The United States of Numb: Current Trends in Youth Substance Misuse

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THE AVERAGE TEENAGE BRAIN
Substance Use Overview

- Drug use changes brain chemistry in adolescents (whose brains are still developing)...hijacks the brain
- Most commonly used = alcohol and marijuana (parental attitude/messaging an issue)
- Biggest increase in use = Rx drugs
- Access is key: Lock up all alcohol and prescriptions
- IV drug use and heroin use have increased
Addiction is a pediatrically-acquired disease.

90% of addicted Americans begin use before age 18.
Addiction Risk Factors

- Age of first use (younger, higher risk)
- Learning disabilities, behavioral problems, psychological disorders
- Trauma (abuse, divorce, bullying)
- Stress (feelings of inadequacy & insecurity...adolescents have little life experience to help them cope, turn to destructive behaviors)
- Quality of parenting (parents who use...or sanction use... have kids who use)
- Genetic history = 4x more likely to become addicts
Protective Factors

- High self-esteem
- Emotional self-control and regulation
- Resiliency (coping skills and problem-solving skills)
- Family structure and supervision
- Clear family expectations of behavior and values
- Opportunities for positive connections: peer, school, athletics, religious, community
Protective Factors for Parents of Adolescents & Young Adults

- Lock up everything in your home that contains alcohol (liquor cabinet etc)
- Lock up all OTC and Rx medications
- Talk to your teen (help them feel heard)
- Know your teen’s friends and hangouts
Common Signs and Symptoms
*Not so common anymore!

- Sudden or gradual drop in grades
- Tardiness or absences from school
- Lying/blaming others
- Unusual need to access money
- Changes in peer group
- Denial when concerns are expressed regarding use
- Sneaking around drugs and alcohol
- Unusual sleeping patterns
- Burns on hands or clothes
- Personality or physical changes
- Stomach problems
- Drug paraphernalia (may not be obvious; may be hiding in plain sight)

Using kids now look like any other kid, making use more difficult to detect!
Urine Drug Screens (UDS)

- Drug screens are drug-specific
- Drug screen that shows every possible drug = does not exist
- Drug screens can be one tool in our tool kit but assessment and collateral interviews (parents, therapist) must be included for clearer picture.
System Cleansers/Dilution Products

- Total Stealth Body Toxin Eliminator
- Speed Detox
- Quick Fix Plus
- Whizinator
- Shampoo
- Mouthwash
- Niacin
- Sure Gel/Pectin
Drug Culture

- What drives drug trade...money, getting high, doing what they want (celebrity influence often glamorizes use)
- Sex, drugs, alcohol, violence...These messages are 24/7, bombarding our kids.
- Concealment industry (containers and system cleaners)
- Most popular concealment containers = energy drinks and water bottles
- Head shops (liquor stores, tobacco shops, vaping shops), malls (Lids, Spencer’s Gifts), Ebay, Amazon, smokecartel.com, happyleaves.com
Drug Reference Clothing

- HUF socks
- Aperture (stash spots)
- DGK (Dirty Ghetto Kids)
- Seedless
- SRH
- Stefan’s Head
- Urban Stash Spot
- Kings of NY
- DARE tshirt trend-dealer wears it to party to let others know who has the goods; DARE=Drugs Are Really Expensive
Social Media Impact

- Teens that have seen pictures on social media of other teens doing drugs, drinking, or passed out, are four times more likely to have used marijuana, three times more likely to have consumed alcohol, and almost three times more likely to have used tobacco.
- Use becomes normalized
- Teens often lie due to fear of being in trouble, but the cell phone and social media tell the tale
- Many apps have become the go-to place for buying and selling drugs; more difficult to detect and trace
- Law enforcement doing better job of using social media to track and interrupt pharm parties, raves, etc
Adolescent Drug Trends

The great escape...
Nicotine
Nicotine

• First drug of abuse for most adolescents
• Effect: Central nervous system stimulant, makes you feel energized, then not, making one want to use again to get energized effect
• Causes brain cell damage and loss at any age
• Worse for an adolescent’s hippocampus (the mind’s memory bank)
• Also causes more cases of depression when compared to adult smokers
• Cigarette smoke, chewing tobacco, loose dip, pouch dip
Vaping & Juuling
Vaping & Juuling

• Nicotine, marijuana, methamphetamine, synthetic drugs, alcohol
• Juul device—growing concern at school
  • As small as a cigarette
  • Looks like USB thumb drive (charges in USB laptop port)
• Popcorn lung
Alcohol
Alcohol

