

# Uncommonly Common Adolescent Substance Abuse

## Over the Counter Substance Abuse

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# Disclosures

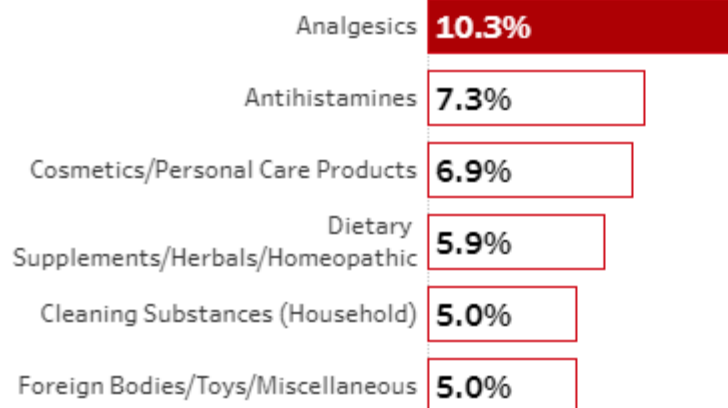
- I am a resident of the University of Washington/Billings Clinic Psychiatry Residency
- No one gives me any other money to have any financial interests
- If someone is interested in giving me money, I would be interested

# Objectives

- Be able to recognize the signs of substance use disorders in adolescents
- Recognize some “commonly uncommon” OTC drugs of abuse
- Be able to screen for substance use disorders in adolescents and children

### WHAT TYPES OF SUBSTANCES WERE PEOPLE EXPOSED TO? (TOP 5)

*hover for information*



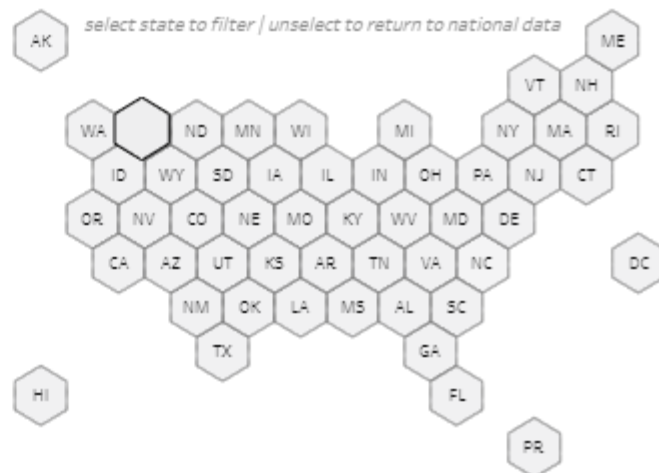
Top 5 substance exposures out of 47 major categories.  
One case can have more than one substance. Hover on dot plot for more trends.

