

# ON ROUNDS

COLLEGE OF COMMUNITY HEALTH SCIENCES  
UNIVERSITY OF ALABAMA SCHOOL OF MEDICINE • TUSCALOOSA REGIONAL CAMPUS

## PREVENTION PREVAILS

A PATH TO PEAK  
HEALTH

EXERCISE  
HEALTHY EATING  
REDUCING STRESS  
STOP SMOKING  
LIVE LONGER

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Using technology to leap the language barrier

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Experiences provide important skills for doctors



# LIGHTING UP

## ELECTRONICALLY

BY LESLIE ZGANJAR

In 2017,  
e-cigarette  
use by high  
school students  
increased  
**78%**

The number of people in the US who smoke has declined in recent years, but the use of electronic cigarettes has skyrocketed, particularly among the nation's youth.

According to the Food and Drug Administration, e-cigarettes have become the most commonly used tobacco product by US teens. While rates of use generally declined between 2015 and 2017, data for 2018 showed a sharp reversal of that trend.

E-cigarette use from 2017 to 2018 by high school students (defined by use on at least one day in the past 30 days), increased 78%, from 11.7% to 20.8%, resulting in 3 million high school students using e-cigarettes last year.

The FDA noted that the rise in

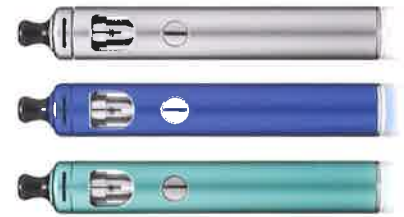


e-cigarette use is likely due to the recent popularity of one type of e-cigarettes, JUUL, as well as flavored tobacco products.

"JUUL is something that didn't even exist three years ago, and now everybody is doing it," said Dr. Alan Blum, professor and the Gerald Leon Wallace, MD, Endowed Chair of Family Medicine at the College of Community Health Sciences, and founder and director of The University of Alabama Center for the Study of Tobacco and Society.

E-cigarettes contain a nicotine-based liquid, not tobacco. When the user inhales, a tiny battery-powered device triggers the heating of the "e-liquid" and its nicotine, flavorings and propylene glycol (to produce a vapor).

Unlike the first generation of e-cigarettes that have the look and feel of a conventional cigarette, including a red LED light that glows when one inhales, JUUL resembles



a USB or flash drive, "in keeping with the adolescent and college-age wired generation," Blum said. The JUUL starter kit includes the electronic device, a battery charger that can be plugged into a computer, and two different flavored disposable pods, each of which contains the same amount of nicotine as a pack of 20 cigarettes.

"I'm concerned about JUUL because it has one of the highest concentrations of nicotine of any tobacco product," Blum said.

The makers of e-cigarettes, who include major cigarette manufacturers, claim these products reduce the risks of conventional smoking because they don't produce the cancer-causing chemicals that result from burning tobacco.

But research recently published in the Journal of the American Medical Association showed that, compared with non-users, teenagers who take up e-cigarettes are more likely to transition to conventional cigarettes, risking a lifetime of addiction to smoking and resulting in smoking-related diseases.

"It's almost like we haven't learned anything from our horrific experience with cigarettes," Blum said.



# PREVENTABLE HEALTH RISKS AND DEATHS

BY LESLIE ZGANJAR

"I think it's a tragedy that we're still talking about this issue more than 50 years after the US Surgeon General's report on smoking showed proof positive that it [smoking] is the leading preventable cause of cancer and the leading preventable cause of heart disease," said Dr. Alan Blum, professor and Gerald Leon Wallace, MD, Endowed Chair of Family Medicine at the College of Community Health Sciences.

Approximately 480,000 smoking-related deaths occur each year in the US, and those who smoke often don't experience illness until 20 to 30 years after they first light up, Blum said.

According to the National Institutes of Health, cigarette smoking remains the most avoidable cause of death. Upward of 90% of lung cancers are due to cigarette smoking. Half of all heart disease-related deaths are attributed to smoking, as well as more than 80% of cases of emphysema.

Blum, who also directs The University of Alabama Center for the Study of Tobacco and Society, which he founded in 1998, believes the ongoing smoking pandemic is one of the worst health care failures of the 20th and 21st centuries. "Lung cancer is a man-made tragedy that we could and should have prevented."

