economic costs, motivation level/readiness to quit, and/or the impact of tobacco use on children and others in the household.</p>
<p>Be mindful to advise in a non-judgmental manner.</p>	<p>Guide them towards quitting by providing options and use empathy.</p>

ASSESS	
Action	Strategies for Implementation
<p><b>Assess</b> willingness to make a quit attempt within the next 30 days.</p> <p>Determine with patients the costs and benefits of using tobacco.</p> <p>Determine where each patient is in terms of the readiness to change model.</p>	<p>Assess readiness for change using <a href="#">motivational interviewing strategies</a>.</p> <p>If the individual is ready to quit, proceed to Assist and/or Arrange for more intensive tobacco cessation services.</p> <p>If the person will participate in an intensive treatment, deliver such a treatment or refer to an intensive intervention (Arrange).</p> <p>If the person is not yet ready to quit, don't give up. Providers can give effective motivational interventions that keep a patient thinking about quitting. Conduct a motivational intervention that helps patients identify quitting as personally relevant and repeat motivational interventions at <b>every</b> visit.</p> <p>For addressing tobacco cessation with tobacco users not ready to quit, please use the 5 R's (relevance, risks, rewards, roadblocks, and repetition).</p>
<p><b>Assess</b> past quit attempts and past withdrawal symptoms for patients wanting to quit.</p>	<p>For the <b>individual who is ready to quit</b>:</p> <p>Obtain a smoking history and assess experience with previous quit attempts:</p> <ul style="list-style-type: none"> <li>• Explore reasons for quitting.</li> <li>• Any change in functioning when they tried to stop?</li> <li>• Cause of relapse (was this due to withdrawal symptoms or other consequences to quitting-weight gain, relationship loss, etc.?).</li> <li>• How long did the person remain abstinent?</li> <li>• Prior cessation treatment in terms of type, adequacy (dose, duration), compliance and individual's perception of effectiveness.</li> <li>• Expectations about future attempts and treatments.</li> </ul> <p>Increasing readiness/motivation: If a person is <b>not ready to make a quit attempt</b>, enhance motivation and deal with anticipated barriers to cessation.</p> <p>List pros/cons of smoking and quitting. See the <a href="#">Decisional Worksheet</a> at the end of this section.</p> <p>Increase monitoring of tobacco use.</p> <p>Help the person understand current motivation and barriers.</p> <p>Address potential fears of withdrawal symptoms or consequences of quitting.</p> <p><b>Additional assessment may be needed for individuals who have a co-occurring psychiatric diagnosis.</b> See our <a href="#">Priority Populations supplement</a>.</p>

## Motivational Interviewing Questions/Techniques to Help in the ASSESS Phase<sup>20</sup>

### Example Questions:

- “What do you want to know about tobacco use?”
- “What concerns do you have about quitting?”
- “What are you thinking about your tobacco use at this point?”
- “What would be a first step for you?”
- “There are several options for tobacco cessation treatment. What are your questions about treatment?”
- “If you did quit tobacco, what would be some of the benefits?”
- “What might it take for you to make a decision to stop using tobacco?”
- “Suppose you continue using tobacco. What do you think might happen in 5 years?”
- “When you tried quitting in the past, what was the biggest barrier to staying quit?”
- “What is your biggest fear about quitting?”
- “What is your biggest fear about continuing your tobacco use?”

ASSIST	
Action	Strategies for Implementation
Help the person with their plan to quit.	<p><b>Set a quit date</b>, ideally within two weeks.</p> <p><b>Tell</b> family, friends and coworkers about quitting and request understanding and support.</p> <p><b>Anticipate</b> triggers or challenges to planned quit attempts, particularly during the critical first few weeks, including how to manage nicotine withdrawal symptoms. Discuss how the individual will successfully overcome these triggers or challenges.</p> <p><b>Remove</b> tobacco products from the environment. Prior to quitting, patients should avoid smoking in places where they spend a lot of time (e.g. work, home, car).</p> <p>For patients with cognitive difficulties (e.g. memory or attention deficits) due to age, traumatic brain injury, or mental illness have them write down their quit plan, so they can refer to it later.</p>
Recommend use of approved nicotine replacement therapy (NRT) and/or other appropriate medications in combination with counseling or behavior therapies.	<p>Recommend the use of NRT and/or other medications to increase cessation success.</p> <p>Discuss options for addressing behavioral changes (e.g. cessation classes, individual counseling, telephone coaching from your state’s quitline).</p> <p>Reinforce that their decision to quit is a positive step towards wellness.</p>

ARRANGE	
Action	Strategies for Implementation
Schedule follow-up contact.	<p><b>Timing.</b> Follow up contact should occur soon after the quit date, preferably within the first week. A second follow-up contact is recommended within the first month. Schedule further follow-up contacts as needed.</p> <p>Actions during follow-up contact:</p> <p><b>Congratulate success!</b></p> <p>If the person has relapsed, explore what happened by returning to motivational interviewing assessment tools. (See the <a href="#">Maintenance</a> section of this toolkit.) Explore what they will need moving forward and prepare them to try again.</p> <ul style="list-style-type: none"> <li>• Remind patient that relapses are useful learning experiences.</li> <li>• Identify supports and challenges to being tobacco-free in the immediate future.</li> <li>• Assess NRT/medication.</li> <li>• Consider use or referral to more intensive treatment.</li> <li>• <b>Give positive feedback about the patient’s progress towards quitting.</b></li> </ul> <p><b>Individuals often cut down substantially on their tobacco use before quitting, and this harm reduction needs to be recognized and congratulated.</b></p>



## The 5 R's: Addressing Tobacco Cessation for Individuals Not Yet Ready to Quit

(Adapted from *Treating Tobacco Use and Dependence. Quick Reference Guide for Clinicians, October 2000. U.S. Public Health Service. [www.ahrq.gov/professionals/clinicians-providers/guidelines-recommendations/tobacco/clinicians/treating\\_tobacco\\_use08.pdf](http://www.ahrq.gov/professionals/clinicians-providers/guidelines-recommendations/tobacco/clinicians/treating_tobacco_use08.pdf)*)

The “5 R's” **Relevance, Risks, Rewards, Roadblocks** and **Repetition**, are designed to motivate people using tobacco who are not currently ready to quit. Individuals may not be ready to quit due to misinformation, concern about the effects of quitting or demoralization because of previous unsuccessful quit attempts. Therefore, after asking about tobacco use, advising the person to quit and assessing the willingness of the person to quit, it is important to use the “5 R's” motivational intervention.