## 93%

OF ALL CASES WERE SINGLE SUBSTANCE EXPOSURES

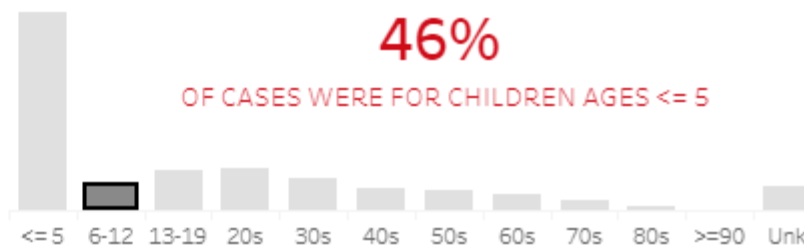
### FIND YOUR STATE TO EXPLORE THE DATA

info



## 46%

OF CASES WERE FOR CHILDREN AGES  $\leq 5$

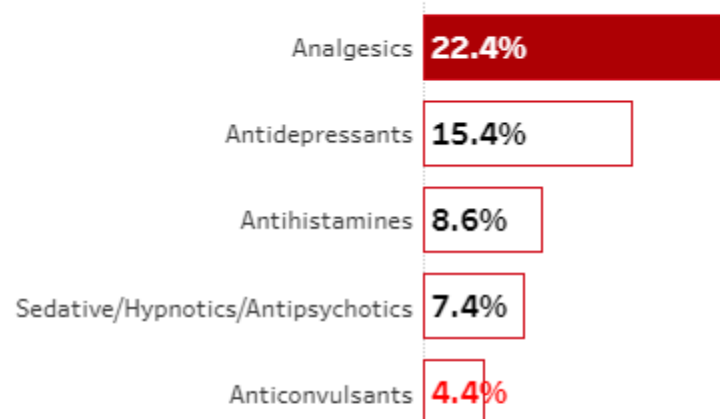


AGE GROUPS OF CASES

*select bar to filter by age*

### WHAT TYPES OF SUBSTANCES WERE PEOPLE EXPOSED TO? (TOP 5)

*hover for information*



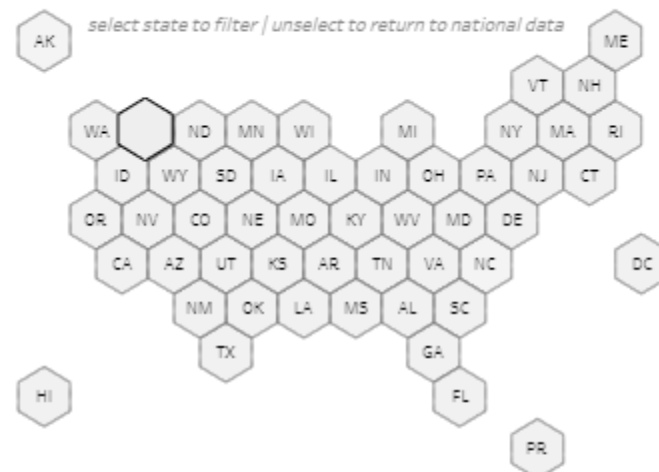
Top 5 substance exposures out of 47 major categories.  
One case can have more than one substance. Hover on dot plot for more trends.

## 77%

OF ALL CASES WERE SINGLE SUBSTANCE EXPOSURES

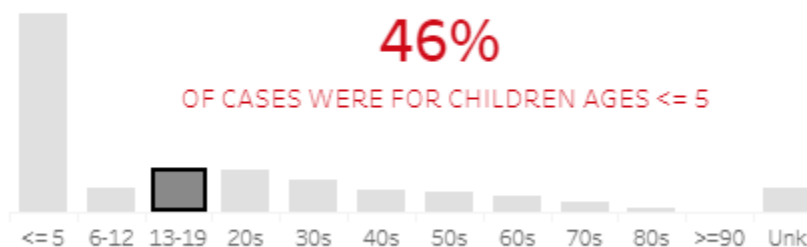
### FIND YOUR STATE TO EXPLORE THE DATA

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## 46%

OF CASES WERE FOR CHILDREN AGES  $\leq 5$



AGE GROUPS OF CASES

*select bar to filter by age*

# National Survey on Drug Use and Health

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- Does not differentiate OTC medications nor types of medications
- NSDUH notes that survey has very low sensitivity/specificity for OTC
- Among people aged 12 or older in 2020, 0.9 percent (or 2.4 million people) misused nonprescription cough and cold medicines in the past year. Similar percentages of people in each age group misused cough and cold medicines in the past year (0.9 percent of adolescents aged 12 to 17, 1.2 percent of young adults aged 18 to 25, and 0.8 percent of adults aged 26 or older)



(Substance Abuse and Mental Health Services Administration, 2021)



