

# **Tobacco Cessation Intervention Techniques for the Dental Office Team**

## ***How to Help Our Nicotine Dependent Patients Become Tobacco Free***

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# *Tobacco Cessation Intervention Techniques for the Dental Office Team*

## **About this program**

This training program is designed for oral health care providers, including dentists, dental hygienists, and all members of the dental office team. It can also be used by any healthcare providers who are interested in tobacco dependence treatment.

This training will discuss the following tobacco related topics:

- Tobacco use prevalence and risks / Benefits of cessation
- Tobacco related oral conditions
- Tobacco use and periodontal diseases
- Understanding nicotine addiction
- Stages of behavioral change
- Quitting techniques
- Office protocols using the 5A's Intervention form and resources
- Use of pharmacotherapy for tobacco cessation

## **Introduction**

A large volume of research has shown that tobacco use is one of the most significant causative/contributing factors for both oral cancers and periodontal diseases. We also know that tobacco use contributes to altered wound healing and less successful treatment results.

As dental healthcare professionals we are responsible for the oral health and wellness of the people who come to us for care. Studies have shown that all healthcare providers, including dental office team members, can be effective in helping their patients become tobacco-free. Tobacco use cessation interventions are important added value services that dental professionals can provide in their offices. If tobacco users are approached in a low-key, nonjudgmental manner, they appreciate the help and support and increased referrals are a definite additional benefit to the practice. These interventions can be brief, simple, cost-effective, and do not need to disrupt the practice routine.

Dental offices/clinics have always emphasized prevention, have personnel with educating and motivating skills, see patients on a recurring basis for fairly long appointments, and therefore are ideal settings to encourage and assist their patients in attempts to eliminate tobacco from their lives.

When we assist our patients with tobacco cessation, we improve their long-term oral health and their treatment success, and at the same time add quality and years to their lives. What an extremely satisfying and rewarding aspect of dentistry.

## Learning Objectives

After completing this training, you should be able to:

- Discuss the prevalence and risks of tobacco use and the benefits of a tobacco-free lifestyle
- Understand the effects of tobacco use on the oral cavity
- List the factors that determine nicotine dependence
- Identify tobacco users in various stages of change and know when to apply the appropriate interventions
- List the 5 A's of brief cessation interventions
- Describe the protocols for an office tobacco cessation program
- Discuss the use of pharmacotherapy for nicotine dependence treatment

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All of the outlines and forms in this program can be found on our web site:

**[www.umn.edu/perio/tobacco](http://www.umn.edu/perio/tobacco)**

In order to intervene with tobacco users more effectively, it is helpful to have an understanding of some basic information about the following topics: Tobacco use prevalence and risks, benefits of cessation, tobacco related oral conditions, nicotine dependence, and stages of behavioral change.

## **Tobacco Use Prevalence & Risks Benefits of Cessation**

### ***Prevalence:***

In 1965:42% of the US population used tobacco. Now US adult tobacco use is 20%. African Americans have a slightly higher rate than whites. Hispanic rates have increased but are lower than whites (15%). Native American rates are higher than all other groups (33%). Asian Americans have the lowest adult rates (11%). Even though tobacco use rates have been going down, the bad news is that in the US over 1,100 adolescents become regular smokers every day. Twenty-three percent of high school students in the US and eight percent of middle school students are current cigarette smokers with female use slightly higher than male use.

The prevalence of tobacco use has **declined less** in those who are younger, female, non-Caucasian, less educated, or poor and those with psychiatric or alcohol/drug problems. Education level is a major predictor of tobacco use. There are higher smoking rates among those with fewer than 12 years of education.

### **Smokeless (Spit) tobacco use:**

4% of adult Am males and <1% of females use Spit tobacco.  
25% of young users start by the 6<sup>th</sup> grade and 75% start by the 9<sup>th</sup> grade.  
10% of high school seniors used in last month & 2-3% use daily.

### **Cigar use:**

From 1989-93 there was a 133% increase in cigar smokers.  
Since '93 premium cigar sales have ↑ 154% but have now started to decrease.  
Cigars have been marketed to the higher educated and higher income individuals as symbols of glamour and sophistication.  
Cigar smokers have a 4-10X greater risk of oral, laryngeal, and esophageal cancers and a 5-11X greater risk of lung cancer than nonsmokers.

### ***Risks:***

Tobacco kills more than 400,000 people in the US every year and it causes more premature deaths than the combined total resulting from: *cocaine, heroin, alcohol, fires, auto accidents, homicides, suicides, and AIDS.*

Risk of death from terrorism: 1 in a million; as a pedestrian: 1 in 40,000;  
from auto accident: 1 in 5000; **from tobacco use: 1 in 3.**  
Tobacco use, on average, reduces adult life expectancy by approximately 14 years.

Tobacco is responsible for 38% of all US cancer deaths, 30% of coronary heart disease, and 80-90% of chronic obstructive pulmonary diseases (emphysema and bronchitis).

More females start smoking and therefore lung cancer has surpassed breast cancer as the leading cause of female cancer death.

Pregnant women who smoke have an increased risk of: spontaneous abortions, fetal & infant deaths, premature births, underweight children, children with decreased lung function, and triggering development of cleft lip/palate.

