

The **Rea-ZYN** to talk about Nicotine in Recovery

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May 21, 2026 2pm



The Rea-ZYN to talk about Nicotine in Recovery

- **Ga-ZYN-tite!** Bless us all for finally talking about nicotine in recovery.
- Come and get the update on nicotine products! Learn the neurobiology that expands self-compassion and makes the recovery journey more successful. Explore the concepts of hypofrontality in relation to continued use of addictive substances in recovery.

Learning Objectives:

1. Participants will be able to explain **why neurobiology suggests cessation of nicotine use improves outcomes in recovery from ALL other addictions.**
2. Participants will develop understand the concept of hypofrontality and its role in addiction.
3. Participants will apply the concept of hypofrontality to the use of novel nicotine products.

Who am I?
Why I love people who smoke/vape!

*Because they were the first to teach me about addiction
and how to be of help to those suffering with addiction*

Remember, smoking doesn't kill people.

People who are quitting smoking kill people.

WHO ARE YOU

WHY ARE YOU HERE

Introduce yourself to a discussion buddy

Bring to mind a person you care about who is in recovery from alcohol or drugs

- *Just curious...*
- Did that person use nicotine prior to using other drugs?
- How old were they when they started using nicotine?
- Is that person still using nicotine?

- **OPTIONAL**
- *If you want...* also discuss
- What has been your own experience with nicotine?

**Changing
attitudes and beliefs
about
nicotine in recovery
matters!**

Let's review the science...

**Avoid
DATA DROWNING
Just ask 😊**



Just be involved
and ask
questions

All the data
sources are
hyperlinked and
you can have the
slides 😊

Finally... Truth in advertising about tobacco

Many
addictions
shatter lives.
This one is
more likely
to end them.

More than half of patients in
drug and alcohol treatment will
die from tobacco-related disease.
Smokers want to quit more than you
may think. And they can. Talk to them
about it. Or click below for free information
and continuing education.



[CLICK FOR FREE
CONTINUING EDUCATION](#)

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First 5 California.

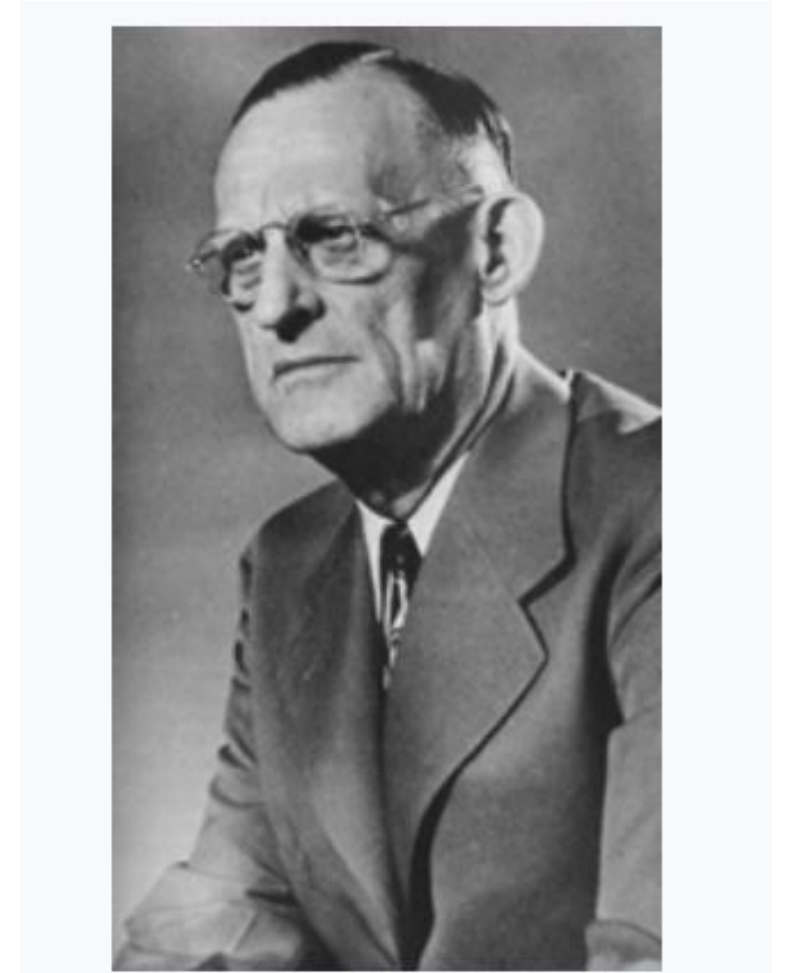


Bill W.

Died age 75 of emphysema
complicated by pneumonia

AA founders
who smoked...

we needed them on
the planet longer!



Dr. Bob

Died age 71 from colon
cancer

Please read **“A trainee’s intervention”**
written by **William White** (1 page)
a recovery pioneer and author



<https://www.mkrecoverycoaching.com/tag/recovery-rising/>

A **2006** Publication debunked myths about smoking cessation & alcohol abstinence 20 years ago!

