

# TEST YOUR KNOWLEDGE ON DRUGS AND DRUG ABUSE BY TAKING THE:

## 2016 National Drug & Alcohol IQ Challenge

Go to <http://teens.drugabuse.gov/2016IQChallenge>  
for an online interactive version.

**1** Which of the following is not an opioid drug?

- A. Vicodin
- B. Oxycodone
- C. Codeine
- D. Acetaminophen

**2** Among kids ages 12 to 17, how many drank alcohol in the past month? On average:

- A. Very few: About 1 out of 10
- B. Half: 5 out of 10
- C. Most : 8 out of 10
- D. All: 10 out of 10

**3** How long does it take MDMA ("Molly" or "ecstasy") to reach the brain?

- A. 2 minutes
- B. 15 minutes
- C. About 1 hour
- D. It doesn't go to the brain.

**4** Besides alcohol and marijuana, what is the next most-popular addictive drug used by high school seniors?

- A. Non-cigarette tobacco
- B. Anabolic steroids
- C. "Bath salts"
- D. Molly

**5** DXM is the ingredient in over-the-counter cough syrup that can make you feel "high" when used in large amounts, but these other things can happen when you abuse cough syrup (check all that apply):

- A. You can experience confusion or hallucinations.
- B. You can feel sick to your stomach.
- C. Your heart may beat dangerously slower.
- D. You can lose coordination.

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For more questions and to find out the correct answers go to the next page.

# 2016 National Drug & Alcohol IQ Challenge

**6** Why do young people drink alcohol?

- A. Increased desire to take risks
- B. Peer pressure
- C. Stress
- D. All of the above

**7** NIDA and other scientific institutes are trying to learn more about e-cigarettes (“e-cigs”). It may take several years of research to fully understand their effects. Check the things that we already know about this new, heavily advertised fad:

- A. They can help you quit smoking.
- B. The liquid in e-cigs can cause nicotine poisoning.
- C. The vapor will not hurt pets.
- D. A high number of young teens who try them will start using regular tobacco cigarettes.

**8** What are the ways you can die from using inhalants (sniffing common household products)? Check all that apply:

- A. Choking: You vomit from using an inhalant and choke on it.
- B. Convulsions: Caused by abnormal electrical charges in the brain.
- C. Heart attack: Your heart stops suddenly.
- D. Asphyxiation: Toxic fumes fill your lungs and you can't get enough oxygen into your body.

**9** Scientific studies have proven that medical marijuana can cure which diseases? Check all that apply:

- A. Cancer
- B. Bronchitis
- C. Muscular dystrophy
- D. Depression

**10** Which of these is a possible consequence of underage drinking?

- A. Becoming more popular
- B. Visiting the emergency room
- C. Having a better memory when studying
- D. Gaining more confidence

For the correct answers go to the last page.

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# BRAINIAC

## BONUS QUESTIONS

**1** What are neurotransmitters? (Note: This deliberately reinforces knowledge learned from Q#3.)

- A. They are the brain's chemical messengers.
- B. They pick up signals from radio towers, helping your brain connect with the outside world.
- C. They are the part of the brain used by people with telepathic powers.
- D. They are a network of nerves that protect you from pain.

**2** What is the function of the brain stem?

- A. It holds up the brain.
- B. It sends signals to the nearby ears so you can hear.
- C. It controls basic functions like heart rate, breathing, and sleeping.
- D. It grows larger every year to help carry all of the new things you learn.

[HTTP://TEENS.DRUGABUSE.GOV/2016IQCHALLENGE](http://TEENS.DRUGABUSE.GOV/2016IQCHALLENGE)

For the  
correct  
answers go to  
the last page.

# ANSWERS TO THE:

## 2016 National Drug & Alcohol IQ Challenge

**1 D.** Acetaminophen is a common pain medicine you can buy at the store without a doctor's prescription (with brand names like Tylenol). It is not an opioid. The other three are brand names for opioid drugs, which have a chemical makeup similar to heroin. With their risk for addiction and other side effects, they need to be prescribed by a doctor. When used as prescribed, these opioid drugs can help people in pain. When they are misused, they can be as addictive as heroin, even causing deadly overdoses. Misuse of a drug means you are using it in ways or amounts other than intended by a doctor, or you are using it without a prescription or just for the feeling it causes. You can learn more about prescription drugs at: <http://teens.drugabuse.gov/drug-facts/prescription-drugs>.

**2 A.** Very few kids ages 12 to 17—about 1 out of 10—drank alcohol in the past month. So MOST—about 9 out of 10 kids—did not. You can learn more about underage drinking at <http://pubs.niaaa.nih.gov/publications/UnderageDrinking/UnderageFact.htm>.