### **Environmental (Passive, Secondhand) Tobacco Smoke**

Secondhand smoke is the 3<sup>rd</sup> leading cause of preventable early death (behind smoking and alcohol). 15% of cigarette smoke gets inhaled by the smoker and 85% lingers in the air for others to breathe.

Passive smoke is almost as bad for fetal development as active smoking by pregnant women.

Children whose parents smoke have more: colds, bronchitis, pneumonia, worsened asthma, impaired development of lung function, risk of ear infections, and caries in their deciduous teeth.

Nonsmokers living with smokers have a increased risk of developing lung cancer and greater risk of dying early of heart disease.

For every 8 smokers who die from smoking, one innocent bystander dies from passive smoke.

### ***Benefits of Cessation:***

When talking with tobacco using patients the benefits of cessation should be emphasized. Stopping tobacco use decreases the risk of: lung (and many other) cancers, coronary diseases, stroke, chronic obstructive lung diseases and our area of concern, periodontal diseases.

Being tobacco-free reduces the risk of: damage to children's health, ulcers, premature wrinkling of skin, infertility in women and impotence in men, cataracts, macular degeneration, burning your house down, being turned down by the opposite sex, killing your pets prematurely, poor athletic performance and reducing your spending money... to name just a few.

Cessation can reduce the enormous cost of tobacco use: health care costs of treating tobacco related diseases and cost of lost earning due to disability and early death...approach \$167 billion a year in the US.

In dentistry, tobacco use cessation interventions for our patients can improve our periodontal and other oral treatment results, improve our patients long term oral health, and at the same time improve their quality of life and add years to their lives.

## **Tobacco Induced & Associated Oral Conditions**

Tobacco use is a serious dental (oral health) as well as medical problem.

Tobacco related oral conditions discovered during examinations provide us with excellent opportunities to discuss the effects of tobacco on treatment outcomes and long term oral health. A brief discussion about the risks of smoking and smokeless tobacco use and emphasizing the benefits of cessation should be a routine with all tobacco users. It is important to stress the reversibility of most tobacco-related disorders.

In dentistry, the 2 most significant factors in determining how at risk a person is for oral cancer and periodontal diseases are: Tobacco use and Genetics.

An individual who is IL-1 genotype positive is 3X more likely to lose teeth to periodontal disease than one who is IL-1 genotype negative.

A smoker is 3-5X more likely to lose teeth than a nonsmoker.

And an individual who is both a smoker and IL-1 genotype positive is 8X more likely to lose teeth.

Tobacco use is a causative or contributing factor for the following oral conditions:

Esophageal, laryngeal, and oral cancers

Periodontal diseases

Leukoplakia

Smoker's palate (nicotine stomatitis)

Hairy tongue

Halitosis

Staining of teeth and restorative materials

Abrasion (possibly from sand and grit that is not completely removed in the curing of ST)

Cleft lip / cleft palate

Dental caries (from the sugar content of chewing tobacco)

Increased supragingival calculus formation

Smokeless (spit) tobacco is not a safe substitute for smoking. It can cause cancer and lead to addiction. Leukoplakia is regarded as precancerous with a malignant transformation rate of 2-6% and 40-60% of ST users exhibit leukoplakia in the area the quid is held, usually within a few months of beginning regular use. Early ST users have a risk of oral cancer 4X greater than nonusers and prolonged users a 48X greater risk.

ST use is dangerous... but smoking is 2X more likely to cause oral cancer than ST.

Other health implications of ST use include an increased risk for periodontal disease and cardiovascular disease due to elevated blood pressure and cholesterol levels.

## **Smoking is a major risk factor for periodontal diseases**

- Both current and former smokers have an increased prevalence and severity of periodontal diseases
- There is a significant positive association between the amount smoked and the severity of periodontitis
- There is a linear and direct correlation between smoking and attachment loss with effects even at a low level of smoking
- The periodontal status of former smokers ranks between current smokers and those who have never smoked

## **Clinical appearance of smoking-associated periodontitis**

- Gingiva tends to be fibrotic with thickened rolled margins
- Minimal gingival redness or edema relative to disease severity
- Relatively severe and widespread disease (more probing depth, attachment loss, and tooth loss) compared to a person the same age who never smoked
- Proportionately greater pocketing in anterior and maxillary lingual sites
- Gingival recession in anterior segments
- No association between periodontal status and plaque or calculus scores

From: Haber J Current Opinion in Periodontology 1994

## **Nicotine and other tobacco products produce local and systemic effects**

- Locally the cytotoxic and vasoactive substances from tobacco smoke can inhibit tissue perfusion and cell proliferation and metabolism
- Systemically smoking causes immuno-suppression and impairment of soft tissue and bone cell function
  - Impairs serum antibody response to some periodontal pathogens
  - Alters PMN leukocyte function (chemotaxis and phagocytosis)
  - ↑ TNF- $\alpha$  and PGE<sub>2</sub> in GCF
  - ↑ neutrophil collagenase and elastase in GCF
  - May interfere with fibroblast attachment
  - May be associated with reduction of skeletal bone mineral content

