



# Butt out

*Need more reasons to quit smoking?  
Here you go*

*by Diana Johansen*

**C**igarette smoking is the largest preventable cause of death in the US, according to the Centers for Disease Control and Prevention. That grim statistic probably holds true for Canada, too. Tobacco is a toxin that causes illness, debility, and premature death. Yet, smokers have great difficulty quitting, because tobacco dependence has the same characteristics as any drug addiction: nicotine is psychoactive, tolerance develops with use, and people experience withdrawal symptoms when they stop.

When a person tries to quit and then lights up again, nicotine enters the brain within seconds, connects with nicotine receptors, and alters the brain chemistry. The brain releases neurotransmitters such as dopamine, causing feelings of well-being and relief from withdrawal symptoms. Concentration and memory sharpens, anxiety decreases, and appetite is suppressed.

Most smokers make several attempts to quit before they finally succeed. The on-again, off-again cycle makes some individuals reluctant to try to quit again; but considering the health risks associated with smoking, people trying to give up the habit should receive all the encouragement and support they need.

Lung cancer is the leading cause of death from cancer for men and women, and most people who die from lung cancer are cigarette smokers. There is a causal relationship between lung cancer and both the amount of cigarettes smoked and the number of years as a smoker. People who smoke are also more likely to develop cancer of the mouth, throat, esophagus, pancreas, bladder, kidney, and cervix. The good news is cancer risks decrease after quitting smoking and decreases further over the course of additional smoke-free years.

## **The adverse effects of smoking for PWAs**

Smoking is one of the major risk factors for heart disease in both men and women, and smokers who suffer heart attacks have a lower survival rate than non-smokers. Moreover, PWAs who smoke may be at even greater risk. Elevated cholesterol and triglycerides, very common problems with current antiretroviral medications, are also major risk factors for heart disease; there have been reports of heart attacks among persons on antiretrovirals. The combination of these potent risk factors could dramatically increase the risk of heart disease.

Smoking has other negative effects for HIV-positive persons. Tobacco affects the immune system and may hasten HIV disease

progression to AIDS. HIV-positive smokers are more likely to develop respiratory infections, especially *Pneumocystis carinii* pneumonia (PCP) and tuberculosis (TB; see article on page 19). Smoking decreases the local immunity in the lungs so that there is less protection against respiratory infections, faster decline in CD4 cells after infection with HIV, and more active viral replication in the lungs of smokers. One study also suggested that antiretroviral therapy might be less effective for people who smoke daily.

Emphysema—a disease where lung tissue is destroyed, making it increasingly difficult to breathe—progresses more rapidly in HIV-positive individuals. Almost everyone who dies from emphysema is or has been a smoker. Other lung disorders such as asthma and chronic obstructive pulmonary disease also occur more often in smokers.

Smokers are also more susceptible to a variety of oral diseases, and HIV-positive smokers in particular are more likely to develop oral candidiasis, or thrush. Tobacco smoke is also associated with acute and chronic rhinitis and increased rates of nasal and sinus cancer.

## **Tobacco affects the immune system and may hasten HIV disease progression to AIDS.**

Smoking and HIV infection both increase oxidative stress and the production of free radicals. Oxidative stress is thought to be a contributing factor in aging, disease processes, and viral replication. People living with HIV may experience more negative consequences of oxidative stress because they have low levels of protective antioxidants in the body. Smoking also depletes antioxidant levels in the blood, especially vitamin C.

Cigarettes decrease appetite, making it harder to overcome loss of appetite caused by illness or side effects of medications. One large study showed that smokers had a lower intake of beta-carotene, vitamins C, E, A, B12, and B6, thiamine, folic acid, iron, and potassium. Many of these nutrients are required for healthy immune function and antioxidant protection. Moreover, smokers tend to weigh less than non-smokers and usually gain weight when they quit, an important consideration for those who need to gain weight.

### **Other general adverse effects**

Among other negative effects, cigarette smoking is associated with peptic ulcer disease; smokers' ulcers heal at a slower rate because of a decreased ability to fabricate new cells and mucus in the stomach lining, both of which are necessary for healing. Cigarette smoking also aggravates diarrhea, and can cause reflux (heartburn) and delayed gastric emptying, meaning that food stays in the stomach longer than usual.

Cigarette smoking is also associated with lower bone mineral

density and an increased fracture rate, especially in men and post-menopausal women. This effect is a result of different mechanisms, including a direct toxic effect on the bone, decreased serum vitamin D levels, and altered hormonal metabolism. Smokers also tend to have lower body weight and be less active which also influence bone health.

While smoking may give the sensation of relieving stress, tobacco actually increases stress levels overall, possibly due to its effects on the endocrine system and altered levels of various regulatory hormones. Pregnant women who smoke tobacco have higher rates of miscarriage, stillbirth, premature birth, and pregnancy complications. Finally, smokers in drug treatment programs are more likely to crave cocaine and heroin than non-smokers.

### **The benefits of quitting**

Aside from the obvious health benefits and potentially longer life, think of the money you would save, which can add up to as much as \$200 a month! Food tastes better, your appetite improves, and you no longer have to go outside in cold, rainy weather to smoke. Skin doesn't wrinkle or age as quickly, and you can say goodbye to nicotine-stained fingers.

Quitting smoking is difficult because of its highly addictive qualities. You need to embrace a certain readiness for change, and you need an action plan. You are more likely to succeed if you use appropriate aids and supports. Some people can quit cold turkey or rely solely on a support group or buddy system, but many need nicotine-replacement therapy. In BC, these therapies are not covered by PharmaCare. However, you can use the money you save from not purchasing cigarettes to pay for the smoking cessation aids.

Nicotine gum is good for a first line of therapy if you use it properly. You should take it with nothing else except water; chew it slowly and keep in your mouth long enough to release all the nicotine. People usually need one piece every one or two hours, at least during the first few months after quitting.

Among other therapies, people generally use the nicotine patch for about eight weeks, although this depends on the degree of tobacco addiction. Bupropion, also known as Zyban or Wellbutrin, is a medication used during the quitting process as well as for long-term maintenance; it is also prescribed as an antidepressant, in which case it is covered by PharmaCare. If you are considering nicotine-replacement therapy, talk to your doctor about the best and safest option.

The bottom line is that smoking is bad for you. If you have ever considered quitting, now is a good time. If you have tried and failed, keep trying—you are bound to succeed eventually. If you need assistance, find the right tool for you with the help of your doctor. ☺



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