Tobacco 101: Fact Sheets for a Foundational Knowledge in Tobacco and Cessation
# Table of Contents

**TYPES OF TOBACCO PRODUCTS**

This fact sheet provides a brief summary of the various tobacco products including each product’s nicotine content and history of advertising and social perception.

**E-CIGARETTES**

This fact sheet includes a description of the various types of e-cigarettes, how they work, potential health consequences, and use of e-cigarettes as a smoking cessation tool.

**HEALTH EFFECTS OF SMOKING TOBACCO**

Cigarettes are widely known as dangerous to one’s health. This fact sheet summarizes the most common smoking related diseases and offers explanations for the link between smoking and the various disorders.

**SHORT-TERM & LONG-TERM BENEFITS OF QUITTING**

Quitting can rapidly reverse many of the negative health effects associated with tobacco use. This fact sheet provides a brief introduction to the benefits of quitting and outlines the timeline for expected health improvements upon quitting.

**STRESS & WITHDRAWAL**

Smoking is frequently associated with stress, but not in the way you might think. This fact sheet outlines the link between stress and smoking, likely attributable to withdrawal symptoms. It also provides a rationale for how smoking can actually reduce one’s stress.

**SMOKING CESSATION WITH BEHAVIORAL HEALTH CLIENTS**

This fact sheet discusses challenges specific to smoking cessation among behavioral health clients and provides helpful strategies to address such obstacles.

**SPECIAL POPULATIONS**

Special populations include those who are smoking at higher rates than the general population, are disproportionately affected by smoking related illnesses, and/or require special considerations for cessation. This fact sheet briefly describes several special population groups, including pregnant women, individuals living with HIV, LGBT individuals, and adolescents, with respect to smoking and important considerations for cessation.

**SECOND & THIRDHAND SMOKE**

Smoking is dangerous not only to the smoker but also to those around them, in the form of secondhand and thirdhand smoke. This fact sheet describes secondhand and thirdhand smoke and associated health consequences.
SOCIAL JUSTICE

The tobacco industry is responsible for not only negative health outcomes of smoking but also several critical social justice issues. This fact sheet describes the “sins” of the tobacco industry, including smoking-related disparities, exploitation of youth, and corruption.

COSTS TO SOCIETY

Not only does smoking greatly impact the individual smoker; it also has a significant effect on society as a whole. This fact sheet discusses the major societal consequences associated with smoking, including healthcare costs, loss of workplace productivity, and environmental expenses.

TOBACCO CONTROL & POLICY

This fact sheet provides a summary of the various tobacco regulations and policies currently in place, as well as a rationale for these policies. Additionally, it discusses how to institute smoke-free policies in the home.
# Types of Tobacco Products

<table>
<thead>
<tr>
<th>Product</th>
<th>Nicotine Content</th>
<th>Advertising &amp; Perceptions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CIGARETTES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Filterless (&quot;straights&quot;)&lt;sup&gt;1, 2&lt;/sup&gt;</td>
<td>Short, strongest/most dangerous type available; entire cigarette can be inhaled, resulting in higher smoke content in smoker's body.</td>
<td>A comparison study of nicotine content in cigarettes and &quot;straights&quot; shows on average, nicotine content in unfiltered cigarettes is 13.5mg/g.</td>
</tr>
<tr>
<td>Filters&lt;sup&gt;1, 2&lt;/sup&gt;</td>
<td>Have a cotton filter, allow as much nicotine as filterless cigarettes to be inhaled, but do less harm to person's throat in terms of irritation.</td>
<td>According to a study on filter ventilation and nicotine content in tobacco, it was found that the total nicotine content was 10.2mg.</td>
</tr>
<tr>
<td>Lights&lt;sup&gt;3-5&lt;/sup&gt;</td>
<td>Have tiny holes drilled into the filter to allow air to mix with smoke. User is still inhaling nicotine, tar, and other harmful additives.</td>
<td>Conforming to a University of California, Los Angeles (UCLA) study, it was found that the nicotine content in light cigarettes lies in the range of 0.6mg – 1mg.</td>
</tr>
<tr>
<td>Ultra-lights&lt;sup&gt;4&lt;/sup&gt;</td>
<td>Have even more holes than lights, allowing more air to mix with tobacco smoke.</td>
<td>Nicotine content ranging 0.1-0.5mg.</td>
</tr>
<tr>
<td>Wides</td>
<td>Fat and short (look like a small cigar) with a shorter filter.</td>
<td>According to Camel’s advertisement, Camel Wides Cigarettes have 1.2mg of nicotine.</td>
</tr>
<tr>
<td>Menthol&lt;sup&gt;6&lt;/sup&gt;</td>
<td>Menthol is an organic compound derived from mint oils which is added to tobacco cigarettes to produce a cool feeling during inhalation.</td>
<td>According to the Federal Trade Commission Report (FTC), nicotine content is 1.37mg.</td>
</tr>
</tbody>
</table>
### Product | Nicotine Content | Advertising & Perceptions
--- | --- | ---
**CIGARS, CIGARILLOS, & LITTLE CIGARS** | | |
**Cigars**<sup>7, 8</sup> | Do not have a filter, are larger than cigarettes, and have a higher nicotine content. | Nicotine levels can range from 100-200mg. |
**Cigarillos**<sup>8</sup> | Are short cigars, are wrapped in tobacco leaves, and typically do not have a filter. They do sometimes have a tip. | • They come in different flavors, including many fruity or sweet flavors that increase their appeal among youth. |
**Little cigars**<sup>8</sup> | Are smaller and look more like a cigarette in shape and size. They are wrapped in paper containing tobacco and typically have a filter. | • Secret tobacco industry documents revealed the industry’s intention to increase popularity of little cigars as taxes and restrictions on advertisements for cigarettes increased. |
**KRETEKS & BIDIS** | | |
**Kreteks**<sup>9, 10</sup> | Are sometimes referred to as clove cigarettes, are typically imported from Indonesia, contain cloves, tobacco, and other additives. | • In a clove cigarette smoking study, nicotine content of a clove cigarette can be up to 7.4mg. |
**Bidis**<sup>9, 11</sup> | Are small, hand-rolled cigarettes comprised of tobacco wrapped in tendu or temburni leaf. They are made mostly in India and Southeast Asian countries. | • According to a comparison study of the nicotine content of bidis and conventional cigarettes, the nicotine content in bidis was typically around 21.2mg/g. |
**SMOKELESS TOBACCO** | | |
**Moist and Dry Snuff**<sup>12, 13</sup> | Comes in teabag-like pouches. Moist snuff has high nicotine content, whereas dry snuff has lower nicotine content. | • Kreteks and bidis are illegal to sell in the U.S. |
**Chewing tobacco**<sup>12, 13</sup> | Can be in twist or plug form; mostly inserted inside cheeks and called spitting tobacco. | • Youth mostly consider bidis and kreteks to be alternatives to cigarettes; however, they are not safe substitutes. |
**DISSOLVABLE TOBACCO**<sup>12, 13</sup> | | |
These are tobacco products that are placed in the mouth or on the tongue. They typically come packaged as sticks, strips, or orbs. | • Bidis are also typically flavored. |
Nicotine content: 3.9mg/g – 8.2 mg/g | These products typically have more tar, nicotine, and carbon monoxide than conventional U.S. cigarettes. |
Nicotine content in snuff ranges from 8 mg/g – 23.1mg/g. | Although initial estimates suggest these products may reduce health risks associated with typical tobacco use, they also increase interest in nicotine use, particularly among younger demographics. |
E-Cigarettes & Related Products