## Smoking delays wound healing

- There is impaired healing and poorer clinical results to both **nonsurgical** (S/RP, locally delivered antibiotics) and **surgical** periodontal therapy of smokers vs. nonsmokers
  - ✓ Less reduction of probing depths (even with good oral hygiene)
  - ✓ Smaller gain of attachment
- Studies have found that smokers have less success with open flap debridement, osseous resection, soft tissue and bone graft procedures, and guided tissue regeneration procedures
- The implant failure rate in smokers is significantly higher than in nonsmokers

**Cigar** and **pipe smokers** have similar adverse effects on periodontal health as cigarette smokers

## Smoking status should be considered in periodontal diagnosis, prognosis, and treatment planning

- Smoking status is a clinically useful predictor of future disease activity
- **Smoking cessation** should be considered a part of periodontal treatment

## The benefits of smoking cessation

- ✓ Periodontal status stabilizes for a majority of patients and attachment loss ceases or slows
- ✓ It may take a number of years after cessation before the rate of tooth loss is similar to that of nonsmokers

So the good news is that former smokers and those who have never smoked appear to respond equally well to treatment.

## Nicotine Addiction

Nicotine addiction is extremely powerful. The following information about nicotine dependence is important to be aware of when communicating with tobacco users interested in quitting.

At times tobacco can act as a *stimulant* and at other times it may produce *tranquilizing effects*. In smaller doses smoking heightens feelings of excitement and thus relieves fatigue and depression. In larger doses nicotine exerts a calming effect and reduces tension and stress.

Tobacco is as addictive as heroin (as a mood & behavior altering agent).

Nicotine is 1000X more potent than alcohol, 10-100X more potent than barbiturates, and 5-10X more potent than cocaine or morphine.

A 1-2 pack per day smoker takes 200-400 hits daily. This constant intake of a fast acting drug (which affects mood, concentration, and performance)...eventually produces dependence. Smokers can obtain from a fraction of 1mg to several mgs per cigarette depending on how they smoke.

A pack a day smoker will go through 7,000 cigarettes a year. Tobacco is a positive reinforcer. It is repeated because it is rewarded.

Nicotine combines with a number of neurotransmitters in the brain and may contribute to the following reinforcing effects:

|                            |                                    |                           |                |
|----------------------------|------------------------------------|---------------------------|----------------|
| <i>Dopamine</i> .....      | Pleasure, suppress appetite        | <i>Norepinephrine</i> ... | Arousal        |
| <i>Acetylcholine</i> ..... | Arousal, cognitive enhancement     | <i>Vasopressin</i> .....  | Improve memory |
| <i>Serotonin</i> .....     | Mood modulation, suppress appetite | <i>Beta-endorphin</i> ... | Reduce anxiety |

Drug addiction has 3 components:

**Physiological / Psychological / Sociocultural**

**Physiological dependence:** Tolerance / Dependence / Withdrawal symptoms

Tolerance: The longer one uses tobacco the more they need to get the desired effect.

The continued reinforcement leads to dependence.

Possible withdrawal symptoms (after stopping tobacco use) may include:

Irritability, anger, hostility, anxiety, nervousness, panic, poor concentration, disorientation, lightheadedness, sleep disturbances, constipation, mouth ulcers, dry mouth, sore throat-gums-or tongue, pain in limbs, sweating, depression, fatigue, fearfulness, sense of loss, craving tobacco, hunger, and coughing (body getting rid of the mucus clogging the lungs).

Symptoms may last from a few weeks to several months. After withdrawal subsides...urges for the effects of the drug occur in response to all kinds of cues to smoke or chew.

**Psychological dependence:** Tobacco users continue to use for a number of psychology reasons:

**Stimulation** (to pick a person up...especially those who are bored)

**Handling** (for those who enjoy the feel of the cigarette and enjoy watching the smoke)

**Pleasurable relaxation** (especially after a pleasant activity)

**Tension reduction** (for those under stress a great deal of the time)

**Craving** (in response to all kinds of cues)

**Habit** (for those who smoke without thinking)

**Sociocultural factors:**

**Social activity** / **Numerous daily rituals** / **Family origin & cultural practices** can all be a factor in the addiction process.

Tobacco users trying to quit frequently need to avoid situations and places where they will be tempted to smoke or dip until they feel they can cope with these situations.

So human genetics, early family experiences, environmental factors and societal influences appear to work together in complex ways, to set the addictive cycle in motion.

Pressures to relapse are both **behaviorally** and **pharmacologically** triggered.

Quitting involves a significantly serious psychological loss...a serious life style change.

30-50% of smokers have a history of depression.

80-90% of alcoholics are heavy tobacco users.

30-50% of heart attack patients continue to smoke.

50% of smokers who are diagnosed with cancer continue to smoke

25% of heart transplant patients start smoking after their surgery

40% who have had their larynx removed start smoking again through the stoma in their throat

## Stages of Change

*Tobacco cessation is not a single isolated event...but rather a continuing extended process. There are stages people go through when changing a habit. These stages of change are precontemplation, contemplation, preparation, action, and maintenance. To be most effective when intervening with tobacco users, it is important to determine their stage of change so that we use the right approach at the right time. The following describes the stages of change.*

### **Precontemplation** (60% of users are in this stage)

- These tobacco users deny having a problem and have no intention of quitting. These are the 'get out of my face' tobacco users. Raising their awareness of the oral effects of tobacco in a very low-key, sensitive approach may help. It is important to let them know that your office would be happy to help them if they do become interested in quitting.

