



DXM

Dextromethorphan (DXM) is a cough suppressant that can be found in more than 100 different cough and cold medications, such as Alka Seltzer Plus, Coricidin, Delsym, Mucinex DM, Robitussin, Theraflu, Tylenol Cough & Cold, Vicks DayQuil/NyQuil, and literally dozens more, which include generic store brands of these cough and cold products. Most, if not all, of these products are sold in stores as over the counter products. DXM is a synthetic product of morphine. DMX is not a controlled substance; however, the Drug Enforcement Administration (DEA) does list it as a drug of concern.

At high doses, dextromethorphan is classified as a dissociative general anesthetic and hallucinogen. The controlled substances, ketamine and PCP (phencyclidine) also fall in this classified category.

Research studies indicate that dissociative drugs, like PCP, ketamine, and DXM, disrupt the actions of the brain chemical glutamate at certain types of receptors in our brain. These receptors are called N-methyl-D-aspartate (NMDA) receptors. Glutamate plays a major role in reasoning, learning, memory, emotion, and the perception of pain.

DXM can cause visual and auditory distortions. It can also produce a feeling of floating and a feeling of being detached from reality when high doses are taken. DXM can also cause or increase anxiety, memory loss, and impaired motor function, including shaking and numbness. The effects often depend on how much of the drug was taken. These effects can take place very quickly (within a few minutes) and they can last for hours. Below are some common effects associated with dosage levels of DXM taken.

For medical purposes, dosages are around 15 to 30 milligrams every four to 6 hours. Even at these low doses side effects can occur such as:

- constipation
- dizziness (mild)
- drowsiness (mild)
- headache
- nausea or vomiting
- stomach pain

NOTE: Labeling for medical use states usage not to exceed 120mg. per day/24 hours.

For purpose of having a hallucinogenic high, also known as Robo-Tripping or Skittling, most individuals need to take a dosage somewhere between 200mg-400mg. Most cough and cold products with DXM contain between 120 mg-200 mg in the entire package or bottle. So, on average, an individual would need to ingest 1-3 entire packages or bottles containing DXM to obtain a hallucinogenic high and over time, tolerance does occur and even higher and higher doses are needed to obtain the hallucinogenic high.

It should be noted that DXM can lead to liver damage, as most drugs filter through the liver when taken orally. Even more concerning is that many over-the-counter cough medications also contain acetaminophen as well, and taking more than 350 mg of acetaminophen a day, over several days, can lead to liver toxicity and death.

Below are some signs and symptoms of someone who maybe under the influence of DXM:

- Confusion
- Dizziness
- Double or blurred vision
- Slurred speech
- Impaired physical coordination
- Abdominal pain
- Nausea and vomiting
- Rapid heartbeat
- Drowsiness
- Numbness of fingers and toes
- Disorientation

With the cold and flu season upon us, it is easy to stock up on products that contain DXM. Please keep a close eye on the use of these products in your home.

For more information on DXM and other drugs of concern, please visit our website, www.scipnebraska.com.

www.mdedge.com › [psychiatry](#) › [article](#) › [addiction-medicine](#) › [robot](#)

www.drugfree.org/DXM-abuse

www.drugabuse.gov › [publications](#) › [over-counter-medicines](#)

www.webmd.com › [Parenting](#) › [Reference](#)

Depression in Children and Teens

Over 322 million people live with depression worldwide, according to the Anxiety and Depression Association of America. Approximately 3.2 million of adolescents 12 to 17 living in the US had at least one major depressive episode in 2017 (National Institute of Mental Health). An estimated 60.1% of adolescents did not receive treatment for depression.

Depression is a mood disorder that causes feelings of sadness over an extended period of time. Depression is also referred to as major depressive disorder or clinical depression. It is normal to feel sad due to an event or some kind of life change, but depression can cause overwhelming sadness for several weeks or even months. These depressive episodes can happen once or several times throughout one's lifetime. Depression can affect how a person feels and behaves and can even cause physical symptoms. According to the Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5), clinical depression is when a person experiences a depressed mood and/or loss of interest in activities they once enjoyed, plus five of the symptoms below for at least two weeks:

- Depressed mood for the majority of the day
- Feeling of worthlessness or guilt
- Slowed thoughts and movements
- Difficulty concentrating
- Changes in eating habits – either loss of appetite or over eating
- Fatigue or lack of energy
- Thoughts of suicide

Other symptoms of depression may include:

- Drop in grades
- Feelings of hopelessness or negativity
- Irritable
- Withdrawn
- Sleep disturbances – insomnia or sleeping too much
- Body pains, like headaches or stomachaches

Depression may occur at any age, but the onset usually occurs in the teens, 20s or early 30s. The fluctuating hormones and changes in mood can make it difficult to identify signs of depression in children and teens with depression. A child or teen with depression tends to be more irritable than adults with depression. Children also tend to have more physical complaints, like stomachaches and headaches, than adults. Teens may have changes in academic performance. Teens are also at-risk of self-medicating with alcohol or other drugs to reduce symptoms.

