



Smoke is Smoke: Vaping, Tobacco and Marijuana

adapted from the Michigan School Health Coordinators Association

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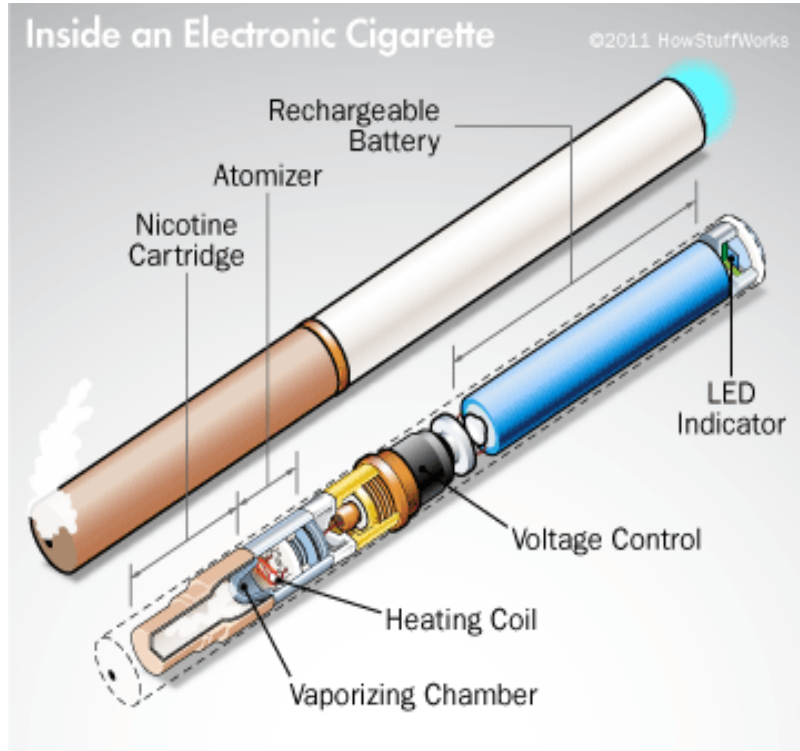
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- ❖ One-third of US middle and high school students reported using e-cigarettes with non-nicotine substances.
- ❖ 1 in 3 youth have used marijuana with the JUUL device.
- ❖ Hash oils can reach 95% pure THC, the psychoactive component in marijuana. High concentrations could cause side effects like temporary psychosis.

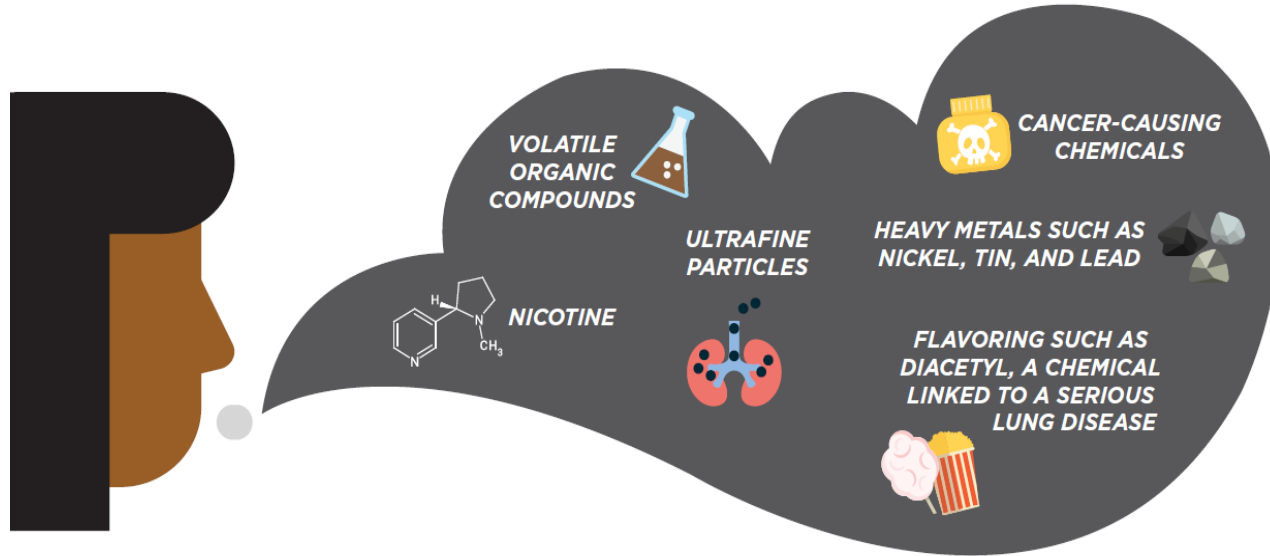




- Allows user to inhale aerosol containing nicotine and/or other substances.
- Disposable or rechargeable and/or refillable.
- Contain a cartridge filled with liquid nicotine, flavorings and glycerin or propylene glycol.
- When coil heats, it converts the contents of the cartridge into aerosol.