### **Contemplation** (32% of users are in this stage)

- Contemplators know they have a problem. They would like to quit someday but they have no commitment to take action now. They may have indefinite plans to quit within 6 months or so. People can remain stuck in this stage for years.

### **Preparation for Action** (8% of users are in this stage)

- Tobacco users in this stage are ready to quit within the next month but they have not necessarily resolved their ambivalence. They have good reasons for wanting to quit and may have tried a number of times in the past.

**Action** (normally takes 3 to 6 months to complete)

**Maintenance** (may last for 6 months to a lifetime)

**Possible Relapse** (and through the cycle again...the majority of those who relapse do not go all the way back to precontemplation)

10% relapse after 1 year of abstinence

7% relapse after 4-5 years

After 5 years most remain tobacco-free

The intensity of the withdrawal symptoms often peaks during the first week after quitting. About 65% of self-quitters relapse after the first week.

Our advice and support during an office visit can encourage tobacco users to go through the stages of change until they are successful.

Even if they are unable to quit, they are further on their way – for it takes many people a number of attempts, sometimes over many years, before they succeed. Action followed by relapse is much better than no action at all.

You must have patience, a sensitive manner, and a chronic mindset when helping tobacco-using patients.

## Quitting Techniques

There are two basic quitting techniques, cold turkey and gradual reduction (tapering). Tobacco reduction techniques include nicotine fading (switching to a lower tar/nicotine brand of cigarette or spit tobacco), and gradual reduction. It has been shown that smokers who switch to a low tar/nicotine brand tend to inhale more often and more deeply, smoke more cigarettes, or smoke more of each cigarette and therefore end up getting the same tar/nicotine levels they did with their regular brands.

Alternative quit strategies include acupuncture and hypnosis. An extensive review of the literature by an expert panel that developed the clinical practice guidelines, found that there is insufficient evidence to support the utilization of either hypnosis or acupuncture as effective tobacco cessation treatments, especially when used alone.

Aversive smoking techniques, which involve oversmoking or smoking with negative associations, are employed with the goal of making smoking repulsive to users. Research has shown that rapid smoking (inhaling from a cigarette every six seconds) can be effective but is seldom used today because it involves cardiovascular risks and many alternatives are now available.

### **What are the most effective cessation techniques?**

A panel of cessation experts has reviewed over 8,700 articles on tobacco use and its treatment for the Agency for Healthcare Research and Quality. From this research evaluation they developed the Smoking Cessation Clinical Guideline: Treating Tobacco Use and Dependence that provides specific evidence-based recommendations on tobacco interventions. These interventions include counseling and behavioral therapies plus pharmacotherapy (when there are no medical contraindications). These scientifically validated treatments include the 5A's that will be discussed in this course.

### **How do we measure success?**

Tobacco abstinence is the ultimate goal, but moving a patient to a higher stage of change should be considered a measure of success. The individuals we have talked with and who continue to use tobacco, but at a lower level, certainly have achieved a level of success.

Studies have shown that healthcare clinicians can achieve one year quit rates from 18% (from one provider) to 23% (from multiple providers). Brief counseling sessions of 3 minutes or less can obtain 13% abstinence rates and longer than 10 minutes up to 22% abstinence rates. These results would have a huge impact on the number of individuals who quit if all healthcare professionals intervened only briefly with tobacco users in their offices.

Dr. Antonia Novello, a former Surgeon General, said that we must be anti-tobacco use, anti-disease, and anti-disability, but never anti-smoker. What a valuable statement for those trying to help their patients become tobacco-free.

## Introduction to an Office Tobacco Cessation Intervention Form

The following information is related to the use of an office brief tobacco use cessation intervention using a check off form to obtain a patients tobacco use history.

Simple, brief tobacco use intervention services can easily be part of the routine office schedule. Protocols for an office team approach involve the 5 A's:

1. **ASK** every patient whether he/she uses tobacco
2. **ADVISE** users about the risks of tobacco use and benefits of a tobacco-free lifestyle
3. **ASSESS** their willingness to make a quit attempt (stage of change)
4. **ASSIST** them in quitting, and
5. **ARRANGE** for follow-up

Patient tobacco use information should be recorded on a Brief Tobacco Cessation Intervention form (made into a progress notes sticker or included in the office electronic records). This form follows the explanation of the 5 A's.

The **ASK** questions determine the type and amount of tobacco used, number of years used, how soon it is used after waking, previous quit attempts (number, longest quit period, and methods used). This information helps to give us an idea of how dependent an individual is on tobacco. Those who are more strongly addicted smoke 25 or more cigarettes a day (or a can of snuff or pouch of chewing tobacco every two days); use tobacco within the first one-half hour of arising; and have attempted to stop before with possible withdrawal symptoms.

The reasons why an individual wants to quit is also helpful information.

**ADVISE** all users about the effects of tobacco use on their oral health and treatment results and emphasize the many benefits of a tobacco-free lifestyle.

