Nicotine addiction and withdrawal

Definition

Tobacco and nicotine have a potential for addiction that is similar to alcohol, cocaine, and morphine.

Nicotine withdrawal creates anxiety, irritability, headache, hunger, and a craving for cigarettes or other sources of nicotine. These symptoms occur when a nicotine-dependent person suddenly stops smoking or using tobacco, or cuts back on the number of cigarettes or amount of tobacco products used.

Causes

Tobacco is a plant grown for its leaves, which are smoked, chewed, or sniffed for a variety of effects.

- It is considered an addictive substance because it contains the chemical nicotine.
- Tobacco also contains more than 19 known cancer-causing chemicals (most are collectively known as "tar") and more than 4,000 other chemicals.

More than 38 million people in the United States have successfully quit smoking. Yet there are still around 50 million Americans who smoke. Most say they would like to quit.

Although the number of cigarette smokers in the United States has dropped in recent years, the number of smokeless tobacco users has steadily risen. Smokeless tobacco products are either placed in the mouth, cheek, or lip and sucked or chewed on, or placed in the nasal passage. Nicotine absorption from smokeless tobacco is similar to smoking tobacco, and addiction is still very strong.

Both smoking and smokeless tobacco use carry many health risks.

Almost all people who try to quit have some form of nicotine withdrawal. Generally, people who smoked the longest or smoked a greater number of cigarettes each day are more likely to have withdrawal symptoms. Withdrawal symptoms are both physical and psychological.

People who are regular smokers tend to have particularly strong cravings. Their withdrawal symptoms get worse at certain times, places, or situations associated with smoking.

Symptoms

Nicotine use can have many different effects on body functions, both positive and negative. Nicotine acts as both a stimulant and depressant on your body. The use of nicotine:

- Decreases the appetite (for this reason, the fear of weight gain affects some people's willingness to stop smoking).
- Boosts mood and may even relieve minor depression. Many people will feel a sense of well-being.
- Raises the blood level of blood sugar (glucose) and increases insulin production.
- Increases bowel activity, saliva, and phlegm.
- Increases heart rate by around 10 to 20 beats per minute.
- Increases blood pressure by 5 to 10 mmHg (because it tightens the blood vessels).
- May cause sweating, nausea, and diarrhea.
- Stimulates memory and alertness. People who use tobacco often depend on it to help them accomplish certain tasks and perform well.

Symptoms of nicotine withdrawal generally start within 2 - 3 hours after the last tobacco use, and will peak about 2 - 3 days later. Symptoms may be severe depending on how long you smoked and how many cigarettes you smoked each day. Common symptoms include:

- An intense craving for nicotine
- Anxiety, tension, restlessness, frustration, or impatience
- Difficulty concentrating
- Drowsiness or trouble sleeping, as well as bad dreams and nightmares
- Headaches
- Increased appetite and weight gain
- Irritability or depression

A milder form of nicotine withdrawal that involves some or all of these symptoms can occur when a smoker switches from regular to low-nicotine cigarettes or significantly cuts down on the number of cigarettes smoked.

Symptoms of nicotine withdrawal can mimic, disguise, or worsen the symptoms of other psychiatric problems.

**Treatment**

There are several strategies for treating nicotine withdrawal.

Nicotine supplements can help. All of them work well, if used properly. See: Nicotine replacement therapy

Nicotine supplements come in several forms:

- Gum
- Inhalers
- Nasal spray
- Skin patch

Nonhabit forming prescription medications may help you quit smoking and keep you from starting again. Such medicines include:

- Bupropion (Wellbutrin, Zyban)
- Varenicline (Chantix)
- Other medications, including clonidine, antidepressants such as nortriptyline or fluoxetine (Prozac), and buspirone (Buspar) have shown some benefits, but are not FDA-approved for smoking cessation

Like any addiction, quitting tobacco is difficult, especially if you are acting alone. If you join a smoking cessation program, you have a much better chance of success.

- Smoking cessation programs are offered by hospitals, health departments, community centers, and work sites.
- The best quit-smoking programs combine many strategies to help keep you from starting smoking again. Counseling by telephone can be as helpful and as effective as face-to-face counseling.

Untreated depression can prevent you from quitting tobacco. A screening test for depression may help ensure proper treatment and increase the odds that you will stay off tobacco products.

People who are trying to quit smoking often become discouraged when they don't succeed at first. Research shows that the more times you try, the more likely you are to succeed -- so don't give up! If you aren't successful the first time you try to quit, look at what worked or didn't work, think of new ways to quit smoking, and try again. Many attempts are often necessary to finally "beat the habit."

**Outlook (Prognosis)**

Nicotine withdrawal is short-lived and symptoms pass in time, usually in less than a week. Withdrawal is the most uncomfortable part of quitting, but the real challenge is beating long-term cravings and staying away from tobacco.

**Possible Complications**

Long-term use of nicotine products, whether smoking or using smokeless tobacco products, carries many risks, including:
• Cancer
• Heart disease
• Pregnancy problems
• Stroke

Weight gain due to increased eating also may occur. This is much less unhealthy than continuing to smoke. People who have concerns about their weight should address them while quitting, so these concerns do not affect their attempts to stay away from cigarettes.

Nicotine withdrawal may also bring on a relapse of major depression, bipolar disorder, or other substance abuse problems.

**When to Contact a Medical Professional**

See your health care provider if you wish to stop smoking, or have already done so and are experiencing withdrawal symptoms. Your provider can help provide treatments, some of which are only available by prescription.

For more information, visit the Franciscan Health Library at [www.FHSHealth.org/Health_Education.aspx](http://www.FHSHealth.org/Health_Education.aspx)