• Binge drinking (availability issues), combining with Rx and OTC drugs

• Household items with alcohol: mouthwash, cold medication, cooking sherry, vanilla extract, hand sanitizer

• Ingesting alcohol through any means other than drinking the liquid with your mouth = breathalyzer will not detect (will show in blood and urine)

• Urine = 6-24 hrs, Hair = up to 90 days, Blood = 12-24 hrs

• Slang: handle, yack, krunk = high on alcohol and chronic (mj)
Alcohol

- Effect: Anesthetic ("feeling no pain"), confidence increases, judgment decreases

- Causes brain nerve damage, problems with communication between nerves in the brain and other parts of the body (influences attention span in teen males and the ability to comprehend visual information in teen females)

- Damage seen in two areas: Hippocampus (memory, learning) and the prefrontal lobe (planning, judgment, decision making, impulse control)
Marijuana

- More potent than 20 years ago
- One of the highest = Banana OG (AKA Chiquita Banana) - 34%
- Universal smoke time “420”; look for related paraphernalia
- Finger hands = roach clip
- Cost per ounce can be $250 or more for high-quality
- Urine: Occasional use = 10 days, Regular Use = 45 days, Constant use = 90 days
- Fat soluble drug so thinner people w/higher metabolism experience reduced time in system
- Slang: skunk weed, cookie, moonshine haze, sour diesel, blueberry OG, krunk = high on alcohol and chronic (mj)
Top 10 Emojis used for Marijuana
KNOW THE DIFFERENCE

SATIVA
- TALLER
- LESS DENSE
- LEAVES ARE LONGER & MORE NARROW
- HEAD HIGH
- ALERTNESS
- UPLIFTING & EUPHORIC
- INCREASED ENERGY
- BETTER SUITED FOR DAYTIME

INDICA
- SHORTER
- BUSHIER
- LEAVES ARE SHORTER & WIDER
- BODY HIGH
- DEEP RELAXATION
- APPETITE STIMULANT
- SLEEP AID
- PAIN RELIEF
- BETTER SUITED FOR NIGHTTIME
Marijuana
Waxes/Oils/Concentrates
Marijuana
Waxes/Oils/Concentrates

- Effects is similar to LSD-very different than smoking flower
- Wax-Looks like butter/honey; also called budder $60/gm
- Oil-Oil substance, little to no smell; $60/gm
- Shatter-Breakable, bendable, amber colored; $70/gm
- Kief-resinous trichomes of cannabis that may accumulate in containers or be sifted from loose, dry cannabis flower with a mesh screen or sieve; often sprinkled onto bowl or mixed in joint for enhanced effect -$40/gm
- Much less odor than tradition mj
Marijuana
Waxes/Oils/Concentrates

- Cooking can easily cause explosion (pooled butane in home or room + spark from a/c, fridge = explosion)
- High are more intense, longer lasting, cause hallucinations
- Already seeing people passing out from this use, and experts believe overdoses are not far behind.
- Mj user’s argument that “No one has ever died from marijuana use” is already invalid (3 deaths as of 12/31/15; one accident, one suicide, one murder attributed to high levels of THC/edibles)
Marijuana Edibles
Guide to Edibles

Edible with 10 mg of THC
1 Edipure | Sour Gummy Bear

Edible with 25 mg of THC
1 Dixie Edibles | Roll

Edible with 70 mg of THC
1 Cheeba Chews | Sativa

Edible with 100 mg of THC
1 Sensi Chew | 100 Energy

Effects from digesting THC may take 30-90 mins.

Smoking**

1/2 g of Herb*
Personal Size Joint

1 g of Herb*
King Size Joint

3 g of Herb*
3 King Size Joints

4 g of Herb*
4 King Size Joints

Disclaimer: These are intended to be reference points. Tolerances, digestion, and effects vary. Please consult your physician as needed.
Marijuana Edibles

• Effect different than smoking flower
• Enters bloodstream through stomach
• Takes 25-45 minutes to feel effect
Marijuana Transdermal Patches/Gels/Topicals
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- Sustained release lasts 8-12 hours
- User does not appear stoned, just relaxed
- Delivery method similar to nicotine patch; gel is applied to inside wrist or top of foot
- Cannabis delivered straight to bloodstream
- No odor
- 10mg patch equivalent to 80mg edible
Marijuana