### Relevance

Encourage the individual to explore why quitting is personally relevant. Some information that is particularly relevant to many patients is their medical status or risk, family or social situation (e.g., having children in the home), health concerns, age, gender and other important patient characteristics (e.g., prior quitting experience, personal barriers to cessation).

### Risks

Ask the individual to identify potential negative consequences of tobacco use. Suggest and highlight those that seem most relevant to them. Emphasize that smoking low-tar/low-nicotine cigarettes or use of other forms of tobacco (e.g., smokeless tobacco, cigars, pipes, and e-cigarettes) will not eliminate these risks.

#### Example Questions Regarding Risk:

“Tell me about any negative consequences you experience due to your tobacco use.”  
 “What do you dislike about your tobacco use?”  
 “Tell me about any anxiety or concerns you have about continuing to use tobacco?”  
 “Are you being pressured to quit by others? Who is pressuring you? How do you feel about it?”

### Rewards

Ask the patient to identify potential benefits of stopping tobacco use. Suggest and highlight those that seem most relevant to the person.

#### Examples of Rewards:

- Improved health
- Food tastes better
- Improved sense of smell
- Money saved
- Better self-image
- Home, car, clothing, breath smell better
- No more worrying about quitting
- Set a good example for children
- Have healthier babies and children
- No more worrying about exposing others (including pets) to smoke
- Feel better physically
- Perform better in physical activities
- Reduce wrinkling/aging of skin

## Roadblocks

Ask the patient to identify challenges to quitting and note elements of treatment (problem solving, medications) that could address these challenges. Brainstorm with individuals how to resolve these obstacles and **remember that it is best to use solutions created by the person who will use them.**

### Challenges May Include:

- Withdrawal symptoms
- Fear of failure
- Weight gain
- Lack of support
- Depression
- Enjoyment of tobacco
- Loss of relationships/social engagements
- Lack of coping skills to manage emotion
- Fear of increased anxiety

## Repetition

Repeat motivational interventions with patients at every clinic visit. Individuals who relapse need encouragement to make repeated quit attempts. As people practice being tobacco-free, they will learn new skills and strategies to stay tobacco-free for the long-term. It is important to emphasize that living tobacco-free is a learning process. Encouragement from providers offers needed support through this process.

PRACTICAL HELP: Review [Listen for Change Talk](#) in the Assessment Section and [Examples of Motivational Interviewing Techniques](#) above. It may be useful to use the [Decisional Worksheet](#) at the end of this section.

## Cultural Considerations

Research over many decades has demonstrated that specific populations experience health disparities and are at greater risk for chronic disease and premature mortality simply due to their economic status and/or racial/ethnic group. Tobacco use is another area in which income, race, and ethnicity has a significant impact. Individuals in the United States with an income of \$15,000 or less smoke at nearly three times the rate of those with incomes of \$50,000 or greater.<sup>21</sup>

Key findings from the Surgeon General's report: 1998 Surgeon General's Report, Tobacco Use Among U.S. Racial/Ethnic Minority Groups indicate that in the four racial/ethnic groups studied (African American, American Indian/Alaska Native, Asian American/Pacific Islander and Hispanic), African American men bear one of the greatest health burdens, with death rates from lung cancer that are 50 percent higher than those of Caucasian men. Rates of tobacco-related cancers (other than lung cancer) vary widely among members of different racial/ethnic groups. They are particularly high among African American men.

Tobacco use among adolescents from racial and ethnic minority groups has begun to increase rapidly, threatening to reverse the progress made against lung cancer among adults in these racial/ethnic groups. Cigarette smoking among African American teens has increased 80 percent over the last six years—three times as fast as among white teens.

The high level of tobacco product advertising in racial/ethnic publications is problematic because the editors and publishers of these publications may limit the level of tobacco use prevention and health promotion information included in their publications.

Part of the problem has been access to treatment and specific tobacco cessation programming for people of color and/or low socio-economic status.

### Focus on Youth—Now is the Time to Engage Youth

- Approximately 3,500 young people try a cigarette for the first time each day and nearly 1,000 become daily smokers.<sup>22</sup>
- 80% of adult smokers tried their first cigarette before they turned 18.<sup>23</sup>
- Approximately 1/3 of youth smokers will eventually die from a tobacco-related disease.<sup>24</sup>
- Cessation and prevention work with youth: Smoking rates among youth dropped considerably from 1997 to 2004—due to increased utilization of evidence-based practices nationwide. However, this trend is slowing, demonstrating need for continued focus on youth.

## Recommendations

Research demonstrates that tailoring healthcare initiatives to account for the culture of individuals in need of treatment improves effectiveness of programming.<sup>25</sup>

- Offer tobacco cessation treatment and resources to everyone.
- Provide information about treatment options. Work with each individual to find treatment choices that fit for the individual's cultural background.
- ASK questions and EMPOWER people to make a choice to quit. Avoid making assumptions about someone's culture and barriers to quitting.
- Hire culturally competent staff.
- Provide staff training in cultural competence and cultural tailoring of treatment approaches. Cultural tailoring refers to anticipating and planning for the needs, preferences or circumstances of particular cultural groups.<sup>26</sup>
- Screen **every** youth for tobacco use and offer cessation treatment, if needed. If they are not using tobacco, provide support and education regarding the importance of avoiding tobacco use.

## Resources

For more information about tobacco use and intervention for racial/ethnic populations, please see the following online resources:

Colorado Tobacco Disparities Strategic Planning Working Group:  
[www.ttac.org/tcn/state\\_info/pdfs/Colorado\\_Disparities\\_Strategic\\_Plan.pdf](http://www.ttac.org/tcn/state_info/pdfs/Colorado_Disparities_Strategic_Plan.pdf)

Surgeon General's Report, Tobacco Use Among U.S. Racial/Ethnic Minority Groups:  
[www.cdc.gov/tobacco/data\\_statistics/sgr/sgr\\_1998/index.htm](http://www.cdc.gov/tobacco/data_statistics/sgr/sgr_1998/index.htm)

Center for Disease Control Report: Adult Tobacco Use Among Racial and Ethnic Groups Living in the United States, 2002-2005.  
[www.cdc.gov/pcd/issues/2008/jul/pdf/07\\_0116.pdf](http://www.cdc.gov/pcd/issues/2008/jul/pdf/07_0116.pdf)

American Legacy Foundation. Priority Populations Initiative: Breaking New Ground and Building Capacity in Cultural Training.  
[www.legacyforhealth.org/content/download/687/7898/version/2/file/Priority\\_Populations\\_Initiative- Breaking New Ground and Building Capacity in Cultural Tailoring.pdf](http://www.legacyforhealth.org/content/download/687/7898/version/2/file/Priority_Populations_Initiative- Breaking New Ground and Building Capacity in Cultural Tailoring.pdf)