WHAT IS IN E-CIGARETTE AEROSOL?

THE E-CIGARETTE AEROSOL THAT USERS BREATHE FROM THE DEVICE AND EXHALE CAN CONTAIN HARMFUL AND POTENTIALLY HARMFUL SUBSTANCES:



It is difficult for consumers to know what e-cigarette products contain. For example, some e-cigarettes marketed as containing zero percent nicotine have been found to contain nicotine.



Nickel

Phenol



Benzene



Toluene



Isoprene



Acetone



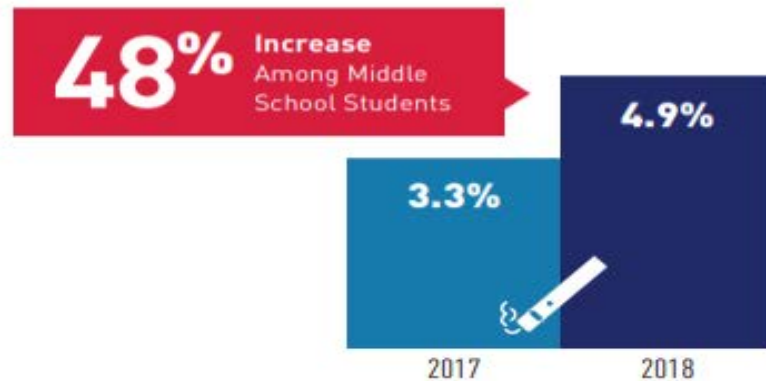
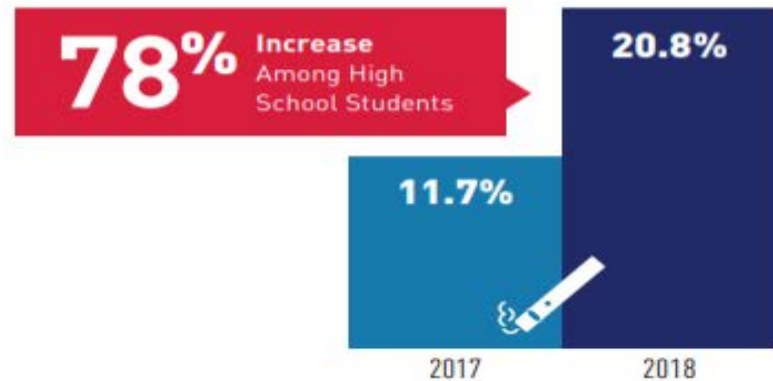
Cadmium

2018 NATIONAL YOUTH TOBACCO SURVEY FINDS CAUSE FOR CONCERN

Current e-cigarette use among middle and high school students **increased alarmingly** between 2017 and 2018.

Here is a breakdown of the recent findings:

SURGE IN YOUTH CURRENT E-CIGARETTE USE — 1.5 Million More Students Used E-Cigarettes in 2018 vs 2017





Why the Rise in E-cigarette Use?