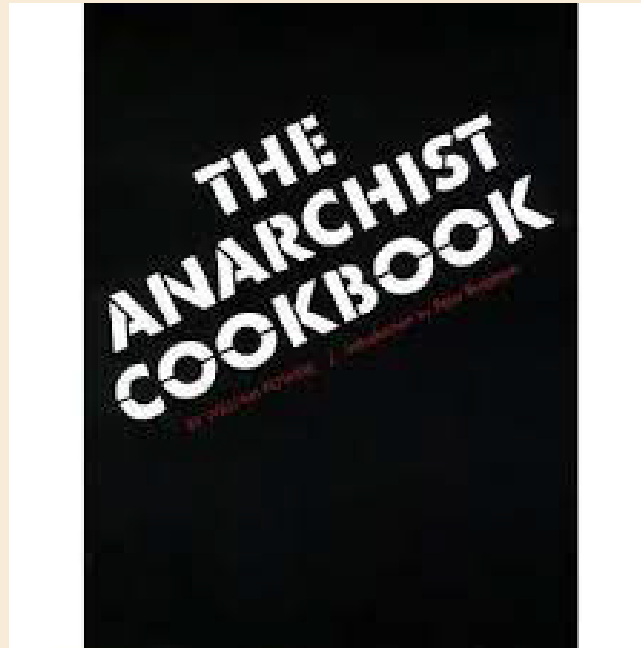
# Drugs of Abuse

A DEA RESOURCE GUIDE ● 2017 EDITION



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- The DEA lists many substances of abuse but not much of what we're discussing here

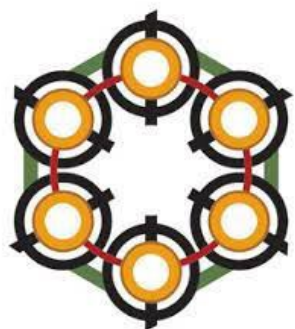
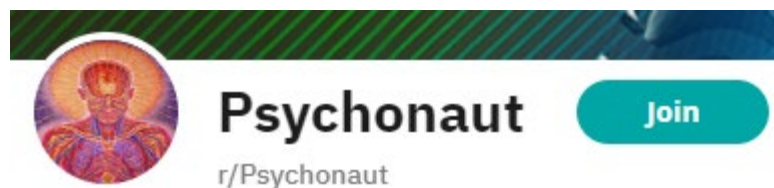
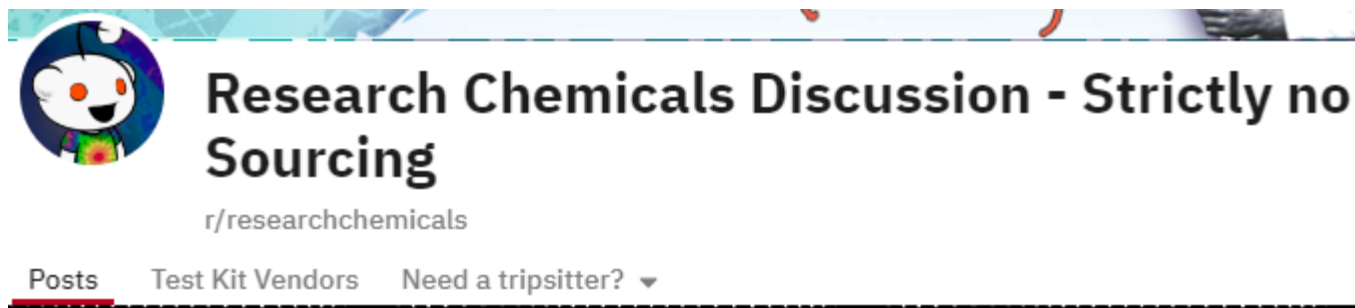
# Bananadine



- People will try anything to get high
- Adolescents are at higher risk of abusing OTC substances due to access