Agency for Healthcare Research and Quality (AHRQ). Treating Tobacco Use and Dependence-Clinical Practice Guideline-Racial and Ethnic Populations.  
[www.ahrq.gov/professionals/clinicians-providers/guidelines-recommendations/tobacco/racial.pdf](http://www.ahrq.gov/professionals/clinicians-providers/guidelines-recommendations/tobacco/racial.pdf)

American Legacy Foundation. Tobacco Control in LGBT Communities Report. [www.legacyforhealth.org/our-issues/cessation](http://www.legacyforhealth.org/our-issues/cessation)



# Clinic Screening for Tobacco Use

From the U.S. Department of Health & Human Services

[www.ahrq.gov/professionals/clinicians-providers/guidelines-recommendations/tobacco/clinicians/treating\\_tobacco\\_use08.pdf4](http://www.ahrq.gov/professionals/clinicians-providers/guidelines-recommendations/tobacco/clinicians/treating_tobacco_use08.pdf4)

ACTION	STRATEGIES for IMPLEMENTATION
Implement an office-wide system that ensures that for every patient at every clinic visit, tobacco-use status is queried and documented.	Expand vital signs to include tobacco use or use an alternative universal identification system.
<p><b>VITAL SIGNS</b></p> <p>Blood Pressure: _____</p> <p>Pulse: _____ Weight: _____</p> <p>Temperature: _____ Respiratory Rate: _____</p> <p>Tobacco Use (circle one):    Current    Former    Never</p>	

Repeated assessment is not necessary in the case of the adult who has never used tobacco or has not used tobacco for many years, and for whom this information is clearly documented in the medical record.

Alternatives to expanding the vital signs are to place tobacco-use status stickers on all patient charts or to indicate tobacco-use status using electronic medical records or computer reminder systems.

## FAX-TO-QUIT REFERRAL FORM

Date \_\_\_\_\_



Use this form to refer patients who are ready to quit tobacco in the next 30 days to the Colorado QuitLine.

### PROVIDER(S): Complete this section

Provider name	Contact name
Clinic/Hosp/Dept	E-mail
Address	Phone ( ) -
City/State/Zip	Fax ( ) -

**PLEASE INDICATE IF THE PATIENT HAS MEDICAID:**  YES  NO

If yes, and you are prescribing tobacco cessation medication, please complete the Medicaid prior-authorization form on the back of this form and provide patient with a prescription. All FDA-approved tobacco cessation medications are available.

Does patient have any of the following conditions?

pregnant  uncontrolled high blood pressure  heart disease

**YES**, I authorize the QuitLine to send the patient over-the-counter nicotine replacement therapy.

#### Provider signature

A provider signature is required to authorize the QuitLine to dispense nicotine replacement therapy for patients with any of the above conditions.

Comments \_\_\_\_\_

### PATIENT: Complete this section

\_\_\_\_\_  
*Initial* Yes, I am ready to quit and ask that a QuitLine coach call me. I understand that the Colorado QuitLine will inform my provider about my participation.

Best times to call?  morning  afternoon  evening  weekend

May we leave a message?  Yes  No

Are you hearing impaired and need assistance?  Yes  No

Insurance?  Yes  No

Insurance carrier: \_\_\_\_\_

Member ID: \_\_\_\_\_

Medicaid?  Yes  No

Date of birth: / / Gender  M  F

Patient name (Last) (First)

Address City CO

Zip code E-mail

Phone #1 ( ) - Phone #2 ( ) -

Language  English  Spanish  Other \_\_\_\_\_

**Patient signature**

Date

### PLEASE FAX THIS PATIENT FAX REFERRAL FORM TO: 1-800-261-6259

Or mail to: Colorado QuitLine, National Jewish Health, 1400 Jackson St., M305, Denver, CO 80206

**Confidentiality Notice:** This facsimile contains confidential information. If you have received this in error, please notify the sender immediately by telephone and confidentially dispose of the material. Do not review, disclose, copy or distribute.

# Decisional Worksheet

Things I like about smoking

Things I don't like about smoking

Things I would dislike about quitting

Things I would like about quitting

Reasons to stay the same

Reasons for making a change

# End Notes

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- <sup>11</sup> Deci, E. L. & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York, NY: Plenum Press.
- <sup>12</sup> Williams, G. C., McGregor, H. A., Sharp, D., Levesque, C., Kouides, R. W., Ryan, R. M., & Deci, E. L. (2006). Testing a self-determination theory intervention for motivating tobacco cessation: Supporting autonomy and competence in a clinical trial. *Health Psychology*, *25*(1), 91-101.
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- <sup>14</sup> Miller, W. R. & Rollnick, S. (2002). *Motivational interviewing: Preparing people for change, 2nd ed.* New York, NY: Guilford Press.
- <sup>15</sup> Miller, W. R. & Rollnick, S. (2002). *Motivational interviewing: Preparing people for change, 2nd ed.* New York, NY: Guilford Press.
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- <sup>22</sup> American Legacy Foundation. Priority Populations Initiative: Breaking new group and building capacity in cultural training.
- <sup>23</sup> American Legacy Foundation. Priority Populations Initiative: Breaking new group and building capacity in cultural training.
- <sup>24</sup> American Legacy Foundation. Priority Populations Initiative: Breaking new group and building capacity in cultural training.
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- <sup>26</sup> American Legacy Foundation. Priority Populations Initiative: Breaking new group and building capacity in cultural training.



# Tobacco Cessation Treatment

Patients are unique and therefore will need individually tailored treatments to support them to become tobacco-free. There are many different options for tobacco cessation; however, the most effective approach combines elements of numerous treatment strategies. These strategies include:

- Medication focused on decreasing physical withdrawal symptoms;
- Behavioral treatments focused on changing an individual's habit of using tobacco;
- Supportive education about the physical, psychological, and social costs of tobacco use;
- Referral to tobacco cessation resources and supports (e.g., quitlines, etc.).

The research in each of these areas is briefly reviewed below. However, a few key points for this section:

- It is important to offer treatment to everyone and to continue to offer treatment repeatedly over time as a person's readiness to quit can change quickly.
- Treatments that include all three components (physical, behavioral, and supportive) are the most effective. Providing education and choices about different treatment approaches is essential.