“E-cigarette use may surpass consumption of conventional cigarettes within the next decade (by 2023).”¹

Electronic Nicotine Delivery Systems (ENDS) encompass all electronic devices on the market today, such as e-cigarettes, e-hookahs, vape pens, etc. Initial estimates suggest e-cigarettes are the most commonly used products. They are relatively new in the U.S. (2007), and as such, the research is in its early stages and lacks longitudinal perspectives. There are many questions regarding their safety, their effects on initiation of tobacco use among youth, and their use as a cessation aid. Regardless, their use is on an exponential rise throughout the U.S. — particularly among youth, who seem to enjoy vaping competitions and the variety of flavors available. Specifically, ever use of e-cigarettes tripled among youth from 2013 to 2014, suggesting that these products are now more commonly used among youth than are tobacco products.⁷

WHAT ARE E-CIGARETTES?

E-cigarettes are battery-operated devices generally containing cartridges filled with nicotine, flavored “juice,” and other chemicals. This liquid or oil mixture is vaporized, then

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
<th>Some Brands</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disposable e-cigarette</td>
<td>Cigarette-shaped device consisting of a battery and a cartridge containing an atomizer to heat a solution (with or without nicotine). Not rechargeable or refillable and is intended to be discarded after product stops producing aerosol. Sometimes called an e-hookah.</td>
<td>NJOY</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OneJoy, Acr Disposables, Flavorvapes</td>
</tr>
<tr>
<td>Rechargeable e-cigarette</td>
<td>Cigarette-shaped device consisting of a battery that connects to an atomizer used to heat a solution typically containing nicotine. Often contains an element that regulates puff duration and/or how many puffs may be taken consecutively.</td>
<td>Blu, GreenSmoke, EonSmoke</td>
</tr>
<tr>
<td>Pen-style, medium-sized rechargeable e-cigarette</td>
<td>Larger than a cigarette, often with a higher capacity battery, may contain a prefilled cartridge or a refillable cartridge (often called a clearomizer). These devices often come with a manual switch allowing to regulate length and frequency of puffs.</td>
<td>Vapor King Storm, Totally Wicked Tornado</td>
</tr>
<tr>
<td>Tank-style, large-sized rechargeable e-cigarette</td>
<td>Much larger than a cigarette with a higher capacity battery and typically contains a large, refillable cartridge. Often contains manual switches and a battery casing for customizing battery capacity. Can be easily modified.</td>
<td>Volcano Lavatube</td>
</tr>
</tbody>
</table>

Figure 1. Examples of different electronic cigarette (e-cigarette) products. Reproduced from Grana et al.¹
WHAT IS IN THE E-CIGARETTE “JUICE”?⁴

- Nicotine (extracted from tobacco leaves)
  - Large variation in nicotine content between and within brands
  - Lethal if ingested (60mg adult; 6mg children)
- Tobacco specific nitrosamines (TSNAs) = Carcinogenic compounds
- Propylene Glycol (the vapor/fog), Glycerin, Metals, Flavorants (including Menthol and Candy/Sweet flavors)

WHAT ARE THE POTENTIAL NEGATIVE EFFECTS?⁵

- Mouth and throat irritation, and dry cough at initial use—complaints generally decrease with continuing use
- Increase in respiratory impedance and flow resistance (restricted airways) — similar to cigarette use

IS THERE SECONDHAND SMOKE WITH E-CIGARETTES?⁶

No secondhand “smoke,” but e-cigarettes produce secondhand aerosol vapor containing small amounts of potentially harmful chemicals.

- In a room of five or more e-cigarette users, nicotine and particulate matter levels are above healthy levels.

