



# Tobacco Products

## Fact Sheet

- More than 4,000 chemical compounds have been identified in tobacco smoke. Of these, at least 43 are known to cause cancer.<sup>1</sup>
- Current tobacco product regulation requires cigarette manufacturers to disclose levels of tar and nicotine. Smokers receive very little information regarding chemical constituents in tobacco smoke, however, and the use of terms such as “light” and “ultra light” on packaging and in advertising may be misleading.<sup>1</sup>
- Cigarettes with low tar and nicotine contents are not substantially less hazardous than higher-yield brands. Consumers may be misled by the implied promise of reduced toxicity underlying the marketing of such brands.<sup>1</sup>
- Vents are used in cigarette filters to lower tar and nicotine yields in smoke, but they may be difficult to see. To examine the vents in some brands, the smoker would have to take off the filter wrapping, hold the filter up to a bright light, and look through a magnifying glass.<sup>2</sup>
- The potential health benefit of low tar cigarettes has been challenged. Smokers who switch to lower-tar and -nicotine cigarettes frequently change their smoking habits. They may block the vents in the filter portion of a cigarette, puff more frequently, inhale more deeply, or smoke more cigarettes per day, thus negating any risk reduction from low-tar and -nicotine cigarettes.<sup>2</sup>
- Early data showed a lower cancer risk from low-tar cigarettes; however, more recent data suggest otherwise. Lower-yield cigarettes may be somewhat better than very high-yield cigarettes; but, when comparing full-flavor cigarettes and current light cigarettes, there is no evidence to suggest a lower cancer risk from the low-tar cigarettes.<sup>1</sup>

### CIGARETTE ADDITIVES

- Federal law (the Comprehensive Smoking Education Act of 1984 and the Comprehensive Smokeless Tobacco Health Education Act of 1986) requires cigarette and smokeless tobacco manufacturers to submit a list of ingredients added to tobacco to the Secretary of Health and Human Services.<sup>1</sup>
- Hundreds of ingredients are used in the manufacture of tobacco products. Additives make cigarettes more acceptable to the consumer — they make cigarettes milder and easier to inhale, improve taste, and prolong burning and shelf life.<sup>1</sup>

- In 1994 six major cigarette manufacturers reported 599 ingredients that were added to the tobacco of manufactured cigarettes. Although, these ingredients are regarded as safe when ingested in foods, some may form carcinogens when heated or burned.<sup>1</sup>
- Knowledge about the impact of additives in tobacco products is negligible and will remain so as long as brand-specific information on the identity and quantity of additives is unavailable.<sup>1</sup>

### SMOKELESS ADDITIVES

- In 1994 ten manufacturers of smokeless tobacco products released a list of additives used in their products. The additives list contained 562 ingredients approved for foods by the FDA.<sup>1</sup>
- The list of additives to smokeless tobacco includes sodium carbonate and ammonium carbonate, which increase the level of “free” nicotine in moist snuff by raising the pH level. Unprotonated (free) nicotine is the chemical form of nicotine that is most readily absorbed through the mouth into the bloodstream. Therefore, increases in pH can increase the snuff user’s nicotine absorption rate. Studies with nicotine and other addictive drugs suggest that the absorption rate of drugs into the body is an important determinant of their addiction potential.<sup>3</sup>
- Moist snuff products with low nicotine content and pH levels have a smaller proportion of free nicotine. In contrast, moist snuff products with high nicotine content and pH levels have a higher proportion of free nicotine.<sup>1</sup>
- The epidemiology of moist snuff use among teenagers and young adults indicates that most novices start with brands having low levels of free nicotine and then “graduate” to brands with higher levels.<sup>1</sup>
- Sweeteners and flavorings, such as cherry juice concentrate, apple juice, chocolate liqueur, or honey are used in various smokeless tobacco products. As with manufactured cigarettes, these additives increase palatability and may increase the use of smokeless tobacco, at least among novices.<sup>1</sup>

### REFERENCES

1. U.S. Department of Health and Human Services. *Reducing Tobacco Use: A Report of the Surgeon General*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2000.
2. Centers for Disease Control and Prevention. Filter ventilation levels in selected U.S. cigarettes, 1997. *MMWR* 1997; 46:1043-47.
3. Centers for Disease Control and Prevention. Determination of nicotine, pH, and moisture content of six U.S. commercial moist snuff products — Florida, January–February 1999. *MMWR* 1999; 48:398-401.