**3 B.** Once the pill or capsule is swallowed, it takes about 15 minutes for MDMA to enter the bloodstream and reach the brain. MDMA produces its effects by increasing the activity of neurotransmitters (the chemical messengers of brain cells) including serotonin, dopamine, and norepinephrine. You can learn more about MDMA at <http://teens.drugabuse.gov/drug-facts/mdma-ecstasy-or-molly>.

**4 A.** According to NIDA's 2015 Monitoring the Future Survey, the third most-popular drug used by high school seniors is non-cigarette tobacco: hookah smoking and small cigars. You can learn more about non-cigarette tobacco at <http://teens.drugabuse.gov/drug-facts/tobacco-nicotine-e-cigarettes>.

**5 A, B and D.** When cough and cold medicines are taken as directed, they safely treat symptoms caused by colds and flu. But when taken in higher amounts or when cold symptoms aren't present, they may affect the brain in ways very similar to illegal drugs. DXM can actually make the heart beat dangerously faster. You can learn more about cough and cold medicine abuse at <http://teens.drugabuse.gov/drug-facts/cough-and-cold-medicine-dxm-and-codeine-syrup>.

**6 D. All of the above.** Kids are attracted to alcohol for all of these reasons. As kids mature, it's natural for them to assert their independence, seek new challenges, and take risks on the way to becoming adults. Drinking may be one of those risks. Peer pressure from friends and coping with stress are other reasons kids try alcohol. Unfortunately, many kids do not fully recognize the negative effects alcohol can have on their health and behavior. You can learn more about underage drinking at <http://pubs.niaaa.nih.gov/publications/UnderageDrinking/UnderageFact.htm>.

**7 B and D.** The liquid in e-cigs can cause nicotine poisoning if someone drinks, sniffs, or touches it. We don't yet know how the vapor affects pets, and there has not been enough research to determine if e-cigs can help someone quit smoking. However, recent research with more than 200 students who started using e-cigs showed that during the next 6 months, about one third of them started smoking cigarettes, cigars, or hookahs. You can learn more about e-cigs at <http://teens.drugabuse.gov/drug-facts/tobacco-nicotine-e-cigarettes>.

**8 You should have checked all.** All of these are ways people have died after using inhalants to get "high." Inhalants can be things like household cleaning fluids such as solvents and aerosols, or common gases found in things like cigarette lighters or propane tanks. You can learn more about inhalants at <http://teens.drugabuse.gov/drug-facts/inhalants>.

**9 You should have checked none of these.** Despite myths to the contrary, science has not shown that marijuana actually **cures** any kind of disease. However, there are some reports that ingredients found in the marijuana plant can help **relieve symptoms** of some diseases (make people feel better), like multiple sclerosis and epilepsy. Currently, there are two Food and Drug Administration-approved pills made from THC (the ingredient in marijuana that makes you "high") that are used to treat nausea in cancer chemotherapy patients and to increase appetite in some patients with AIDS. Scientists are only beginning to study the potential medicinal effects of marijuana, but based on what we've learned so far, it's unlikely that smoked marijuana will make a good medicine due to its effects on the lungs. You can learn more about medical marijuana at <https://www.drugabuse.gov/publications/drugfacts/marijuana-medicine>.

**10 B.** Drinking alcohol can cause kids to have accidents and get hurt. In 2010 alone, about 189,000 people under age 21 visited an emergency room for alcohol-related injuries. You can learn more at <http://www.cdc.gov/alcohol/fact-sheets/underage-drinking.htm> and <http://archive.samhsa.gov/data/2k12/DAWN096/SR096EDHighlights2010.pdf>.

## BRAINIAC BONUS ANSWERS

**1 A.** They are the brain's chemical messengers. To send a message, a brain cell (neuron) releases a neurotransmitter (a chemical) where it crosses the space between cells and attaches to receptors at another cell to deliver the message. This repeats itself throughout the brain. Dopamine is a neurotransmitter in regions of the brain that regulate movement, emotion, motivation, and feelings of pleasure. Drug use can flood the system with too much dopamine, causing a pleasurable "high" at first. But eventually, the drug robs the brain of the ability to feel pleasure from activities that used to bring the person joy. You can learn more about this fascinating communication system at <http://teens.drugabuse.gov/drug-facts/brain-and-addiction>.

**2 C.** The brain stem plays an important role in controlling the functions of the heart and lungs, and it regulates sleep. It also connects the brain to the spinal cord; nerves travel through this pathway all the way down your back to control movement and collect sensory information from all over the body. You can learn more about the brain's role in addiction at <http://www.drugabuse.gov/publications/drugs-brains-behavior-science-addiction/drugs-brain>.