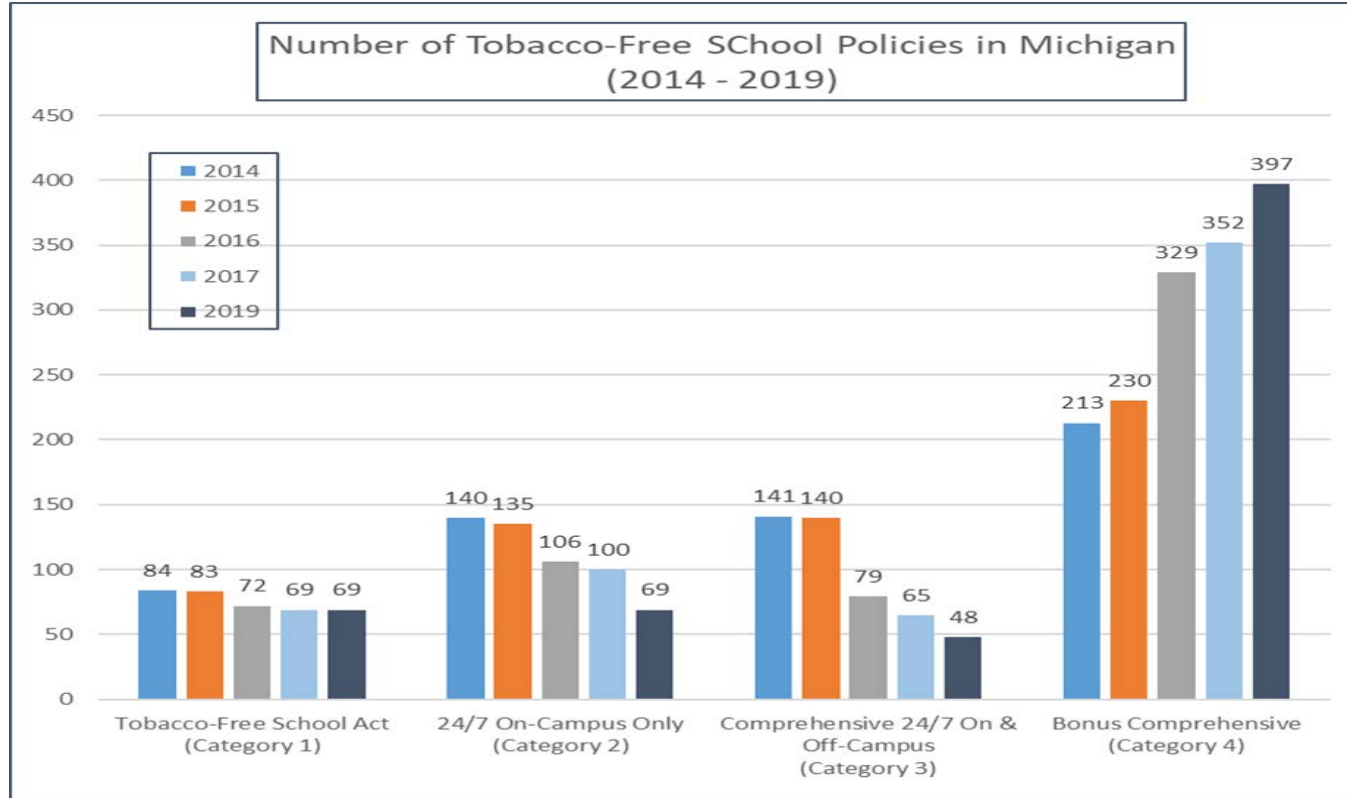
- ▶ Targeted tobacco industry marketing
- ▶ Flavors
- ▶ Lack of regulation

Percentage of high school students who used an electronic cigarette product during the past 30 days

in 18 Counties in Michigan- MiPHY 2015-16 compared to 2017-18

	County	2015-2016	2017-2018	Rate of increase
1	Allegan	16.8	25.9	54%
2	Muskegon	17.5	24.9	42%
3	Berrien	19	24.5	29%
4	Ingham	11.5	20.3	77%
5	Jackson	16.7	23.8	43%
6	Branch	14.4	30.2	109%
7	Genesee	18.8	24.4	30%
8	St. Clair	20.6	31.9	55%
9	Wayne	15.1	24.2	60%
10	Macomb	14.8	29	96%
11	Oakland	16	28.4	78%
12	Manistee	16.2	31.1	92%
13	Chip/Luce/Mackinac	15.3	20.7	35%
14	Charlevoix	17.3	35.2	103%
15	Livingston	21.6	28	30%
16	Saginaw	14.4	19.9	38%
17	Kent	15.4	22.2	44%
18	Huron	18.3	30.9	69%