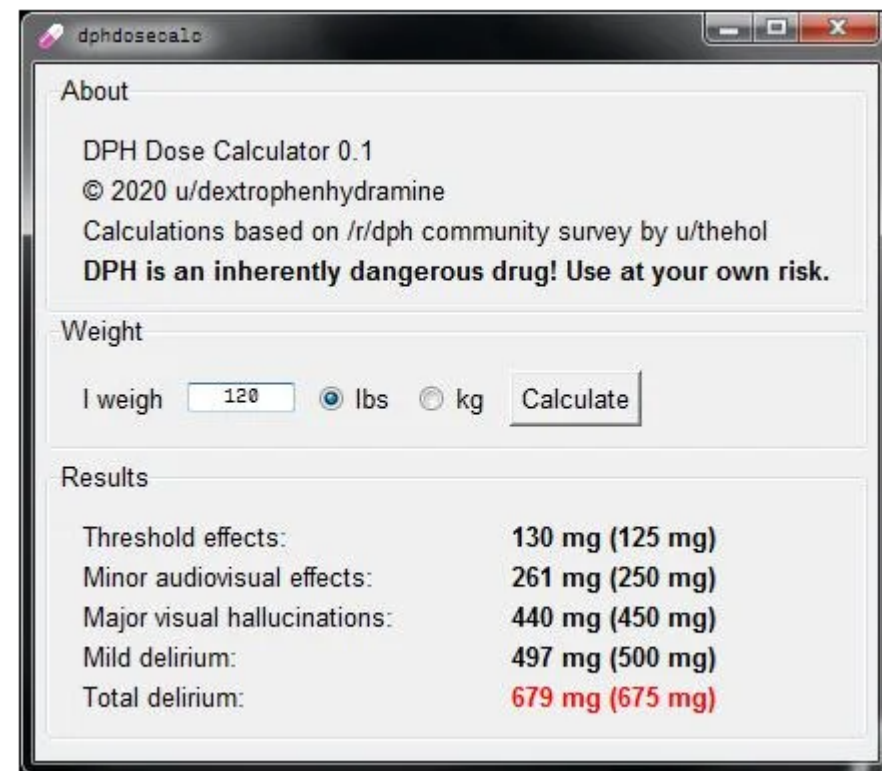
# “It’s all on the Internet”



BLUELIGHT 



Drugslab  
1.15M subscribers



# Case

- 13-year-old female with no prior psychiatric history here for suspected overdose
- Patient presented to outside hospital. Found down in status epilepticus. Required Intubation
- Methadone & PCP (+) on Drug Screen
- FHx: Paternal EtOH - (he is currently hospitalized status post a seizure.) She lives with her grandmother who is currently power of attorney due to her father's hospitalization

# Case

- 13-year-old female with no prior psychiatric history here for overdose of doxylamine and diphenhydramine.

Per chart review, the patient does not have any psychiatric history, but she was found down by a cousin. She is found to overdosed on doxylamine and diphenhydramine. She was hospitalized in the ICU and intubated. She was reportedly found in status epilepticus and required propofol. There is some report that she has had some issues in class and was seeing a counselor. Other than that there does not appear to any psychiatric history. She rarely sees her mother. Her father suffers from alcohol use disorder and was recently treatment (he is currently hospitalized status post a seizure.) She lives with her grandmother who is currently power of attorney due to her father's hospitalization

- Once medically cleared, the interview revolves around intent

# DSM-V Criteria for Abuse

1. Substance is taken in larger amounts or over longer periods than was intended.
2. There is a persistent desire or unsuccessful effort to cut down or control substance use.
3. A great deal of time is spent in activities necessary to obtain substance, use substance, or recover from its effects.
4. Craving, or a strong desire or urge to use substance.
5. Recurrent use of the substance is resulting in a failure to fulfill major role obligations at work, home, or school.
6. Continued use of substance despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance.
7. Important social, occupational, or recreational activities are given up or reduced because of substance use.
8. Recurrent substance use in situations in which it is physically hazardous.
9. Substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance.
10. Tolerance, as defined by either of the following:
  - A need for markedly increased amounts of the substance to achieve intoxication or desired effect.
  - A markedly diminished effect with continued use of the same amount of the substance.
11. Withdrawal, as manifested by either of the following:  
(Withdrawal does not apply for every substance.)
  - The characteristic withdrawal syndrome for that substance (see additional criteria in DSM-5).
  - The substance is taken to relieve or avoid withdrawal symptoms.

# Is the DSM-V TR appropriate for Children and Adolescents?

- Per 2008 NSDUH data set, 7.6% of 12–17 year olds met criteria for at least one DSM-IV SUD in the past year, and an additional 17% of teenagers, while not meeting an abuse diagnosis, still reported one or two substance-dependence criteria

(Winters, Martin, & Chung, 2011)

# Acetaminophen Overdose

- Many OTC medications may also contain APAP
- Liver toxicity can occur with both chronic use and acute OD

(Gerriets, Anderson, & Nappe, 2022), (Agrawal & Khazaeni, 2022)



# Delirium

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- Disturbance in attention (i.e., reduced ability to direct, focus, sustain, and shift attention) and awareness (reduced orientation to the environment).