## Key Findings

- Treatments that combine medications with behavioral interventions have the best rates of treatment acceptance and cessation.<sup>1</sup>
- Most medications for smoking cessation approximately double the cessation rates at six months.<sup>2</sup>
- Combined therapies (use of two or more tobacco cessation medications) are more effective. 33-37% abstinences rates versus 19-26% with a single medication.<sup>3</sup>
- Starting nicotine replacement therapy two or more weeks prior to the quit date can be beneficial.<sup>4</sup>
- Long-term abstinence from tobacco may require treatments that are extended in nature and designed to address a chronic-disease model rather than a short-term acute illness, particularly for individuals dependent on tobacco.<sup>5</sup>



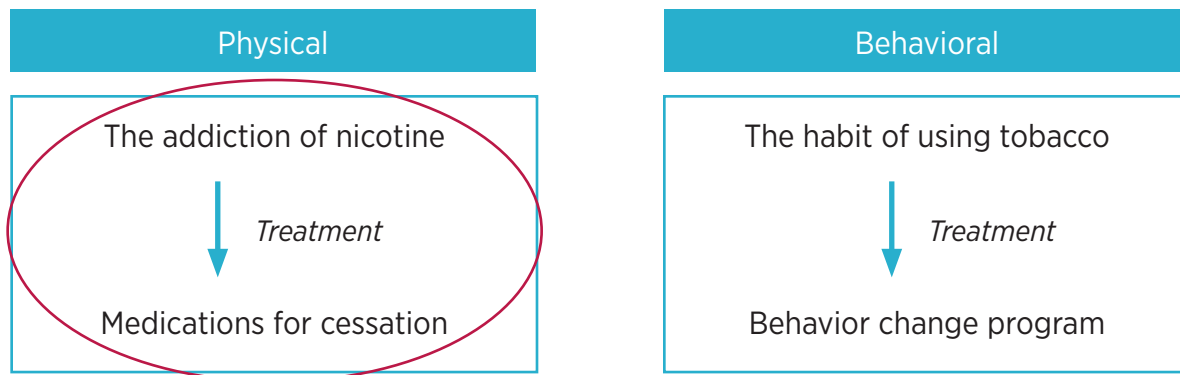
### It is NEVER TOO LATE to Quit<sup>6</sup>

Quitting at ANY Age Buys Years of Life:	
Quit Age	Years of Life Gained
25-34	10 years
35-44	9 years
45-54	6 years
55-64	4 years

# Components of Successful Intensive Intervention Programs

## Physical Treatments

**Tobacco dependence has two parts:**



**Treatment should address both the addiction and the habit.**

Tobacco cessation medications assist with tobacco cessation in numerous ways:

- Provides relief for nicotine cravings and withdrawal symptoms;<sup>7</sup>
- Allows the individual to continue to experience stress release and increased arousal without the harmful chemicals in tobacco products;<sup>8</sup>
- Allows individuals to focus on changing behaviors related to tobacco use;
- Improves chances of a successful quit attempt.

**Q:** “My patient refuses medication and behavioral interventions, but they want to try Alternative Therapies (e.g., acupuncture). Is this a good idea?”

**A:** In a recent review in the American Journal of Medicine, the authors suggest there is evidence that acupuncture and hypnotherapy may help people stop tobacco use; however, this research is limited.<sup>9</sup>

The most important recommendation is to engage patients at their level of readiness to change and listen to their preferences. Continued education and options for the patient are encouraged.



## Medications Approved by the Food and Drug Administration (FDA) for Tobacco Cessation

Nicotine Gum	No Prescription
Nicotine lozenge	No Prescription
Nicotine patch	No Prescription (some prescription versions)
Nicotine nasal spray	Prescription Required
Nicotine inhaler	Prescription Required
Bupropion SR tablets	Prescription Required
Varenicline tablets	Prescription Required

For more information about FDA-approved medications, including precautions and dosage, please see pharmacotherapy section of this American Academy of Family Physicians website page:

[http://www.aafp.org/online/etc/medialib/aafp\\_org/documents/clinical/pub\\_health/askact/prescribguidelines.Par.0001.File.tmp/PRESCRIBINGGUIDE2010.pdf](http://www.aafp.org/online/etc/medialib/aafp_org/documents/clinical/pub_health/askact/prescribguidelines.Par.0001.File.tmp/PRESCRIBINGGUIDE2010.pdf)

**\*Additional Precaution:** Special consideration should be given to the potential impact of prescribing bupropion to individuals with bipolar disorder, schizophrenia or schizoaffective disorder given the potential risk of worsening neuropsychiatric symptoms such as mania or psychosis.

## Findings on Tobacco Cessation Medications:

- A meta-analysis of 83 studies found that most tobacco cessation medications approximately doubled the chance of successful cessation.<sup>10</sup>
- There is evidence that varenicline can help people give up smokeless tobacco.<sup>11</sup>
- There is also some evidence that use of bupropion mediates weight gain during a quit attempt.<sup>12</sup>
- Quit rates for individuals who use some form of cessation medication are higher than for those individuals who do not use medication.<sup>13,14,15</sup>
- The most effective duration of tobacco cessation medication is not known. Some individuals benefit from and may need long-term use of medications (e.g.,  $\geq 6$  months), but almost all individuals eventually stop using cessation medications. Thus, patient preference should be the major determinate for the duration of tobacco cessation medication use.<sup>16</sup>
- Both Nortriptyline and Clonidine patch have an evidence-base for cessation, but do not have FDA indications for tobacco cessation.<sup>17</sup>

## Use of Tobacco Cessation Medications Prior to Quit Date

Pre-cessation nicotine replacement (providing replacement therapy prior to the quit date) has been shown to be effective for tobacco cessation. In fact, individuals who used the patch prior to quitting were **twice as likely** to have maintained their abstinence as those who initiated the patch on their quit date.<sup>18,19</sup> The use of pre-cessation NRT has not demonstrated significant differences in side effects.<sup>20,21</sup>

## What Do You Need to Know About E-Cigarettes?

- Electronic cigarettes (e-cigarettes or e-cigs) are battery powered devices designed to look and feel like a cigarette in terms of shape, size, and appearance. They vaporize a solution containing nicotine that is inhaled. Patients may refer to use as “vaping.”<sup>22,23</sup> In reality, e-cigarettes have more in common with pipes, multi-dose inhalers, and nebulizers.<sup>24</sup>
- Varying levels of nicotine are dispensed; however, cartridges for the devices generally contain 20 mg of nicotine.<sup>25</sup> The typical cigarette contains 1 to 2 mg of nicotine.<sup>26</sup> E-cig product variation can make it difficult to determine the actual amount of nicotine a person is using. In addition, refill kits can contain as much as 1 gram of nicotine and there is concern that many refill kits could be lethal to young children and/or adults if ingested at once,<sup>27,28</sup> or if they allow consumers to fill used cartridges with replacement solution at higher doses than they originally contained.<sup>29</sup>
- The fact that they come in flavors (e.g., vanilla, piña colada) and do not have some of the negatives of regular cigarettes raises concerns about the product’s appeal to young adults and other nonsmokers, especially due to the mistaken belief that they are harmless.<sup>30,31</sup>
- There is **minimal information about the long term effects of e-cigarette use** or how other chemicals (e.g., Propylene glycol added to make it look like real smoke) in the solutions affect health.<sup>32</sup>
- Initial research shows that often consumers initiate use of e-cigarettes because they believe it is less harmful, because they want to try to reduce their nicotine use,<sup>33,34</sup> or both.<sup>35</sup> Individuals may also use them because it allows nicotine use in places where traditional cigarettes are banned.<sup>36</sup> Although some consumers report that e-cigarettes assisted in reduction of tobacco use,<sup>37</sup> **there is no evidence that they are safe or that they assist in tobacco cessation.**

