

Rx for Recovery

A Counselor's Guide to the Medical Side



(access slide deck here)



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About Us



- **Kate Peters, D.O.**
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(Disclosure)

The Disclaimer

This presentation is for educational purposes only. We do our best to ensure accuracy, but errors are possible. Please always use your own clinical judgment and current guidelines when treating patients.



Overview



Meds for
Opioid Use
Disorder

Meds for
Alcohol Use
Disorder

Meds for
Stimulant
Use
Disorder

Considerations for Pregnancy

Considerations for Patients on Methadone

Overview



Meds for
Opiate Use
Disorder

Meds for
Alcohol Use
Disorder

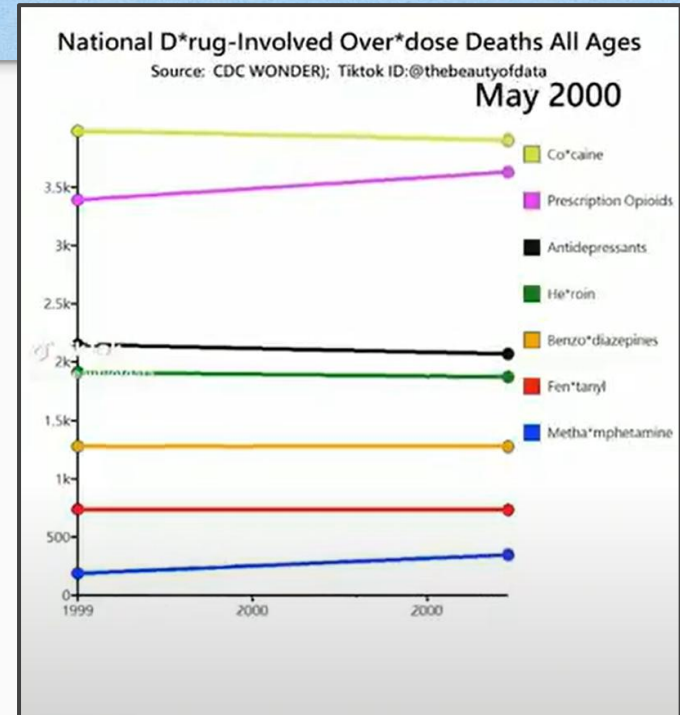
Meds for
Stimulant
Use
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The Scope of the Opioid Problem

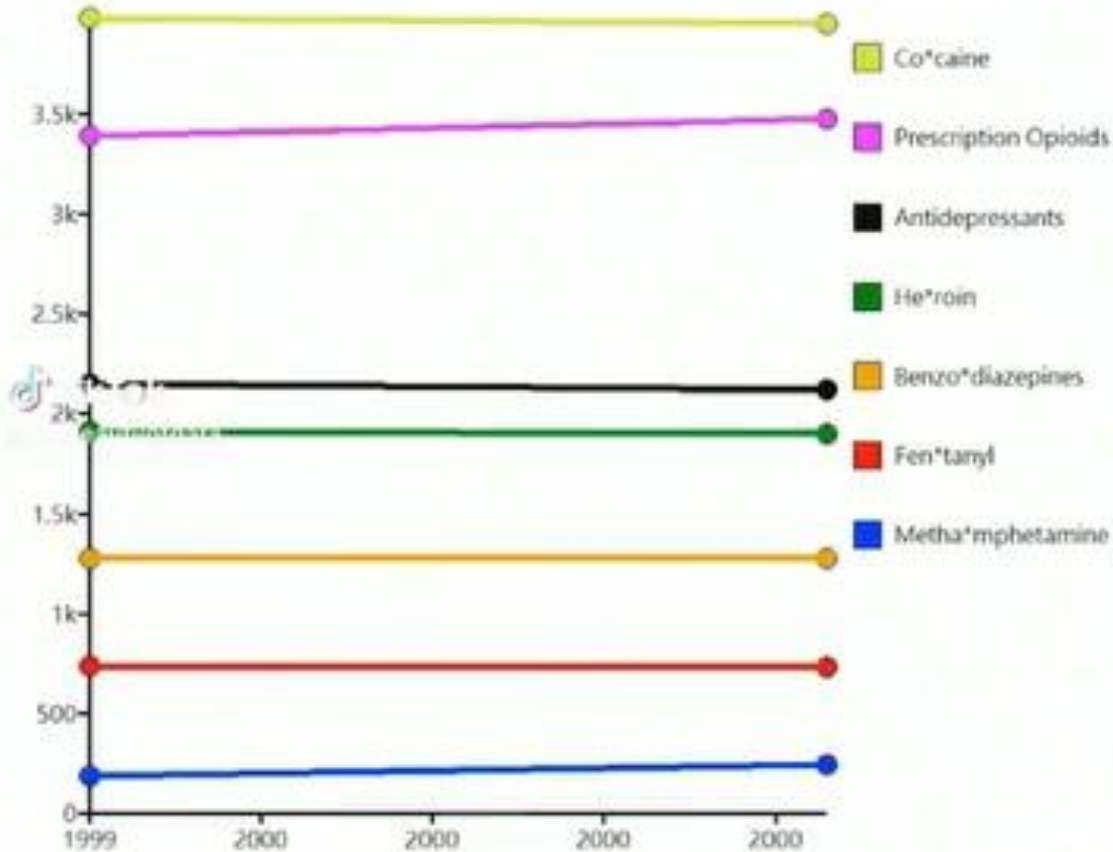
20 Years in 60 Seconds:



National Drug-Involved Overdose Deaths All Ages

Source: CDC WONDER); Tiktok ID:@thebeautyofdata

Feb 2000



20 Years in 60 Seconds

- Fentanyl
- Methamphetamine
- Cocaine
- Prescription Opioids
- Heroin
- Benzodiazepines
- Antidepressants

The Scope of the Opioid Problem

*(incomplete 2024 data)

4,308 Opioid Overdoses in NH* (Non-fatal)
{ Non-fatal does **NOT** mean Non-serious }

287 Opioid Overdose Deaths (at least
*NH is tied with 3 other states for
the highest rates of opioid use disorder in the



Effects of Opioids



*"Like a warm hug"
- actual patient*

- Relief from pain
- Euphoria
- Anti-anxiety
- Constipation, Nausea, Vomiting
- Cognitive impairment
- Somnolence
- Respiratory depression
- Endocrine dysfunction
- Tolerance

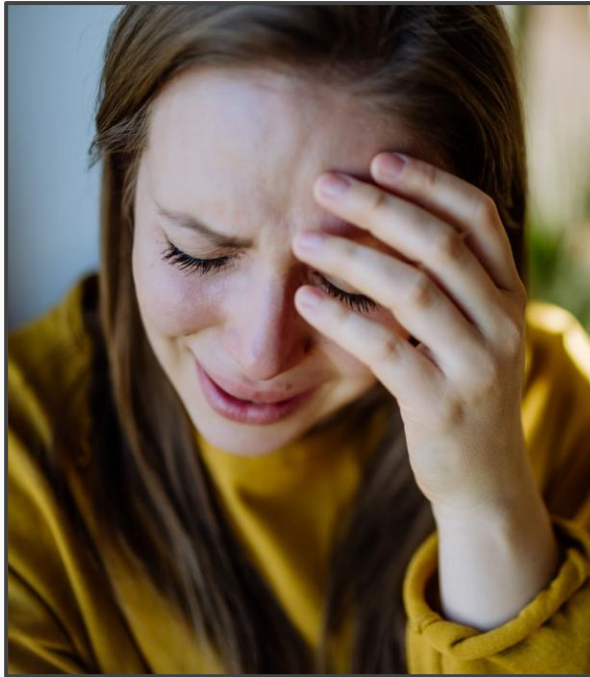


Effects of Opioid Withdrawal



*“Like the worst flu you’ve
ever had.”*

—
“Like Hell on Earth.”



