

# Smoking Cessation: What Is the Evidence?

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Cigarette smoking is the most avoidable cause of death in the United States, and although most smokers want to quit, initial attempts usually fail (Centers for Disease Control and Prevention, 2005a, 2005b). Smoking-related illnesses (e.g., cancer, cardiovascular disease) can be reduced by removing the risk factor. A multifaceted approach that includes a tobacco assessment to provide behavioral, pharmaceutical, and medical support as well as tailored treatment options for individual smokers may result in long-term smoking cessation. This article will synthesize several research studies and identify the best practices to support long-term smoking cessation.

- Increase tobacco taxes.
- Protect citizens from exposure to tobacco smoke in places where they work, live, and play.
- Ban tobacco advertising, promotion, and sponsorship.
- Regulate deceptive terms (e.g., "mild," "light") to prevent misleading labeling.
- Ensure that 30%–50% of the package label is appropriated to health warnings.
- Regulate the testing and disclosure of tobacco emissions.
- Promote public awareness of tobacco control issues related to the health risks of tobacco and secondhand smoke.
- Promote and implement successful programs aimed at tobacco cessation.
- Combat smuggling of tobacco products.
- Initiate legislation to inhibit the sale of tobacco products to minors.
- Implement policies to support alternative income for tobacco workers, growers, and individual sellers.

## Figure 1. Key Policy Provisions Outlined in the Framework Convention on Tobacco Control

*Note.* Based on information from World Health Organization, 2007.

## Predictors of Smoking Cessation

The two aspects of smoking cessation are attempting to quit and maintaining cessation. Nicotine dependence, as assessed by how early the first cigarette of the day is smoked and the number of cigarettes smoked per day, is a key predictor of cessation success (Hyland et al., 2004, 2006). Predictors of favorable quit attempts include low nicotine dependence (a score lower than two on the Heaviness of Smoking Index), high motivation (e.g., quit date set, strong desire to quit), longest prior attempt (longest time off smoking in previous six months), prior quit attempts made in the previous year, and higher socioeconomic status (Hyland et al., 2004, 2006). Alternatively, predictors of cessation success include low nicotine dependence, longer prior attempt, higher socioeconomic status, and not smoking in the first two weeks of cessation. Higher motivation only marginally predicted smoking cessation success, whereas a prior quit attempt was a negative predictor (Hyland et al., 2004, 2006). Some evidence exists to support a higher cessation rate in men; however, the relative benefits of gender-specific interventions are not supported (Singleton, Levin, Feldman, & Truglio-Londrigan, 2005).

## Public Policy on Smoking

Effective interventions for smoking reduction are those that reach the most smokers. Interventions that repetitively impact smokers, including higher taxes on tobacco products, label warnings,

antitobacco education campaigns, and smoke-free policies reduce tobacco demand the most (Biener et al., 2006; Frieden et al., 2005; Hammond et al., 2007). The U.S. Preventive Services Task Force's (2003) 5-As behavioral counseling framework provides a useful five-step strategy for engaging patients in smoking cessation discussions. The 5-As are: ask about tobacco use, advise to quit through clear personalized messages, assess willingness to quit, assist to quit, and arrange follow-up and support. To decrease tobacco use worldwide, the World Health Organization (2007) ratified the Framework Convention on Tobacco Control (see Figure 1).

## Effectiveness of Pharmaceutical Interventions

Nicotine- and non-nicotine-containing therapies both increase the chances of successful smoking cessation (Lam, Minnix, Robinson, & Cinciripini, 2006). Three interventions that have shown particular success are nicotine replacement therapy (NRT), bupropion, and varenicline. NRT reduces nicotine withdrawal symptoms and increases the odds of smoking cessation 1.5–2.0-fold; individuals who consume the nicotine equivalent of 15 or more cigarettes per day benefit the most (Silagy, Lancaster, Stead, Mant, & Fowler, 2004). However, researchers found that one NRT session was no more beneficial than others and that additional counseling offered little benefit, although most studies included nonpharmacologic support (Silagy et al.).

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Digital Object Identifier: 10.1188/08.CJON.813-815