**ASSESS**ing the users willingness to quit (stage of change) helps determine how we can best assist them.

For individuals not at all interested in quitting (**Precontemplation**), we should raise their awareness about the effects of their tobacco use on the oral cavity and the possibility of better treatment results and long term oral health if tobacco-free.

It is important to let them know that your office would be happy to help them when they do become interested in quitting.

For individuals contemplating cessation (**Contemplation**), we can also emphasize the benefits of change to help them resolve their ambivalence. We can also inform them of referral sources and pharmacotherapy possibilities that can be used when they are ready to set a quit date.

For individuals who are ready to quit within the next month and want more help (**Preparation for Action**), we can refer to telephone helplines, or group or individual counseling programs. We should provide those interested with a list of local tobacco quit programs and telephone helplines. If there are no medical contraindications, pharmacotherapy should also be strongly considered.

The 5 A's intervention form lists some possible ways of **ASSIST**ing those interested in making a quit attempt:

- self-help pamphlets and materials
- list of local community group/individual quit programs and phone helplines
- encourage a quit date (for those who are ready)
- pharmacotherapy Rx\_\_\_\_\_

**ARRANGE**ing for follow-up of those who have set a quit date is extremely important. It is a good idea to ask their permission for follow-up phone calls. When tobacco users are approached in a low-key, nonjudgmental, respectful and sensitive manner, they are very appreciative of our support and concern and are quick to spread the word. Increased referrals are a definite additional benefit.

### **Brief Tobacco Cessation Intervention**

The **Brief Tobacco Cessation Intervention** form on the following page can be reduced in size and made into a progress note sticker ( a light color would make it easier to identify) or it can be added to your electronic records.

This form is only an example of what can be used in an office tobacco cessation program. You should make changes to fit your needs.

## Brief Tobacco Cessation Intervention

Date \_\_\_\_\_

Patient Name \_\_\_\_\_

Chart # \_\_\_\_\_

Medical concerns and medications:

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**ASK**

- ✓ Number of cigarettes\_\_\_\_, cigars\_\_\_\_, pipe bowls\_\_\_\_ per day
- ✓ Number of ST cans/pouches per week \_\_\_\_
- ✓ Number of years used \_\_\_\_
- ✓ How soon after you wake up do you use tobacco?
  - within 30 minutes
  - more than 30 minutes
- ✓ Previous quit attempts
  - # of attempts \_\_\_\_ longest quit period \_\_\_\_\_ method(s) used \_\_\_\_\_
  - how long ago was last attempt to quit....years\_\_\_\_ months\_\_\_\_
- ✓ Reasons for wanting to quit \_\_\_\_\_

**ADVISE** about the oral benefits of quitting

**ASSESS** willingness to make a quit attempt (Stage of Change)

- Precontemplation (stop here & re-assess next visit)     Contemplation     Preparation

**ASSIST** (depending on stage of change)

- self-help pamphlets & materials
- list of local community group/individual quit programs and phone helplines
- encourage a quit date (for those who are ready)
- pharmacotherapy: nicotine gum / lozenge / patch / inhaler / nasal spray / Zyban / Chantix  
Rx \_\_\_\_\_(D1320)

**ARRANGE** follow-up if set a quit date (with permission)

Quit date \_\_\_\_\_ Phone calls or visits: Week 1-2 \_\_\_\_\_ Month 1\_\_\_\_, 3\_\_\_\_, 6\_\_\_\_, 12\_\_\_\_

Comments:

*It is important that any pharmacotherapy prescribed or recommended be listed in the progress notes or on the intervention form. It should be stated that this is for the control and prevention of oral disease. ADA code D1320: Tobacco counseling for the control and prevention of oral disease.*

There are many tobacco cessation self-help pamphlets available. The lists that follow give examples of a few that could be used to **ASSIST** those interested in quitting.

## **Tobacco Cessation Pamphlets**

### **Smoking Cessation:**

*Clearing the Air*

NCI: 1-800-4-CANCER #133 (shipping charge)

*Why do you smoke?*

NCI: 1-800-4-CANCER #P145 (shipping charge)

*Smart Move! A stop smoking guide*

ACS: 1-800-227-2345 #2515 (free)

*Thinking about quitting smoking?*

ADA: 1-800-947-4746 #W126 (\$39/100)

*Tobacco & Periodontal Diseases: Targeting Tobacco Use*

AAP: 1-312-573-3253 (\$50/100)

*Want 3 good reasons to quit smoking?*

ACS: 1-800-227-2345 #2719 (free)

*Why start life under a cloud?*

ACS: 1-800-227-2345 #2717 (free)

*The smoke around you*

ACS: 1-800-227-2345 #2060 (free)

*When smokers quit*

ACS: 1-800-227-2345 #5602 (free)

*Cigar smoking*

ACS: 1-800-227-2345 #2603 (free)

### **Smokeless Tobacco:**

*Quitting spitting*

ACS: 1-800-227-2345 #2090 (free)

*Smokeless tobacco..Think before you chew*

ADA: 1-800-947-4746 #W190 (\$39/100)

## Quit Smoking Programs

*Some tobacco users interested in quitting, especially those who have tried unsuccessfully a number of times, are willing to attend an individual or group counseling program or use a tobacco phone helpline.*

*The office should provide a list of local programs and helplines to those who are interested. The following is only an example of what a list might look like. List programs in your area.*

### **Community Programs**

Minnesota's toll-free Tobacco Helpline (Quit Plan): 1-888-354-PLAN

Free, one-on-one telephone counseling, a quitting plan designed for you, information on medications and quitting techniques.