- Muscle aches and restless limbs
- Dysphoria, Depression
- Anxiety
- Effortless diarrhea, nausea and vomiting
- Sweating
- Insomnia
- Sneezing and Yawning

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- Euphoria
- Anti-anxiety
- Constipation, Nausea, Vomiting

-
-
-
- Endorphins
- Dysphoria

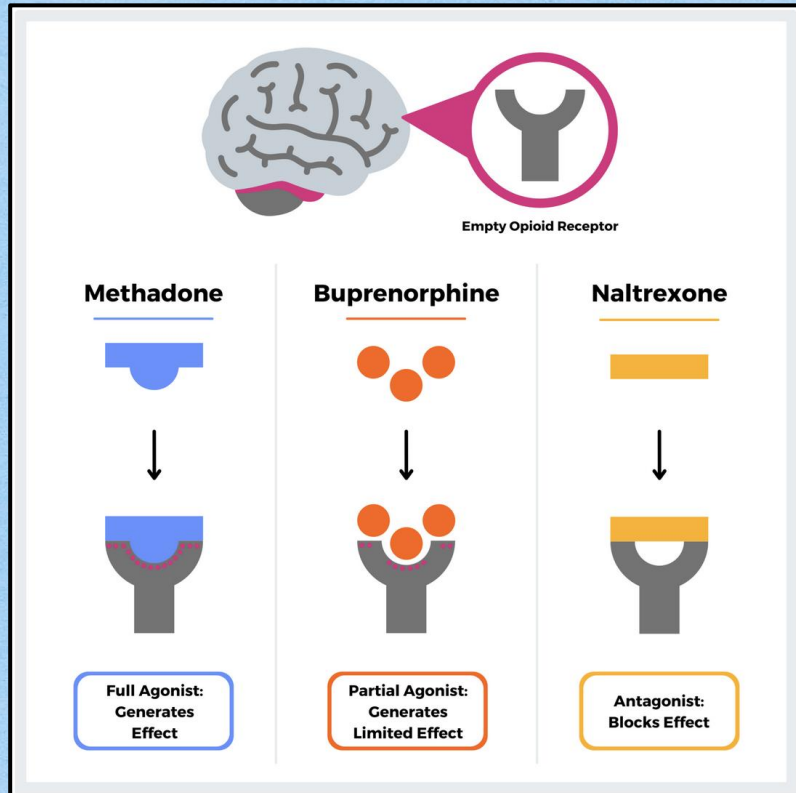


- Muscle aches and restless limbs
- Dysphoria, Depression
- Anxiety
- Effortless diarrhea, nausea and vomiting
- Sweating
- Insomnia
- Sneezing and Yawning



NOPE, SCRATCH THAT

Medications for Opioid Use Disorder

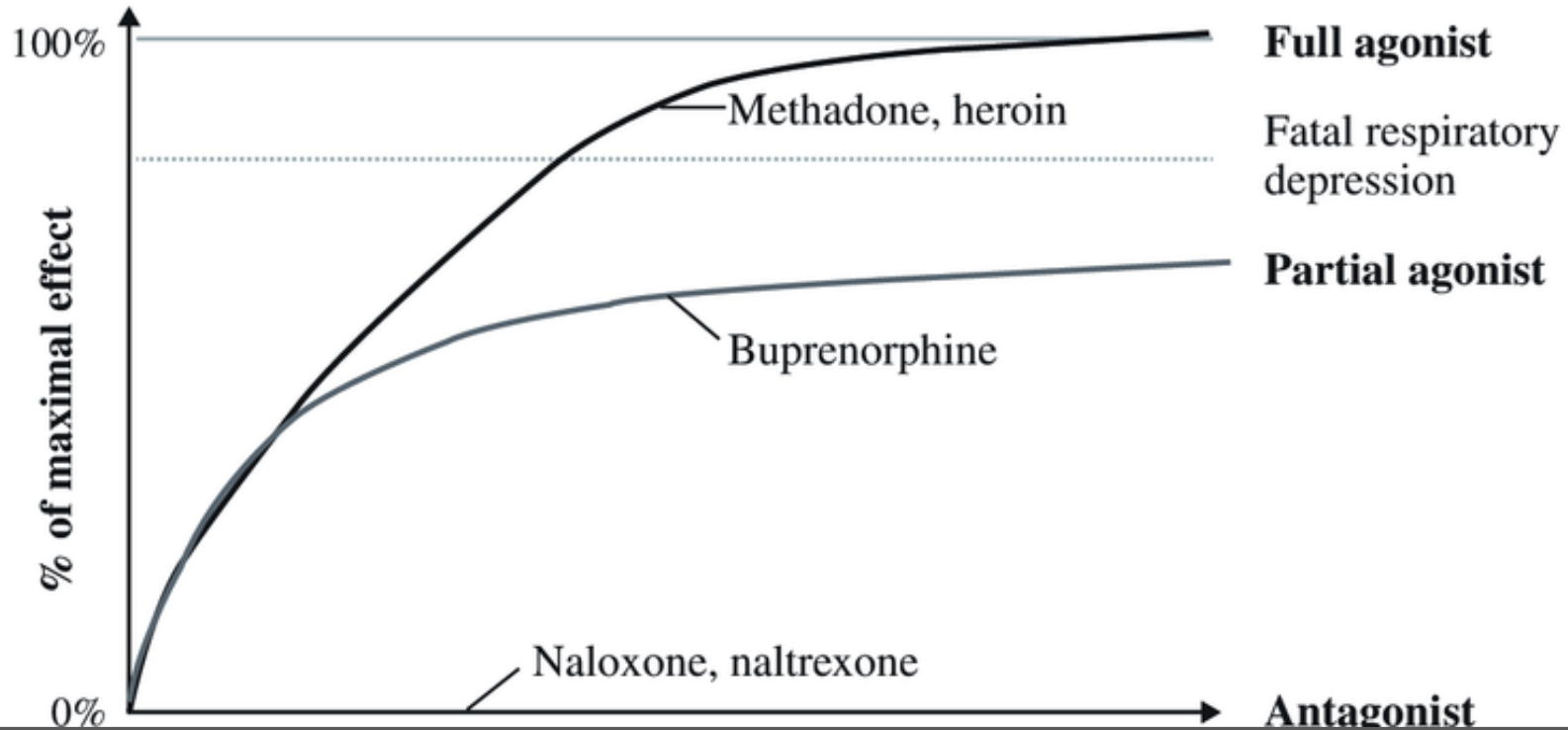


- Methadone
- Buprenorphine
- Naltrexone

Medications for Opioid Use Disorder



Medications for Opioid Use Disorder



Methadone	Buprenorphine	Naltrexone
<p><u>Full opioid effects</u></p> <ul style="list-style-type: none"> - Helps with pain - Relieves withdrawal and cravings - Can cause respiratory depression <p>Typically dosed once per day, usually need to show up daily to a clinic</p> <p>Does <u>not</u> prevent overdose</p>	<p><u>Partial opioid effect</u></p> <ul style="list-style-type: none"> - Helps with pain - Relieves withdrawal and cravings - Rarely causes significant respiratory depression - Less euphoria <p>Binds more strongly to receptors than other opiates</p> <p>Prevents overdose</p>	<p><u>Blocks opioid effects</u></p> <ul style="list-style-type: none"> - Does <u>not</u> relieve withdrawal or cravings <p>Also useful for alcohol cravings</p> <p>Long Acting Injectable Naloxone for OUD is evidence based (pills much less so).</p> <p>Prevents overdose</p>



We can also help with withdrawal symptoms.

OPIOID WITHDRAWAL

TIMELINE



Common Withdrawal Symptoms

- ❖ Aching muscles
- ❖ Anxiety and recklessness
- ❖ Runny nose, excessive sweating and eye tearing
- ❖ High blood pressure
- ❖ Insomnia and fatigue
- ❖ Rapid heartbeat
- ❖ Cravings for the drug(s)
- ❖ Extreme nausea and flu-like symptoms

Medications for Opioid Withdrawal

- When deciding which combination or comfort meds to use, always ask, “What symptoms bother you most?”
- Often, the worst withdrawal symptoms are the ones the patient is using opioids to treat in the first place.
 - Pain
 - PTSD
 - Anxiety
 - Insomnia



Medications for Opioid Withdrawal

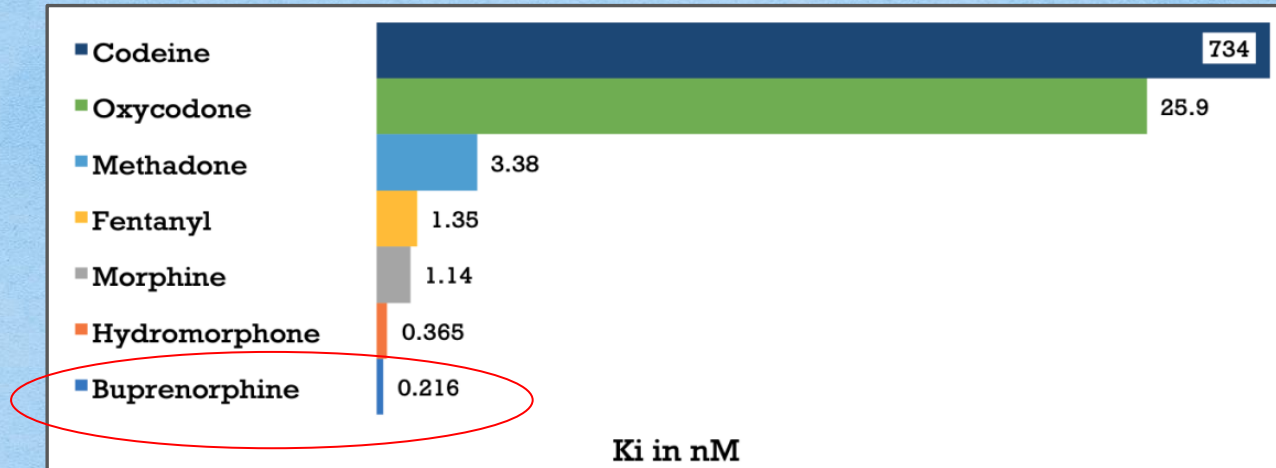
- Clonidine* for anxiety, insomnia, tremor
- Tizanidine* or Cyclobenzaprine for muscle spasm
- Loperamide for diarrhea
- Hydralazine for anxiety
- Ondansetron or promethazine for nausea
- Acetaminophen/NSAIDs and muscle relaxers for pain
- Prazosin for emergent PTSD related nightmares
- Psychosocial support for mood changes and distress tolerance
- A “Doctor’s Note” for time off from work.