A big part of the problem is that everyone thinks the war on smoking and tobacco has been won, he said. While smoking is banned in many places (the College and UA have been smoke-free campuses since 2015), and while the number of US individuals who smoke has declined from more than 55 million 50 years ago, there were still 34.4 million adults smoking cigarettes in 2017. More than 16 million Americans are living with smoking-related diseases, according to

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Dr. Alan Blum, professor and family medicine physician

the US Centers for Disease Control and Prevention.

According to Blum, the best way to stop smoking is to go cold turkey and buddy up with a friend or relative who has stopped smoking or who is also trying to stop. Medications can help some people, but they can be expensive and often unnecessary, he said.

"Many people make stopping harder than it really is. A simple oral substitute such as mints, sugarless gum, unsweetened iced tea, a piece of fruit or kissing can make stopping [smoking] a pleasurable experience. Doing simple one-minute relaxation exercises in a quiet room or taking a quick walk around the block or around the house can help postpone each cigarette. So, too, can trying never to light up on awakening, with drinking a cup of coffee or while driving," Blum said.

Money saved by not buying cigarettes is huge, he said, adding that a pack-a-day habit amounts to \$2,000 annually. Blum also said that smoking a pack of cigarettes a day translates to more than 72,000 inhalations, over the course of a year, of carbon monoxide, ammonia and formaldehyde, as well as more than 40 known cancer-causing chemicals.

The good news is that it's never too late to stop smoking. Although risk of lung cancer may not decline for many years, there are both immediate and long-term benefits to the heart, lungs, eyes, teeth, gums and reproductive system when one kicks cigarettes, Blum said.



## THE CENTER FOR THE STUDY OF TOBACCO AND SOCIETY

BY LESLIE ZGANJAR

The University of Alabama Center for the Study of Tobacco and Society, a part of the College of Community Health Sciences, holds the world's largest collection of original materials related to the tobacco industry – newspaper and television coverage, books, rare advertising, photographs and promotional artifacts that document promotion of tobacco products and the history of efforts to combat smoking.

When he joined the College's Department of Family Medicine in 1999, Dr. Alan Blum established the center to tell the story not just of the successes in countering cigarette smoking and its promotion, but also of the failures and fear of confronting the tobacco industry.

Blum, who directs the center, is professor and Gerald Leon Wallace, MD, Endowed Chair in Family Medicine. He is an expert on the history of tobacco use, cigarette marketing and the anti-smoking movement. He also serves as a public health advocate on the topic of smoking and tobacco use through his writing of op-eds for newspapers and editorials for medical journals, original presentations and research posters at national and international conferences, as well as museum and online exhibitions created from the center's vast collection.

Blum and his staff, including Collection Manager Kevin Bailey and graduate students in The University of Alabama School of Library and Information Studies, have created nearly a dozen exhibitions on tobacco-related subjects, including one in 2014 commemorating the 50th anniversary of the landmark US Surgeon General's Report on Smoking and Health that confirmed cigarette smoking as a leading cause of lung cancer and other health problems. The exhibition debuted at UA's Gorgas Library before traveling to the Lyndon Baines Johnson Presidential Library in Austin, Texas, the Texas Medical Center Library in Houston, and the LSU Health Sciences Center in New Orleans.

Online exhibitions produced in fall 2018 include "Big Tobacco in the Big Apple: How New York Became the Heart of the Tobacco Industry...and Anti-Smoking Activism," and "Of Mice and Menthol," showing the history of the tobacco industry's targeting of African Americans. This exhibition featured cigarette



**Dr. Alan Blum, professor of family medicine and director of the Center for the Study of Tobacco and Society.**

advertisements with celebrity endorsements from world heavyweight boxing champion Joe Louis and baseball greats Jackie Robinson and Hank Aaron.

An exhibition released in November 2018, "The Makin's of a Nation," coincided with the 100th anniversary of the end of World War I, which introduced a new generation to smoking via free cigarettes provided to soldiers.

Cigarette advertising has been largely out of sight for nearly two decades, since an agreement was signed by the state attorneys general and US cigarette manufacturers to end cigarette billboards and remove tobacco advertising from television and sponsorship of sporting events. But the tobacco industry continues to maintain a firm grip on the 18-34-year-old population with internet-based marketing, entertainment sponsorship and retail promotions of new products, such as electronic cigarettes, Blum said.