<https://pmc.ncbi.nlm.nih.gov/articles/PMC6527036/>

- **Myth: Smoking is more benign than alcoholism (AUD).**
 - More people with alcoholism die from smoking-related diseases than from alcohol-related illness ([Hurt et al. 1996](#)).
 - Comorbid smoking and alcoholism result in synergistic exacerbation of health risks ([Bien and Burge 1990](#); [York and Hirsch 1995](#); [Hinds et al. 1979](#)).
- **Myth: Smokers with AUD have either no interest or no ability to quit smoking.**
 - The majority (up to 80 percent) of individuals in addiction treatment are interested in quitting smoking (cf. [Prochaska et al. 2004](#)).
 - Inclusion of smoking cessation treatment into other addiction programs does not negatively affect rates of treatment completion or motivation for abstinence ([Sharp et al. 2003](#); [Monti et al. 1995](#)).
 - Alcoholism does not seem to impede specific attempts at quitting smoking ([Hughes and Kalman 2005](#)).
 - Alcoholism may make lifetime cigarette abstinence more challenging, but it remains possible ([Martin et al. 1997](#); [Prochaska et al. 2004](#)).
- **Myth: Smoking cessation will impede successful alcohol use outcomes.**
 - The majority of research indicates that smoking cessation is unlikely to compromise alcohol use outcomes (cf. [Fogg and Borody 2001](#)).
 - Participation in smoking cessation efforts while engaged in other substance abuse treatment has been associated with a 25 percent greater likelihood of long-term abstinence from alcohol and other drugs ([Prochaska et al. 2004](#)).
 - Data indirectly suggest that continued smoking increases the risk of alcohol relapse among alcohol-dependent smokers ([Taylor et al. 2000](#)).



National Institutes of Health
Turning Discovery Into Health

Wednesday, August 13, 2025

Quitting smoking is associated with recovery from other addictions

NIH-funded finding supports addressing smoking cessation during substance use treatment

Scientists analyzed data from 2,652 people 18 and older who had a history of substance use disorder and who experienced a change in their recovery status over the next four years.

Participants in the PATH Study are asked annually about their smoking status and other substance use.

In this analysis, a change in smoking status from “current” to “former” use of cigarettes was associated with 42% greater odds of the individual being in recovery from their non-tobacco substance use disorder.

<https://www.nih.gov/news-events/news-releases/quitting-smoking-associated-recovery-other-addictions>

“Medications for nicotine cessation provide a compassionate, effective way to quit nicotine that can work while quitting other drugs!”

Meta-Analysis > [Cochrane Database Syst Rev. 2016 Nov 23;11\(11\):CD010274.](#)

doi: [10.1002/14651858.CD010274.pub2](https://doi.org/10.1002/14651858.CD010274.pub2).

Interventions for tobacco use cessation in people in treatment for or recovery from substance use disorders

[Dorie Apollonio](#) ¹, [Rose Philipps](#), [Lisa Bero](#)

Affiliations + expand

PMID: 27878808 PMCID: [PMC6464324](#) DOI: [10.1002/14651858.CD010274.pub2](https://doi.org/10.1002/14651858.CD010274.pub2)

This research suggests:

Providing treatment for nicotine use disorder does NOT reduce abstinence from other drugs

“Overall, the results suggest that tobacco cessation interventions incorporating pharmacotherapy should be incorporated into clinical practice to reduce tobacco addiction among people in treatment for or recovery from alcohol and other drug dependence.”

2 schools of thought

- **OLD SCHOOL**

- Don't quit tobacco while trying to quit other drugs

- **NEW SCHOOL**

- Because the brain links chemical responses and triggers....It's best to quit them all at the same time.

RESEARCH shows treatment participants who quit smoking in the first year were more likely to be alcohol and drug free 9 years later!

<https://pmc.ncbi.nlm.nih.gov/articles/PMC3062692/> Tsoh J Y, Drug Alcohol Depend. 2010 Nov 2

So...Why don't we talk about nicotine addiction more often?

Nicotine is a fascinating drug.

Vapes and nicotine pouches are fascinating drug delivery devices.

TRUE
STORY



It's hard to quit nicotine... even in a coma!

All humans are charming Genetic Snowflakes



- 1 in 4 people is missing a gene that makes an enzyme to break down nicotine. (*They can't use nicotine, they get sick.*)
- 3 in 4 people can smoke and often come from family trees of heavy tobacco users.

“Half of the Peer Recovery Coaches were former smokers and one-third were current smokers.”

Tobacco-related practices of substance use disorder peer recovery coaches



The not so good and the VERY GOOD news is...

<https://basisonline.org/2023/06/27/tobacco-treatment-substance-use-disorder-peer-recovery-coaching/>
ASHES Vol 19 (7)

Figure. Tobacco-related practices endorsed by substance use disorder PRCs. Adapted from Streck et al. 2023. Click image to enlarge.

The **SOLUTION** to saving lives lost to nicotine use disorder can be caring, educated & empowered **Peer Recovery Coaches**

Education to SHIFT ATTITUDE! We can change this 😊

- 74% OF PRCs rated smoking as socially acceptable in SUD treatment.