Free nicotine replacement products are provided to those without medical insurance coverage for tobacco cessation medications if they go through tobacco counseling sessions.

American Lung Association

"Freedom from Smoking" 8 session program

Metro & greater MN: 651-227-8014

Classes available in your community. Call for locations.

Nicotine Anonymous (12 step counterpart to AA)

[www.nicotine-anonymous.org](http://www.nicotine-anonymous.org) (click on meetings for a list of meetings in your area)

### **Internet Programs**

For smokers: [www.quitplan.com](http://www.quitplan.com)

For smokeless tobacco users: [www.chewfree.com](http://www.chewfree.com)

### **Individual Counseling Program**

University of Minnesota School of Dentistry Tobacco Cessation program

A customized, multi-component program that provides individual counseling

and long-term follow-up. First appointment \$50, additional sessions \$25 each

For more information call (612) 626-0440

School of Dentistry Tobacco Cessation program web site: [www.umn.edu/perio/tobacco](http://www.umn.edu/perio/tobacco)

### **Inpatient Program**

Mayo Nicotine Dependence Center

8 day residential program

Rochester, MN

Referrals: 1-800-344-5984 or (507) 266-1930

## Pharmacotherapy

Tobacco dependence is a chronic disease that is treated most effectively with multiple methods. Pharmacotherapy is one of the vital elements of treatment. All of the currently available FDA approved tobacco cessation medications appear to be equally effective, approximately doubling the quit rate compared with placebo. The use of behavioral or supportive therapy (including the 5A's interventions) along with pharmacotherapy, increases quit rates.

Dentists have extensive training in drug contraindications and interactions. They are aware of medications their patients are taking and the possible interactions with the medications they use in dentistry. Dentists also communicate with their patients' physicians when there are dental-medical concerns. It is both appropriate and legal for dentists to recommend and prescribe FDA approved tobacco cessation pharmacotherapy products.

It is important to document in the patient's dental record that tobacco cessation was discussed and that any pharmacotherapy suggested or prescribed was for the control and prevention of oral disease (ADA code D1320).

The following information should help familiarize oral healthcare professionals with recommending and prescribing pharmacotherapy products.

The FDA approved tobacco cessation pharmacotherapy products are: nicotine replacement (nicotine gum, patch, lozenge, nasal spray, and inhaler) and the non-nicotine aids Zyban (bupropion) and Chantix (Varenicline).

The self-administered nicotine replacement products (nicotine gum, lozenge, inhaler and nasal spray) should be used on a scheduled basis initially before tapered to ad-lib use and eventually discontinued.

The outlines on the following pages provides information about nicotine replacement therapy (NRT) products, Zyban, Chantix, and combined pharmacotherapy.

## *Nicotine Replacement Products*

Developed to reduce or eliminate withdrawal symptoms so we can help individuals interested in quitting to plan for and deal with the psychological and behavioral (social) components of their addiction.

**Contraindications** for nicotine replacement products: under age 18, women who are pregnant or nursing (nicotine gum is FDA approved for use in pregnancy), immediate post-myocardial infarction period, severe arrhythmias, severe or worsening angina. Use caution: hyperthyroidism, insulin-dependent diabetes, and active peptic ulcers. **Stable coronary artery disease is not a contraindication.**

### Nicotine Transdermal Patch

Nicoderm CQ (OTC) 24 hr ..... 21, 14, 7mg ..... 6 wks / 2 wks / 2 wks  
Generic (OTC) 24 hr..... 21, 14, 7mg..... 4-8 wks / 2-4 / 2-4 wks

Patch **Contraindications:** skin disorders; **Side effects:** itching, burning and/or erythema at the site of application, abnormal dreams, joint or muscle pain

**Cost:** \$3-4 a patch; Generic \$2-3 a patch

### Nicotine Gum

Nicorette polacrilex (OTC) **2mg** if smoke <25 cigarettes per day; **4mg** if smoke >25 per day  
Generic (OTC)

Wk 1-6: (1) piece q 1-2 hrs; Wks 7-9 (1) piece q 2-4 hrs; Wks 10-12 (1) piece q 4-8 hrs

Gum **Contraindications:** TMJ dysfunction; **Side effects:** GI distress, jaw soreness, burning in throat, and hiccups

**Cost:** \$135-225 / month for 12 pieces per day

### Nicotine Nasal Spray

Nicotrol NS (Rx) 10 ml bottles (10mg / ml)

.5 mg each nostril..(do not inhale while spraying – nicotine absorbed in the nasal mucosal)

1-2 doses/hr (up to 5) for 4-8 wks, 4-6 wks gradual reduction or abrupt; Bottle = 100 doses – lasts about one week

Spray **Contraindications:** chronic respiratory problems; **Side effects:** coughing, sneezing, nose running, and eyes water

**Cost:** \$45-50 / bottle

### Nicotine Inhaler

Nicotrol Inhaler (Rx) Kit with 42 cartridges...

