

# Girls Worried About Weight More Likely to Smoke

By ACSH Staff — July 11, 2002

Concern about weight and the drive to be thin increase the risk that girls will become daily smokers by the time they're eighteen or nineteen years old, according to a new study sponsored by the National Heart, Lung, and Blood Institute (NHLBI). The study appeared in the June 2002 issue of *Preventive Medicine*.

"Many of the factors identified in the study as increasing girls' risk of becoming smokers were not even on our radar screens ten years ago," says Dr. Carolyn Voorhees of the Johns Hopkins University Medical School, "and the drive for thinness among black girls has not been previously reported." Voorhees, an NHLBI Research Fellow at the time of the study, led the analysis with collaborators at the University of California at Berkeley; Children's Hospital Medical Center in Cincinnati, OH; Westat, Inc., in Rockville, MD; and the Maryland Medical Research Institute in Baltimore.

The study analyzed surveys of 2,379 white and black girls from Richmond, CA, Cincinnati, OH, and Washington, D.C. Researchers interviewed the girls at ages nine and ten and then followed them for a nine-year period. They looked at five categories of smokers, based on the number of days a girl had smoked within a period of thirty days:

- No smoking
- Experimental (five or fewer days)
- Occasional (six to nineteen days)
- Regular (twenty to twenty-nine days)
- Daily (thirty days)

The girls' blood lipids, blood pressure, food intake, and physical activity were assessed. Information on parental and guardian education and other topics was also gathered.

## **Smoking For Weight Control**

"Approximately eighty percent of smokers do gain weight when they quit, and the amount of weight gained is somewhat greater for females than males," says Bonnie Spring, Ph.D., professor of psychology at the University of Illinois in Chicago. "Plausibly, young women may observe that stopping smoking leads to overeating and weight gain," Dr. Spring observes. "They may reason that the converse might also hold true that starting smoking might suppress eating and promote weight loss." It should be noted, though, that increased eating (about three hundred calories per day), rather than changes in metabolism or activity, is the major contributor to post-cessation weight gain.

"Nicotine potency as an appetite and weight suppressant is greater for a person in nicotine withdrawal than for a person just initiating smoking," concludes Dr. Spring. In other words, it is

people who have long smoked, not people who are considering starting, who are most likely to see smoking as a means of staying thin, simply because they are prone to replace smoking with eating when they quit.

Michael Cummings, Ph.D., chairman of the Department of Cancer Prevention, Epidemiology and Biostatistics at the Roswell Park Cancer Institute in Buffalo, NY, says the chemicals in cigarette smoke do have some impact on appetite but notes that this is hardly sufficient reason to use them. "The problem is, smoking is about as dangerous a weight control drug as you can find."

## **The Tobacco Industry History of Thin-Themed Advertising**

The tobacco industry knows about smoking women's fear of weight gain.

Dr. Cummings explains that in 1959, the Food and Drug Administration (FDA) blocked the marketing of "Trim Reducing-Aid Cigarettes," which contained the additive tartaric acid, intended to help smokers keep weight off. This was one of the few times the FDA acted to stop the marketing of cigarettes. "They did so," he says, "because weight control was an explicit health claim and cigarettes weren't safe effective, but not safe."

The industry has used many subtle messages and images to get the idea across. The 1910 Lucky Strikes campaign that first associated smoking and slimness was one of the most successful advertising campaigns in history. It pictured a shadow of an attractive woman whose silhouette showed a double chin, and was captioned: "First a shadow, then a sorrow; Reach for a Lucky Instead of a Sweet."

"Indeed, one of the most disturbing findings of the NHLBI study," says Dr. Spring, "was that slimness concerns are a risk factor for smoking onset by African American girls. Until now, African American ethnicity has generally been found to be a protective factor against exaggerated weight concerns and against the onset of smoking by girls."

"Despite increasing efforts to reduce smoking among young women, they remain one of the fastest growing groups of cigarette smokers in the United States," says Carol J. Boyd in her article, "Why is Virginia Slim? Women and Cigarette Advertising" (International Quarterly of Community Health Education, vol. 19 (1), 1999). "While the tobacco industry has been stepping up its targeting of all women, it is specifically focusing efforts on subgroups including young women under eighteen years of age," Boyd continues. "Thinness has been the [thematic] link between the physical attributes of thin, long cigarettes and the functional benefit of appetite suppression." Boyd says that in the last seventy years, consumers have been told that: Lucky Strikes lead to thinner and more youthful figures; Capri is the "slimmest slim in town"; Misty is "slim and sassy"; More is "slim and elegant" (like you); and most recently, as Virginia Slim tells us while looking thin and youthful in her bathing suit, "It's a woman thing."

## **Factors That Stack the Odds**

Among the study's other key findings were:

- White girls were more likely than black girls to become daily smokers, while black girls were more likely than white girls to become experimental or occasional smokers.
- For black girls, weight concerns and a drive for thinness at ages eleven to twelve were the

most important factors leading to daily smoking at ages eighteen to nineteen.

- For white girls, in addition to weight concerns at ages eleven to twelve, poor conduct and stress at those ages and having a one-parent household were the most important factors correlated with daily smoking at ages eighteen to nineteen.

"It may be that adults in single-parent households experience high levels of stress with which they attempt to cope by smoking," Dr. Spring explains. "The girls may imitate the parent's behavior or may experience an environment in which smoking is tolerated or permitted rather than prohibited."

Many findings suggest that young people tend to begin smoking because of peer influences and only progress later to using smoking as a coping or self-regulatory behavior. "Of course, if girls in stressed, single-parent families began smoking earlier than their peers, they might have had more time to progress to self-regulatory smoking," Dr. Spring notes.

"Nicotine is a mood altering drug it makes people feel better," adds Dr. Cummings. "It is not surprising that those who live in stressful environments would be attracted to nicotine or, for that matter, other drugs that alter negative moods."

### **Naivete and Strategy**

"Many young people believe that they will experiment with smoking during high school or college and will then quit," Dr. Spring says. "They don't realize that they'll become addicted and then be unable to stop." An approach that they're trying in Dr. Spring's daughter's school is to have college students come back to speak with eighth-graders about just this problem. "If those students wish they'd done *anything* differently, it's never start smoking, since now they're hooked," she says.

Reports that youthful behavior patterns influence the likelihood of future smoking will come as no surprise to cigarette companies, of course. In a 1981 industry document, Philip Morris was quoted as saying, "It is important to know as much as possible about teenage smoking patterns and attitudes. Today's teenager is tomorrow's potential customer, and the overwhelming majority of smokers first begin to smoke while still in their teens."

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