CAN E-CIGARETTES BE USED AS A CESSATION TOOL?³

What should healthcare providers say to patients about e-cigarettes for cessation?³

Most importantly, support their decision to make a quit attempt! Then, with permission, provide the following information:

- There are multiple, effective cessation aids available that have been approved by the FDA: NRT, varenicline, & bupropion!
- Free telephone quit counseling is available through 1-800-QUIT NOW.
- Although e-cigarettes are likely much less toxic than cigarette smoking, these products DO contain toxic chemicals, are NOT regulated by the FDA, and have NOT been proven to be effective cessation devices.
Health Effects of Smoking Tobacco

Tobacco use is currently the leading preventable cause of death and disease in the U.S.; however, many smokers aren’t aware of what specifically makes tobacco use dangerous. It is essential to inform patients and create widespread awareness of what happens to the body after repeated tobacco usage. This brief fact sheet was compiled from the 50th Surgeon General’s Report on Smoking,¹ and equips providers with current information and statistics on the health risks of smoking tobacco.

WHY IS SMOKING SO HARMFUL?

The dangers of smoking result from inhaling chemical compounds. Some of these chemical compounds are found in tobacco, while others are manifested when tobacco is burned.¹ Over 7,000 chemicals and chemical compounds have been found in tobacco smoke; around 70 of these have been found to cause cancer.¹

What makes smoking so harmful to the lungs?
The chemicals in cigarette smoke damage cells and tissue on the path from the mouth to the lung’s air sacs. Lung tissue is delicate and doesn’t get the chance to heal if it is constantly exposed to these chemicals, resulting in a wide range of deadly lung conditions.¹

WHAT ARE THE HEALTH EFFECTS OF SMOKING?

Smoking causes many types of cancer and leads to the development of several chronic diseases. Below is a graphic displaying all cancers and chronic diseases that have been causally linked to smoking tobacco. Those highlighted in red were released in the 50th Surgeon General’s Report.¹

¹ Surgeon General’s Report on Smoking.
CANCER

- Lung cancer is the leading cause of cancer death for both men and women. Smoking is the principal cause of lung cancer; nearly 9 out of 10 lung cancers are caused by smoking.¹
- Evidence now demonstrates that smoking is associated with colorectal cancer, the second deadliest cancer after lung cancer, as well as liver cancer.¹
- If no one in the U.S. smoked, we could prevent 1 out of every 3 cancer deaths.¹

**How does smoking cause cancer almost anywhere in the body?**

Tobacco smoke damages DNA, causing cells to grow abnormally. The toxic chemicals in tobacco smoke also weaken the body’s response to these abnormal cells, allowing them to keep growing and dividing.¹

CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)

- Nearly 8 out of 10 deaths from COPD are the result of smoking, and there is no cure for COPD.¹
- Women smokers are up to 40 times more likely to develop COPD than women who have never smoked.¹

**WHAT IS COPD?**

COPD is an incurable disease primarily caused by smoking, and it includes several underlying lung diseases, including emphysema and chronic bronchitis. COPD occurs when the airways are damaged and never completely heal, causing the lungs to lose their elastic properties. Air becomes trapped in the lungs, which complicates breathing and induces coughing. Eventually scar tissue is formed and the oxygen supply in the body diminishes. Additionally, COPD puts individuals at high risk for lung cancer, heart disease, and other serious conditions.

HEART DISEASE

- Smoking causes CVD (Cardiovascular Disease), PAD (Peripheral Arterial Disease), and CHD (Coronary Heart Disease).¹
- The global rates of CVD declined sharply in the later half of the 20th century, largely due to the reduction in smoking occurring during the same period.
  - However, CVD continues to be an epidemic; CVD is the single largest cause of death in the U.S., killing over 800,000 people a year.

**How does smoking cause heart disease?**

Smoking clogs and narrows your arteries by causing deadly plaque buildup. The toxins in tobacco smoke also damage blood vessels and block blood flow, leading to a wide range of heart diseases.¹

DIABETES MELLITUS

- The risk of developing diabetes is 30-40% higher among current smokers than among nonsmokers. The more cigarettes a person smokes, the higher their risk for diabetes.
- For those already diagnosed with diabetes, smoking can aggravate insulin resistance. Diabetics who smoke often require a larger dose of insulin to manage their diabetes as compared to diabetics who do not smoke.

**How does smoking cause diabetes?**

Research suggests that smoking disrupts glucose regulation and other metabolic processes that can ultimately lead to the development of diabetes.
Benefits of Quitting

WHY QUIT SMOKING?

Today, most people, including current smokers, can articulate some awareness that smoking or using tobacco negatively affects health. It is important to also increase awareness of the kinds of benefits that come from quitting smoking. Many immediate health benefits result from quitting smoking, which may help to encourage smokers to maintain their quit attempt. Current smokers and tobacco users need to know that regardless of their history of tobacco use, they can experience short and long term health benefits by quitting today. These same benefits have been experienced by many others before them, as evidenced by the fact that in the U.S. there is now a higher ratio of former smokers as compared to current smokers.

WHAT SHORT-TERM BENEFITS CAN YOU EXPECT?

The short-term benefits of tobacco cessation can be observed rather immediately; improvements appear within minutes to hours to weeks.²

- Abstaining from smoking can quickly lead to reductions in respiratory difficulties (e.g., coughing) and circulation problems (e.g., high blood pressure), allowing an individual to participate in different kinds of activities without any hesitations or restrictions. Increased activity further results in improvements in lung functioning and blood circulation.

- With respect to mental health, individuals who quit smoking typically report being happier, feeling healthier, and experiencing improved quality of life.

- Quitting can also help with everyday memory retention, allowing an individual to retain essential information as well as social and emotional memories.

- Because smoking can severely affect oral hygiene, quitting can lead to reduction or elimination of oral problems, teeth stains, and/or dental expenses.

- Aesthetically, quitting can quickly result in reversal of pre-mature aging (e.g., wrinkles).

