Nicotine replacement therapy and other medications which aid smoking cessation

The following information was obtained from the American Lung Association on nicotine replacement therapy and other smoking cessation medications. It is being shared to educate College employees on these topics.

Overview on smoking cessation medications
Many people mistakenly think that nicotine is the substance in tobacco that causes cancer. This belief may cause some people to avoid using nicotine replacement therapy when trying to quit. While nicotine is what gets (and keeps) people addicted to tobacco, other substances in tobacco are responsible for its cancer-causing effects.

Nicotine replacement products help relieve some of the withdrawal symptoms people experience when they quit smoking. There are several nicotine replacement products currently available over-the-counter in the United States, including nicotine patches, nicotine gum and nicotine lozenges. A nicotine nasal spray, inhaler (Zyban) and the recently approved nicotine-free tablet (Chantix) are available only by prescription.

To be most effective, nicotine replacement products should be used in conjunction with a behavior change program. The U.S. Food and Drug Administration (FDA) has approved all of the following medications to help people quit smoking.

Over-the-Counter medications
Nicotine patch (also available by prescription)
- The nicotine patch releases a constant amount of nicotine in the body. Unlike the nicotine in tobacco smoke, which passes almost instantaneously into the blood through the lining of the lungs, the nicotine in the patch takes up to three hours to pass through the layers of the skin and into the user’s blood.
- The patches are similar to adhesive bandages and are available in different shapes and sizes. A larger patch delivers more nicotine through the skin.
- The patch must be worn all day, and cannot be put on and removed as a substitute for a cigarette. Most of the patch products are changed once every 24 hours. One particular patch is worn only during the waking hours and is removed during sleep.
- Wearing the nicotine patch lessens the chance of suffering symptoms such as tenseness, irritability, drowsiness, and lack of concentration.

Nicotine gum
- Nicotine gum delivers nicotine to the brain more quickly than the patch. However, unlike smoke, which passes almost instantaneously into the blood through the lining of the lungs, the nicotine in the gum takes several minutes to reach the brain. This makes the “hit” less intense with the gum than with a cigarette.
- Nicotine gum is not designed to be chewed like normal gum. Rather, it is used in the “chew and park” method. When you insert a piece of gum into your mouth, chew it a few times to break it down, then park it between your gum and cheek and leave it there. The nicotine from the gum will make its way into your system.
via the blood vessels just under the lining of the oral cavity. If you continue chewing without parking, the nicotine will be released directly into the saliva in your mouth, which will eventually be swallowed, leaving you with a nasty stomachache and a craving for a cigarette.

- Nicotine gum helps take the edge off cigarette cravings without providing the tars and poisonous gases found in cigarettes. It is a temporary aid that reduces symptoms of nicotine withdrawal after quitting smoking.

Nicotine lozenge

- A nicotine lozenge comes in the form of a hard candy, and releases nicotine as it slowly dissolves in the mouth. Eventually, the quitter will use fewer and fewer lozenges during the 12-week program, until he or she is completely nicotine-free. Biting or chewing the lozenge will cause more nicotine to be swallowed quickly and result in indigestion and/or heartburn.

- Each lozenge will last about 20-30 minutes, and nicotine will continue to leach through the lining of the mouth for a short time after the lozenge has dissolved. Do not eat or drink 15 minutes before using the lozenge or while it is in your mouth.

Nicotine nasal spray

- Nicotine nasal spray, dispensed from a pump bottle similar to over-the-counter decongestant sprays, relieves cravings for a cigarette.

- Nicotine is rapidly absorbed through the nasal membranes and reaches the bloodstream faster than any other NRT product, giving a rapid nicotine “hit.” This feature makes it attractive to some highly dependent smokers.

- A usual single dose is two sprays, one in each nostril. The maximum recommended dose is five doses per hour or 40 doses total per day.

Prescription medications

Nicotine inhaler

- The nicotine inhaler consists of a plastic cylinder containing a cartridge that delivers nicotine when you puff on it. Use the inhaler when you have a craving for a cigarette. Use no more than 16 cartridges a day for up to 12 weeks.

- Although similar in appearance to a cigarette, the inhaler delivers nicotine into the mouth, not the lung, and enters the body much more slowly than the nicotine in cigarettes. The nicotine inhaler is available only by prescription.

Non-nicotine pill – Zyban

- Bupropion hydrochloride (Zyban) was approved in 1997 to help smokers quit. The drug, available by prescription only, is also sold as an antidepressant under the name of Wellbutrin.

- Treatment with bupropion begins while the user is still smoking, one week prior to the quit date. Treatment is then continued for 7 to 12 weeks. The length of treatment is individualized.

Chantix – tablets
The newest prescription drug, Chantix, Varenicline tartrate, is only the second nicotine-free smoking cessation drug to gain FDA approval. The active ingredient, varenicline, works in two ways. It cuts the pleasure of smoking and reduces the withdrawal symptoms that lead smokers to light up again and again.

The tablet will be taken twice-daily for 12 weeks, a period that can be doubled in patients who successfully quit to increase the likelihood they remain smoke-free.

It is necessary with all types of medication to follow the doctor’s orders and use the products only as prescribed and/or according to labeling.

The goal of nicotine replacement therapy is to stop smoking completely. If you continue to have strong urges to smoke or are struggling to stop smoking completely, ask your healthcare provider about additional help.