- Effect: Stoned, aware of what’s around you but the world can feel distant and communication difficult, mellow
- Changes the structure of the teen brain
- Mainly harms areas that control memory, problem solving, cognition, organizing, decision making, academic performance and planning/meeting long-term goals
- Causes alterations in brain regions involved in emotion and reward processing (heavier the use, the greater the alterations)
- Studies show average 8 point drop in IQ as a result of using from adolescence on into adulthood; the younger the use begins, the higher the IQ drop
- Research has shown that heavy use at age 18 increases schizophrenia risk x 6
Hallucinogenic Drugs
Hallucinogenic Drugs

- LSD (blotter acid)
- Psilocybin (magic mushrooms)
- Peyote (mescaline)
- DMT (Dimitri)
Hallucinogenic Drugs

Effects:
• increased blood pressure, breathing rate, or body temperature
• loss of appetite
• dry mouth
• sleep problems
• mixed senses (such as "seeing" sounds or "hearing" colors)
• spiritual experiences
• feelings of relaxation or detachment from self/environment
• uncoordinated movements
• excessive sweating
• panic
• paranoia—extreme and unreasonable distrust of others
• psychosis—disordered thinking detached from reality
Dissociative Drugs

- PCP (angel dust)
- Ketamine (special K)
- Dextromethorphan
- Salvia (magic mint)
Dissociative Drugs

Effects:
- Hallucinations
- Memory loss
- Physical distress, including dangerous changes in blood pressure, heart rate, respiration, and body temperature
- Marked psychological distress, including feelings of extreme panic, fear, anxiety, paranoia, invulnerability, exaggerated strength, and aggression
- Use with high doses of alcohol or other depressants can lead to respiratory distress or arrest, resulting in death
Synthetic Drugs
Synthetic Marijuana
Synthetic Marijuana

- Synthetic cannabinoids are human-made mind-altering chemicals that are either sprayed on dried, shredded plant material so they can be smoked or sold as liquids to be vaporized and inhaled in e-cigarettes and other devices. These products are also known as herbal or liquid incense.
- elevated mood
- relaxation
- altered *perception*—awareness of surrounding objects and conditions
- symptoms of *psychosis*—delusional or disordered thinking detached from reality
Synthetic Cocaine
Synthetic Cocaine

- Synthetic cathinones—contain one or more human made chemicals related to cathinone, a stimulant found in the khat plant
- Paranoia—extreme and unreasonable distrust of others
- Hallucinations—experiencing sensations and images that seem real but are not
- Increased friendliness
- Increased sex drive
- Panic attacks
- Excited delirium—extreme agitation and violent behavior
Bath Salts: Flakka
Bath Salts: Flakka

- Raises body temp to 105-107 degrees
- Hallucinations, psychotic episodes, violence
- Users report blacking out for 2-3 days
- Snorted, smoked, injected, swallowed
- Cut with rat poison, insecticide
- Sold online
- Brought into US from China
- $3-$5 per dose
- Also called “gravel” and “$5 Insanity”
Synthetic Heroin-Kratom
Synthetic Heroin-Kratom

- Classified as an opioid by FDA on 2/6/2018
- Made from leaves of tree grown in southeast Asia (mitragyna speciosa)
- In small doses, stimulant; high doses, sedative
- 30 pills for $30; $4.99-11.99 per bottle liquid
- Nervousness, aggression, sleeplessness, tremors
Synthetic Heroin- Kra Thum Na & Indian Ginseng
Synthetic Heroin-
Kra Thum Na & Indian Ginseng

- Legal alternative to Kratom (as of 2/2018)
- Mitrogyna Javinica = Kra Thum Na
- Ashwagandha = Indian Ginseng
- Not as potent as Kratom, often used for Kratom withdrawal
- Sold by the gram
  - 8 gm = $13.99
  - 15 gm = $25.99
  - 30 gm = $40.99
Synthetic Drugs

- Effect: Mimic cocaine, LSD, heroin; Spice originally mimicked marijuana but newer formulas do not
- More effective at binding and acting in the brain than the drugs they mimic
- Use can trigger anything from seizure to psychosis
- The human body doesn’t know how to metabolize these substances, causing the cognitive consequences to remain longer
- Coma and death
Ecstasy/Molly (MDMA)
Ecstasy/Molly (MDMA)