- Most individuals who quit also experience immediate financial benefits by no longer purchasing tobacco.
WHAT LONG-TERM BENEFITS CAN YOU EXPECT?

- According to the National Research Council, the life expectancy of a smoker will increase after quitting. A longitudinal study in the United Kingdom found that women who quit smoking before middle age tend to live 10 years longer than those who do not quit.

- Smoking has been found to be related to the development of coronary heart disease (CHD). According to the U.S. Surgeon General’s Report (2010), after one year smoke-free, the risk of developing CHD is decreased by 50%. Fifteen years after quitting, CHD risk is the same as an individual who has never smoked.3

- According to the American Cancer Society, risks of lung, larynx, and pancreatic cancers significantly decrease 10 years after quitting.4

- As a member of the community, one can become a role model or have a positive impact on others. This can enhance his/her confidence and self-esteem over time.

WHAT IS CHD?

CHD is a heart disease that results from the buildup of plaque in the walls of coronary arteries, which provide oxygen rich blood to the heart. Chemical compounds present in tobacco damage blood cells and result in many severe life-threatening problems, including heart attacks, cardiac arrest, heart failure and potentially death.

BENEFITS OF QUITTING4
Stress & Withdrawal

Tobacco smoking has been proven to cause many harmful health effects, one of which is increased stress. While quitting is the surest way to mitigate health risks and reduce stress, many find the withdrawal period too difficult to overcome, and relapse is common. Withdrawal occurs when an individual becomes physically dependent on nicotine, and it induces many unpleasant side effects as they quit. This brief fact sheet aims to inform providers on the relationship between smoking and stress, and additionally on the nature of the withdrawal process.

HOW ARE SMOKING AND STRESS RELATED?

Although individuals who smoke often cite smoking as a “stress reliever,” smokers actually report higher rates of stress than non-smokers. This is likely a result of the recurring mood fluctuations that are associated with regular tobacco use.

- Nicotine is classified as a “stimulant” because it activates the body’s stress response, also known as the “fight-or-flight” response. Upon entering the body, nicotine causes the release of adrenaline, resulting in:
  - increased blood pressure,
  - increased heart rate, and
  - release of the stress hormone, cortisol.

HOW DOES NICOTINE WITHDRAWAL PRODUCE STRESS?

In the absence of cigarettes, individuals who smoke frequently report feelings of anxiety, stress, and low mood. While most smokers attribute relief of these feelings to cigarettes serving as a “stress reliever,” these feelings they are experiencing are actually a result of nicotine deprivation.

- Daily smokers perceive nicotine to be relaxing and stress relieving; however, as the day goes on they are usually smoking to avoid withdrawal symptoms.
- Smoking induces a restoration to “normal” after periods of nicotine deprivation between cigarettes.
- The initial boost after smoking typically lasts no more than 10 minutes, before the levels of nicotine in the body begin to decrease.
WHAT IS NICOTINE WITHDRAWAL?

Withdrawal occurs during the abstinence from or reduction in tobacco use following a period of prolonged use. The severity of withdrawal is typically dependent on quantity and frequency of past use—individuals who smoke more cigarettes per day tend to experience worse withdrawal symptoms.

What should you know about withdrawal symptoms?

Withdrawal symptoms can occur in just one hour without a cigarette. Although there is significant variability among individuals in the experience and time course of withdrawal symptoms, tobacco withdrawal typically begins with 24 hours of quitting (or cutting back), and peaks within 2-3 days. Most symptoms subside within 2-3 weeks of quitting.

Common withdrawal symptoms include:

- Irritability, frustration, anger
- Anxiety
- Depressed mood
- Difficulty concentrating
- Restlessness
- Insomnia

Individuals with mood disorders, substance use disorders, and attention-deficit/hyperactivity disorder have more severe withdrawal symptoms when quitting.

Withdrawal symptoms can also depend on the environment—smokers report fewer withdrawal symptoms while in a restricted environment (e.g., an inpatient facility, or prison) but more symptoms in their natural environment (e.g., around smokers, within sight of smoking paraphernalia).

WHAT ELSE CAN YOU EXPECT?

Other symptoms that are commonly associated with tobacco withdrawal are:

- Cravings for sweet foods
- Reduced attention
- Constipation, nausea
- Coughing
- Dizziness
- More frequent dreams/nightmares
- Weight gain (average is 4-7 lbs over 1 year)

WHAT DOES QUITTING SMOKING DO FOR STRESS?

Although overcoming the initial withdrawal period can be difficult, individuals who quit smoking report significant decreases in stress, accompanied by a decrease in irritability and negative affect. In fact, reductions in stress are reported shortly after the quit attempt despite the initial period of withdrawal.

Various research studies demonstrate that with continued abstinence, former smokers experience a steady decrease in their ratings of stress, whereas the number of stressful life events that occur during this time does not change.

Smoking cessation is associated with a reduction in stress ratings, while relapse to smoking is associated with increased feelings of stress.

Individuals who successfully remain abstinent from cigarettes report an overall improvement in well-being.
Unique Challenges for Smoking Cessation

People with substance abuse and mental health concerns consume tobacco products at a much higher rate than other groups of people. As a result, these at-risk populations are particularly vulnerable to smoking-related illness and mortality. It is important to consider unique challenges for smoking cessation among mental health and substance abuse clients.

Brief interventions have been shown to help the general public, but individuals with mental health and substance abuse problems may require more in depth discussion around smoking cessation. For example, the following topics should be addressed more intensively:

• Need for extra coping skills training around anxiety and stress
• Management of depressive moods
• Assertiveness training for refusal skills
• Increase in number of social supports
• Anger management

HOW CAN YOU PREVENT RELAPSE?