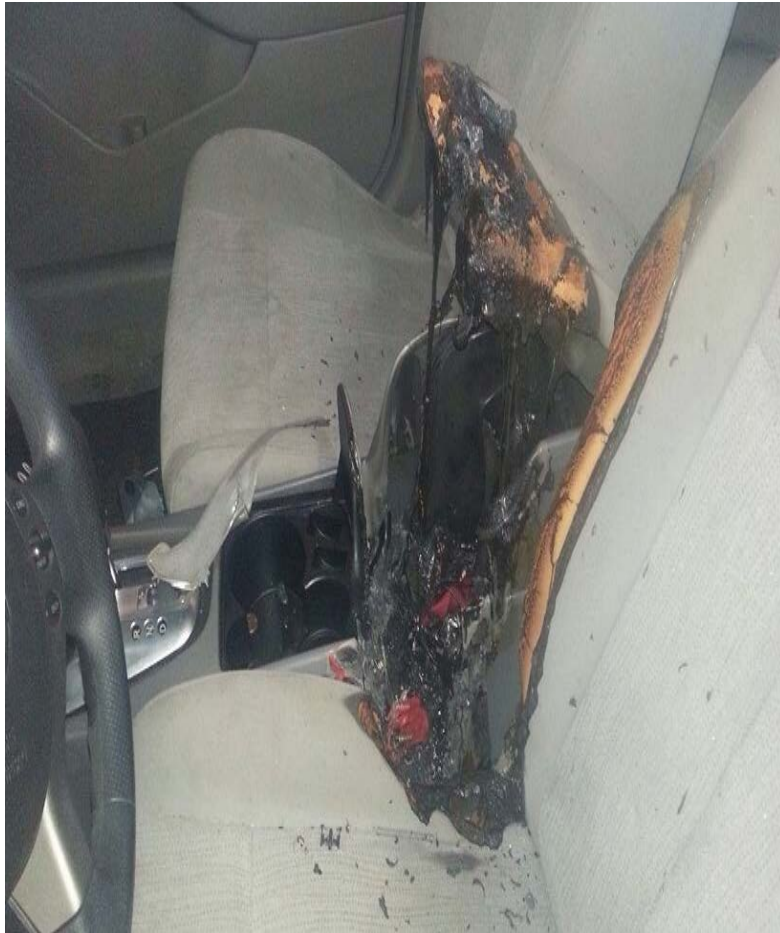
Tobacco Free Schools Update





Health Concerns: Reported Impacts to FDA

- ❖ Pneumonia
- ❖ Asthma
- ❖ Cardiovascular Disease
- ❖ Skin Disorders(contact dermatitis)
- ❖ Oral Health(mucosal lesions)
- ❖ Disorientation
- ❖ Seizure
- ❖ Hypotension, and others



Safety Concerns

- Explosions
- Charger danger
- Fires
- Poisoning
- Hazardous Waste & Litter

● <https://no-smoke.org/wp-content/uploads/pdf/E-Cigarette-Explosions-and-Fires.pdf>

Institution: UNMH-BBRP-DEFINITION

Study Date 7/12/2015

Study Time 11:37:18

Series Date 7/12/2015

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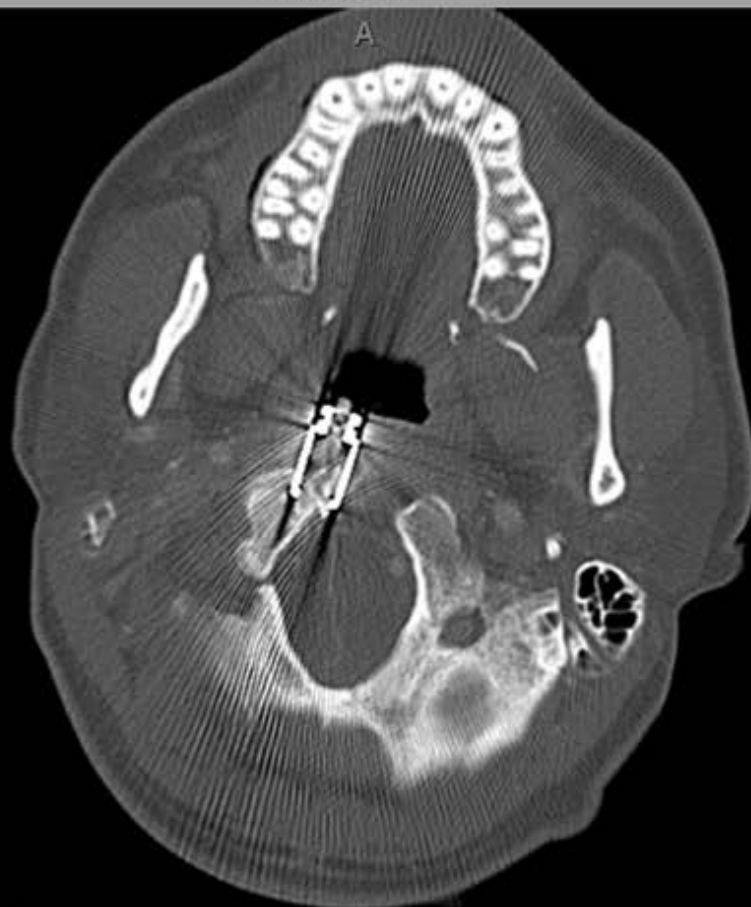


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Exp. Time 330
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None
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Zoom: 139.8%



Electronic Cigarettes in Michigan

- ❖ Federal Law (FDA Deeming Rule) prohibits retailers from selling e-cigarettes, e-hookah, and other electronic nicotine device products, their components and parts to minors.