**best options for xylazine withdrawal*

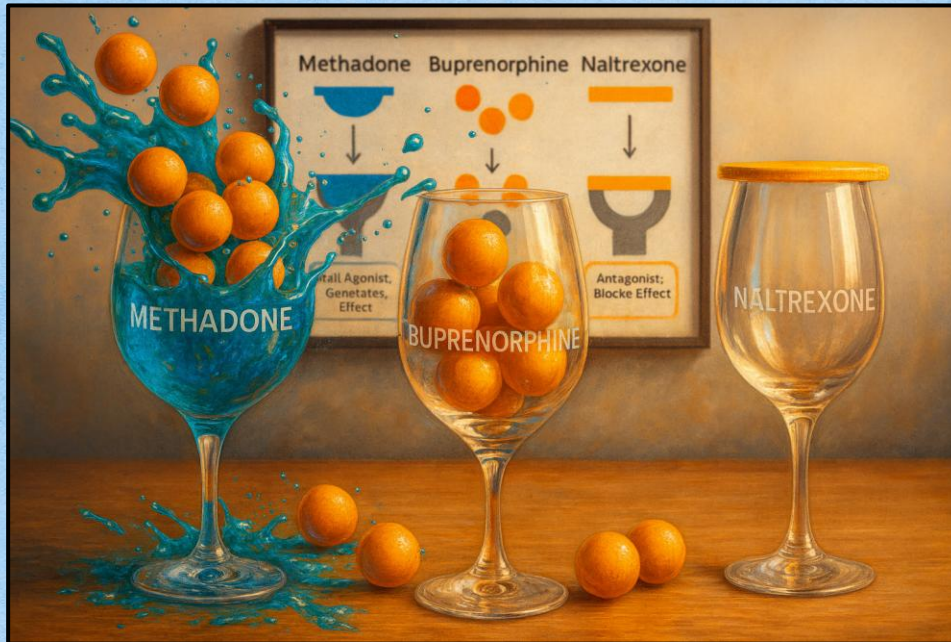
Precipitated Withdrawal

- Buprenorphine has exceptionally high affinity for the mu opioid receptor but only partially activates it.
- If there are still opioids bound to your receptors, buprenorphine will rapidly displace them and can *initially* put you into withdrawal.



Precipitated Withdrawal

- When displacing opioids from the receptors, *the rate of change matters.*



Precipitated Withdrawal

Alternatives to the Standard Buprenorphine Induction

- Concurrent Use
Micro-Induction
- Rapid Micro-
Induction



We need to do this differently.

A Plea From People Who Use Drugs to Clinicians: New Ways to Initiate Buprenorphine are Urgently Needed in the Fentanyl Era

Kimberly L. Sue, MD, PhD, Shawn Cohen, MD, Jess Tilley, and Avi Yocheved

Other union members had not heard of low dose initiation but lamented that it may have given them a chance to access life-saving MOUD. Some people put forward anecdotes of friends or family who fatally overdosed shortly after unsuccessful and agonizing attempts to initiate with the traditional method in which precipitated withdrawal took place.

In our current fentanyl era, patients and people who use drugs are pleading with clinicians to be open to education on and willingness to attempt these novel initiation methods as we await larger trial results.¹⁵ While it may seem contradictory to encourage clinicians to attempt this novel buprenorphine initiation method with a smaller evidence base than traditional methods, the Users Union leaders feel urgency akin to the human immunodeficiency virus/acquired immunodeficiency syndrome era, where affected patient-advocates from groups like AIDS Coalition To Unleash Power (ACT UP) pushed for access to any and all potentially life-saving treatments as they were being developed. In both contexts, directly

Questions?

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Medications for Alcohol Use Disorder



Make Discussing Alcohol Use



Priority

10.7%

Of adults over age 26 meet criteria for AUD

15%

Of those aged 18-25 meet criteria for AUD

3.7%

Of those age 12-17 meet criteria for AUD

21%

Of people over age 12 reported binge drinking behavior in the past month

& Keep Asking: Lifetime Prevalence of AUD is 29%!!

15 Million Americans have Alcohol Use disorder 

And 88,000 people die every year from alcohol-related illnesses

***Less than 10% of people with AUD receive medication to help treat it.**

Screening for AUD

What Is a Standard Drink?

12 fl oz of regular beer = 8-9 fl oz of malt liquor (shown in a 12 oz glass) = 5 fl oz of table wine = 1.5 fl oz shot of distilled spirits (gin, rum, tequila, vodka, whiskey, etc.)



about 5% alcohol about 7% alcohol about 12% alcohol about 40% alcohol

Each beverage portrayed above represents one standard drink of "pure" alcohol, defined in the United States as 0.6 fl oz or 14 grams. The percent of pure alcohol, expressed here as alcohol by volume (alc/vol), varies within and across beverage types. Although the standard drink amounts are helpful for following health guidelines, they may not reflect customary serving sizes.

Low-risk drinking limits



	MEN	WOMEN
On any single DAY	No more than 4  drinks on any day	No more than 3  drinks on any day
	** AND **	** AND **
Per WEEK	No more than 14  drinks per week	No more than 7  drinks per week

To stay low risk, keep within BOTH the single-day AND weekly limits.

“How many times in the past year have you had more than (4 for women/5 for men) drinks in one day?”

(Any response greater than 1 is considered positive.)

Question and Answer

Score

Alcohol Use Disorders Identification Test–Consumption (AUDIT-C)²⁰¹⁶

How often do you have a drink containing alcohol?

Never	0
≤1 time per mo	1
2–4 times per mo	2
2–3 times per wk	3
≥4 times per wk	4

How many standard drinks containing alcohol do you have in a typical day?

0	0
1 or 2	0
3 or 4	1
5 or 6	2
7 to 9	3
≥10	4

How often do you have six or more drinks on one occasion?

Never	0
<1 time per mo	1
1 time per mo	2
1 time per wk	3
Daily or almost daily	4

AUDIT-C

- How often do you drink alcohol?
- How many drinks do you have in a typical day?
- How often do you have 6 or more drinks on one occasion?

Scores 0–12

Over 3 for women is positive

Over 4 for men is positive

TABLE

Summary of *DSM-5* diagnostic features for alcohol use disorder^{8,a}

Two of the following symptoms/behaviors must be present for at least 1 year, and be co-occurring with significant distress or impairment:

- More alcohol is consumed than intended or is consumed over a longer period of time than intended.
- Efforts to cut back or control drinking have not succeeded.
- Excessive time is spent obtaining, using, or recovering from alcohol.
- Alcohol cravings and urges persist.
- Use of alcohol has impaired follow-through on education, employment, or home obligations.
- Interpersonal problems have been caused or intensified by use of alcohol.
- Alcohol use has led to a reduction in or cessation of recreational, social, and employment activities.
- Use of alcohol has occurred in situations where it is dangerous.
- Alcohol use has continued despite knowledge of the problems it is causing.
- Tolerance to alcohol is evident—ie, drinking the same amount has little effect, or heavier use occurs to maximize alcohol's effects.
- Withdrawal is evident—ie, physiologic signs (tremors, nausea) occur or closely related drugs (eg, benzodiazepines) are taken to avoid withdrawal.

DSM-5, Diagnostic and Statistical Manual of Mental Disorders-5.

^a Adapted from the *DSM-5*; American Psychiatric Association (2013).

- “Yes” to 2 items
- Present for at least 1 year
- With significant distress/impairment

Mild = 2-3

Moderate = 4-5

Severe = 6 or more

RETHINKING DRINKINGSM

Alcohol & your health

<https://rethinkingdrinking.niaaa.nih.gov/>

So you're implementing universal screening and finding that 29% of adults in your panel have AUD at some point in their lives.

Now What?