6-16 cartridges/day, gradual reduction after 12 wks..Nicotine is absorbed in the mouth – not the lungs

Puff 1 cartridge for 5 minutes x 4

Inhaler **Contraindications:** allergy to menthol; **Side effects:** throat irritation, coughing, headaches

**Cost:** \$45-50 for kit and 42 cartridges

### Nicotine Lozenge

Commit nicotine lozenge (OTC) and Generic (OTC) Kit with 72 lozenges

**2mg** if first tobacco used 30 min. after waking; **4mg** if first tobacco used within 30 min. of waking

For first 6 wks use at least 9 lozenges per day. Let dissolve in mouth slowly (don't chew or swallow it)

Move occasionally. Dissolves in 20-30 min. Do not eat or drink 15 min. before or during use.

Lozenge **Contraindication** and **Side effects** are the same as for nicotine gum (except for jaw soreness)

**Cost:** \$ 145 / month for 9 pieces per day

*The following outline provides information about Zyban, a non-nicotine aid to help people who want to stop using tobacco. It should be noted that Zyban is not effective on 10-15% of users.*

## ***Zyban: A Tobacco Cessation Aid***

Zyban is a non-nicotine aid to help people who want to quit using tobacco. It was initially developed and marketed as an antidepressant (Wellbutrin [bupropion hydrochloride]). Zyban is chemically unrelated to tricyclic, tetracyclic, selective serotonin re-uptake inhibitor, or other known antidepressant agents. It is presumed to act on the dopaminergic and / or noradrenergic pathways involved in nicotine addiction and withdrawal.

Studies suggest that Zyban may be effective in helping people who want to stop using tobacco. Participating in a tobacco cessation program increases the chances of success.

### **Contraindications**

You should **not** use Zyban if you:

- Have had seizures in the past
- Have epilepsy or have a family history of epilepsy
- Have had significant head trauma
- Have had a stroke
- Have had a brain tumor or brain surgery
- Have or have had an eating disorder (bulimia or anorexia)
- Are taking Wellbutrin / Wellbutrin SR antidepressants
- Are taking a monoamine oxidase inhibitor (MAOI) antidepressant

### **Warning**

It is usually not recommended that Zyban be taken with other agents that may lower seizure threshold (e.g., antipsychotics, other antidepressants, theophylline and systemic steroids) or with Parkinson's disease medication.

### **Side Effects**

The most common side effects include:

- Difficulty sleeping
- Dry mouth

Other possible side effects:

Headache, drowsiness, decreased appetite, dizziness, sweating  
nausea, increased or irregular heart beat, agitation / anxiety

### **Dose Instructions**

Start taking Zyban a week before you stop using tobacco

Starting dose: one 150mg tablet in the morning for 3 days

Then 2 tablets a day: one 150mg tab in the morning and one 150mg tab at least 8 hrs later

Length of treatment will vary from 7-12 weeks

May be taken with or without food

Never take an "extra" dose of Zyban

## *Chantix: A Tobacco Cessation Aid*

Chantix (Varenicline) is a selective  $\alpha 4\beta 2$  nicotinic acetylcholine receptor partial agonist. Chantix has the potential to aid tobacco cessation by reducing the symptoms of nicotine withdrawal and blocking dopaminergic stimulation.

### **Contraindications**

- Use caution with Chantix in subjects with impaired renal function
- Not recommended for use in patients under 18
- Use during pregnancy only if the potential benefit justifies the potential risk to the fetus
- Chantix has no clinically meaningful pharmacokinetic drug interactions

### **Side Effects**

- Nausea (30%)
- Sleep disturbances (vivid, unusual, or strange dreams)
- Constipation / vomiting / gas
- May cause worsening of psychiatric illness or cause an old psychiatric illness to reoccur
- Some reports of depression, agitation, and suicidal thoughts (although rare)
- Increased risk of accidents

### **Dose Instructions**

Chantix dosing should start one week before the quit date. Take after eating.  
Most people will keep taking Chantix for up to 12 weeks.

- Day 1 to Day 3 ..... White tablet (0.5 mg), 1 tablet each day
- Day 4 to Day 7 ..... White tablet (0.5 mg), twice a day  
(1 in the morning and 1 in the evening)
- Day 8 to end of treatment ..... Blue tablet (1 mg) twice a day  
(1 in the morning and 1 in the evening)

*The current recommended nicotine replacement therapy dosing recommendations undertreat most tobacco users (i.e. when one 21mg patch is used, most smokers achieve only a 50% nicotine replacement compared to their cigarettes).*

*Higher percentage replacement may increase efficacy of NRT. Dentists and physicians may prescribe and use FDA approved drugs in ways that differ from the uses approved by the FDA (different dosages and conditions of use).*

*The following material gives some suggestions on combined therapy, addiction potential, compliance, pharmaceutical companies support material and a clinical checklist.*

## **Combined Use of Pharmacotherapy in Tobacco Use Cessation**

1<sup>st</sup> consider using the patch (better compliance & fewer side effects) before other NRT