Since August 8, 2016, this rule has applied in Michigan: no sales of electronic cigarettes, their components and parts to minors.



Electronic Cigarettes in Michigan

Senate Bill 106 and Senate Bill 155, signed into law on 6/4/19:

- ▶ Both bills amend the Youth Tobacco Act
- ▶ SB 106 (Public Act 18) defines e-cigarettes, alternative nicotine products, vapor products and other emerging tobacco products **SEPARATELY FROM TOBACCO PRODUCTS**
 - ▶ Prohibits purchase, use and possession by minors
- ▶ SB 155 (Public Act 17) defines ‘liquid nicotine’ and ‘liquid nicotine container’ and requires containers to meet a minimum safety standard and storage of vapor products in a locked case or behind the counter



Problems Caused by Defining E-cigarettes Separately from Tobacco Products

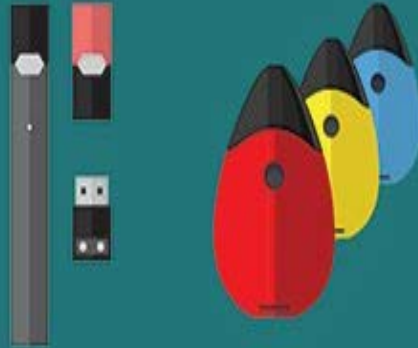
- ❖ Appeal to youth
- ❖ Confusion with the Federal Deeming Rule
- ❖ Not subject to the same evidence-based measures that govern tobacco products:
 - ❖ Not taxed
 - ❖ Not covered by the state's Smokefree Air Law
 - ❖ Lack of advertising restrictions –still marketed on TV, radio, social media, etc.

E-cigarette Products

Tanks & Mods



Rechargeable e-cigarette



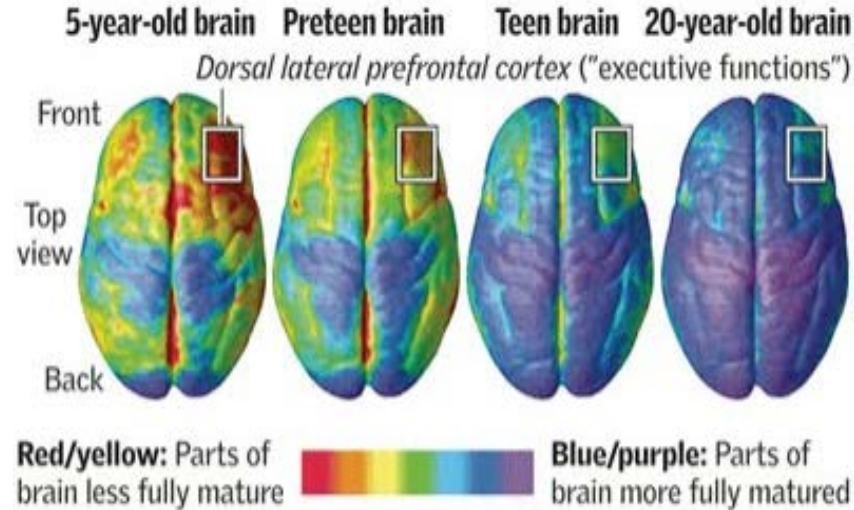
Disposable e-cigarette



School related partnerships

- ▶ MI Department of Education
- ▶ MI Association of Superintendents & Administrators
- ▶ MI State School Nurse
- ▶ Michigan Model
- ▶ School-Community Health Alliance of MI
- ▶ MI High School Athletic Association

Adolescent Brain Development



Sources: *National Institute of Mental Health;*
Paul Thompson, Ph.D., UCLA Laboratory of
Neuro Imaging

Thomas McKay | The Denver Post

Brain development from childhood to adulthood. The area of the brain that controls “executive functions” – including weighing long-term consequences and controlling impulses – is among the last to fully mature..