American Society of Addiction Medicine (ASAM)
& Substance Abuse and Mental Health Services
Administration (SAMHSA) recommend that

Treatment for AUD should routinely
include BOTH pharmacotherapy and
psychosocial interventions.

Number Needed To Treat



Naltrexone:

- NNT = 11 to reduce heavy drinking
- NNT = 18 for complete abstinence

Acamprosate

- NNT = 11 for complete abstinence

How Alcohol Affects the Nervous System

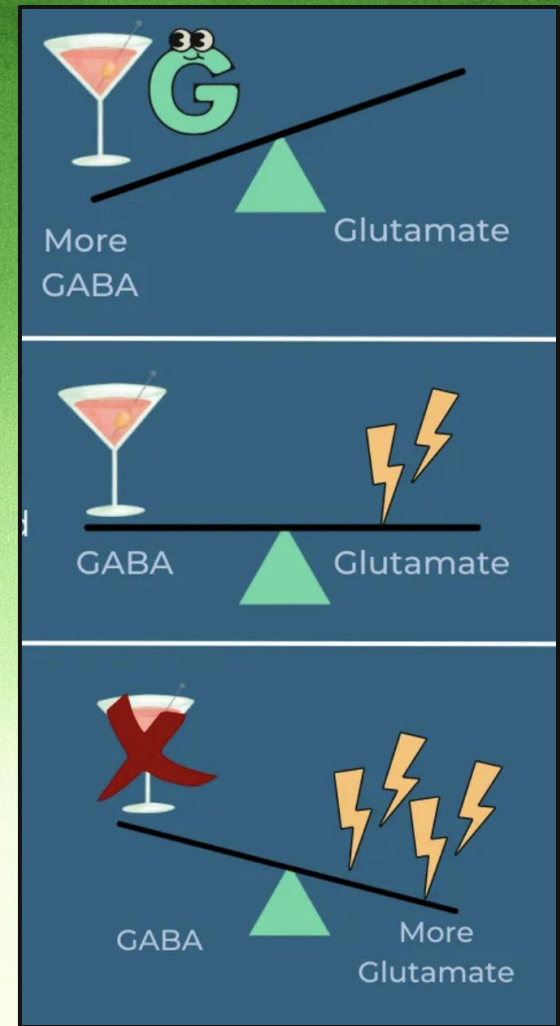


GABA
Inhibitory
Neurotransmitter

Glutamate
Excitatory
Neurotransmitter

Pathophysiology of Alcohol Withdrawal Syndrome

- The CNS has a balance of inhibitory (GABA) and excitatory signals (glutamate).
- Alcohol provides extra GABA stimulation.
- With heavy prolonged use the internal GABA system is downregulated and Glut increases to balance it.
- When alcohol is removed, there's too much glutamate (SNS activation - fight or flight)
- SNS hyperactivity leads to autonomic instability and can produce seizures



Medications For Alcohol Use Disorder

1. Disulfiram
 2. Acamprosate
 3. Naltrexone
 4. Gabapentin
 5. Topiramate
- } FDA Approved
- } Off-Label
(but evidence-based)

Disulfiram



- FDA approved in 1951
- Makes people *very sick* if they contact alcohol
 - **Must stop drinking at least 24 hours before taking**
 - **Reaction can persist up to 2 weeks after they stop rx**
 - Minute exposures can trigger reaction (hand sanitizer, mouthwash)
- **Does NOT help with cravings**
- Not a good option for patients with other significant medical issues
- *Potential* use case: “pill in pocket” for a person with sustained abstinence to take the morning of a potentially triggering event

*This is the **ONLY** medication you have to STOP drinking for

Acamprosate



FDA approved in 2004

Works at same brain receptors as alcohol – gaba receptor agonist and NMDA receptor antagonist so it **helps with cravings**

Good in situation where person is in a post detox state because it can help with protracted withdrawal, does not have to 100% abstinent

Can be used with co-occurring opioid use

Cleared by kidneys, CAN be used in patients with significant liver disease

Hard to take: 2 tablets three times a day

Naltrexone



- FDA approved in 1994
- Mu-opioid receptor antagonist
 - No opioids within last 7 days (short-acting) to 14 days (long-acting)
 - **Also prevents accidental overdose with opioids!**
- No adverse reaction if currently drinking alcohol
- Shown to prevent relapse to heavy drinking, reduced craving and overall heavy drinking days
- Dose: once daily pill or once monthly injection
- Limited use in liver disease
- May help with weight management when combined with bupropion

Gabapentin

- Non-FDA approved, but often helpful
- **Gaba agonist - helps with cravings**
- An anxiolytic
 - Can be misused
 - Good for comorbid anxiety, neuropathic pain
- Helpful in protracted or subacute withdrawal symptoms
- Safe in combination with naltrexone



Topiramate

- Non-FDA approved, reserved for moderate to severe
- Gaba agonist – helps with cravings
- Great for comorbid migraines
- **May be helpful for stimulant use disorder**
- May be helpful for weight management
- **Taper to DC**
- Adjust dose for CKD
- Helpful for people who's sleep is disrupted in early recovery

What about patients with alcohol withdrawal?



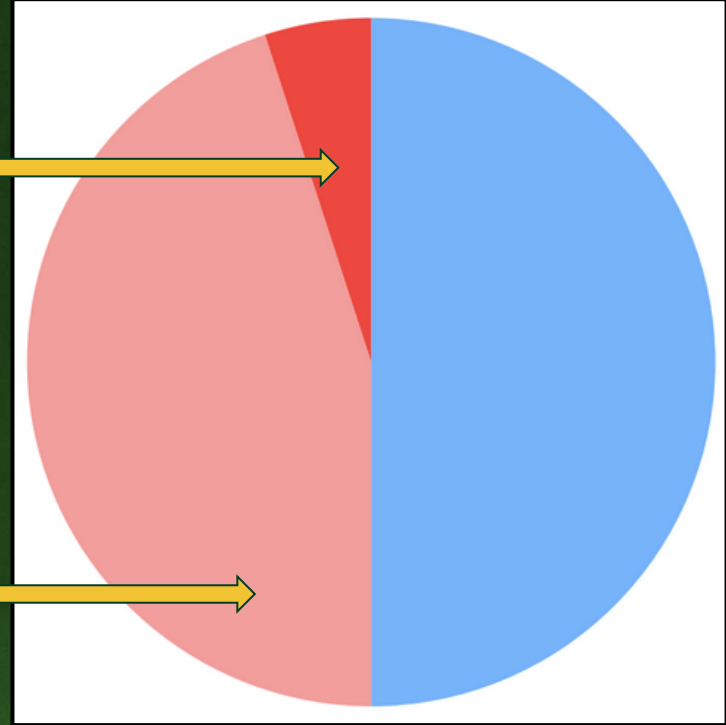
It is a bit of a
strange beast.

And it is
surprisingly
dangerous!