Reinforce and encourage POSITIVE BEHAVIORS is ALREADY OCCURRING

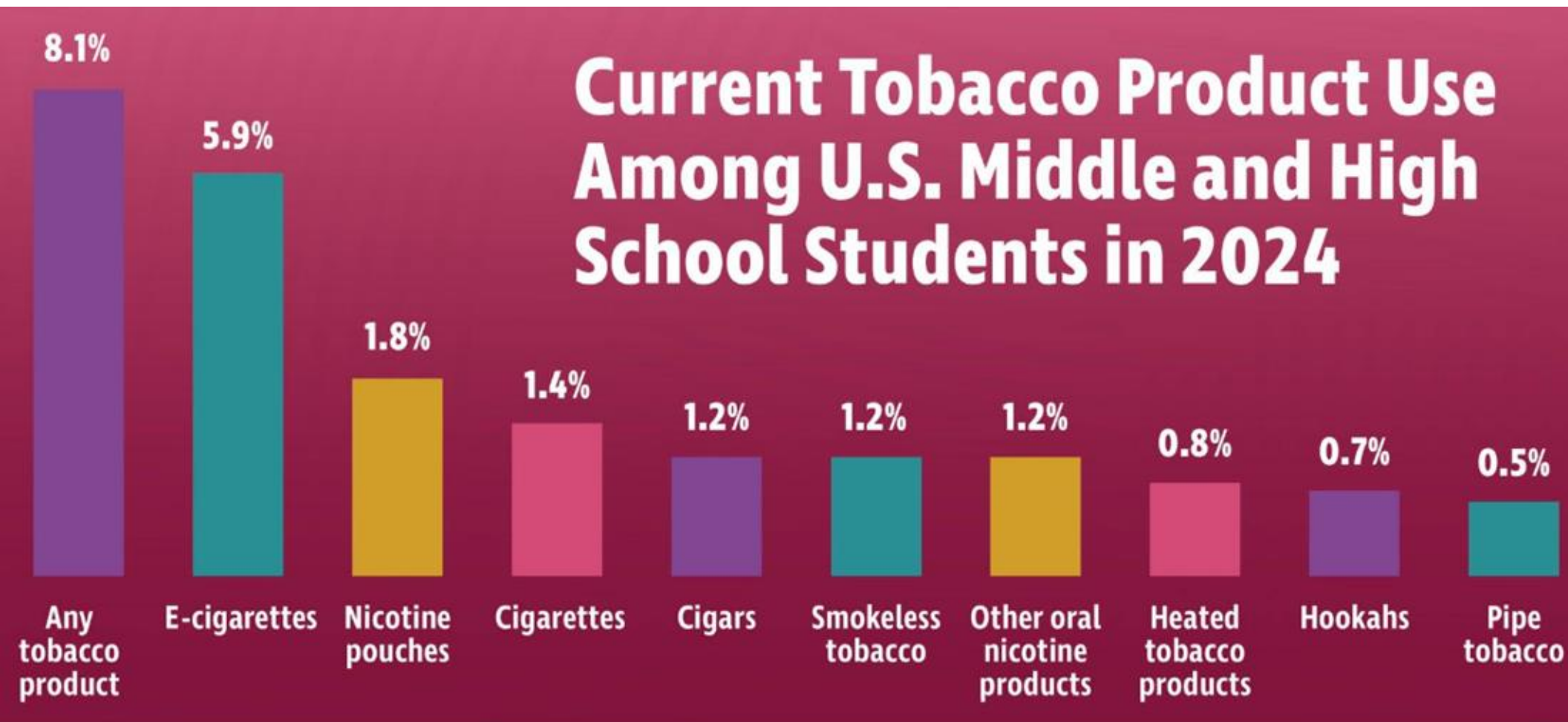
- 65% of PRCs regularly talk to recoverees about tobacco treatment
- 52% of PRCs said they believed they should have a role in helping recoverees quit smoking
- 65% % of PRCs were interested in tobacco treatment training
- **AND** A majority of both nonsmoking and current smoking PRCs (73% vs. 57%) regularly talked to recoverees about quitting smoking.

The tobacco industry is cunning but not baffling

- **Nicotine is a highly profitable addictive drug.**
 - Target the young, the poor, the marginalized and the addicted.
- **Nicotine is like the flu!**
 - It MUTATES to continue addiction and recruit new users.
- **EXAMPLES of strategies to keep folks addicted:**
- **Create “Bridge Products”** so people don’t quit when they can’t smoke:
 - Non smoke producing products like Vapes, Nicotine Pouches like ZYN
- **Camouflage products** so they look “less harmful” while INCREASING addictive nicotine, flavors, AND cooling agents to keep addiction going
 - Work the political system to do thing like block regulations on strength, flavoring etc.
 - Who in VA supported the no smoking until 21 regulations?

GUESSING GAME

What percent of HS students used a tobacco product in the past 30 days (current use)?



15.5% of adult Virginians are current smokers

What % of your population are current smokers?

Learn more: <https://bit.ly/mm7341a2>

Source: National Youth Tobacco Survey, 2024



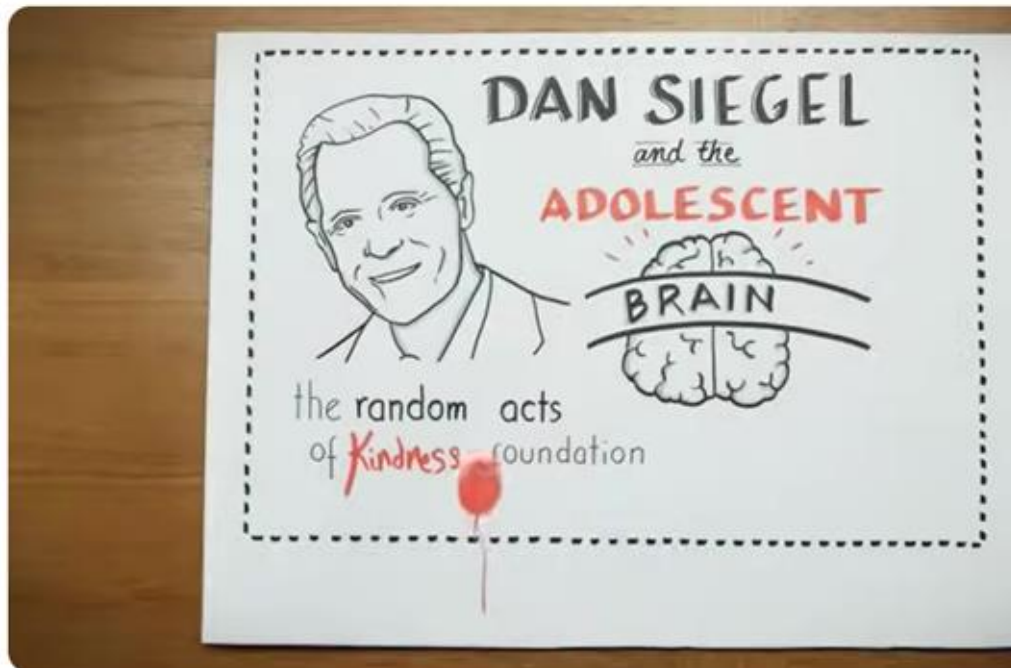
A useful, non-judgmental discussion prompter