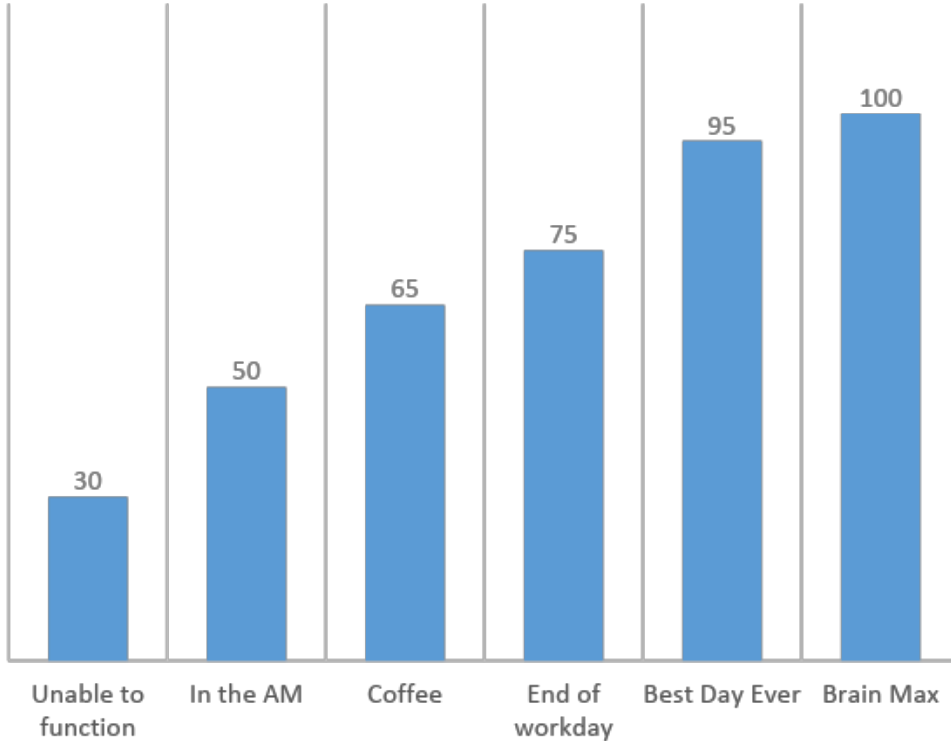
The brain develops from back to front which means
JUDGEMENT IS THE LAST TO DEVELOP.

Dopamine and Addiction

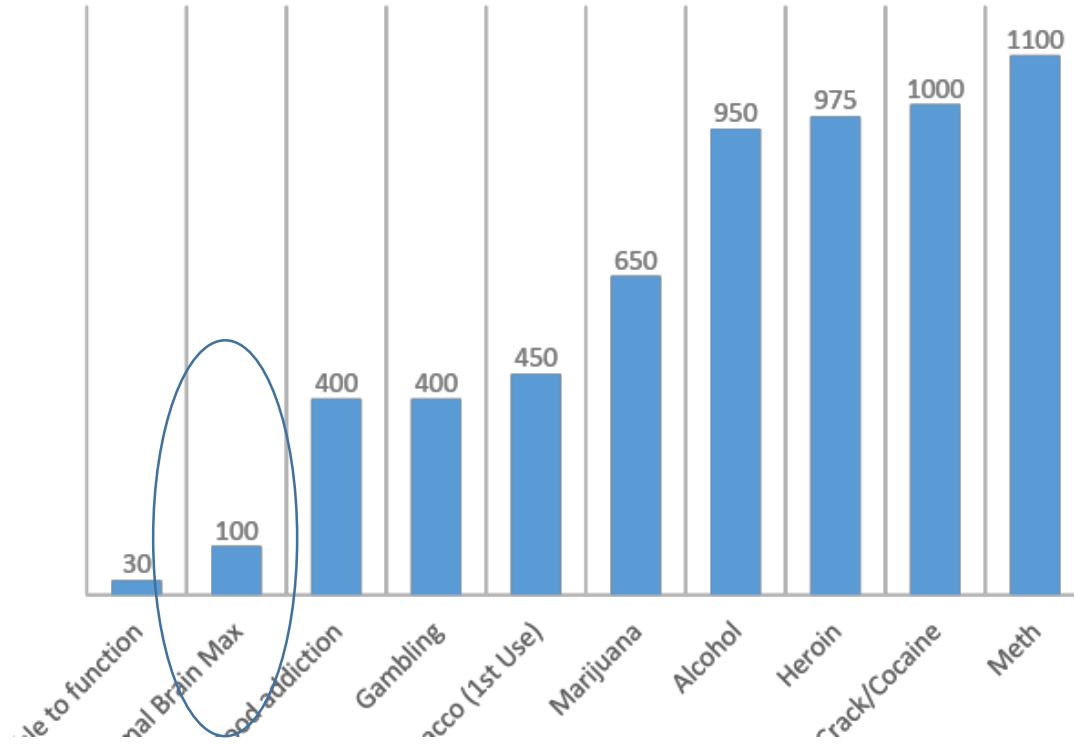
- Dopamine is one of the 4 chemicals in the brain that makes you feel normal, attached to others, non-depressed, a sense of well being, love, accomplishment, basically makes life worth living
- Without dopamine... we do not function....(No movement, no motivation, no nothing!)
- Important note: Too much dopamine also has a negative effect (too much thinking, too much moving, too much everything!)