BUT certain pt characteristics such as: pt preferences  
pt experiences (success or failure) with prior pharmo.  
co morbidities (e.g., psychiatric treatment)  
degree of nicotine dependence  
may warrant use of gum, lozenge, spray, inhaler, Zyban or Chantix initially

Method for using the patch recommended by the Mayo Clinic Nicotine Dependence Center:

|                          |         |                              |         |
|--------------------------|---------|------------------------------|---------|
| for less than ½ PPD..... | 7-14mg  | < 1 can/pouch ST per wk..... | 14-21mg |
| for ½ to 1 PPD.....      | 14-22mg | 1-2 per wk.....              | 21-35mg |
| for 1 to 2PPD.....       | 22-44mg | 2-3 per wk.....              | 35-42mg |

Patch delivers 0.9mg/hr of nicotine...reaches daily peak approx 6 hrs  
If use more than 1 patch a day, put on at different times of the day

**Studies have shown better quit rates with combined therapy.** Possible **options** include:  
For some you may consider:

2 or 4mg gum or lozenge plus a nicotine patch  
The gum or lozenge gives a jump start + the patch  
Use the gum or lozenge for 2-4 weeks....  
then patch only & gum or lozenge for back up as needed

Can use: Zyban alone or Zyban plus a patch

For those where handling is important: Nicotine inhaler plus a patch

For highly dependent or where other comb. have not worked: Nicotine nasal spray plus a patch

Addictive potential: 5-20% of nicotine gum users continues use after 1 year or more  
43% of nasal spray users continue to use at 1 year  
Not a problem with patch, inhaler, or Zyban

Keep in mind compliance: Patch 82%, Gum 38%, Spray 15%, Inhaler 11%

Clinical use CHECK LIST:

- Provide written instructions on proper use and give self help material
- Individualize the dose and duration
- Base the initial dose on smoking rate (or blood cotinine)
- Usual length of therapy is 6-12 weeks, although longer may be necessary
- Return visit or phone calls at 1-2 week intervals
- Adjust dose and determine length of pharmo treatment based on patient response

*Even though nicotine gum, lozenges, and patches can be purchased OTC, prescriptions for these products may need to be written so that they can be covered by the patients' insurance.*

*The following are examples of how to write prescriptions for the NRT products Zyban and Chantix.*

## Tobacco Cessation Pharmacotherapy

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Rx      **Nicorette**      2 or 4 mg  
Disp    starter kit (108)  
Sig      use as directed

Refill 4 times

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Rx      **Nicoderm CQ** 21 or 14 or 7 mg  
Disp    # 14  
Sig      apply 1 Q 24 hrs

Refill 4 times

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Rx      **Nicotrol inhaler**  
Disp    kit with 42 cartridges  
Sig      use as directed

Refill 4 times

---

Rx      **Nicotrol NS**  
Disp    10 ml bottle  
Sig      ad libitum

Refill 3 or 4 times

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Rx      **Commit lozenge**      2 or 4 mg  
Disp    #72  
Sig      use as directed

Refill 4 times

---

Rx      **Zyban** 150 mg  
Disp    # 60  
Sig      one tab b.i.d.

Refill 2 times

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Rx      **Chantix**  
Disp    Starting month PAX  
Sig      take as directed

Refill 2 times: Continuing month PAX

## **Office tobacco cessation program planning**

To plan for routine brief or extended tobacco cessation interventions with your patients, it is important that the entire office team is supportive of and participates in the office program planning and implementation. A plan coordinator should be identified. In many offices dental hygienists play this role but it can be any team member with a keen interest in tobacco cessation.

Any of the intervention forms, questionnaires, how to outlines, or other materials in this course can be used in an office tobacco cessation program.

A word about the ADA insurance code and office tobacco cessation fees. The preventive service ADA code D1320 is for “Tobacco counseling for the control and prevention of oral disease.” Insurance companies are unaccustomed to dealing with these types of claims so most do not cover counseling at the present time. Dentists should use the code when doing interventions with tobacco users. Having this on our records says that we are helping patients quit and in some cases using pharmacotherapy products for oral health and wellness reasons. Many insurance plans do cover pharmacotherapy products.

Fees for tobacco cessation interventions can be added to our initial or periodic examination fees, or periodontal evaluation or treatment fees. For those patients that we spend time for more extensive counseling and follow-up, an agreed upon fee should be expected.

The following Office Tobacco Cessation Program Planning form may be helpful during team meetings to plan and implement 5A’s interventions with your tobacco using patients.

### **Office Tobacco Cessation Program Planning Form**

What materials are needed for office team planning meetings?

Who will facilitate meetings?

Agree on a plan coordinator:

List tobacco prevention and cessation pamphlets for reception area and counseling sessions:

Organize office records and procedures

- 5 A’s Intervention form (brief or more intense)
- Compile list of community-based quit smoking programs & helplines
- Pharmacotherapy literature
- Chart documentation
- Status chart stickers (or electronic record)
- Codes and fees
- Follow-up system

Periodic review of program progress and outcomes.

Assign job responsibilities:

List office procedures from identifying tobacco users (from medical history) to intervention to follow-up: