

Smoking Cessation Treatments

“Quitting smoking is the easiest thing I have ever done. I’ve done it a thousand times.” Mark Twain

Quitting smoking is not easy. It often takes a great deal of work and commitment. Smoking is a learned behavior that becomes natural over time. Just as it takes time to learn how to smoke and form a regular smoking routine, it also takes time to develop the skills necessary to overcome tobacco addiction. On average it takes at least seven serious quit attempts before one is successful, so don't give up.

Understanding tobacco addiction

When considering quitting tobacco use, it is important to understand the factors that cause tobacco addiction. There are two major elements that determine tobacco addiction: physiological factors and psychological factors.

The nicotine in cigarettes and other tobacco products induces physiological changes almost instantly. About 25% of the nicotine in tobacco smoke reaches the brain within six seconds after a smoker inhales. Nicotine immediately causes increases in heart rate, blood pressure and pulse rate, along with the constriction of blood vessels. It also evokes the discharge of free fatty acids into the blood and the release of adrenalin and similar substances; then stops the flow causing a physical "rush" sensation. This sudden rush is followed by a resting state in which the body attempts to return to its normal functioning. This state is what most smokers identify as the relaxing feeling they get when they smoke.

Over time, a cause-effect association between the act of smoking and the resulting physiological changes develops. In effect, a person becomes "conditioned" to smoke when cravings occur. This connection can be seen in a smoker whenever that person gets an "urge" to smoke while driving, studying, drinking, after meals, or while socializing. Regular smokers connect smoking with hundreds of activities during the day. This is the component of tobacco addiction in which an individual learns to smoke to satisfy cravings. Just as a person learns to connect these things with smoking, they can learn to "un-connect" them and quit.

Treatments

Drug treatments are presently available to assist in tobacco cessation efforts. These drugs do not treat the psychological addiction, so it is best to use them in conjunction with a behavioral program. Most of these treatments are designed to be used for a limited time to alleviate nicotine cravings. They are also designed for regular smokers and not people who only smoke occasionally.

There are essentially two types of cessation treatments available: nicotine replacement treatments and oral non-nicotine treatments.

Nicotine replacement treatments are products that slowly release nicotine into the blood stream in small increments to alleviate a person's craving to smoke. They "mimic" the effects normally induced during smoking to satisfy a person's physiological addiction to nicotine. These products come in the form of gums (e.g. Nicorette), nasal sprays (e.g. Nicotrol NS), inhalers (e.g. Nicotrol), lozenges (e.g. Commit), and skin patches (e.g. Nicoderm).

While these products contain nicotine, unlike cigarettes, they do not produce carbon monoxide nor contain tars and other additives that directly contribute to severe health problems. Different types of nicotine replacement treatments should never be combined and used simultaneously or used while smoking.

Oral non-nicotine treatments (e.g. Zyban) are nicotine-free pills that stimulate the release of two amino acids, dopamine and norepinephrine, in the brain. It is not entirely clear how this treatment works, but it is believed that this release helps smokers deal with the anxiety that comes with quitting and reduces a person's craving to smoke.

No single treatment is right for everyone. Each treatment has possible side effects and health risks. In most cases, you should consult a doctor to determine which treatment is best for you. Women who are pregnant or breast-feeding should consult a doctor before using any of these treatments.

Summary of Pharmacological Smoking Cessation Treatments

NICOTINE REPLACEMENT SYSTEMS

How it works: Releases nicotine into the blood stream in small increments to alleviate cravings.

GUM (EXAMPLE: NICORETTE)

How it works: Nicotine gum that is slightly chewed then held in mouth. It releases nicotine into the body through the lining of your mouth while providing a little oral gratification.

Duration of use: 10-12 weeks

Prescription needed: No

Possible side effects: Unpleasant taste in mouth and upset stomach (not recommended for people with Temporomandibular joint disorders (TMD) or for those with dentures or other vulnerable dental work).

INHALER (EXAMPLE: NICOTROL INHALER)

How it works: Nicotine inhaler that is inhaled or puffed through a mouthpiece. It releases nicotine as a vapor that is absorbed through in the mouth and throat.

Duration of use: 3-12 weeks

Prescription needed: Yes

Possible side effects: Possible irritation in throat and mouth, coughing and upset stomach. (The Inhaler should be used with caution in patients with bronchospastic disease because nicotine is an airway irritant and might cause bronchospasm).

NASAL SPRAY (EXAMPLE: NICOTROL NS)

How it works: Nicotine spray that is inhaled through the nose from a pump bottle and absorbed through the nasal lining into the bloodstream.

Duration of use: 6 weeks - 3 months

Prescription needed: Yes

Possible side effects: Nasal and sinus irritation (*Not recommended for people with nasal or sinus conditions, allergies or asthma*).

TRANSDERMAL PATCH (EXAMPLES: HABITROL, NICO Derm, NICO Derm CQ, NICOTROL AND PROSTEP)

How it works: Nicotine patches worn directly on the skin for 16-24 hours/day. The patch slowly releases nicotine into the bloodstream through the skin.

Duration of use: 10-12 weeks

Prescription needed: No

Possible side effects: Mild itching, burning or tingling at the site of the patch. Possible skin irritation. (*Not recommended for people with skin problems or allergies to adhesive tape*).

ORAL NON-NICOTINE SYSTEMS

How it works: Believed to act on the part of the brain that is addicted to the nicotine to alleviate cravings.

BUPROPION HYDROCHLORIDE (EXAMPLE: ZYBAN)

How it works: Prescription nicotine-free pills available only from a health care professional.

Duration of use: 7-12 weeks

Prescription needed: Yes

Possible side effects: Dry mouth, difficulty sleeping, shakiness, and skin rash. There is a risk of seizures with high doses.

VARENICLINE (EXAMPLE: CHANTIX)

How it works: Prescription nicotine-free pills available only from a health care professional.

Duration of use: ~12 weeks

Prescription needed: Yes

Possible side effects: Nausea, headache, insomnia, constipation, vomiting, changes in dreaming, gas.

**As with most drugs, women who are pregnant or breast-feeding should consult a doctor before using any of these treatments.*

How effective are these treatments?

There is a high variability in results for all of these treatments. Manufacturers of these products conduct clinical trials to determine their effectiveness, but the levels of success will be different for everyone.

It is important to remember that all of these treatments are aids for quitting. They focus primarily on treating physiological conditions related to smoking addiction. They work best in conjunction with some form of behavior change program that addresses the psychological factors of smoking. Using pharmaceutical cessation treatments alone addresses only one part of tobacco addiction and will not guarantee success. If you would like to make an appointment to develop a smoking cessation program with a counselor, contact the Counseling and Psychological Services Department at 619-594-5281 or The California Smokers Helpline 1-800-NO-BUTS.

Remember, pharmaceutical cessation treatments are not miracle cures for smoking. Persistence is the key. Smoking is a behavior that develops over time and like smoking, cessation is a skill that needs to be practiced to become fully effective.

"Habit is habit, and not to be flung out of the window by any man, but coaxed downstairs a step at a time." Mark Twain

For More Information:

Student Health Services	619-594-5281	California Smokers Helpline	
Health Promotion.	619-594-4133	<i>Californiasmokershelpline.com</i>	1-800-NO-BUTS
Visit Our Website at	shs.sdsu.edu	American Cancer Society	
Facebook/Twitter.	Facebook.com/aztechealth & @AZTEChealth	<i>Cancer.org</i>	619-299-4200
Counseling & Psychological Services	619-594-5281	American Lung Association <i>Lungusa.org</i>	619-297-3901