# Delirium

- Is delirium dangerous?

(Collier, 2012)



# Doxylamine “Unisom”

- 1<sup>st</sup> generation antihistamine
- Typically given as sleep aid
- Mixed often with acetaminophen or codeine (occasionally with pyridoxine to prevent morning sickness)
- Deliriant
- Peak in 1-2 hours, effects may last up to 48 hours

(Syed, Som, Khan, & Faltas, 2009)



# Dextromethorphan

- Sedative, dissociative, stimulant
- Recreationally used as dissociative hallucinogen
- Deliriant
- Occasionally extracted/purified for higher doses
- Reported peak in 4 -6 hours. Effects usually last 24 hours



# Diphenhydramine

- Low doses have “music enhancement” and other pleasurable side effects
- Deliriant at higher doses
- Metabolized by liver and can cause liver damage
- Can cause cardiac arrhythmias, sedation, also urinary retention
- Usually lasts 8-10 hours



# Pseudoephedrine

- Derivative from the ephedra plant
- Amphetamine-like effects 50mg of ephedrine = 200mg pseudoephedrine
- Onset 1-2 hours can last 4-6 hours
- Occasionally mixed with Dextromethorphan
- Side effects include cardiac arrhythmias, psychosis, and other side effects typically seen in stimulant abuse (Sullivan, 1996), (Tinsley & Watkins, 1998)



# Loperamide

- “Poor Man’s Methadone”
- Very high doses can have opioid-like effects
- Can saturate opioid receptors and cause
- May result in cardiac arrhythmias, electrolyte disturbances, catatonia
  - (In addition to dramatic slowing of the GI tract)
- 3-4 hour onset, with effects lasting 24 hours

(Arnold & Martinez, 2019)



# Melatonin

- Can induce more dreams
- No real abuse potential
- Adverse effects can occur with high use, but this is very rare



# Research Chemicals

- Substances that are not regulated but may otherwise have psychoactive effects
- May be untested designer drugs

Which RC is closest to LSD? MDMA? Cocaine? Here's where you find out.

The purpose of this post is to gather answers and discussion for which research chemicals most closely approximate more common non-RC drugs. Top-level comments should contain **only** the name(s) of a single drug. All discussion for that drug takes place in its child comments. I started us off with many of the common ones, if the drug you're looking for is missing then make a top-level comment and I will add it to the ToC. **Please keep all non-drug-specific discussion under the META top-level comment.**

## Screening Tools for Adolescents

S2BI

BSTAD

CRAFT 2.1



# S2BI

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- “Screening to Brief Intervention”
- Created by NIDA
- Validated in Adolescents

In the PAST YEAR, how many times have you used herbs or synthetic drugs (such as salvia, "K2", or bath salts)?

Never

Once Or Twice

Monthly

Weekly Or More

In the PAST YEAR, how many times have you used prescription drugs that were not prescribed for you (such as pain medication or Adderall)?

# BSTAD

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- Brief Screener for Tobacco, Alcohol, and Drugs
- Does not trigger screening for other substances unless patient reports use of alcohol, tobacco, or cannabis



Prescription Pain Relievers (E.G., Morphine, Percocet, Vicodin, Oxycontin, Dilaudid, Methadone, Buprenorphine, Etc.)



Prescription Sedatives (E.G., Valium, Xanax, Klonopin, Ativan, Etc.)



Prescription Stimulants (E.G., Adderall, Ritalin, Etc.)



Over-The-Counter Medications (E.G., Nyquil, Benadryl, Cough Medicine, Sleeping Pills)



None Of The Above

# The CRAFFT Interview (version 2.1)

To be verbally administered by the clinician

**Begin:** "I'm going to ask you a few questions that I ask all my patients. Please be honest and will keep your answers confidential."