Resource for education in treatment:

4 min YouTube on the Adolescent Brain by Dr. Dan Siegel



the adolescent brain dan siegel



Unlocking the Adolescent Mind: Insights from Dr. Siegel

<https://www.youtube.com/watch?v=0O1u50Ec5eY>

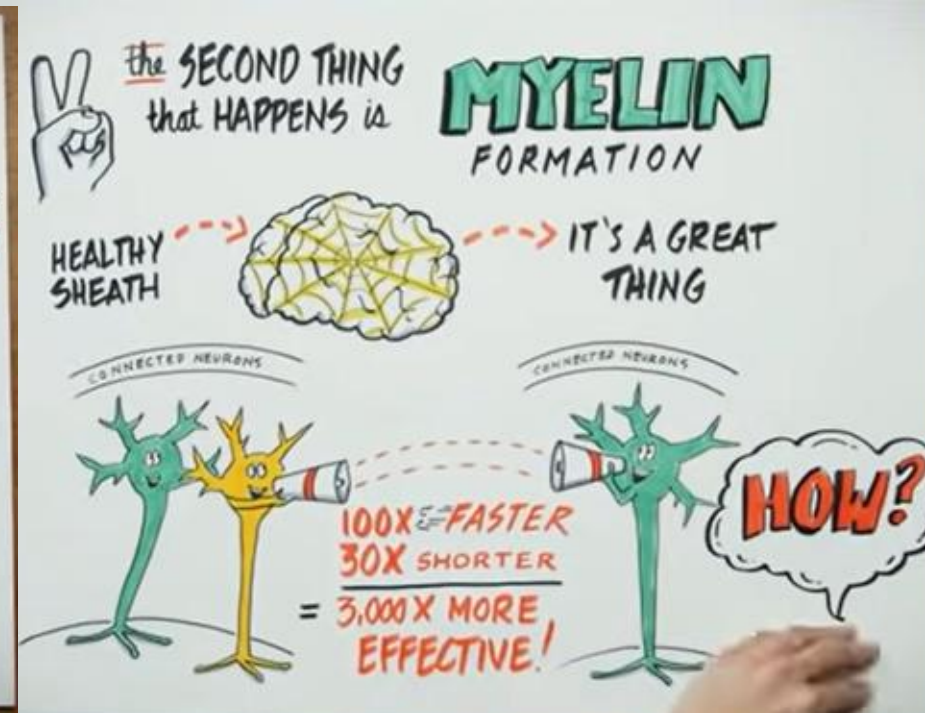
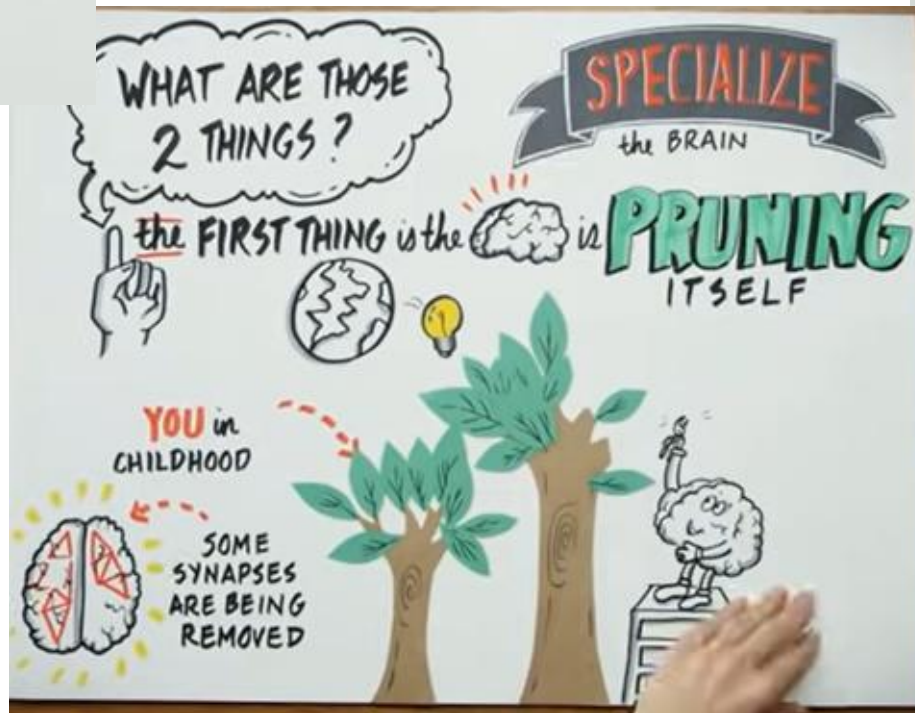
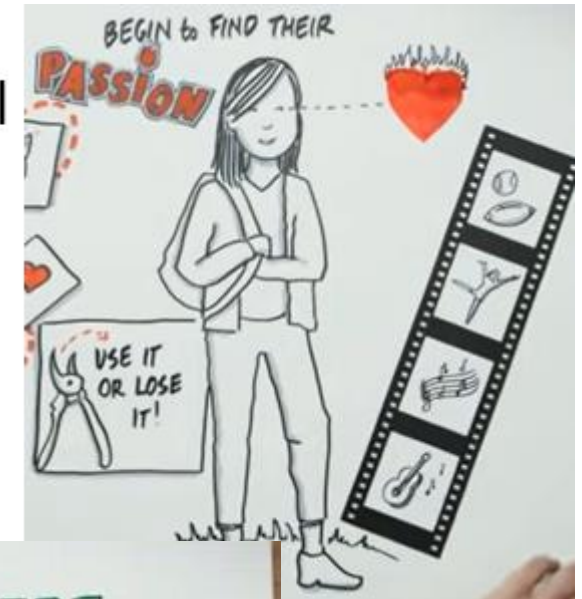
Neurobiology: Elementary School vs Middle & High School Brain growth and risk for Addiction

<https://www.youtube.com/watch?v=001u50Ec5eY>



In Elementary school
GENERAL Brain growth many cells and synapses

In Middle & High School
DIFFERENTIATED and **INTEGRATED** Brain by **Pruning** and **Myelin formation**



Using substances at a young age makes it so much harder to stop!



