MSA NEWSLINE

Up-to-date Information on Maternal Substance Abuse and Child Development

Methoxsalen Decreases Desire to Smoke

Options for the Smoker Who Wants to Quit

When you are ready to quit smoking, there are a few options of treatment that you might want to know about. The nicotine patch, gum, nasal spray, and inhaler are all forms of nicotine replacement. This means that you will not have as much of a craving for nicotine when you stop smoking.

Nicotine Patch
- Each morning, you place the patch on a part of your body between your neck and your waist.
- The treatment period is normally eight weeks.
- Side effects might include a rash on your body where the patch was placed.
- You can get the patch without a doctor's prescription at most pharmacies.

Nicotine Gum
- Gum must be chewed slowly until a peppery taste is detected, then stop chewing and move the gum between your cheek and your gum.
- A regular schedule of chewing at least one piece of gum every one to two hours for one to three months may give the best results.
- Some people may get hiccups, upset stomach or sore jaw.

Methoxsalen Mimics Genetic Variation

In 1998, NIDA-supported research found a genetic variation that makes some people less likely to become addicted to nicotine than others. They also found that people with this gene who were addicted were likely to smoke fewer cigarettes and have an easier time quitting smoking. The researchers found a medication called Methoxsalen that mimics the effects of the above mentioned genetic variation. Currently used in treatment for severe psoriasis, Methoxsalen works for smokers by "...partially blocking the body's ability to break down nicotine, significantly improving the effectiveness of oral nicotine replacement in reducing a smoker's urge for nicotine."

Dr. Edward Sellers and his colleagues found that smokers who take Methoxsalen take fewer and shorter puffs while smoking. Dr. Sellers goes on to say that Methoxsalen, or other medications which act as the principal site for nicotine metabolism, may be a new treatment option for nicotine addiction. Importantly, Methoxsalen would limit a smoker's ingestion of harmful constituents of tobacco smoke. Methoxsalen works by reducing the activity of CYP2A6 and makes more nicotine available in the blood for longer. This longer availability sustains the smoker for a longer period of time, thus reducing the need to smoke.

NIDA researchers conducted two studies to investigate Methoxsalen's effect on nicotine metabolism and nicotine cravings in smokers who were not trying to quit smoking. Results from the first study showed that participants who were given Methoxsalen in combination with nicotine replacement had mean nicotine levels twice as high as those given placebo plus nicotine replacement.
Nicotine Nasal Spray
- Apply one spray to each nostril one to two times each hour while you are awake.
- The nasal spray may cause nasal irritation, diarrhea and a fast heart rate.
- You can get nasal spray with a doctor's prescription.

Nicotine Inhaler
- Inhale from a cartridge when you have a desire to smoke.
- No more than 16 cartridges a day for up to 12 weeks.
- You may experience irritation of the throat and mouth when first starting, as well as coughing.
- You can get an inhaler with a doctor's prescription.

-Info received from American Family Physician @ www.aafp.org

They also reported far less desire to smoke than participants who were given placebo. Results from the second study, which consisted of participants who were given either Methoxsalen, placebo in combination with nicotine, or just placebo, showed that Methoxsalen plus nicotine smokers, smoked fewer cigarettes, had longer intervals between cigarettes, and took fewer puffs on each cigarette. Although these results look promising, Methoxsalen has currently not been proven safe for long-term treatment in humans.


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