## What Should You Tell Patients About E-Cigarette Use

1. **E-cigarettes are not approved for tobacco cessation and there is no evidence that they are less harmful.**<sup>38</sup> The fact that the chemical base and nicotine levels are unknown raises the possibility that they may be harmful.
2. There is early evidence that **use of e-cigarettes may negatively impact tobacco abstinence.**<sup>39</sup>
3. The vapors from e-cigarettes are complex mixtures of chemicals, and not pure nicotine.
4. Bans on e-cigarette use in public places are growing.
5. For Youth: There are numerous risks associated with e-cigarette use and it is not a safe option for nicotine use. The lack of clarity regarding other chemicals included and nicotine levels make the long-term risk of use unknown, which is concerning.
6. **There are safe and effective FDA-approved nicotine replacement therapies available.** Let’s review those options.
7. There are many unknowns with e-cigarettes. There have been **a few incidents of the e-cigarettes exploding** and causing significant harm (e.g., knocking out teeth and removing parts of a tongue).
8. If you are using e-cigarettes, **secure nicotine cartridges from children and pets as they could be fatal if ingested.**

## Combination Treatments

The use of two or more forms of tobacco cessation medications can improve cessation rates.



## Findings on Combination Therapies

Researchers found **cessation rates were higher when they used combination therapy**, compared to using only ONE medication at a time.<sup>40,41,42</sup>

- A study examining the effectiveness of combination nicotine replacement therapy, with the patch and inhaler, found **cessation rates at all stages were higher in people who used a combination therapy**.<sup>43</sup>
- Quit rates at 3-months were 84% with combination therapy versus 62% with a single form of medication; Quit rates at 12-months were 40% with combination therapy versus 28% with a single form of medication.<sup>44</sup>
- Researchers found using bupropion in combination with the gum or lozenge was more effective in cessation rates as compared to either used alone.<sup>45,46</sup>

In 2008, the U.S. Department of Health & Human Services Agency for Healthcare Research and Quality **updated their medication recommendations guidelines to include combination therapy**.<sup>47</sup> Their recommendations are:

- Nicotine patch along with the nicotine gum, nicotine lozenge, nicotine nasal spray or nicotine inhaler;
- Or the nicotine patch and bupropion SR.

## Resources for Nicotine Replacement Therapy Updates

U.S. Food and Drug Administration:  
[www.fda.gov/ForConsumers/ConsumerUpdates/ucm345087.htm](http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm345087.htm)

Medline Plus—U.S. National Library of Medicine and National Institutes of Health  
[www.nlm.nih.gov/medlineplus/ency/article/007438.htm](http://www.nlm.nih.gov/medlineplus/ency/article/007438.htm)

## Behavioral Treatments

Once the individual's readiness for change has been assessed and motivational interviewing techniques have assisted in identifying unique concerns, it is time to provide behavioral treatment options in addition to medication therapies. There is consistent evidence that more intensive counseling, which includes longer duration sessions (more than 20 minutes), and higher numbers of counseling sessions relates to increased abstinence from smoking.<sup>48</sup>

### MEDICATIONS + BEHAVIORAL THERAPIES = GREATER CESSATION RATES

People can be more successful in quitting if they see quitting as a learning process. Every person who uses tobacco had to learn how to use tobacco. Quitting is learning how to live tobacco-free. People tend to be more successful if they *prepare and plan*. Many people who are trying to quit decide to “try” to quit one day and see what happens, because they think they can simply “make” themselves quit using tobacco.

Ultimately, an important component of successful quitting is changing behavior in a few important ways. First, it requires individuals to **stop a behavior**—the use of tobacco, which is a significant habit and activity throughout their day. Second, individuals need to develop coping skills for managing cravings from nicotine withdrawal. This may mean avoiding situations, places, or even people who represent a cue for tobacco use. It may also mean learning alternative methods to manage the craving while avoiding tobacco use. These are cognitive

and behavioral changes—individuals must *do* something different through their thinking or behavior. Third, individuals must find alternative coping skills and behaviors for use during times when they would normally use tobacco, such as, when they are bored or stressed.

Healthcare providers need to understand that the behavioral interventions are key to these changes and they need to:

- Engage in behavioral treatments with their patients;
- Encourage participation in a variety of behavioral treatments;
- Refer individuals to behavioral treatment alternatives available to them;
- Support the individual's process and behavioral changes long-term;
- Monitor the pharmacotherapies effectiveness and side effects.



For information on changes to tobacco cessation with the Affordable Care Act, visit these pages on the American Lung Association website.

[www.lung.org/stop-smoking/tobacco-control-advocacy/reports-resources/tobacco-cessation-affordable-care-act/](http://www.lung.org/stop-smoking/tobacco-control-advocacy/reports-resources/tobacco-cessation-affordable-care-act/)

[www.lung.org/get-involved/advocate/advocacy-documents/ehb-reg-partners-comments-12-26-12.pdf](http://www.lung.org/get-involved/advocate/advocacy-documents/ehb-reg-partners-comments-12-26-12.pdf)

## Types of Behavioral Interventions

The following information about behavioral interventions can be used to increase patient understanding about how these interventions can support their process of tobacco cessation. This information is an introduction to the various forms of behavioral treatments as a starting point for discussion with patients.

### Motivational Interviewing

Motivational interviewing techniques are essential to tobacco cessation efforts. Providers should carefully read the [Assessment and Planning for Change section](#) of this toolkit to review motivational interviewing techniques. The use of these tools is important as you assess an individual's readiness for change and throughout the treatment phase of care. A meta-analysis found that motivational interviewing increased 6-month cessation rates by approximately 30% compared to brief advice or treatment as usual. Cessation rates are higher when sessions are longer (more than 20 minutes) and occur more than once.<sup>49</sup>

It is essential for providers to support tobacco cessation by understanding, enhancing and supporting each patient's unique motivations and commitment to change. Using the four principles of motivational interviewing in all interactions with patients can improve rapport and empower individuals to make changes in their lives. The [Four Principles of Motivational Interviewing](#) are Express Empathy, Develop Discrepancy, Roll with Resistance, and Support Self-Efficacy.