Alcohol Withdrawal

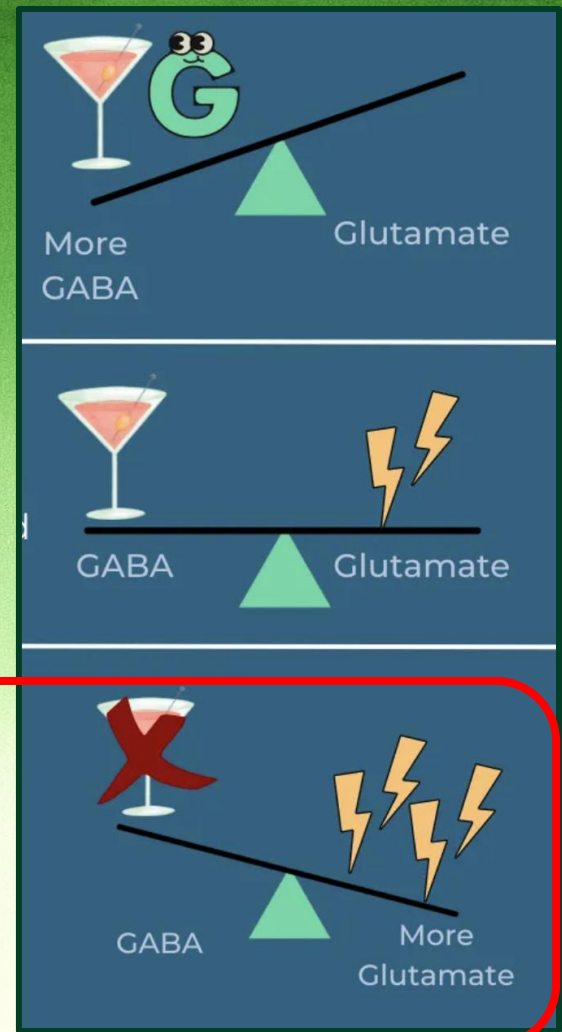
5% will experience Delirium
Tremens

50% of people with
AUD who stop drinking will
experience AWS

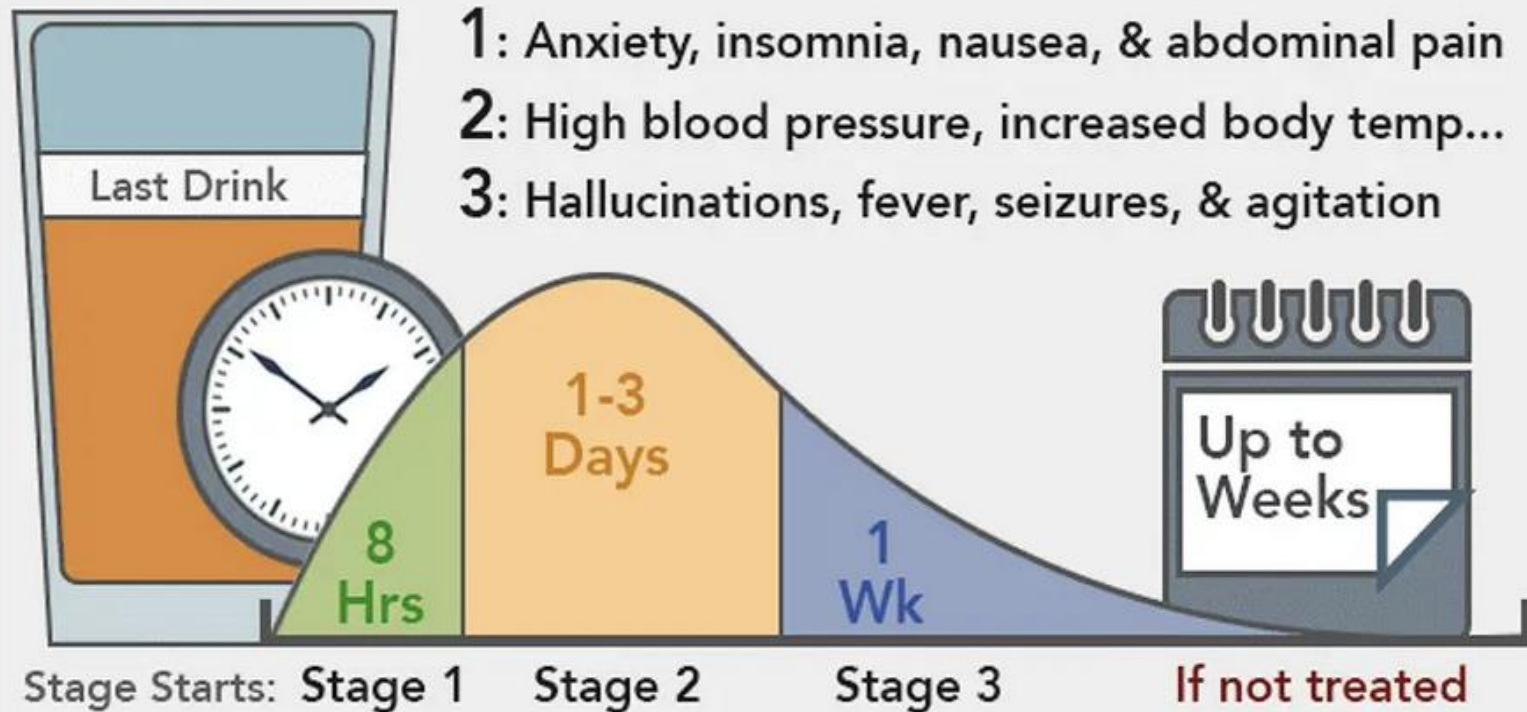


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 - SNS hyperactivity leads to autonomic hyperactivity and can produce seizures



Alcohol Withdrawal Timeline



DSM-V Criteria for Alcohol Withdrawal:

Cessation or reduction in heavy/prolonged use of alcohol that results in at least 2 symptoms:

- Autonomic Hyperactivity (HR>100, profuse sweating)
- Hand tremor
- Insomnia
- Nausea/vomiting
- Transient hallucinations/illusions
- Psychomotor agitation
- Anxiety
- Generalized tonic-clonic seizure

DSM-V Criteria for Delirium Tremens

- Decreased alertness/awareness
- Disturbance in attention, awareness, memory, orientation, language, visuospatial ability, perception that is a change from baseline and fluctuates in severity
- Disturbance in memory, orientation, language, perception
- No coma or other neurocognitive disorders

Tremor **≠** **DT**

Is the Patient Appropriate for Outpatient Management?

- Caregiver support
- Appropriate Housing
- Transportation available
- Consumes <8 drinks per day
- Not at risk for imminent relapse, harm to self or others, low commitment or questionable cooperativeness
- No severe/complicated withdrawal symptoms (CIWA-Ar >18, SAWS >12)
- No active psychiatric concerns
- No significant medical conditions:
 - Any history of seizures
 - Abnormal labs
 - Unstable chronic conditions
 - Inability to tolerate PO
 - Suspected head injury
- Not dependent on other substances
- No history of severe alcohol withdrawal (within the last year)

Objective Severity: CIWA & SAWS



...how bad is it?

Item	None (0 points)	Mild (1 point)	Moderate (2 points)	Severe (3 points)
Anxious				
Feeling confused				
Restless				
Miserable				
Problems with memory				
Tremor (shakes)				
Nausea				
Heart pounding				
Sleep disturbance				
Sweating				

Short Alcohol Withdrawal Scale to assess severity of alcohol withdrawal.

Mild symptoms: score < 12; moderate to severe symptoms: score > 12.

Medications for Alcohol Withdrawal Management

Gabapentin

Benzodiazepines

- Chlordiazepoxide, diazepam, lorazepam
- May be given on a schedule or as-needed
- Typically a short course (5-7 days)

Phenobarbital is being used in ER and inpatient settings



Please Remember . . .

**Alcohol Withdrawal can be
DEADLY and often escalates
quickly.**

**When in doubt, ER
evaluation or
inpatient treatment is
best.**



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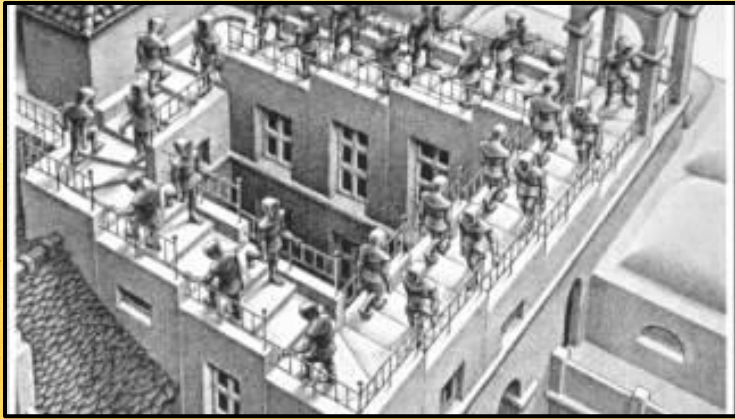
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Understanding Stimulants

