

# ELECTRONIC CIGARETTES



## **A PUBLIC SERVICE ANNOUNCEMENT FROM THE HARRISON SCHOOL OF PHARMACY**

Electronic cigarettes, also referred to as e-cigarettes, e-cigs, or vapes, have grown in popularity among Americans in the past few years. Moreover, significant use in young American users in middle school and high school has increased substantially since 2011 with an estimated 21% of students admitting to using e-cigarettes. The growth in popularity is driven by unregulated markets and misinterpretation of health and safety information. A generation of young smokers and vape users are on the rise. The Harrison School of Pharmacy hopes to dispel some of the misconceptions behind e-cigarette use and to encourage users to seek help in cessation therapy.

## What are e-cigarettes?

E-cigs are small, electronic devices that can be used to inhale a vapor by simply “puffing” on the device [1]. Commonly e-cig liquid contains nicotine, propylene glycol, glycerin, flavorings, and many other chemicals [2]. E-cigs come in a variety of forms and names such as vapes, vape pens, tanks, or mods. They can be similarly shaped to cigarettes, pipes, or cigars ranging in various size, shapes, and colors [3].



## Are e-cigarettes addictive?

Yes. Nicotine is a highly addictive ingredient found in the tobacco plant. Both traditional cigarettes & E-cigarettes contain nicotine. If used for extended periods of time, a user may become dependent on nicotine which may lead to altered behavior and changes in mental health [4]. Up until age 25, the human brain is still growing and very susceptible to changes. Young users who use e-cigs are more susceptible to addiction as their brain can easily create nicotine dependency. This development of nicotine dependency at a younger age can make it harder to stop the addiction and primes the user's brain for other addictive substances [5].

## Are e-cigarettes harmless?

No. E-cigs are harmful to the body's vital organ systems. Other than the addictive properties of nicotine, studies have found that the heart, brain, lungs, blood vessels and bladder are all affected by nicotine. Prolonged use of e-cigarettes may lead to serious, life threatening events including heart attack, stroke, and cancers [4]. Continued research into e-cigarette use has revealed that aerosolized vapors can contain ultrafine particles, chemicals linked to lung disease such as diacetyl, volatile compounds such as benzene known to affect blood cell count, and heavy metals such as nickel, lead, and tin [5,6,7]. E-cigarettes may be a safer alternative for current tobacco smokers, but are considered high risk to non-smokers.



## What is a JUUL?

A JUUL is a brand of e-cigarettes that is a self-proclaimed "switching device" for current cigarette users to use for smoking cessation; however, due to their easily concealable modern design and enticing flavor, users of a younger age have popularized the slim and rechargeable USB-device. The device uses interchangeable "pods" which contain liquid nicotine, flavoring, and other chemicals.



## Why are JUULs to blame?

Despite the company's "efforts" to deter young and non-cigarette users from purchasing the device by overhauling their marketing campaigns, JUUL is still the number one e-cigarette used by teens and young adults [8]. The company equates that one pod has the nicotine equivalency of 20 traditional cigarettes, but despite this information an estimated 63% of users surveyed did not know the product contained nicotine [8,9]. With knock-off devices, accessories, social media, and a culture that continues to exploit users, the health of young Americans is at a greater risk for nicotine addiction and harmful additive effects.

Nicotine-naive individuals are **4x** more likely to start smoking cigarettes after e-cigarette use [10]

## What has been done to help?

The FDA has recognized the popularity of e-cigarettes and their potential impact on public health and safety. They have since stepped up as a regulating body for the industry and independent manufacturers. Specifically the FDA has stepped in to remove flavoring from products to deter young users. National campaigns have stepped up to bring awareness to youths about the dangers of smoking and e-cigarette use including the Truth Initiative's "Safer ≠ Safe", the CDC's "The Real Cost", and the Surgeon General's "Know the Risks".



## I want to quit smoking/vaping. What can I do?

Deciding to live a smoke-free or vape-free lifestyle can be a difficult decision for an individual. When the choice is made to stop, research has demonstrated that behavioral therapy counseling combined with medication therapy has the most success in assisting the individual in abstaining from nicotine products. On the Auburn University campus there are multiple resources available to students, faculty, staff, and community members.

### **Pack It Up Club**

This program is available to any member of the community. Trained and certified pharmacy students from the Harrison School of pharmacy provide 3 counseling sessions to help create personalized plans, set goals, and determine which therapy is appropriate based upon your individual needs. For more information, please contact the club officers at [PackItUpClub@auburn.edu](mailto:PackItUpClub@auburn.edu) or call (334) 844-4099.

### **Auburn University Pharmaceutical Care Clinic (AUPCC)**

The clinic located at the Harrison School of Pharmacy provides personalized counseling services to aid in smoking cessation and nicotine replacement therapy to aid in cessation. Services are available to anyone; however, members with Blue Cross Blue Shield of Alabama insurance may receive a lifetime credit of \$120 to cover nicotine replacement therapy at no additional cost. If it is determined that prescription therapy is needed, licensed pharmacists can coordinate care with the individual's primary care provider to help the patient receive access to the medication. For more information about services provided, cost, and scheduling, please contact the AUPCC at (334) 844-4099 or [aupcc4u@auburn.edu](mailto:aupcc4u@auburn.edu).

### **Auburn University Medical Clinic (AUMC)**

This clinic located at 400 Lem Morrison Drive on Auburn University's campus is available to any member of the community and accepts most insurances. The clinic is equipped to provide primary care, acute care, and mental health services associated with smoking cessation. For questions or to schedule an appointment, please visit their website at [auburn.edu/aumc](http://auburn.edu/aumc) or call (334) 844-4416.



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## What products or medications are available to assist in quitting?

Currently on the market, there are several approved forms of nicotine replacement therapy available without a prescription to curb cravings including patches, gums, and lozenges. A pharmacist or physician can help determine which product is appropriate for you based on your current smoking and e-cigarette habits.



Prescription medications available on the market that are approved for nicotine cessation therapy include Chantix® (varenicline) and Zyban (bupropion). Both medications are oral tablets taken twice daily. Speak to a pharmacist or physician to determine if these products are safe for you to take. A pharmacist can help educate you on the appropriate administration of these medications and possible side effects, but a prescription from your physician will be required prior to starting therapy.

## What other resources are available to me?

If you're ready to quit or have questions, you can call the Auburn University Pharmaceutical Care Center at (334) 844-4099, call the Auburn Employee Pharmacy at (334) 844-8938, the Auburn Student Pharmacy at (334) 844-4641, call the national quit hotline anytime at 1-800-QUITNOW (1-800-784-8669), or speak in person with a pharmacist who is readily available to help assist you.



## Resources

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9. Truth Initiative. Why the rise in youth e-cigarette use may be worse than we think. Truth Initiative. <https://truthinitiative.org/news/why-rise-youth-e-cigarette-use-may-be-worse-we-think>. Published April 18, 2018. Accessed January 24, 2019.
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