A client who has started to quit smoking should check-in with their provider often to reinforce quit attempts and prevent relapse. Discussions with a provider should include:

• Celebration of the duration of abstinence and the reduction in withdrawal symptoms
• Potential health benefits resulting from quitting (e.g., improved circulation, enhanced lung function)
• Improved concentration and sleep, and/or decreased irritability and restlessness
• Brainstorming solutions for any current issues that may threaten abstinence, including weight gain, ongoing withdrawal symptoms, and decreased motivation

WHAT CAN YOU DO TO COPE WITH TRIGGERS?

It is important to specify triggers and cues, such as “people, places, and things,” that tempt people to smoke. Triggers might be different for the specific substances abused and for the individuals involved.

You can cope with triggers by remembering the 3 A’s: Avoid, Alter, and Alternative. When people who smoke cigarettes are looking to exert “stimulus control,” they need to avoid triggering situations where smoking is more likely to occur. If the client is unable to avoid the situation, help them to alter their thoughts or behaviors related to the event. Ultimately, you want to choose alternative strategies that lead to healthier behaviors.
Examples of the 3 A’s in action include:

AVOID TRIGGERING SITUATIONS:

- You can benefit from quickly getting up from the table after a meal is complete to avoid the post-meal cigarette.
- Smoking and alcohol have been found to be strongly linked, and early quitters may have a difficult time coping with this trigger. We encourage avoiding drinking situations, while those behaviors are still closely linked together.

ALTER YOUR ROUTINE:

- Since nicotine levels are low when first waking up, alter your typical morning routine, such as drinking coffee. Instead, drink something else, like orange juice, that is not associated with smoking. You could also try drinking your coffee in a place where smoking is prohibited, such as at the kitchen table (if you have a smokefree home) or at your desk at work.

FIND ALTERNATIVES TO SMOKING:

- Many people smoke when faced with negative emotions; instead, find alternative strategies to help you cope. When stressed, rather than smoking, you could practice a deep breathing exercise, call a friend, or listen to music.

WHAT ARE HEALTHY ALTERNATIVES TO SMOKING?

An additional element to consider is the type of alternative activities available to quitters when triggered to smoke. This “counterconditioning” change strategy is effective, needs to be customized to the individual, and can be integrated into a successful smoking cessation plan.

TAKE HEALTH BREAKS:

If your treatment groups have breaks scheduled within programming, this is a strong trigger for behavioral health clients to smoke. Individuals should find an enjoyable, alternative activity that can replace smoking. Taking a 5 minute walk with a friend, eating an apple, or listening to music are all much healthier options.

CONSIDER THE ENVIRONMENT:

Clients may work in the restaurant business or other industries where cigarette smoking is rampant. Discuss with your clients various activities that are available and appealing to them that they can engage in during breaks from work.

URGE-SURFING:

Be sure to explore additional interests with your clients that can be used when cravings hit, and remind clients that most cravings are short-lived. By being able to stay strong when cravings arrive for the short-term (i.e., “riding them out”), your clients will be enjoying a longer life away from nicotine’s control.
Special Populations

MDQuit’s *Breaking the Habit in Behavioral Health (BH2)* smoking cessation intervention is targeted at individuals with mental health and/or substance use concerns. However, you will likely encounter clients who belong to other special population groups. The purpose of this fact sheet is to provide you with basic information about smoking and cessation among individuals belonging to these special populations.

PREGNANT WOMEN

**FAST FACTS:**

- Cigarette smoking during pregnancy is the most critical and preventable cause of pregnancy-related illness and death in the U.S.¹
- About 23% of women smoke during the 3 months before pregnancy, and 10% smoke during the last 3 months of pregnancy. ²
- Smoking increases risk of miscarriage, and babies born to women who smoke during pregnancy are more likely to be born premature, to have a low birth weight, and to die from Sudden Infant Death Syndrome (SIDS) than those born to women who do not smoke.²

**SPECIAL CONSIDERATIONS:**

- Women are more likely to quit smoking during pregnancy than at any other time in their lives.¹
- Although abstinence from cigarettes in early pregnancy is best, quitting smoking at ANY point during pregnancy is beneficial to both the mother and the child.¹
- During pregnancy, nicotine replacement therapy (NRT) is typically **NOT** recommended, although it may be discussed on a case-by-case basis with a physician, as NRT can reduce the risk of pregnancy-related complications in comparison to sustained smoking.¹
- Of women who quit smoking during pregnancy, **47% to 63%** return to smoking during the postpartum period, so it is critical to follow-up with new mothers to support continued abstinence.³
- As of 2015, the Maryland Tobacco Quitline (1-800-QUIT NOW) currently offers 10 free counseling calls (pre- and post-partum) and up to $90 in gift cards to pregnant women and new mothers who utilize this cessation resource.

INDIVIDUALS LIVING WITH HIV

**FAST FACTS:**

- Smoking rates are twice as high among individuals living with HIV than in the general U.S. population.⁴
- HIV+ individuals who smoke have higher mortality rates and report lower quality of life than nonsmokers who are HIV+.¹
Smoking is especially dangerous to the health of people living with HIV:\(^4\)
Individuals living with HIV are more likely to develop the harmful consequences associated with smoking (e.g., cancers, heart disease, and stroke) than those without the disease.\(^5\)
HIV+ individuals who smoke are also more likely to develop potentially deadly HIV-related infections than are nonsmokers with HIV.\(^5\)

**SPECIAL CONSIDERATIONS:**
- Addressing common smoking myths with HIV+ individuals is important! Research suggests that many HIV+ individuals who smoke underestimate the impact that smoking has on their health, or believe that they will not live long enough to experience smoking-related illnesses.\(^1\)
- Stress management strategies may be critical for cessation: Some HIV+ individuals report that smoking helps to relieve the stress associated with their HIV+ status.\(^4\)

**LESBIAN, GAY, BISEXUAL, AND TRANSGENDER (LGBT)**

**FAST FACTS:**
- Individuals in the LGBT community are more likely to smoke cigarettes (1 in 4) than heterosexual/straight individuals (1 in 6).\(^6\)
- Tobacco companies target their advertising at individuals in the LGBT community.\(^6\)
- LGBT individuals are more likely to experience daily stress related to prejudice and stigma, which increases the risk for smoking.\(^1\)

**SPECIAL CONSIDERATIONS:**
- Given higher reported daily stress levels among LGBT individuals, it may be especially helpful to incorporate stress management strategies into cessation interventions. Teaching these strategies can provide individuals with an effective alternative to smoking as a means to cope with stress.