Shepard Tone

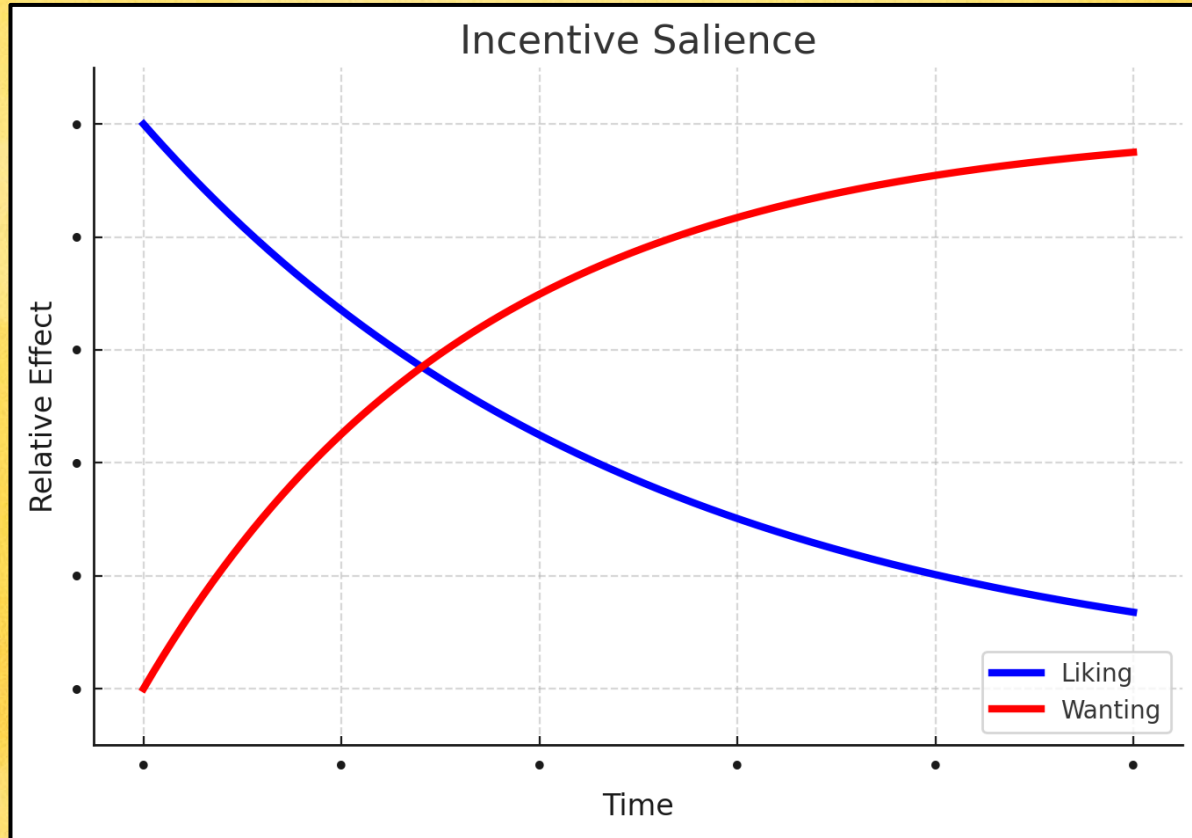


“Crack promises the greatest pleasure ever known—in just a moment more.”
(Michael Pollan)

Incentive Salience: “Wanting” vs “Liking”

“Liking”	The <u>hedonic pleasure</u> or affective response to a reward (consummatory pleasure).	Opioid and endocannabinoid “hot spots” in the nucleus accumbens and ventral pallidum.
“Wanting” (Incentive Salience)	The <u>motivational drive</u> triggered by cues or contexts predicting a reward—makes the organism pursue it.	Dopamine projections from the ventral tegmental area (VTA) to nucleus accumbens (mesolimbic DA).
Separation of systems	“Wanting” can be activated without “liking.” With repeated drug use, dopamine-driven cue reactivity sensitizes even as hedonic “liking” declines.	Sensitized mesolimbic DA vs. downregulated opioid hedonic circuits.

Incentive Salience + Hedonic Tolerance



<u>Substance</u>	<u>Mechanism of Action</u>	<u>Duration of Effect</u>
Methamphetamine	Potent Releaser of Monoamines (Dopamine>Norepinephrine>Serotonin) AND Reuptake Inhibition (MAO Inhibition)	8-12 hours
Cocaine	Potent Reuptake Inhibitor of Dopamine, Norepinephrine, Serotonin reuptake; also Na ⁺ channel blocker.	0.5-1 hour
Crack Cocaine	Same as cocaine but smoked free-base; faster brain entry.	0.5-1 hour (much faster onset and peak than intranasal or IV cocaine)
Amphetamine	Similar to methamphetamine but less lipophilic (slower onset and peak) with weaker MOA reuptake inhibition	4-6 hours

Treatment Options:

- No FDA Approved Medications
- Evidence Based Options:
 - Bupropion
 - Topiramate
 - Contingency Management
- Less evidence based options:
 - N-acetyl Cysteine (NAC)
 - Long acting stimulants
 - Semaglutide, et al.
 - Baclofen



3 Treatments
Good Evidence
(Off-Label)



- Most similar physiologically to illicit stimulants.
- Inhibits dopamine and norepinephrine reuptake.
- Reduces cravings and increases abstinence.
- **More effective in patients with coexisting OUD.**
- Added benefit for smoking cessation, ADHD and weight loss.
- **Jon's first choice in treating Stim UD.**
- Long acting formulations preferred both for efficacy and reducing unsafe use and diversion.
- Dosing of bupropion XR ~150-450mg per day.
- Rapid up-titration to cravings.
- **ALWAYS ask about seizure history.**

Bupropio

n



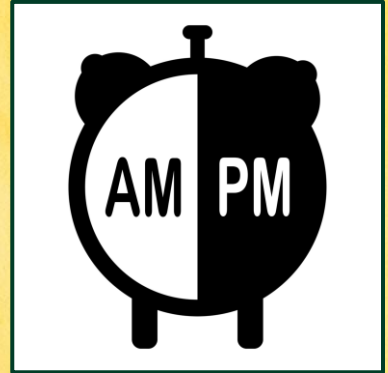
Topiramate

- Conditional recommendation by ASAM and AAAP for patients with **stimulant use disorder**.
- The evidence is mixed – consider as an adjunct or second line agent.
- Side effects are significant (brain fog most common), and slow titration over weeks is necessary to achieve a therapeutic dose. Safely discontinuing the medication also requires a taper.
- Good when treating comorbid AUD, binge eating disorder and migraine, or bupropion is not an option due to seizure history.
- Recommended dose 100–150mg bid, but **lower doses and qHS only may be effective** even if higher doses are not tolerated.
- Good pm adjunct to bupropion or LA stimulant use especially when **insomnia** is present.



Bupropion + Topiramate

- No high quality evidence for this combination, but effective anecdotally.
- May be used concurrently (bupropion xl qAM and topiramate qHS).
- **For severe stimulant use disorder, consider simultaneous induction with both medications.**
- Especially useful if side effects preclude adequate titration of one or either medication (ex. Bupropion 150 XL qAM and Topiramate 50mg qHS)
- Especially useful in patients with **obesity**.



Contingency Management

- Offering monetary rewards and vouchers for visit attendance and/or appropriate UDS.
- The American Society of Addiction Medicine and the American Academy of Addiction Psychiatry recommend CM as a **first-line treatment for stimulant use disorder**, including methamphetamine and cocaine use disorder.
- CM reduces stimulant use, increases treatment retention and is associated with reduced mortality in real-world settings.
- **Incentive magnitude is critical for efficacy**; recent data suggest median weekly values of \$128 for voucher-based and \$55 for prize-based CM, with a typical 12-week protocol totaling \$1536 (voucher) or \$660 (prize).*
- Ethical Consideration: potential of introducing a gambling adjacent intervention to a person predisposed toward addictive behavior



*State regulations may dictate the maximum that can be rewarded.

SAMHSA defines a voucher as \$75/week (National)

Honorable Mention: naltrexone + bupropion

- A recent study showed for the first time that naltrexone + buprenorphine can be an effective treatment for Stimulant Use Disorders.
- The combination of medications is the same as those in *Contrave*, a newer weight loss drug.



3 Treatments
Early or *Mixed*
Evidence
(Still Off-Label)



N-acetyl Cysteine

- Modest reduction in cravings (weak evidence)
- No significant improvement in withdrawal symptoms, reduction in stimulant use, or preventing relapse in most RCTs
- The safety profile of NAC is excellent.
- Best considered an adjunctive therapy.
- Typical dose used in trials is 2400mg total daily dose split bid-qid.



Semaglutide, et al.

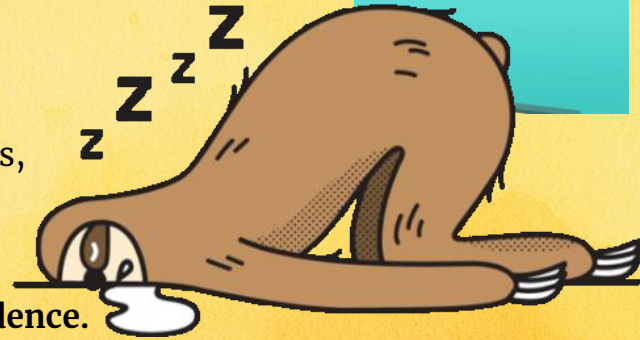
- **Limited evidence** for stimulant use disorders, though animal studies show significant reduction in use.
- Best SUD evidence for GLP-1s is currently for AUD and cannabis use disorders.
- **Consider using GLP-1s preferentially as a weight loss or DM treatment when someone has concurrent stimulant use disorder.**
- Some benefit for treating nicotine use disorder reported in observational studies of people being treated for T2DM



Baclofe

n

- **Baclofen has not demonstrated consistent efficacy for stimulant use disorder** in randomized controlled trials, and is not recommended as a first-line pharmacologic intervention.
- Inhibits mesolimbic dopamine release, reducing the reinforcing and motivational effects of stimulants.
- **Decreases the probability of dopamine release in the nucleus accumbens, *potentially* decreasing cue-induced craving and relapse.**
- May reduce cocaine self-administration and craving in non-opioid-dependent individuals, **but NOT in those with concurrent opioid dependence.**
- **Always consider Side Effect Profile if considering prescribing.**
- Patients who come to you on high dose baclofen typically require a long taper (months not days).