Normal dopamine levels



Addiction Dopamine Levels





Quiz Time!



1. Marijuana is a mind-altering drug found only in the sativa species of the cannabis plant.

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FALSE

Marijuana goes by many names, including cannabis, weed, pot, dope, ganja, MJ, and herb. Whatever the name, marijuana is indeed a mind-altering drug. But cannabis sativa is not the only marijuana plant species. Also common today are indica and hybrid plants. Within each species are various strains of plants, with innocuous sounding names such as Cherry Pie (sativa), Bubba Kush (indica), and Girl Scout Cookies (hybrid).

2. The main chemical giving marijuana its intoxicating effects is delta-9-tetrahydrocannabinol.

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TRUE

THC is the most common and most psychoactive of the over 100 cannabinoid chemicals found in the cannabis plant. Most THC is found in the bud of the marijuana plant. Marijuana also contains hundreds of other chemicals.

3. Marijuana has the highest rate of dependence or abuse among all drugs/substances.

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FALSE

Marijuana is second. Marijuana is ranked only behind alcohol in the number of Americans meeting clinical criteria for drug dependence or abuse in the past year. Over four million US citizens are believed to be dependent on or abuse marijuana. This number is twice the dependence/abuse rate for prescription drugs, and nearly five times that of cocaine.

4. Marijuana is the most widely used illegal drug in the US.

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TRUE

Marijuana is the most widely used illegal drug in America and in the world. Marijuana is also the most widely used illegal drug among US youth. With older adolescents, nearly 35% have tried marijuana in the past year, and over 21% were current users.

5. Marijuana can be smoked, vaporized, or consumed as a food, beverage, and pills.

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TRUE

Marijuana today can be ingested into the body in many ways to receive its intoxicating or medicinal effects. These include inhaling it by smoking marijuana in cigarettes (joints), cigars (blunts), or using water pipes (bongs) or vaporizers (vape pen). Marijuana can also be consumed in foods like cookies, brownies or candies, or in cooking oils (canna oils) or butter (cannabutter), or in pills, capsules or tincture (liquid concentrate), as well as in beverages such as teas or alcoholic spirits. It can also be applied to the body using topicals like salves or oils.

6. Because marijuana is a natural substance, its potency remains consistent over time.

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FALSE

Today's marijuana is much stronger than in earlier years. This is believed to be due in part to advanced growing methods, which have resulted in reported plant THC levels over 10%. Even more important, however, is the fact that processing of marijuana extracts like budder, shatter, and wax have resulted in reports of THC levels over 80%, which could increase the likelihood of negative effects and abuse potential.

7. Marijuana has been approved by the FDA for certain medical uses.

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FALSE

While marijuana appears to have certain medicinal effects, the FDA has not approved marijuana for treating any medical condition. The FDA has, however, approved two drugs that contain THC for treating nausea from chemotherapy, and to increase appetite in patients with AIDS.

8. The high from smoking, eating or drinking marijuana is the same.

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FALSE

The primary differences between smoking a joint and eating an edible are in the magnitude of the effects, the time lapse before the effects are realized, and the longevity of the effects. Joints and bongs produce almost instantaneous results, are more potent, and typically result in a “high” lasting 2 to 3 hours; edibles take longer to kick in, are less potent, and can last 4 to 6 hours. By using a joint, an individual is able to feel the effects of THC much more quickly than if consumed through an edible. After eating - THC is absorbed into the bloodstream through the stomach and then the liver. Since this absorption process is much slower than in the lungs (in some cases, as long as 30 to 90 minutes before reaching the brain), the effects felt through an edible will be less potent, but could last much longer – sometimes between 4 to 6 hours. Also important to note, the liver can change THC into a stronger [strain](#), usually resulting in a greater sedative effect.

9. Vaping is a healthy alternative to typical cigarettes

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FALSE: Vaping has no relationship to regular cigarettes. Young people who use electronic cigarettes are four times more likely to smoke regular cigarettes a year later

10. Vaping is more healthy because it is nicotine free

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FASLE: 99 % of e-cigarettes contain nicotine,
100% of JUUL's contain nicotine

11. JUUL's vaping pods contain less nicotine than three regular cigarettes.

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FALSE: One JUUL pod contains the same amount of nicotine as a whole pack of cigarettes

12. E-cigarettes are safe and non-addictive

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FALSE: Data for young adults who use nicotine shows that their brains can be permanently altered in ways that make them likely to be addicted to tobacco for their lifetime