## Mindfulness

The practice of mindfulness comes from Eastern philosophy and religion. “Mindfulness is the awareness that emerges through paying attention on purpose, in the present moment, and non-judgmentally to things as they are.”<sup>50</sup> With practice, individuals can use mindfulness to focus on the present moment (not the past or the future) and to view thoughts as passing mental events. These skills can be important for individuals changing behavior such as tobacco use for numerous reasons:

1. Mindfulness can allow an individual to be more aware of the moment and make changes in behavior that may be needed.

*Example:* Mindfulness may assist people to be aware that watching a particular television show is likely a trigger to use tobacco; therefore, they may want to avoid that show.

2. Mindfulness can improve an individual’s ability to tolerate an unpleasant mental state knowing that it will pass.

*Example:* Mindfulness may allow an individual who recently quit using tobacco to be aware of a craving for tobacco and resist the urge with the knowledge that the craving will end within a brief time frame.

3. Mindfulness can improve an individual’s ability to live in the present moment. Being present in the moment can assist individuals who have recently quit using tobacco to avoid thoughts of the past that included tobacco use or focusing on the future and how hard it will be to remain tobacco-free. The present moment is all that requires focus. This may also assist in enjoying pleasures in the moment and take attention away from thoughts of tobacco use.

There is preliminary evidence that even brief instruction in mindfulness-based techniques for coping with urges can assist individuals in “urge surfing.” Results indicate that the training may help change the way in which individuals respond to an urge to smoke.<sup>51</sup>

Similarly, in 2011, Brewer et al., found that individuals who received mindfulness training had an increased reduction in smoking, and these gains were maintained at a 17-week follow-up. The authors state: “practicing to ‘sit’ through difficult mind-states (including negative affect and craving) may train individuals to do the same when faced with an opportunity to smoke.”<sup>52</sup>

“Mindfulness is the awareness that emerges through paying attention on purpose, in the present moment, and non-judgmentally to things as they are.”<sup>50</sup>

## Cognitive Behavioral Treatments

Cognitive Behavioral Treatments (CBT) range in focus from activating behavior to cognitive distraction skills. Michie et al. (2011) categorized the various treatments in research as a taxonomy of four:

1. Directly addressing motivation and providing rewards for tobacco abstinence;
2. Maximizing self-regulation skills including problem solving;
3. Developing alternative activities (including use of medications for cessation);
4. Other behavior change techniques including building rapport.<sup>53</sup>

**Behavior Activation** techniques are focused on the behavioral aspects of change and thus, are an active therapy. Based on this theory, behavioral activation treatment is designed to promote the experience of positive consequences related to healthy behavior.<sup>54</sup> The hope is that the more a person experiences the positives of these behaviors, the more likely the person will continue to engage in the behavior.<sup>55</sup> With tobacco cessation, the goal is to activate other healthy behaviors rather than tobacco use (e.g., walking, engaging with others, art, etc.). The positive effect of the healthy behavior then reinforces continued healthy behavior. MacPherson et al. (2010) found that behavioral activation can be an effective intervention to promote tobacco cessation while improving depressive symptoms for individuals who are underserved and from diverse backgrounds.<sup>56</sup>

**Distraction Skills** are techniques developed to assist people in tolerating distress. These skills have been used to assist with pain management, emotional distress, and substance use treatment. Distraction techniques can be as simple as increasing the use of other pleasurable activities (e.g., watching movies, cooking, walking, art work, etc.) to learning specific ways to distract one's thinking from a specific ruminating thought.

In tobacco cessation, distraction skills can be vital to remaining focused on cessation and distracting from urges to use tobacco as well as ruminating thoughts (e.g., "This is going to be terrible" or "I'll never be able to quit"). Although research is limited regarding distraction skills in tobacco cessation, there is evidence that this brief intervention can improve distress tolerance among individuals with other drug and alcohol use disorders.<sup>57</sup>

**Acceptance and Commitment Therapy (ACT)** is a treatment focused on the behavioral aspects of CBT. The focus of treatment is on the individual's attempts to control or reduce unpleasant feelings (e.g., anxiety, sadness, cravings, etc.). The concept is that although people may find that they can avoid unpleasant sensations in the short-term (by using tobacco), this behavior does not work in the long-term. "ACT is designed to help individuals stop attempting to control or avoid unpleasant sensations or emotions (e.g., craving and withdrawal), and instead allow the things that are deeply important to them guide their behavior."<sup>58</sup> As research on ACT in various treatment settings increase, there is growing evidence of its effectiveness. A few recent studies specific to smoking cessation found that ACT contributed to abstinence rates and may have been more successful than traditional CBT interventions.<sup>59</sup> Another study found that bupropion plus functional analytic psychotherapy (FAP) and acceptance and commitment therapy (ACT) was significantly better than bupropion alone at one-year follow up with seven-day prevalence quit rates of 31.6% in the combined condition versus 17.5% in the medication alone treatment.<sup>60</sup>



**TIP:** See this useful handout for patients preparing to stop their tobacco use—[Tips for Preparing to Stop Using Tobacco](#)

## Tobacco Free Group

Another popular and effective behavioral intervention is group therapy. Groups can be facilitated by providers or trained peer advocates who have used tobacco in the past. Often these groups meet weekly (60- to 90-minutes) and participants can join at any time. The Behavioral Health and Wellness Program (BHWP) trains program facilitators to run a 6-week group and the DIMENSIONS: Tobacco Free Program at their organization. The group is designed for participants who are interested in learning information about tobacco use, tobacco cessation, and healthy living skills. The topics below cycle through the 6 weeks:

1. Session A: Creating a Plan
2. Session B: Healthy Behaviors
3. Session C: The Truth about Tobacco
4. Session D: Changing Behaviors
5. Session E: Coping with Cravings
6. Session F: Maintaining Change

To contact the Behavioral Health and Wellness Program regarding training for the DIMENSIONS: Tobacco Free Program, please call 303.724.3713 or email [bhwellness@ucdenver.edu](mailto:bhwellness@ucdenver.edu)

## Quitline

The Quitline: 1-800-Quit-Now	
<b>Services</b>	<ul style="list-style-type: none"> <li>• Quitline services are provided free-of-charge. They provide telephonic counseling, self-help materials, and referrals for additional support.</li> <li>• The service may provide nicotine replacement therapy (NRT) or other cessation medications. This differs by state.</li> <li>• Services may be available in multiple languages.</li> <li>• Health care providers should research information about quitlines in their state.</li> </ul>
<b>Results</b>	<ul style="list-style-type: none"> <li>• Quitlines are a key component to state tobacco control programs in the United States.</li> <li>• They have been proven to be effective at helping people quit use of tobacco.</li> <li>• When providers directly connect an individual to a tobacco cessation quitline, the individual is <b>13 times more likely</b> to enroll in treatment as compared to when providers simply give patients the information with encouragement to call.<sup>60</sup></li> </ul>
<b>Resources</b>	<p><a href="http://www.smokefree.gov/">www.smokefree.gov/</a>  <a href="http://www.tobaccofreekids.org/research/factsheets/pdf/0326.pdf">www.tobaccofreekids.org/research/factsheets/pdf/0326.pdf</a>  <a href="http://www.myquitpath.org">www.myquitpath.org</a>  <a href="http://www.cdc.gov/tobacco/campaign/tips/">www.cdc.gov/tobacco/campaign/tips/</a></p>



# Tips for Preparing to Stop Using Tobacco

You have decided to stop using tobacco.

Congratulations on making that first step! As you and your provider develop a plan to stop your tobacco use, there are four keys to success to keep in mind.

## 1. Get ready.

- Identify why you want to quit and work with your doctor to decide what method of quitting you will be using.
- Set a “quit day.”
- The day before your quit date, throw away all tobacco products and ashtrays, clean your clothes, car, and house to remove evidence of tobacco use.
- On your quit date, stay busy. Keep yourself distracted and change your routine as much as possible to avoid the daily triggers that remind you of using tobacco.

## 2. Get support.

- Identify friends, family, and other people who you can count on to support you through this process.
- Tell them about your plan to quit and your “quit day.”

## 3. Learn new skills and behaviors.

- Develop new habits and hobbies to replace tobacco-related activities.
- Grab gum, mints, carrots or celery, cinnamon sticks, or toothpicks when you have the urge to use tobacco.

## 4. Prepare for potential relapse.

- Think and plan ahead for times when you will be tempted to use tobacco.
- Talk with your doctor about things you can do to distract yourself to avoid tobacco use during a craving.

**Make the choice to live tobacco-free!**

# End Notes

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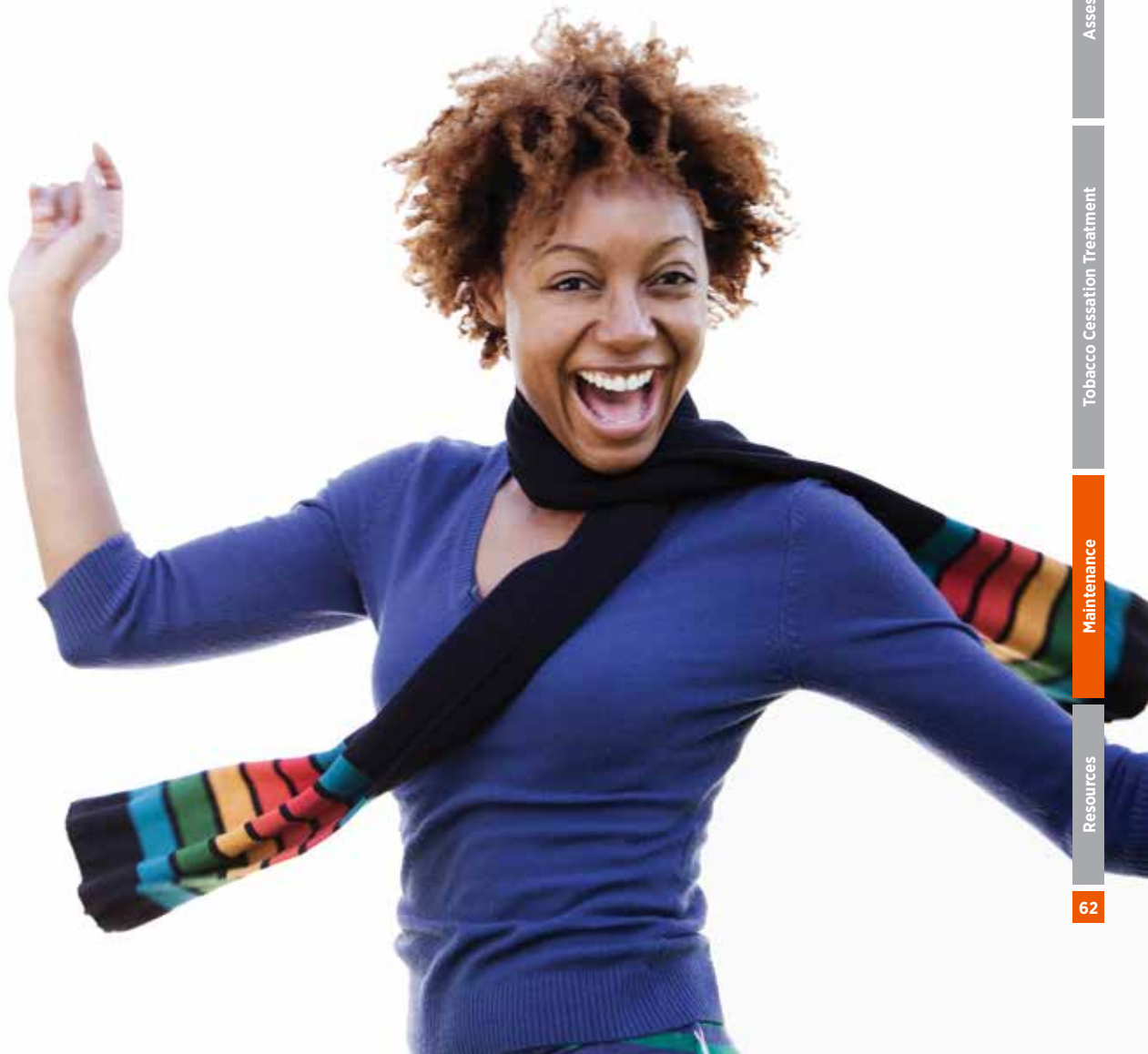
## Maintaining a Tobacco-Free Life

1. Support for Healthy Living
2. Responding to Tobacco Use
3. Intensive Support for Healthy Living

## Maintaining a Tobacco-Free Life

Although relapse can be a normal part of the tobacco cessation process, it is not inevitable. It is important for healthcare providers to maintain a positive attitude with patients about their efforts to remain tobacco-free. Healthcare professionals can provide education and assist patients in developing a strong plan for quitting that includes strategies for managing triggers, navigating challenges, and obtaining adequate support. Providers should continue to provide support and encouragement around how to live a healthy tobacco-free life throughout the tobacco cessation process and into the maintenance phase. It will be useful for providers to think about **supporting healthy living rather than preventing relapse**.