- Two-for-one drug, acts as a stimulant and a hallucinogen
- Depletes the Serotonin levels in the brain (90%-2 weeks)
- Raves, techno/electro music scene
- Pacifiers/mouth guards are used to keep from grinding teeth
- Cost $10-$20 (Ecstasy), $50 (Molly)
- Urine = 24 hrs, Hair = up to 90 days, Blood = 24 hrs
Tesla/Super Man (MDMA)
Tesla/Super Man (MDMA)

- Super potent form of MDMA
- Some reports have indicated MDMA mixed with opiates and other drugs, but primarily high dose MDMA
- European press pill
- Tesla-Orange tablet in shield shape, 200-260 mg
- Superman-Pink tablet, 300 mg
- MDMA content is 2.5-3x stronger than most MDMA tabs
- Pill glows under backlight
- Aftereffects can last 2-3 days after use
- Rollsafe.org = MDMA users’ harm reduction guide
Ecstasy/Molly (MDMA)

- Effect: Uplifted, relaxed, happy, uninhibited, overwhelming urge to dance
- Causes a surge in Serotonin, then depletes Serotonin 90% for up to two weeks following each use
- Aftereffects of this are confusion, depression, sleep problems, drug craving, and anxiety
- Long-term use intensifies these aftereffects
Methamphetamine
Methamphetamine

- Causes enhanced mood and body movement
- Rapid weight loss
- Psychological symptoms can resemble those of schizophrenia (delusions, hallucinations, disorganized thinking and speech, disorganized or abnormal motor abilities)
- Smoked and IV (can be snorted but is very painful)
Methamphetamine

- Effects: Paranoia, hallucinations, repetitive behavior patterns, and delusions of parasites or insects on the skin
- High dosages or long term use can bring on full-blown toxic psychosis (violent and aggressive behavior)
- Some characteristics of use are picking at skin, pulling out one’s hairs, and compulsively cleaning
- Cost $25 per ¼ gm
- Slang: Chicken Feed, Shard
Heroin

An opioid drug made from morphine, a natural substance extracted from the seed pod of the Asian opium poppy plant.
Black Tar Heroin
Heroin

Street Names
Brown sugar, China White, Dope, H, Horse, Junk, Skag, Skunk, Smack, White Horse, Cheese (With OTC cold medicine and Antihistamine)

Common Forms
White or brownish powder, or black sticky substance known as "black tar heroin", newest is pill form

Methods of Use
Injected, smoked, snorted, swallowed
Fentanyl/Carfentanil-Laced Heroin

- Fentanyl-100x more potent than morphine, 30-50x more potent than heroin
- Carfentanil-an analogue of the synthetic opioid analgesic fentanyl, which is 100 times more potent than fentanyl; animal tranquilizer for elephants and other large mammals (not approved for human use)
- Federal drug agents say in the last two years Mexican cartels have increased production of a variant of fentanyl called acetyl fentanyl, and are smuggling it into the United States
- Mixtures are responsible for spike in overdoses in many communities
“Fentanyl is not only dangerous for the drug’s users, but for law enforcement, public health workers and first responders who could unknowingly come into contact with it in its different forms. Fentanyl can be absorbed through the skin or accidental inhalation of airborne powder can also occur. DEA is concerned about law enforcement coming in contact with fentanyl on the streets during the course of enforcement, such as a buy-walk, or buy-bust operation. Just touching fentanyl or accidentally inhaling the substance during enforcement activity or field testing the substance can result in absorption through the skin and that is one of the biggest dangers with fentanyl.”
“The onset of adverse health effects, such as disorientation, coughing, sedation, respiratory distress or cardiac arrest is very rapid and profound, usually occurring within minutes of exposure.

Canine units are particularly at risk of immediate death from inhaling fentanyl.”
Heroin in Pill Form
Heroin in Pill Form

- Originating in Mexico
- Made using pill presses and pharmaceutical opiate dyes
- Pressed and stamped to look like Percocet, Oxy, Vicodin, Hydrocodone
- Buyers may not be aware that it’s heroin and overdose
- Made to transport and sell H while fooling law enforcement
Imodium (Loperamide)
Imodium (Loperamide)

- Used as both an alternative to opiate pain prescriptions and as a self-detox medication for opiate withdrawals
- Loperamide is safe in low doses (as directed on packaging) but is dangerous at high doses
- Loperamide is an opioid agent, helps to bind receptors in the brain
- Its accessibility, low cost OTC status, and lack of stigma contribute to its potential for abuse
- Dosage needed for euphoria 50-300 pills per day
Prescription Medications Abuse/Misuse