What Every Athlete Needs to Know About Zyn Pouches



Dr. Mark Heisig
2.61K subscribers

Subscribe

19

Share

Sports Med (2017) 47:2497–2506
DOI 10.1007/s40279-017-0764-5

REVIEW ARTICLE

7 min YouTube – good discussion prompter

Nicotine: Sporting Friend or Foe? A Review of Athlete Use, Performance Consequences and Other Considerations

Toby Mündel

[tps://www.youtube.com/watch?v=FdCmNguMgkx](https://www.youtube.com/watch?v=FdCmNguMgkx)

Why be concerned about NEW nicotine products?

A good example of an MI approach

Some parent
resources for
Nicotine
discussions
with teens



<https://www.youtube.com/watch?v=1S2boK9Ekrk>

What's new in vape technology

High-tech elements

such as:

- Bluetooth capability
- High-definition screens
- Speakers
 - some include games such as Pac-Man and Tetris

Why?



Bottom line ↑ addiction: kids & environmental links

Celebrity marketed products



Chris brown products come with a character card designed by Brown. Users are encouraged to “collect them all”

Nicotine pouches: a review for the dental team

Joshua M. Jackson,^{*1,2} Anthony Weke¹ and Richard Holliday^{1,2}



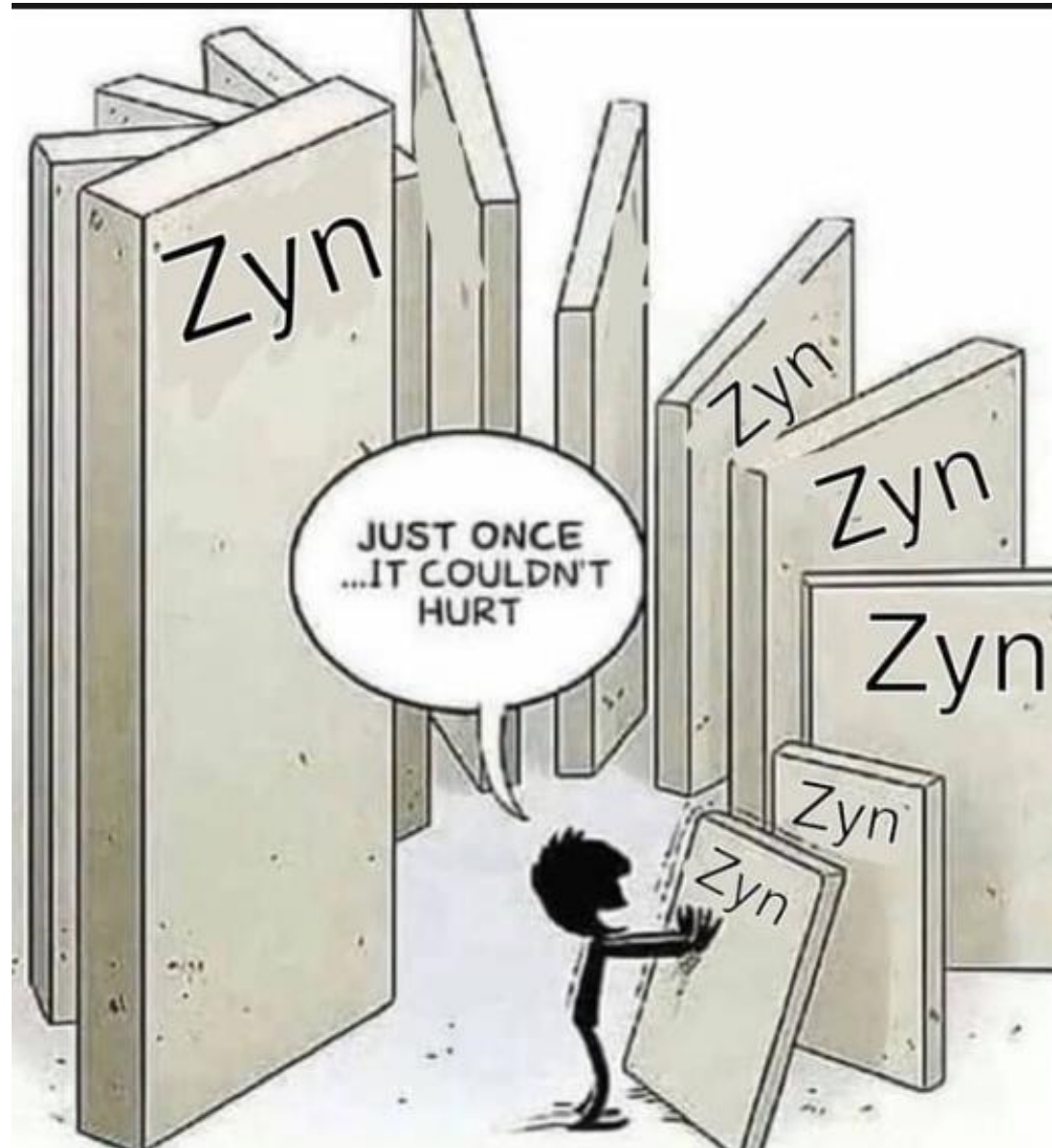
Fig. 1 A nicotine pouch being inserted into the bucco-labial sulcus. Image courtesy of iStock.com/AndreyPopov