Although people can return to tobacco use at any time, most relapses occur soon after a person stops using tobacco. Helping patients to maintain a healthy lifestyle can occur at different levels of intensity depending on individual needs. Providers need to offer varying levels of support depending upon their patient's need for support.



## Support for Healthy Living

These interventions should be part of every encounter with a patient who has recently quit tobacco.

**Congratulate** every individual for taking steps towards living tobacco-free. Strongly encourage individuals to remain abstinent by engaging them in discussion on the benefits of living tobacco-free. For example, ask open-ended questions, such as **“How has stopping tobacco use helped you?”** or **“What have you enjoyed about living tobacco-free?”** In addition, continue to use the [Assessment and Planning](#) skills to assist patients with problem solving or navigating challenges to living tobacco-free. Topics may include:

- Benefits, including potential health benefits that the patient may derive from tobacco cessation.
- Success the patient has had in quitting (duration of abstinence, reduction in withdrawal, etc.). These may also include learning about treatment interventions that patients tried and found successful in managing cravings or urges to use tobacco.
- The problems encountered or challenges anticipated to maintaining abstinence (e.g., depression, weight gain, alcohol and other tobacco users in the household). As individuals raise potential challenges, use motivational interviewing techniques to explore solutions. Remember that the best solutions come from the individual who will be using them.



**TIP:** Stay engaged in cessation efforts and be present with patients through the process.

## Responding to Tobacco Use

If a patient returns to tobacco use, explore their decision to start using tobacco and assess their readiness for change. Be positive about the value of their experience. Relapse can be a valuable educational experience for individuals learning to live tobacco-free. It is an opportunity for continued growth on the journey towards abstinence. Celebrate the time the person remained tobacco-free. Then, explore the supports and challenges of maintaining a tobacco-free life. Finally, assist in the preparation and planning for the next quit attempt.

## Intensive Support for Healthy Living

If a patient is having difficulty maintaining a tobacco-free life, an intensive exploration of challenges may be needed. It may also mean that more intensive treatment or changes to the treatment approach are needed. Common problems likely to be reported by patients include:

Challenges	Suggested Interventions
<b>Lack of Support</b>	<ul style="list-style-type: none"> <li>• Schedule follow-up visits or telephone calls with the patient.</li> <li>• Help patient identify sources of support within their environments.</li> <li>• Provide or refer the patient to tobacco cessation counseling or support.</li> </ul>
<b>Negative Mood or Depression</b>	<ul style="list-style-type: none"> <li>• If significant, provide counseling, prescribe appropriate medications, or refer the patient to a specialist.</li> <li>• If not already involved, encourage patient engagement in behavioral interventions for tobacco cessation. Either provide or refer patient to this treatment.</li> </ul>
<b>Strong or Prolonged Withdrawal Symptoms</b>	<ul style="list-style-type: none"> <li>• If the patient reports prolonged craving or other withdrawal symptoms, consider extending the use of an approved pharmacotherapy or adding/combining medications to reduce strong withdrawal symptoms.</li> <li>• If not already involved, encourage patient engagement in behavioral interventions for smoking cessation. Either provide or refer patient to this treatment.</li> </ul>
<b>Weight Gain</b>	<ul style="list-style-type: none"> <li>• Recommend starting or increasing physical activity; discourage strict dieting.</li> <li>• Reassure the patient that some weight gain after quitting is common.</li> <li>• Emphasize the importance of a healthy diet.</li> <li>• Maintain the patient on pharmacotherapy known to delay weight gain (e.g., bupropion SR, nicotine-replacement pharmacotherapies, particularly nicotine gum).</li> <li>• Refer the patient to a specialist or program. Help connect the patient to additional support.</li> </ul>
<b>Reduced Motivation or Feeling Deprived</b>	<ul style="list-style-type: none"> <li>• Reassure the patient that these feelings are common.</li> <li>• Recommend rewarding activities.</li> <li>• If not already involved, encourage patient engagement in behavioral interventions for smoking cessation. Either provide or refer patient to this treatment.</li> <li>• Emphasize that periodic use of tobacco will increase urges and make quitting more difficult.</li> </ul>





# National Tobacco Cessation Resources

# National Tobacco Cessation Resources

## American Cancer Society

[www.cancer.org](http://www.cancer.org)

## American Legacy Foundation

[www.legacyforhealth.org/](http://www.legacyforhealth.org/)

## American Lung Association

[www.lung.org/stop-smoking/](http://www.lung.org/stop-smoking/)

## American Public Health Association

[www.apha.org/](http://www.apha.org/)

## Association for the Treatment of Tobacco Use and Dependence

[www.attud.org/](http://www.attud.org/)

## Center for Disease Control and Prevention-Smoking and Tobacco Use

[www.cdc.gov/tobacco/](http://www.cdc.gov/tobacco/)

[www.cdc.gov/Quitting/Tips](http://www.cdc.gov/Quitting/Tips)

## National Association of State Mental Health Program Directors

[www.nasmhpd.org/](http://www.nasmhpd.org/)

## National Institute on Drug Abuse (NIDA)

[www.drugabuse.gov/drugs-abuse/tobacco-addiction-nicotine](http://www.drugabuse.gov/drugs-abuse/tobacco-addiction-nicotine)

## Nicotine Anonymous

[www.nicotine-anonymous.org/](http://www.nicotine-anonymous.org/)

## Quitline 1-800-QUIT-NOW

[www.smokefree.gov/quitlines-faq.aspx](http://www.smokefree.gov/quitlines-faq.aspx)

## Smoking Cessation Leadership Center

<http://smokingcessationleadership.ucsf.edu/>

## Society for Research on Nicotine and Tobacco

[www.srnt.org](http://www.srnt.org)

## Tobacco Cessation Leadership Network

[www.tcln.org/](http://www.tcln.org/)

## U.S. Surgeon General

[www.surgeongeneral.gov/](http://www.surgeongeneral.gov/)

The Behavioral Health and Wellness Program's DIMENSIONS: Tobacco Free Program is designed to train peers and providers to assist people to live a tobacco-free life. The DIMENSIONS: Tobacco Free Program Advanced Techniques training supports tobacco cessation through motivational engagement strategies, group process, community referrals, and educational activities. Contact the Behavioral Health and Wellness Program at [bh.wellness@ucdenver.edu](mailto:bh.wellness@ucdenver.edu) for more information.



Behavioral Health &  
Wellness Program

University of Colorado Anschutz Medical Campus  
School of Medicine