Common Reasons for Use

- ❖ Immaturity and Curiosity
- ❖ Trauma
- ❖ Self Medication
- ❖ Mental Health Diagnosis
- ❖ Addiction Transfer

Substance Use Disorder

- Replaces former classifications of “Substance Abuse and Substance Dependency.” SUD’s are instead classified by mild, moderate or severe.
- Substance use disorders (SUD) occur when the recurrent use of alcohol and/or drugs causes clinically and functionally significant impairment, such as health problems, disability, and failure to meet major responsibilities at work, school, or home.
 - **Tobacco Use Disorder (TUD)** – causes 480,000 death per year.
 - 25.2% of population (12 and up) use tobacco.
 - Highest smoking population is 18-25.
 - **Cannabis Use Disorder (CUD)** – Most used drug after alcohol and tobacco.
 - 22.2 million people ages 12 and up reported using marijuana during the past month.
 - 4.2 million (12 and up) have CUD.

Additional dangers of tobacco

- Premature aging, wrinkling of the skin
- Respiratory infections and asthma
- High blood pressure, diabetes
- Respiratory infections, allergies and asthma in children of smokers
- Miscarriage, premature labor and low birth weight babies for pregnant women
- Kidney Disease
- Chronic obstructive airways disease
- Heart Disease, stroke, vascular disease
- Cancer

Additional dangers of Marijuana

- With onset of marijuana use at age 14 11.5% of adults will develop a substance use disorder related to an illicit drug vs. 2.6% of population. (SAMHSA)
- 17% will develop substance use disorder if use is started during adolescents vs. 9% at adulthood
- Withdrawal symptoms include: irritability, difficulty sleeping, craving and aggression.
- Most commonly used illicit drug by adolescents ages 12-17.
- More American High school students have tried marijuana than cigarettes (45.5% vs. 38.1%) (Johnston et. al.)



“But it’s just a plant...”



Now...ask yourself...

- Has your child ever ridden in a car driven by someone (including yourself) who had been using alcohol or drugs?
- Does your child ever use alcohol or drugs to relax, to feel better about themselves, or to fit in?
- Does your child ever use alcohol or drugs when they are alone?
- Does your child ever forget things they did while using alcohol or drugs?
- Do family or friends ever tell your child to cut down on their use of alcohol or drugs?
- Have they ever gotten into trouble while they were using alcohol or drugs?

This may not mean that someone has substance use disorder, but answering yes to any of these questions may suggest a developing problem, which could require follow-up with a professional drug treatment specialist or mental health professional

My Life, My Quit – A Quit Tobacco and Vaping Program for Teens

- First comprehensive program designed just for teens
- Teen focused messages
- Five real time coaching sessions via live text messaging, online chat or phone
- Specially trained coaches
- Certificate of completion

TOLL FREE: [1-855-891-9989](tel:1-855-891-9989)

mylifemyquit.com



Youth Engagement

- ▶ Kick Butts Day – March (usually third week)
- ▶ World No Tobacco Day – May 31, 2020
- ▶ Earth Day – April 22, 2020
- ▶ Parks and Recreation Month – July
- ▶ **Advocacy/letter writing to stakeholders**

Youth Quit Tobacco Resources

Tobacco Free Kids

Contains fact sheets and advocacy information. Site for information for Kick Butts Day held annually in March. “Taking Down Tobacco” program.

<http://www.tobaccofreekids.org>

Smoking Stinks

A youth quit smoking website containing free downloads, quizzes, quit tips and more

<http://smokingstinks.org/>

Smokefree Teen

Free text message quit tobacco service. 24/7 encouragement, advice and tips. Teens can sign up at www.teen.smokefree.gov or text QUIT to iQuit(47848)

The Truth and Finish It

Educates youth about the dangers of tobacco, media and tobacco industry awareness and quitting smoking

<http://www.thetruth.com>



Recent e-cigarette updates

- ▶ Pulmonary disease cases

https://www.cdc.gov/tobacco/basic_information/e-cigarettes/severe-lung-disease.html

- ▶ Michigan's flavor ban (see website for ongoing updates)

www.Michigan.gov/e-cigarettes

- ▶ Vaping Marijuana and Synthetic Marijuana factsheet

www.Michigan.gov/e-cigarettes

(Also see Surgeon General marijuana advisory):

<https://www.hhs.gov/surgeongeneral/reports-and-publications/addiction-and-substance-misuse/advisory-on-marijuana-use-and-developing-brain/index.html>

Michigan Department of Health and Human Services new e-cigarette webpage

www.Michigan.gov/e-cigarettes

- ▶ Many resources available for download including fact sheets, infographics, an e-cigarette webinar and more!

Questions



*Thank
you*