- Opioids/Narcotic Pain Meds
- Stimulants/Study Drugs
- Tranquilizers/Benzos
Prescription Opioids

Pain relievers with an origin similar to that of heroin
- Codeine (cough syrup)
- Fentanyl
- Hydrocodone (Vicodin, Lortab, Lorcet)
- Hydromorphone (Dilaudid)
- Meperidine (Demerol)
- Morphine (Duramorph, Roxinol)
- Methadone (Dolophine, Methadose)
- Oxycodone (Oxycontin, Percodan, Percocet)
- Oxymorphone (Opana)
Codeine

Street Names
Captain Cody, Cody, Schoolboy, Doors and Fours, Loads, Pancake and Syrup

Common Forms
Tablet, capsule, liquid

Methods of Use
Injected, swallowed (often mixed with soda and flavorings)
Fentanyl

Street Names
Apache, China Girl, China White, Dance Fever, Friend, Goodfellas, Jackpot, Murder 8, Tango and Cash, TNT

Common Forms
Lozenge, sublingual tablet, film, buccal tablet

Methods of Use
Injected, smoked, snorted
Hydrocodone (Vicodin, Lortab, Lorcet)

Street Names
Vike, Watson-387

Common Forms
Capsule, tablet, liquid

Methods of Use
Swallowed, snorted, injected
Hydromorphone  
(Dilaudid)  

Street Names  
D, dillies, footballs, juice, smack  

Common Forms  
Liquid, suppository  

Methods of Use  
Injected, rectal
Meperidine (Demerol)

Street Names
Demmies, pain killer

Common Forms
Tablet, liquid

Methods of Use
Swallowed, snorted, injected
Methadone
(Dolophine, Methadose)

Street Names
Amidone, fizzies, chocolate chip cookies
(when used with MDMA)

Common Forms
Tablet, dispersible tablet, liquid

Methods of Use
Injected, swallowed
Morphine
(Duramorph, Roxanol)

Street Names
M, Miss Emma, monkey, white stuff

Common Forms
Tablet, capsule, liquid, suppository

Methods of Use
Injected, swallowed, smoked, rectal
Oxycodone
(OxyContin, Percodan, Percocet)

Street Names
OC, oxycet, oxycotton, oxy, hillbilly heroin, percs

Common Forms
Tablet, capsule, liquid

Methods of Use
Injected, swallowed, snorted
Oxymorphone
(Opana)

Street Names
Biscuits, blue heaven, blues, Mrs O, O bomb, octagons, stop signs

Common Forms
Tablet

Methods of Use
Injected, swallowed, snorted
Stimulants/Study Drugs

- Adderall, Ritalin, Concerta; Vyvanse considered least abusable
- Increase in alertness, attention, and energy
- Increases blood pressure, heart rate, respiration and blood glucose and constricts blood vessels
- Cost $3-6 per pill
- Slang: The A Train, Bennies
Stimulants/Amphetamines

- Effect: Alert, powerful, impulsive, suppresses appetite

- Adderall and the other study drugs taken by those without ADD/ADHD diagnosis and/or in excess amount also increase dopamine levels in the brain very quickly (normal doses monitored by dr raises them very slowly)

- Changes normal communication between brain cells
Tranquilizers (Benzodiazepines)

- Klonopin, Xanax, Valium, Ativan
- Used to treat anxiety, panic attacks, and sleep disorders
- Withdrawal can cause seizure and death
- Xanax-injected gummy bears
- Cost $1-5 per mg
- Urine = therapeutic use 7 days/chronic use 4-6 wks,
  Hair = up to 90 days, Blood = 6 to 48 hours
- Slang: Tranx, Bars, Valley Girls
Tranquilizers (Benzodiazepines)

- Effect: Relieves anxiety, calm effect, assist with sleep
- Floods system with GABA (causes dopamine suppression)
- Impaired cognitive abilities, memory problems, mood swings
- When brain wakes from benzo sedation, causes hyperactivity and seizures can occur
Bradford Health Services

We’re here to help!

Emergency Consultation Service: Available for on-site consultations 24/7

Crisis Response: Available for in-office consultations 24/7

Our consultation services are available to the community at no charge. If we are unable to help the patient through a Bradford program, we will do our best to connect them to the appropriate community resources.
For more information or to schedule a free consultation:

1-800-879-7272