**ADOLESCENTS**

**FAST FACTS:**
- In 2013, **16.9%** of Maryland high school youth reported using any tobacco product in the past month.\(^7\)
- Adolescents in Maryland now smoke cigarettes and cigars at similar rates.
- In 2013, **11.9%** of high school youth reported smoking cigarettes, while **12.5%** reported smoking cigars in the past 30 days.\(^7\)

**SPECIAL CONSIDERATIONS:**
- Though nicotine replacement therapy (NRT) has been shown to be safe for adolescents, NRT has not been found to support long-term cessation among adolescent smokers. Thus, NRT is **NOT** recommended for adolescents who smoke.\(^1\)
- Adolescents are not typically as nicotine-dependent as adults, so using NRT may have the negative effect of increasing the level of nicotine dependence in this group.
- The Maryland Tobacco Quitline (1-800-QUIT NOW) offers 5 free and confidential tobacco cessation counseling calls to 13-17 year olds. They do NOT offer NRT to individuals under the age of 18.
Second & Thirdhand Smoke

WHAT IS SECONDHAND SMOKE?

Secondhand smoke (SHS), is often referred to as environmental or passive smoke, and describes any smoke that comes from burning tobacco, including:

- Sidestream smoke- smoke that comes from the actual burning of tobacco
- Mainstream smoke- smoke that is exhaled by the individual smoking tobacco

As a result of SHS, individuals who choose not to smoke, will end up ingesting the same harmful chemicals and can experience many of the same health consequences. While any exposure to SHS is dangerous, sidestream smoke contains higher concentrations of carcinogens, often in smaller particles which can make it easier to be ingested.

WHAT IS IN SHS?

The composition of SHS is not that different from what is inhaled by smokers. SHS contains over 7,000 chemicals—almost 70 of these are known cancer causing compounds.

WHAT ARE THE HEALTH EFFECTS OF SECONDHAND SMOKE?

Bottom line, there is no safe amount of exposure to SHS. SHS exposure can lead to early death and disease among children and adults who do not smoke.

The most recent Surgeon General’s Report (see image at left; 2014), described a direct link between SHS exposure and cancer, cardio-vascular and respiratory diseases, and other negative health consequences. Among pregnant women, SHS can lead to low birth weight and can cause sudden death among infants.

Each year over 600,000 premature deaths are attributed to SHS. Of these, 28% are among children.
HOW ARE YOU EXPOSED TO SECONDHAND SMOKE?

Unfortunately, cleaning, ventilation, and separation do not eliminate SHS exposure; completely removing smoking from the environment is the only way to protect against exposure. The vast majority of people are exposed to SHS in their homes, at work, or in a vehicle. However, despite smokefree policies and legislation, people continue to be exposed to SHS in public places, particularly outdoors.

Children are at higher risk for exposure to SHS. According to the World Health Organization, over 40% of children are exposed to SHS in the home due to having at least one parent who smokes; whereas over 50% of children are exposed to SHS in public places outside of the home.

WHAT IS THIRDHAND SMOKE?

Thirdhand smoke (THS), or residual smoke, refers to tobacco smoke particles that remain on indoor surfaces or in dust after the smoke itself is gone. Even if you are not smoking in or near your home, you can carry these dangerous chemical residues into the home on your skin, hair, and clothes. THS can stay on furniture, clothes, walls, etc. for up to several months, and during this time chemical reactions can occur that produce secondary pollutants, some of which increase in toxicity over time.

Generally, less is known about THS, particularly surrounding its health impacts. In fact, heavy smokers are less likely to identify THS as being harmful to nonsmokers. Beliefs in the harm of THS are associated with enforcement of a smokefree policy in the home.

WHAT ARE THE HEALTH EFFECTS OF THIRDHAND SMOKE?

Individuals may be at risk of THS exposure and subsequent health consequences even if not otherwise exposed to SHS. THS exposure can affect multiple organ systems including the lungs, liver, and skin, and can lead to higher lipid levels and non-alcoholic liver disease, which may later develop into cirrhosis or liver cancer. Additionally, THS exposure has been associated with COPD, asthma, poor wound healing, and behavioral problems. The Surgeon General’s Report also documents additional conditions related to THS exposure (see graphic to the right).

HOW ARE YOU EXPOSED TO THIRDHAND SMOKE?

Exposure to THS can be through involuntary inhalation, ingestion, and dermal uptake. Infants and toddlers are at greater risk for exposure to THS, largely due to the greater amount of time spent in the home and their proximity to the floor. Additionally, their mouthing behaviors and more rapid respiration can increase their rate of ingestion and inhalation of THS.

WHAT ABOUT YOUR PETS?

Just like us, our furry, feathery, and scaly friends can be exposed to tobacco smoke in the environment by either SHS or THS, and they are also susceptible to many tobacco related illnesses, including cancer. Given that pets spend most, if not all, of their time in the home, they have a particularly elevated risk of environmental tobacco smoke exposure.
Smoking & Social Justice

When people think about the negative impact of the tobacco industry, they often mainly consider health and environmental impacts. However, the tobacco industry is implicated in several social justice issues, in addition to the more well-known problems of tobacco use. These social justice issues include exploitation of youth in several different ways, exploitation of minorities and people of lower SES, damaging labor and environmental practices, and corruption.