Depression does not always have a cause; it can develop out of nowhere. Children and teens with a family history of depression are at a higher risk of developing depression. Bullying, stress and loss can cause depression. Significant social media usage has also been linked to depression. Children and teens who have anxiety, conduct disorders or learning difficulties are more likely to be diagnosed with depression at some point in their lives.

If left untreated, depression can worsen. If your child or teen begins to express thoughts of suicide, call the National Suicide Prevention Lifeline 1-800-273-TALK (1-800-273-8255) or your medical provider right



away. If you suspect your child has clinical depression, ask them about their feelings or request a screening from a pediatrician. It is important to work with a medical provider to rule out any other medical conditions first. Once a diagnosis has been determined, there are many treatment options for depression that have been found to be effective. Treatment for depression may include Cognitive Behavioral Therapy, medication or a combination of the two. Talk therapy or play therapy may also be used to treat depression depending on the age of the child. Regular exercise, healthy eating and sleeping habits can also help manage depression.

References:

<https://www.nimh.nih.gov/health/statistics/major-depression.shtml>

<https://www.mayoclinic.org/diseases-conditions/depression/symptoms-causes/syc-20356007>

<https://www.mayoclinic.org/diseases-conditions/teen-depression/symptoms-causes/syc-20350985>

<https://adaa.org/learn-from-us/from-the-experts/blog-posts/consumer/childhood-depression>

<https://www.nimh.nih.gov/health/publications/teen-depression/index.shtml>

Fostering Resiliency: Learning to “Struggle Well” in the Face of Adversity

Resilience is an important aspect of mental well-being. Resilience is the ability to bounce back from stress, adversity, failure, challenges or even trauma. Resiliency enables individuals to effectively cope with, or adapt to, stress and challenging situations. An important aspect of resiliency is growing from the adverse experience and being able to move forward with strength and the ability to be more equipped to deal with future challenges. Children and teenagers are not exempt from stressors and hardships. Focusing on young people’s strengths and helping to nurture resilient traits can help reduce the effects of significant adversity on their health and well-being. Identifying a youth’s “social resources” is also a key concept of resiliency. Several studies highlight the idea that resilience is more than individual traits. Environmental interactions with school, family, community and culture are also important ingredients.

According to the Mayo Clinic and the American Psychological Association, resilience won’t make a person’s problems go away, but it can help to channel one’s inner strength and mobilize coping skills. When we lack resilience, we might be more prone to dwell on problems, feel victimized, become overwhelmed or turn to unhealthy coping mechanisms, like substance abuse. The good news is resilience can be nurtured and skills to help a young person become more resilient can be taught. When kids have the skills and confidence to work through their problems, they learn that they are strong and capable of managing difficult issues. It is important to remember that resiliency isn’t about “toughing it out” or managing stress and problems alone. In fact, being able to reach out for help and ask others for support is a key characteristic in being resilient. According to Harvard University’s Center on the Developing Child, “the single most common factor for children who develop resilience is at least one stable and committed relationship with a supportive parent, caregiver, or other adult”. Building positive relationships, teaching social and emotional skills, fostering positive emotions, identifying strengths and building a sense of meaning and purpose are positive steps in building resilient youth. In a book titled, *Building Resilience in Children and Teens*, the American Academy of Pediatrics focus on the 7 C’s that they note as essential building blocks of resilience:

1. **Competence:** When we notice what young people are doing right and give them opportunities to develop important skills, they feel competent. We undermine competence when we don’t allow young people to recover themselves after a fall.
2. **Confidence:** Young people need confidence to be able to navigate the world, think outside the box, and recover from challenges.
3. **Connection:** Connections with other people, schools, and communities offer young people the security that allows them to stand on their own and develop creative solutions.
4. **Character:** Young people need a clear sense of right and wrong and a commitment to integrity.

The world breaks
everyone and
afterward many are
strong in the
broken places.

~ E. Hemmingway

5. **Contribution:** Young people who contribute to the well-being of others will receive gratitude rather than condemnation. They will learn that contributing feels good and may therefore more easily turn to others and do so without shame.
6. **Coping:** Young people who possess a variety of healthy coping strategies will be less likely to turn to dangerous quick fixes when stressed.
7. **Control:** Young people who understand privileges and respect are earned through demonstrated responsibility will learn to make wise choices and feel a sense of control.

It should be noted that developing resilience is a personal journey. An approach to building resiliency that works for one child might not work for someone else. Turning to someone for guidance such as a psychologist or mental health professional may help youth who feel overwhelmed strengthen resilience and persevere during times of stress and trauma.

References: American Psychological Association; *Building Resilience in Children and Teens*; Harvard University: Center on the Developing Child; Mayo Clinic; The Child Mind Institute;