



ASK A NEUROPHARMACOLOGIST
Spring 2025

Better Brain Project and the Wake County Public School System (WCPSS) teamed up along with the National Institute on Drug Abuse (NIDA) for [National Drug and Alcohol Facts Week \(NDAFW\)](#). The annual event educates and empowers youth to make informed choices about drugs and their health.

During NDAFW, Better Brain Project inaugurated the "Ask a Neuropharmacologist" Q&A, where youth could voluntarily and anonymously submit questions about drugs and alcohol. Dr. Cynthia Kuhn, co-author of *Buzzed* and founder of the Better Brain Project, answered some of the most complex and common questions received using clear, science-backed information to dispel myths and provide accurate insights. Not all questions received were answered.

Question Received	Answer
1. Are drugs purposely made addictive for profit, or are they addictive on their own?	<p>Drug companies developing drugs to treat a disease don't want their drug to be addictive. But drugs that can treat a disorder (like pain) ALSO sometimes work in other places in the brain, like the places that can cause addiction. The law requires drug companies and doctors to be very careful about how they prescribe drugs so people cannot overuse their medicine and get addicted.</p> <p>However, people selling illegal drugs definitely are trying to sell the most addictive drug they can make to make money. People who are making an illegal version of opioids to sell to drug users make them addictive for profit.</p>
2. If you have taken drugs, and it has negatively affected your brain to the point you are experiencing impaired memory, and personality change, how can you get better and go back to your usual self?	Get treatment from a mental health professional who will help you identify why you are taking drugs and how to stop, and help you navigate the process of stopping.
3. Are all drugs bad, and can medically prescribed drugs be harmful to you?	All drugs are not bad, but even prescribed drugs can have unwanted side effect(s) that can be harmful. However, taking JUST the medicine you need and the right amount of the medicine goes a long way toward keeping you safe.

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4. Can addiction to drugs and alcohol be treated or cured?	Addiction to drugs can definitely be treated with medical help, group participation and personal commitment. A cure can happen when a person who is addicted works hard to follow their treatment and stop. Many, many people quit using drugs and stay clean.
5. How do drugs and alcohol affect the teenage brain differently than the adult brain, and why is it more dangerous for teens to use them?	The teen brain is in a critical, final stage of maturing and drugs and alcohol can disrupt that maturation process and lead to permanent changes in how the brain functions.
6. Why does the body send the addictive drugs to the brain and not anywhere else?	The body does not do that. Once a drug that can affect the brain is in your bloodstream, it goes throughout your whole body. Many drugs that affect the brain also affect other organs in the body like the heart or digestive tract.
7. Why is the drinking age 21? Is that just because the brain is fully developed because in other parts of the world the age is 16?	The legal age to drink alcohol varies country by country, and ranges from never permitted to permitted sometime during the teens or early 20's. The reason that the drinking age is 21 in the US is primarily due to research showing that the brain is not yet mature until your 20's and a 21-year-old minimum drinking age reduces underage drinking and motor vehicle crashes.
8. How do genetics play a role in the likelihood of becoming an alcoholic and/or addict?	There are different forms of some genes that affect how an addictive drug is metabolized or how it affects brain function. Depending on the gene, this different form can make specific drugs feel better or worse for the individual relative to the whole population. There are also genes that make it easier for someone to engage in impulsive acts like trying a drug for the first time. However, genes do not MAKE you addicted: you can always choose not to use!
9. How does methamphetamine affect physical appearance?	Popular internet memes to the contrary, it does not. Many people who use stimulants like methamphetamine chronically don't eat enough and get very thin. Some people who use drugs like methamphetamine that were made illegally can have dental problems because of chemical reactants present in the methamphetamine.

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10. If a mother abuses drugs while pregnant, can it affect the fetus? If so, does it have a long-term or short-term effect on the child?	The answer is YES and one of the drugs that is most devastating for the growing child is alcohol, because it can have very serious effects on brain maturation.
11. I heard that the condition your body is in can determine your tolerance levels (Good condition = higher tolerance, bad condition = lower tolerance) but I'm not sure that it's true.	If you mean physical fit, then you are incorrect. Physical fitness does not provide tolerance to drugs. It MAY help protect the heart from the adverse effects of some drugs, but it is no guarantee.
12. Is it true that alcohol is a serious drug?	Yes, it is a serious drug. Any drug that can kill you the first time you take it is a dangerous drug.
13. If everyone has a different alcohol tolerance, meaning their bodies react differently to alcohol, does a truly "safe limit" for all actually exist? How much is too much?	Alcohol tolerance does not protect you from high blood and brain levels of alcohol very well. Drinking enough alcohol to lose your coordination or "blackout" is a dangerous amount of alcohol.
14. Is nicotine really more/as addictive as cocaine?	It is hard to accurately calculate the most addictive drug, but one good way is how hard it is to stop, and in that regard, nicotine is as hard or harder than any other addictive drug. Many things go into how "addictive" a drug is including 1) how easy it is to get the drug (this gives nicotine an edge since it is legal), 2) when a person starts using (teenage years make it worse), 3) how often the drug use occurs, and 4) how much is taken (the more that is taken = the greater the risk).