WHAT ABOUT TOBACCO COMPANIES?

- Tobacco companies have long lobbied to minimize tobacco regulation and use their influence to distort scientific research and findings.¹
  - As recently as 1994, tobacco industry executives have testified before Congress, under oath, that nicotine is not addictive.²
- Tobacco company advertising often specifically targets youth, minorities, and low income communities.³,⁴
- Companies strategically pursue those with the least information, fewest resources and social supports, and least access to tobacco cessation services.⁵

SMOKING-RELATED DISPARITIES

- There are strong links between smoking and low income and lower levels of education.⁶
  - 27.9% of adults in the U.S. below the federal poverty line smoke, compared with 17% of those above the poverty line.
  - 24% of adults without a high school diploma smoke, compared to 9.1% of adults with a college degree.
- Sexual and gender minorities often have higher rates of smoking and exposure to secondhand smoke.⁷
- White collar workers are more likely to be covered by smoke-free work policies than blue-collar workers.⁸
- Minorities, low income individuals, and medically underserved women are often diagnosed later for cancer and heart disease, and receive fewer interventions than well-off white men.⁹,¹⁰,¹¹,¹²

![Tobacco Impacts Some of Us More Than Others](CDC, 2014)
WHAT ARE THE IMPACTS OF THE TOBACCO INDUSTRY’S PRACTICES?

The tobacco industry often purchases tobacco produced with child labor and high levels of deforestation.\(^\text{13}\)

- Children working on tobacco farms, both in the U.S. and abroad, are exposed to nicotine, toxic pesticides, and other dangers.\(^\text{14}\)

- Children as young as 7 years old work on tobacco farms in the U.S., often experiencing symptoms consistent with nicotine poisoning, such as: nausea, vomiting, loss of appetite, headaches, dizziness, skin rashes, difficulty breathing, and irritation to their eyes and mouths.\(^\text{14}\)

- The annual total costs of tobacco-related deforestation are estimated at $160 million worldwide.\(^\text{13}\)

THE SINS OF THE TOBACCO INDUSTRY

There are numerous examples of tobacco companies using bribery and other corrupt practices to shape governmental policies and maximize profits.

- As recently as 2006, several major transnational tobacco companies were found guilty of racketeering, conspiracy, and fraud. Several instances described in the suit include:

  - deceptively refuting the negative health impacts and addictive potential of tobacco products;
  - denying that the nicotine levels in cigarettes have been altered;
  - inaccurately portraying “light” cigarettes as less harmful;
  - targeting marketing campaigns to underage smokers — viewing them as “replacement smokers”; and
  - manipulating scientific research regarding the harmful effects of tobacco smoke.\(^\text{15}\)

- In 2010, the U.S. Securities and Exchange Commission claimed that Universal Corporation and Alliance One International, a tobacco leaf purchaser for Philip Morris and BAT (two large, multinational tobacco companies) paid bribes in excess of $5 million to government officials in China, Greece, Indonesia, Kyrgyzstan, Malawi, and Mozambique.\(^\text{13}\)
The Cost of Tobacco on Society

The tobacco industry spends $8.4 billion each year on cigarette advertising and promotional materials. In addition to the money spent by the tobacco industry, tobacco use results in additional financial burden to smokers, non-smokers, and society as a whole. Costs include healthcare and health related spending, loss of workplace productivity, and environmental expenses.

WHAT ARE THE COSTS TO SOCIETY?

The costs of smoking to society are staggering: $298 billion in annual smoking-attributable economic costs.

- Workplace productivity losses of approximately $67.5 billion.
- Premature death losses of $117 billion.
- Direct medical expenditures of $116 billion.

- The $116 billion dollars spent on tobacco-related illnesses is a missed opportunity for needed social services and programs. If this money was not spent on healthcare, it could instead be used for transportation, public safety, education and rural development, among other needs.
- Tobacco is a drain on the healthcare system: 4.9% of all healthcare expenditure in the United States is used to treat tobacco-related illnesses. Among non-smoking adults, secondhand smoke causes premature death annually, including:
  - 33,950 deaths due to heart disease
  - 7,330 deaths due to lung cancer
- Secondhand smoke is a common trigger for asthma
  - About 7 million children had asthma (1 in 11 kids) in 2010
  - 10.5 million school days were missed due to asthma in 2008
- Each year, secondhand smoke contributes to:
  - 150,000–300,000 new cases of pneumonia and bronchitis in children 18 months or younger
  - 7,500-15,000 hospitalizations among children
WHAT ARE THE COSTS TO THE INDIVIDUAL?

The dollar amount of the health damage caused by a single pack of cigarettes is $35 to the average American smoker.3

Smokers have a reduced quality of life and shorter lifespan—smokers have an average life expectancy that is over 10 years shorter than non-smokers!4,5

WHAT ARE THE COSTS TO THE ENVIRONMENT?