Fig. 2 Nicotine pouches presented in a container with approximately 20 pouches. Image courtesy of iStock.com/Oleksandr Shatyrov

Nicotine, a tertiary amine, is the main active ingredient. approximately 80–90% of a nicotine pouch is made up of water and microcrystalline cellulose contained within a permeable pouch, which acts as the non-tobacco substrate. Other ingredients, such as additives and favoring's, are also present at food-grade standard and are sold in a variety of fruit and other favours, such as mint and coffee.^{4,7} Nicotine pouches generally contain artificial sweeteners rather than sugars and so pose little direct risk of the development of dental caries

What's the truth about ZYN???



What makes things addictive?

- Pleasurable (Rewarding)
- Rapid onset
- Strong
- Intense sensation
- Better than expected
- Under your control
- Novel (flavored)
- Links to environment
- Meets a need
- Cooling agents?



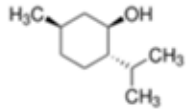
What are cooling agents?

- Chemical compounds that activate specific receptors in the body, such as the TRPM8 receptor, which plays a key role in sensing cold.
- They open ion channels and triggers nerve signals to the brain, which interprets it as a cooling sensation but temperature does not change.
- By activating the receptors in the sensory areas of the mouth, throat, and nasal cavity, cooling agents make cigarettes, vapes and other products **less harsh allowing vapers & smokers to inhale deeper and longer.**

Examples of cooling agents

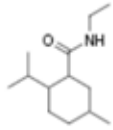
Questions remain:
How do they impact addiction? Health?

Menthol (L-Menthol)



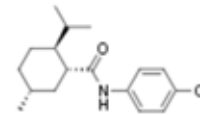
Menthol, a naturally occurring terpene alcohol, is the most widely recognized cooling agent. It is derived from mint plants and delivers an immediate and intense cooling effect by activating TRPM8 receptors.

N-Ethyl-2-isopropyl-5-methylcyclohexanecarboxamide (WS-3)



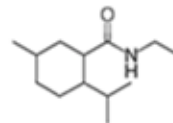
WS-3 provides a gentler cooling sensation compared to WS-23, offering a more gradual and localized effect. It works well for those seeking a subtle chill without overshadowing other flavors.

N-Isopropyl-2,3-dimethyl-2-isobutylbutanamide (WS-12)



WS-12 is known for its strong and immediate cooling impact. It offers one of the most potent cooling sensations among synthetic agents, often favored in high-intensity formulations.

N,2,3-Trimethyl-2-isopropylbutanamide (WS-23)



WS-23 is a synthetic cooling agent renowned for its smooth, sustained cooling effect. Unlike menthol, WS-23 lacks a minty aroma, making it a versatile choice for a broad range of flavor profiles.

**Does the U.S. regulate nicotine content
in products?**

NO

How do other countries regulate nicotine?

The U.S.'s lack of regulation of nicotine levels is dramatically different from other countries. The highest nicotine concentration allowed in the European Union and the United Kingdom is 20 mg/ml (2%).



European Union²³



United Kingdom²⁴



Canada²⁵



New Zealand²⁶



United States

NO REGULATION ON NICOTINE LEVELS

Truth Initiative article Nicotine and the Young Brain

<https://truthinitiative.org/research-resources/harmful-effects-tobacco/nicotine-and-young-brain#:~:text=Nicotine%20is%20highly%20addictive%20and,of%20an%20e%2Dcigarette%20pod>

Nicotine now is SO complicated...
both the chemical structures & delivery methods have changed

Molecule(s) source?

- Tobacco itself
- Tobacco-derived Nicotine (TDN)
- **Synthetic Nicotine (SyN)**

Delivery Methods?

- Leaf – how it's cured
- Chew/dip
- Cigarettes/Cigars
- Vapes Juice & Vape mechanism
- Nicotine Pouches & ***what else is in them***
- Gum
- lozenge

Youth Nicotine Use Disorder & Neurobiology

1. Heightened addiction vulnerability to nicotine
4 mechanisms in “Nicotine Priming” impacting ALL drug use
2. Alters reward pathways
3. Increases dopamine sensitivity
4. Increase risk of addiction to other drugs
5. Reduces impulse control & emotionality... leads to
hypofrontality

Major Brain systems that are impaired by nicotine & other drugs:

1. The **Reward Center** (dopamine) or **“The Gas”**
2. The **Prefrontal Cortex** (glutamate) or **“The Breaks”**

- The loss of control over drug intake in addiction was **initially** believed to result from disruption of **subcortical reward circuits**.
- **However**, imaging studies have identified a **key involvement** of the **prefrontal cortex (PFC)** **both** through its regulation of limbic reward regions and its involvement in higher-order executive function (for example, self-control, salience attribution and awareness).
- ***Disruption of the PFC underlies not only compulsive drug use but also accounts for behaviors that are associated ...the erosion of free will.***