SUD + ADHD
Evidence
Best Practice



Long Acting Stimulants

- Extended release mixed amphetamine salts (Adderall ER) have been shown to be beneficial in some studies, though it is not currently recommended as a treatment for Stim UD UNLESS there is co-occurring ADHD.
- Benefits are less pronounced for people who do not carry a diagnosis of ADHD.
- **1 in 3 people with stimulant disorder carry a diagnosis of ADHD**, so long acting stimulants may be used on-label for ADHD and also have benefit for stimulant use disorder.
- NOTE: When prescribing LA stimulant medication, be conscious of decreased bioavailability compared with IR

ADHDmedCalc™
taking your patients to peak performance

ADHD Medication Calculator/Converter For Healthcare Professionals Only

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	Current Medication	New Medication
Name:	Adderall (dextroamphetamine)	Adderall XR (dextroamphetamine)
Dose:	20 mg	40mg
Duration Of Action:	5-8h, dosed qd-tid	8-12h, dosed qd
Time to Peak Effect:	45-60 min	45-60 min
Recommended Starting Dose:	3-5yo: 2.5mg, >6yo: 5mg	>6yo: 5mg, Adolescent: 10mg, Adult: 20mg
Titration Recommendation:	3-5yo: increase 2.5 weekly, >6yo: increase 5mg weekly	Child: increase 5-10mg weekly Adult: 10mg weekly
Maximum Recommended Dose:	40mg	Child 40mg Adult 60mg
Off Label Maximum Dose:	>50kg 60mg	>50kg 60mg
Dosage forms available:	5, 7.5, 10, 12.5, 15, 20, 30	5, 10, 15, 20, 25, 30

How To Use

1. Read the Terms of Use
2. Choose your patient's existing medication (e.g. Adderall) in the left column
3. Enter your patient's current dosage
4. Choose your patient's new medication (e.g. Vyvanse) in the right column

Available on the iPhone
App Store

ANDROID APP ON
Google play

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ADHD + SUD: Perception VS. Reality

International Consensus Statement

Author Manuscript

[Eur Addict Res](#). Author manuscript; available in PMC 2018 Jun 4.

Published in final edited form as:

[Eur Addict Res. 2018; 24\(1\): 43–51.](#)

Published online 2018 Mar 6. doi: [10.1159/000487767](#)

PMCID: PMC5986068

NIHMSID: NIHMS967310

PMID: [29510390](#)

International Consensus Statement on Screening, Diagnosis and Treatment of Substance Use Disorder Patients with Comorbid Attention Deficit/Hyperactivity Disorder

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ADHD + SUD: Perception VS. Reality

Adverse events are not increased in ADHD patients with SUD compared to when giving stimulants to ADHD patients without SUD [38]. The literature does not mention severe complications or increases in substance abuse with prescribing central stimulants in this patient population [27]. However, a dose-dependent interaction between disulfiram and methylphenidate resulting in psychotic episodes has been described [39]. Finally, the use of stimulant treatment for ADHD does not precipitate the onset of SUD in adults without previous SUD [40]. In SUD patients, treatment of ADHD can be useful to reduce ADHD symptoms without worsening the SUD [41] and should not be avoided.

“Adverse events are not increased in ADHD patients with SUD compared to when giving stimulants to ADHD patients without SUD [38].”

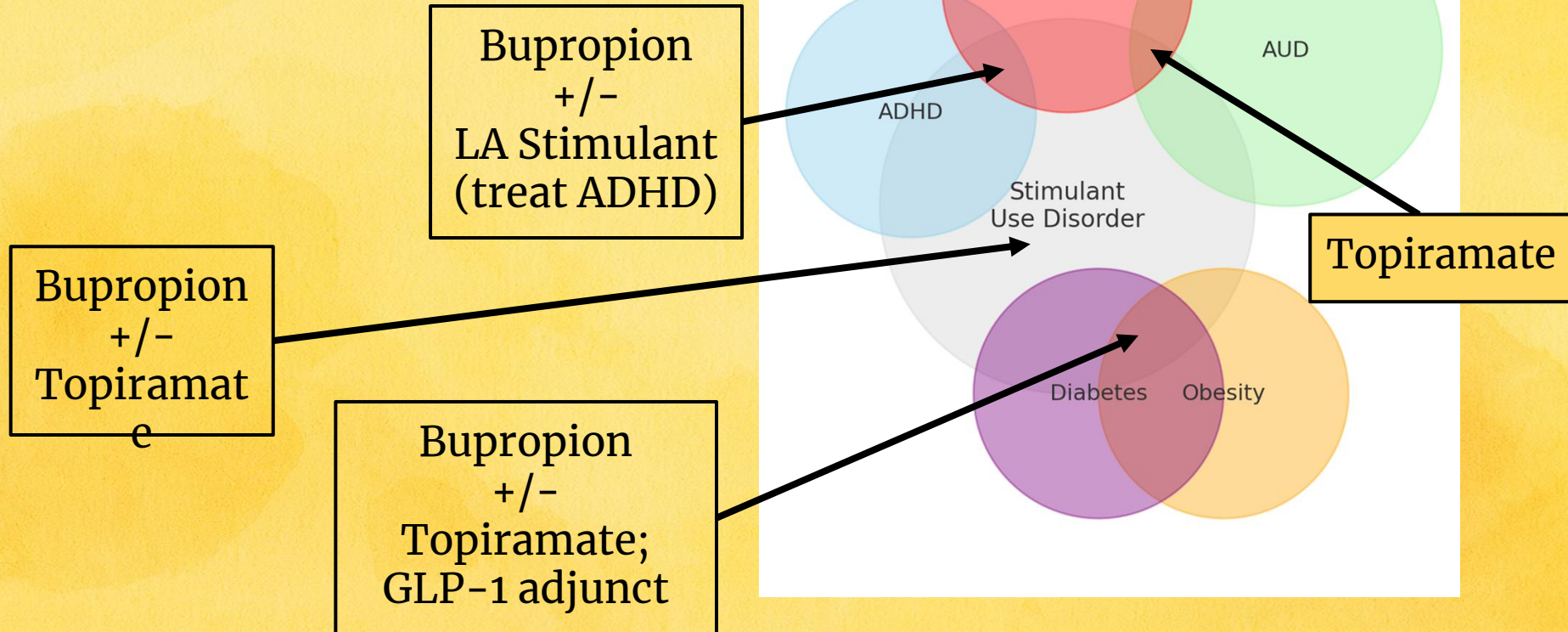
ADHD + SUD: Perception vs. Reality

In patients with ADHD, severity of SUD – rather than the mere presence of ADHD – is a predictive factor for treatment outcome [43]. Adult ADHD-SUD patients treated with methylphenidate have better retention in treatment than ADHD patients who receive placebo [44]. Higher doses of methylphenidate are also associated with better long-term treatment adherence [45].



Treating ADHD with Stimulants leads to **better retention** in SUD treatment programs.

Comorbidities Inform Treatment:



Key Takeaways for Stim Use Disorders



- All our medication options are “off-label.”
- Contingency Management remains the gold standard, but is often operationally prohibitive.
- Bupropion AM + Topiramate qHS can be a well tolerated and effective combo [anecdotal].
- When Possible, use comorbidities to inform treatment (obesity, nicotine UD, AUD, etc).
- Treat cooccurring ADHD – Present in $\frac{1}{3}$ of people with stimulant use disorder.

Questions?

Overview

Meds for
Opiate Use
Disorder

Meds for
Alcohol Use
Disorder

Meds for
Stimulant
Use
Disorder

Considerations for Pregnancy

Considerations for Patients on Methadone

SUD Considerations for Pregnancy



The Situation

Substance use affects nearly **20%**
of pregnant people

Stigma & shame are magnified in pregnancy

- Use universal screening tools, nonjudgemental language, and trauma-informed care
- Patients and providers have legal and ethical considerations when kids are involved

Medical

Risks

- **Alcohol:** No safe level; risk of fetal alcohol spectrum disorders, growth defects, CNS abnormalities
- **Nicotine:** Fetal growth restriction, preterm birth, perinatal mortality, childhood asthma/obesity
- **Cannabis:** Impaired cognition and behavioral problems.



- **Opioids:** Neonatal abstinence syndrome (NAS), increased risk of preterm birth.
- **Stimulants, Benzodiazepines:** Fetal growth restriction

Treatment Options in Pregnancy

Opioid Use Disorder:

- Methadone or buprenorphine are gold standard treatments
- Medically supervised withdrawal is not recommended due to high relapse risk

Alcohol, Nicotine, Cannabis:

- Emphasize cessation
- Behavioral interventions are first-line

Benzos and Stimulants:

- Risk/benefit conversation, may be necessary to continue



Let's Check Our Biases...