TOBACCO LITTER IMPACTS THE LAND, COASTS, AND SEA

- Removal/abatement of tobacco product litter can cost cities an average of $0.5 million to $6 million annually for a city the size of San Francisco.9
- Cigarettes and cigarette butts are the most prominent litter item on U.S. roads and highways.10
- Each year, cigarette butt litter amounts to at least 1.69 billion pounds worldwide. These butts are not biodegradable, and can leach poisons into water and soil. They can also be deadly to fish, other aquatic microorganisms, pets, and small children when ingested.11
- In 2010, 1.8 million cigarettes were removed from U.S. beaches and inland waterways.10
- In the past century, around ten trillion packs of cigarettes have been smoked, adding up to about 110 billion pounds of packaging waste.11

PESTICIDES

Tobacco pesticides harm birds and other small animals, and cause soil and ozone depletion. An estimated 27 million pounds of pesticides are sprayed in U.S. tobacco fields each year.11

DEFORESTATION

Deforestation is carried out on a large scale to provide more land to grow tobacco and fuel to cure tobacco leaves. Each year, approximately 20-50 million trees are cut down for these purposes. Deforestation is associated with increasing atmospheric levels of CO₂ and other damaging environmental consequences.11

POLLUTION

- **Air pollution from making cigarettes:** The U.S. tobacco industry generates approximately 16 million metric tons of carbon dioxide equivalents. If cigarettes disappeared, the U.S. would experience the carbon benefit equivalent to taking nearly 4 million cars off the road.11
- **Pollution from tobacco smoke:** Tobacco smoke contains at least 172 toxic substances. Pollutants can remain in the environment for **months** after the act of smoking occurs.12
**Tobacco Control & Policy**

**IS REGULATING TOBACCO LEGAL?**

Despite efforts of smokers’ rights groups, smoking is not deemed a protected right according to the Constitution. All courts, including the U.S. Supreme Court, have determined that smoking is not a protected liberty nor are smokers considered a protected class of people. Therefore, tobacco control policies do not violate a person’s right to privacy, nor do they discriminate against tobacco users.

**WHAT ARE SMOKE-FREE POLICIES?**

Smoke-free policies are some of the most effective strategies to reduce and eliminate the exposure to secondhand smoke (SHS). Types of policies include:

- **Voluntary:** implemented by businesses or organizations in their designated settings (e.g., smoke-free Alcoholic Anonymous meetings)
- **Regulations:** issued by agencies of accreditation or boards of health (e.g., smoke-free hospital grounds)
- **Legislation:** enforced by local, state, or federal governments (e.g., Clean Indoor Air Act)

**WHY SMOKE-FREE POLICIES?**

Unfortunately, cleaning, separation, and ventilation do not entirely eliminate SHS exposure. For example, a study examining smoke-permitted and smoke-free units in a multi-unit complex found a significant proportion of SHS found in smoke-permitted units traveled to the building’s hallways and to smoke-free units.

| 29.4 μg/m³ of smoke found in smoke-permitted units |
| 11.9 μg/m³ found in hallways |
| 64.3% of levels found in smoke-permitted units |
| 10.2 μg/m³ found in smoke-free units |
| 34.9% of levels found in smoke-permitted units |

**WHAT IS THE IMPACT OF SMOKE-FREE POLICIES?**

A recent study demonstrated that smoke-free policies are helpful for smokers and non-smokers alike. Following the implementation of a smoke-free policy in multi-unit housing, there was a significant increase in the smoking quit rate and a decrease in the amount of cigarettes consumed on average. Additionally, SHS exposure dropped from 41% to 17% during the year-long study.

Given the higher rates of smoking among the behavioral health population, implementation of smoke-free policies in treatment settings has been met with significant resistance. However, a review of the literature showed that there is no increase in discharges, aggression, or medication use following the implementation of smoking bans.
WHAT IS SERUM COTININE?
When SHS is inhaled, the body breaks down the nicotine from the smoke into a byproduct called cotinine. Levels of cotinine determine the amount of exposure to SHS. It can be measured by testing saliva, urine, or blood.6

Measures of serum cotinine (see box above) demonstrate that exposure to secondhand smoke has steadily declined in the US over time.6 This is largely due to smoke-free policies that prohibit smoking in public places and workplaces, such as bars and restaurants.

TOBACCO CONTROL & EMPLOYMENT¹
- Tobacco users take more sick days, have higher insurance premiums, and exhibit greater healthcare utilization than non-tobacco users, cutting into a company’s bottom line.
- As a result, some workplaces are now turning to stricter tobacco policies, including decisions not to hire individuals who use tobacco. Maryland is not currently one of the 30 states that have laws protecting against this discrimination by employers based on off-duty conduct.
- An important consideration is that tobacco-free employment policies may disproportionately impact individuals of low socioeconomic status, given that tobacco use is significantly higher among this group.

OTHER TOBACCO POLICIES
- Tobacco tax is another incredibly effective method of reducing smoking, particularly among youth.7 Data suggest that for every 10% increase in the price of tobacco, there is a 3-5% decrease in cigarette consumption (6-7% decrease among youth).
- Other federal regulations already in place include: sale of tobacco products to minors is prohibited (under the age of 11); legal ID is required for purchase for anyone under the age of 27; sale of individual and flavored cigarettes is prohibited.8

Creating Your Own Smoke-free Policy:
Smoke-free laws do not currently extend to privately owned homes. Since we spend more time in our homes than anywhere else, it is important to make them as safe as possible.9 Insist that all residents and guests do not smoke indoors, and encourage them to smoke a safe distance from the home and away from open doors, windows, or vents.

Use this handbook to help develop a smoke-free policy where you need it:
References

References for each individual fact sheet is presented below

TYPES OF TOBACCO PRODUCTS
E-CIGARETTES

HEALTH RISKS OF SMOKING TOBACCO

SHORT-TERM & LONG-TERM BENEFITS OF QUITTING

STRESS & WITHDRAWAL
STRESS AND WITHDRAWAL (CONT.)

SMOKING CESSATION WITH BEHAVIORAL HEALTH CLIENTS

SPECIAL POPULATIONS
## SECOND– & THIRDHAND SMOKE


## SOCIAL JUSTICE


COSTS TO SOCIETY
COSTS TO SOCIETY (CONT.)

TOBACCO CONTROL & POLICY