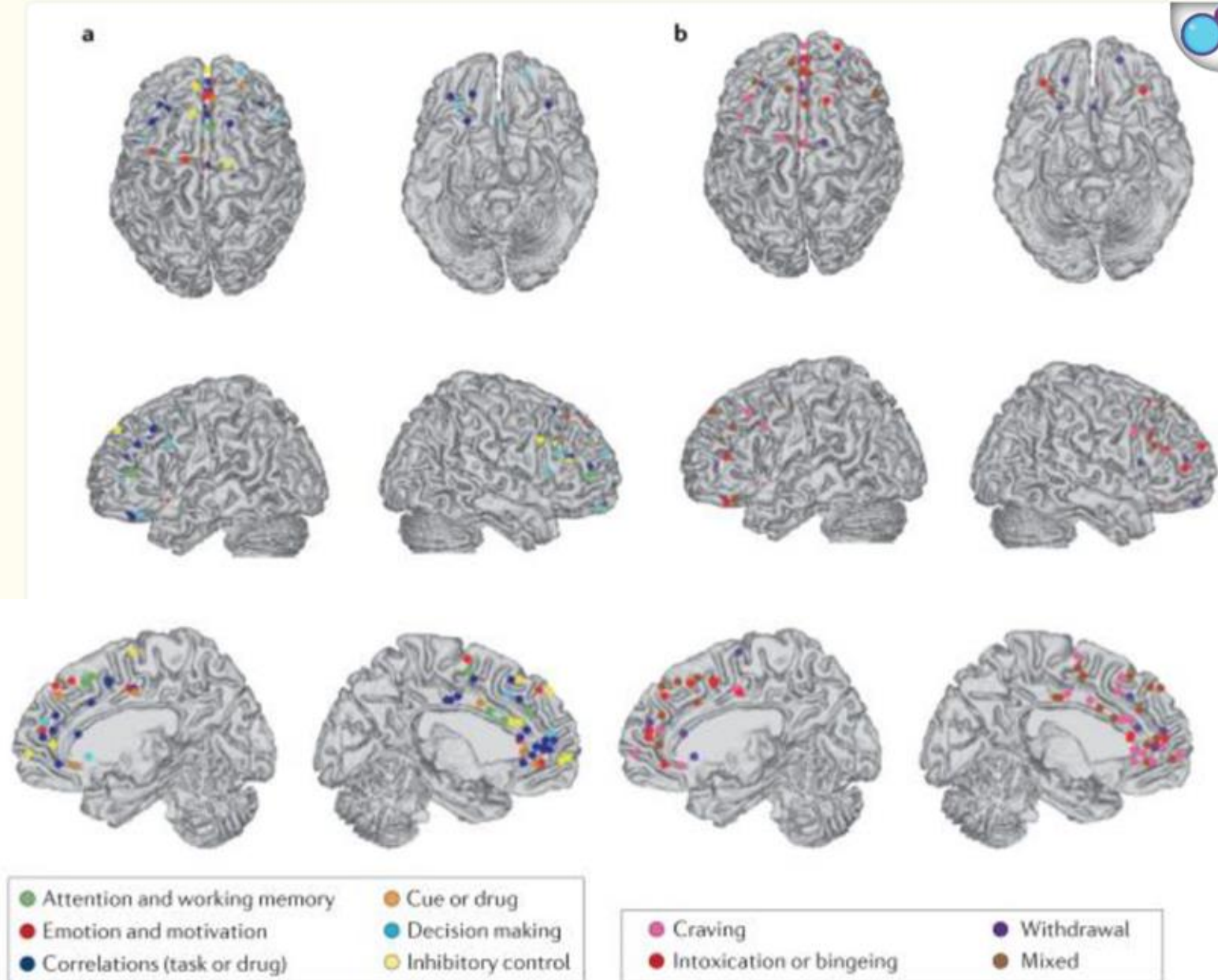
The Hypofrontality of addiction

PFC shows differences in activity between individuals with addiction & healthy controls during tasks:

- attention and working memory
- decision making
- inhibitory control
- emotion & motivation & cue reactivity
- drug administration

Volkow and Goldstein 2011
<https://pmc.ncbi.nlm.nih.gov/articles/PMC3462342/#F2>

Figure 2. Recent neuroimaging studies of PFC activity in drug-addicted individuals.