If a person with diabetes or rheumatoid arthritis becomes pregnant we don't ask them to just stop eating carbs or just deal with their joint pain and swelling. We increase or adjust medications (even though they have fetal effects) and lean in to more appointments, more check ins, more intense care.

Addiction is a chronic, remitting and relapsing disease. Expecting someone to "just stop" because they are pregnant is not practical.

“The Enemy of Good is Best”

Sometimes we use medicine in pregnancy that have adverse effects because the effects of not treating a disease are worse than the effects of treatment.

Be a Harm Reductionist.

- Provide non-punitive, supportive, trauma-informed care.
- Address social determinants & mental health
- Reduce barriers for prenatal care engagement and postpartum follow-up.

The Fourth Trimester...

80% of women who were abstinent in the last month of pregnancy **relapse** to at least one substance within the first year postpartum

The postpartum period is a time of increased vulnerability for relapse and overdose.



Questions?

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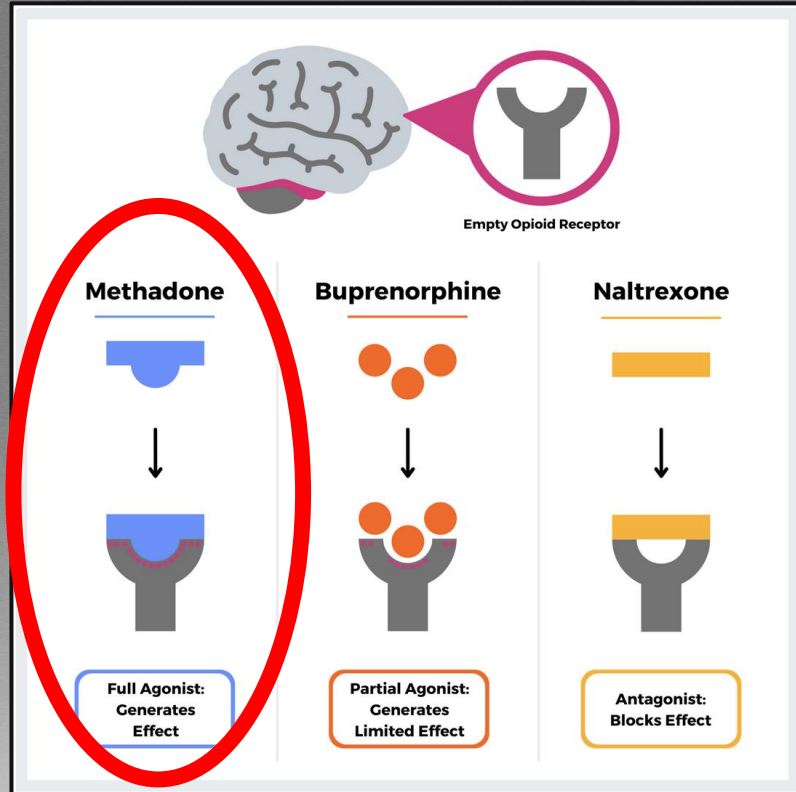
Caring for Patients on Methadone



Typical dispensed at Outpatient Treatment Programs (OTPs) that require attendance 5-7 mornings per week – huge interruption to life routines

Constant exposure to other people who use drugs

Methadone is a Full Opioid Agonist



All the same effects as opioids

- Relief from withdrawal
- Anxiolysis (& Sedation)
- Pain relief
- Constipation
- Dependency
- Respiratory depression

Managing Adverse Effects

- Fatal Respiratory Depression can occur – especially when combining with other sedating drugs
- Screen for non-prescribed use of benzos & alcohol
 - Provide Narcan
 - Screen for sleep apnea

<https://www.nhhrc.org/>

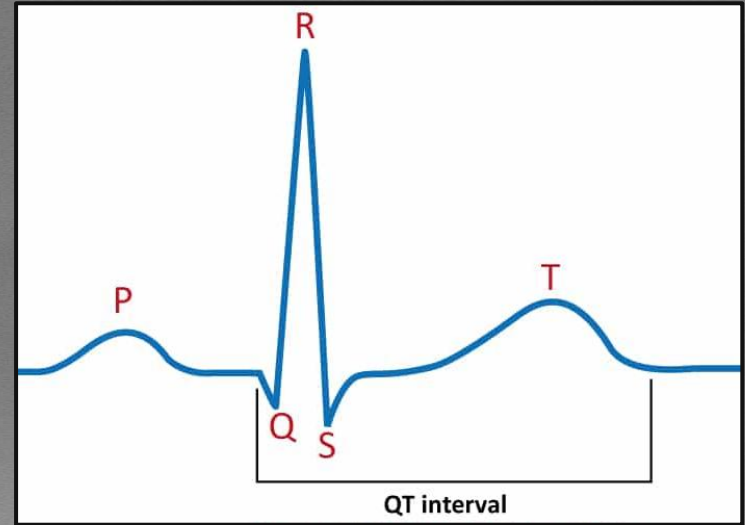


The Cardiac Thing

Methadone can slow one area of heart conduction (QT interval prolongation) which can lead to potentially fatal heart rhythms

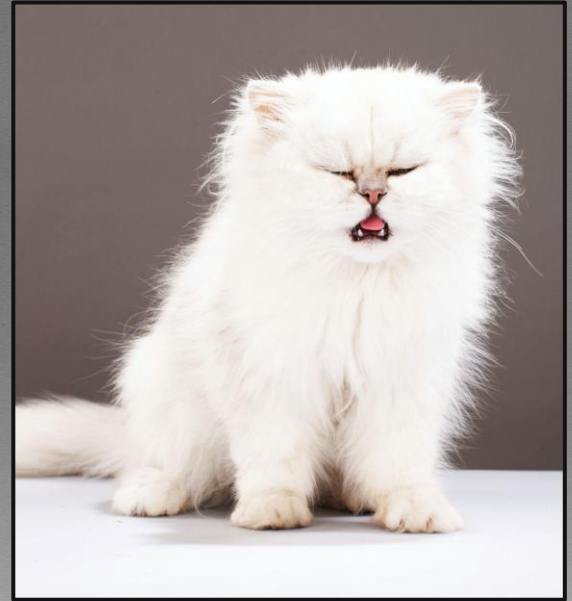
Highest risk is at doses >100mg/day

EKG should be monitored after dose changes, when other meds that prolong QT are added, and at least annually if on stable dose.



Managing Adverse Effects

- Constipation is treatable
- Sedation/Fatigue -
 - Evaluate & optimize dose
 - **Consider checking testosterone**
- When tapering, use opiate withdrawal support meds
- Drug dreams, late evening/early morning symptoms may indicate incorrect dose



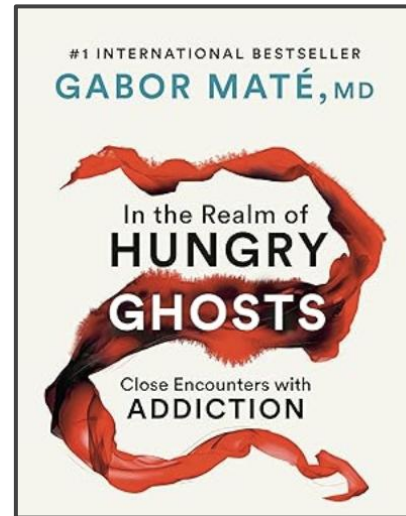
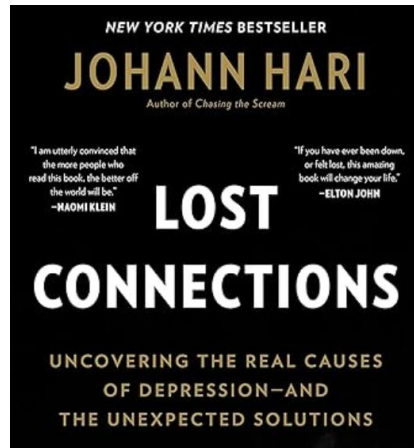
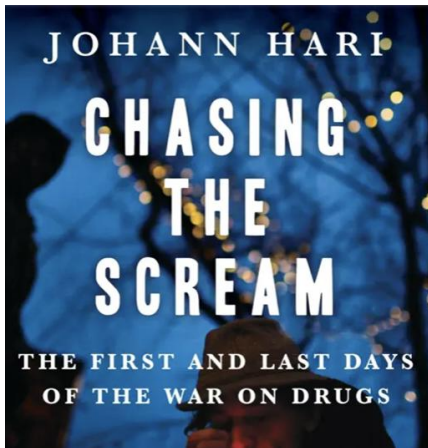
Questions?



The Opposite of Addiction is Connection.



Crackdown Podcast



Thanks!

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Jon Peters, D.O.



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