## Part A

During the **PAST 12 MONTHS**, on how many days did you:

- |   |                                   |
|---|-----------------------------------|
| 1. Drink more than a few sips of beer, wine, or any drink containing <b>alcohol</b> ? Say "0" if none.  | <input type="text"/><br># of days |
| 2. Use any <b>marijuana</b> (cannabis, weed, oil, wax, or hash by smoking, vaping, dabbing, or in edibles) or " <b>synthetic marijuana</b> " (like "K2," "Spice")? Say "0" if none.         | <input type="text"/><br># of days |
| 3. Use <b>anything else to get high</b> (like other illegal drugs, pills, prescription or over-the-counter medications, and things that you sniff, huff, vape, or inject)? Say "0" if none. | <input type="text"/><br># of days |

Did the patient answer "0" for all questions in Part A?

Yes ☐



No ☐



Ask 1<sup>st</sup> question only in Part B,  
then STOP

Ask all 6 questions in Part B

## Part B

		Circle one	
<b>C</b>	Have you ever ridden in a <b>CAR</b> driven by someone (including yourself) who was "high" or had been using alcohol or drugs?	No	Yes
<b>R</b>	Do you ever use alcohol or drugs to <b>RELAX</b> , feel better about yourself, or fit in?	No	Yes
<b>A</b>	Do you ever use alcohol or drugs while you are by yourself, or <b>ALONE</b> ?	No	Yes
<b>F</b>	Do you ever <b>FORGET</b> things you did while using alcohol or drugs?	No	Yes
<b>F</b>	Do your <b>FAMILY</b> or <b>FRIENDS</b> ever tell you that you should cut down on your drinking or drug use?	No	Yes
<b>T</b>	Have you ever gotten into <b>TROUBLE</b> while you were using alcohol or drugs?	No	Yes

**\*Two or more YES answers in Part B suggests a serious problem that needs further assessment. See back for further instructions →**

NOTICE TO CLINIC STAFF AND MEDICAL RECORDS:

The information on this page is protected by special federal confidentiality rules (42 CFR Part 2), which prohibit disclosure of this information unless authorized by specific written consent.

# CRAFFT (2.1)

- Created at Boston Children's Hospital
- Higher scores predict likelihood of substance use disorder
- Also has risky behaviors

# Assessment Tools

CRAFFT

DAST-20

NIAAA (only alcohol, illicit, and prescription)

# DAST-20

1. Have you used drugs other than those required for medical reasons?
2. Have you abused prescription drugs?
3. Do you abuse more than one drug at a time?
4. Can you get through the week without using drugs?
5. Are you always able to stop using drugs when you want to?
6. Have you had "blackouts" or "flashbacks" as a result of drug use?
7. Do you ever feel bad or guilty about your drug use?
8. Does your spouse (or parents) ever complain about your involvement with drugs?
9. Has drug abuse created problems between you and your spouse or your parents?
10. Have you lost friends because of your use of drugs?
11. Have you neglected your family because of your use of drugs?
12. Have you been in trouble at work because of drug abuse?
13. Have you lost a job because of drug abuse?
14. Have you gotten into fights when under the influence of drugs?
15. Have you engaged in illegal activities in order to obtain drugs?
16. Have you been arrested for possession of illegal drugs?
17. Have you ever experienced withdrawal symptoms (felt sick) when you stopped taking drugs?
18. Have you had medical problems as a result of your drug use (e.g. memory loss, hepatitis, convulsions, bleeding, etc.)?
19. Have you gone to anyone for help for a drug problem?
20. Have you been involved in a treatment program specifically related to drug use?

# Links

- <https://nida.nih.gov/nidamed-medical-health-professionals/screening-tools-resources/chart-screening-tools>
- NIAAA <https://www.icsi.org/wp-content/uploads/2021/11/Brief-Screen-FINAL.pdf>
- DAST-20 [http://chipts.ucla.edu/wp-content/uploads/downloads/2012/02/Drug-Abuse-Screening-Test\\_DAST\\_Adolescent-Version.pdf](http://chipts.ucla.edu/wp-content/uploads/downloads/2012/02/Drug-Abuse-Screening-Test_DAST_Adolescent-Version.pdf)
- CRAFFT 2.1 <https://crafft.org/>
- BSTAD <https://nida.nih.gov/bstad/>
- S2BI <https://nida.nih.gov/s2bi/>

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Questions?