Free YouTube by Dr. Kevin McCauley

Answers the question *“Is Addiction a Choice or a Disease?”*

☰ YouTube

kevin mccauley 45 min



Pleasure Unwoven - Original video edited to 45 minutes for a 60-minute session

FREE YouTube

Pleasure Unwoven –

Now reduced to 45 min

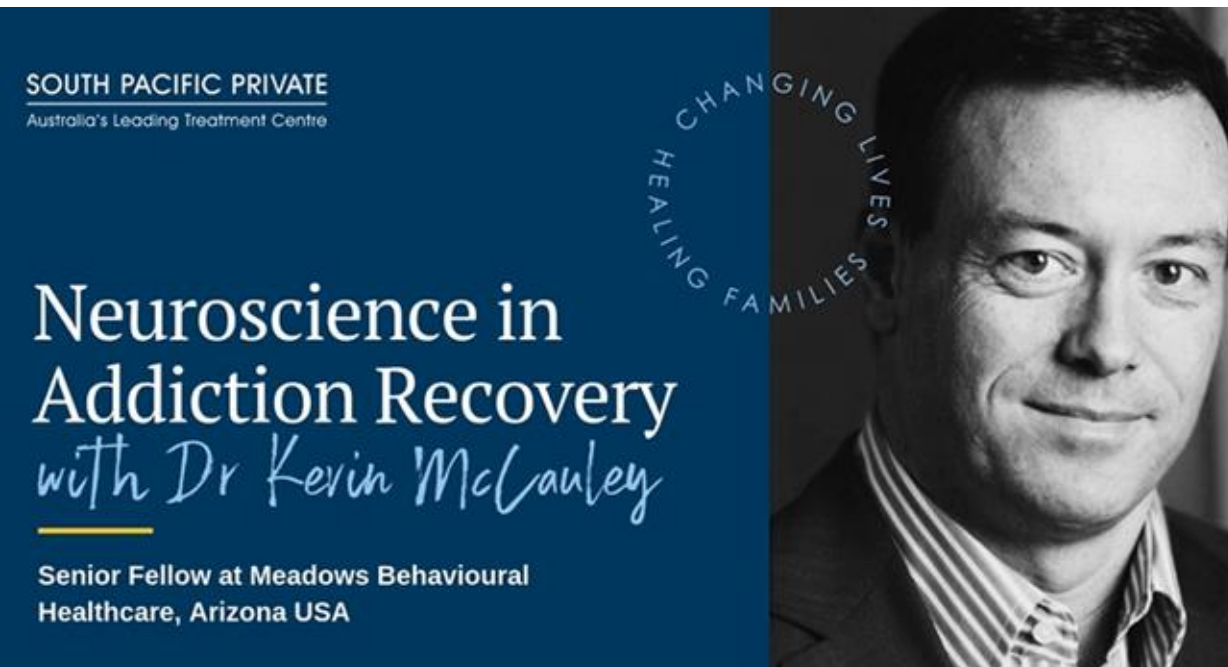
More useful for classes

<https://www.youtube.com/watch?v=Pw-R9VokAZ8&t=1165s>

Is addiction a choice or a disease?

“Addiction is a disease of choice.”

Say what?



SOUTH PACIFIC PRIVATE
Australia's Leading Treatment Centre

CHANGING LIVES
HEALING FAMILIES

Neuroscience in Addiction Recovery with Dr Kevin McCauley

Senior Fellow at Meadows Behavioural
Healthcare, Arizona USA

<https://www.southpacificprivate.com.au/event/south-pacific-private-presents-neuroscience-in-addiction-recovery-with-dr-kevin-mccauley/>



- In the words of Dr. Kevin McCauley,
“Addiction is a chronic disease that erodes the brain’s functioning which impairs free will and the ability to make a choice.”

Research on **Brain Tumors** in the Ventro-Medial Prefrontal Cortex

(research of Dr. Bechara as summarized by Dr. Kevin McCauley)

Is a brain tumor a disease? Does the patient have “choice”?

VMPFC Tumor patients have **“Myopia for the future”**

- **Cognitive impulsiveness**- prefer immediate but disadvantaged rewards over delayed rewards advantageous in the long run
- Guided primarily by **immediate prospects** and **insensitive** to positive or negative **future consequences**
- **Deny or are unaware of the problem**
- **VMPFC patients similar to substance abusing patients on MRI**

To summarize

Addiction is a disorder of...

1. **GENES** vulnerability
2. **PLEASURE** hedonic system (dopamine DA)
3. **MEMORY** learning (glutamate GLU)
4. **STRESS** anti-reward system (Corticotropin-Releasing Factor CRF)
5. **CHOICE** motivation (glutamate GLU)

Why the “Choice Argument” fails...

- It fails to take into account **CRAVING (of the smoker/vaper/pouch user)**
- The “Choice Argument” measures only the addict’s external behavior
- **It ignores the inner SUFFERING of the patient (smoker)**
- You don’t actually have to drug use for the
defective physiology of addiction to be active
- **The addict cannot choose NOT to crave**

How do we help the brain heal from hypofrontality?

For nicotine? For the primary drug of choice?

The Two Tasks of Addiction Treatment

(according to Dr. McCauley)

1. To give the person who is addicted workable, credible tools (and medications) to proactively manage stress and decrease craving

2. For each individual who is addicted, find the thing which is more emotionally meaningful than the drug – and displace the drug with it

Nicotine & Relapse Risk

- 3 things are known to evoke relapse in humans:
 - 1. Brief exposure to the drug itself (Dopamine release)
 - 2. Exposure to drug cues (Glutamate release)
 - 3. Stress (Corticotropin-Releasing Factor)

Scenario of dangerous nicotine related triggering behaviors that happen all the time in treatment:

Talking about drugs (cues) with other newly-sober addicts, stress of new environment, PAWS (physically/mentally stressed) and then smoking/nicotine use (intermittent Dopamine surge hitting the PFC)

MI approach to nicotine with a person newly in recovery

First: Be open, honest and willing to discuss quitting with anyone. Share your desire to quit & be free. Share the current/past struggle. You are not a hypocrite! Take the steps you can. Set limits on where and with whom you use.

Good things

- What would they say?
- Smokers
- Vapers
- Dippers
- Pouch users

Not so good things

- TOBACCO/Nicotine derived from tobacco?
- Inhaled vs oral?
- SYNTHETIC Nicotine?

Some practical tips for **individuals quitting nicotine**

- Lean into ALL the recovery skills YOU ALREADY KNOW & USE
- **Medications increase quitting success!**
 - Try medications like you try them on like shoes. Use what fits:
 - Chantix (Varenicline)
 - Zyban (bupropion/Wellbutrin)
 - Nicotine Replacement Therapy (patches, gum, lozenges)
- Use Free online resources: The **EX-Program** text support to quit
- Learn NEW behavioral skills for quitting nicotine (call **1 800 QUIT NOW**)
- Consider celebrating 2 sobriety anniversaries:
 - Quitting Drug(s) that brought you to sobriety
 - Quitting Nicotine to sustain that recovery

Ideas for **changing** the **recovery culture's** approach to nicotine

- Get EDUCATED: Debunk the MYTHS about recovery & nicotine!
- Learn all you can about neurobiology and addiction.
- Make this part of PRS Training (invite me... I'll talk to 'em)
- Learn all you can about nicotine cessation strategies & medications.
- Change the physical environment to support non-nicotine users in recovery
- Be POSITIVE! We can change the recovery culture!
- Quitting nicotine saves lives and reduces disease.
- BE COURAGEOUS! Speak up.
- Talk with those both old and new to recovery about nicotine.
- Consider CELEBRATING 2 recovery dates:
- CELEBRATE drug quit dates and nicotine quit date

Say what?



Hope that's not too
confusing...

Let's talk