



**Short Communication** 

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# **Addiction-How and Type**



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#### Abstract

Drugs are chemicals. Different drugs, because of their chemical structures, can affect the body in different ways. In fact, some drugs can even change a person's body and brain in ways that last long after the person has stopped taking drugs, maybe even permanently. Most abused drugs directly or indirectly target the brain's reward system by flooding the circuit with dopamine. Dopamine is a neurotransmitter present in regions of the brain that regulate movement, emotion, cognition, motivation, and feelings of pleasure. When drugs enter the brain, they can actually change how the brain performs its jobs. These changes are what lead to compulsive drug use, the hallmark of addiction. Although initial drug use may be voluntary, drugs have been shown to alter brain chemistry, which interferes with an individual's ability to make decisions and can lead to compulsive craving, seeking and use. This then becomes a substance dependency. All drugs of abuse - nicotine, cocaine, marijuana, and others - affect the brains "reward" circuit, which is part of the limbic system. This flood of dopamine is what causes the "high" or euphoria associated with drug abuse.

### Addiction as a Changing Disease

Addiction is also a changing disease. While it often starts with an action of choice (choosing to use drugs recreationally or being prescribed drugs), it quickly evolves into something else. It starts to move into dependency, where the body requires the drug in order to feel "normal" and to avoid withdrawal symptoms. From there, it moves into full addiction, where obtaining the substance takes precedence over everything else in a person's life. At all times during this process, there is a desired outcome, but this outcome changes. Reasons such as:

- a) Recreational or prescription use, the desired outcome is a "high", or the effect the medication is prescribed for.
- b) Dependency, the desired outcome is to keep withdrawal symptoms away.
- c) Addiction use, the desired outcome is to have more of the substance.

The lines between dependency and addiction are blurred, and there is a huge degree of overlap. The key difference is that in dependency, people still have some understanding of what they are doing, although they have started to lose the element of choice. If they do choose not to use a substance, their body will go into withdrawal. In an addiction, even that understanding is completely removed and the brain has changed significantly as well. Addiction brings on a number of signs. Some of the most common and universal signs are:

- a) High tolerance to the substance.
- b) No longer being able to control how often, or how much you use.
- c) Obsession with the drug.
- d) No longer taking part in any activity that is not related to the drug.
- e) Knowing that you are harming yourself by using the substance, but continuing to do so nevertheless.

Addiction evolves from dependence. However, as with a dependent individual, should anyone suffering from an addiction stop taking the drug, they will experience withdrawal symptoms. Exactly how these will manifest depends on which substance is being used, but some of the most commonly experienced symptoms are: Fatigue, Trembling, Depression, Anxiety, Sweating, Insomnia, Headaches, Nausea and vomiting. With alcohol, withdrawal symptoms have the potential to be deadly. It is vital to seek medical attention if you want to overcome an alcohol addiction. It is also advisable to seek medical attention when withdrawing from any other substance as well. There is always a danger of the symptoms becoming a threat to one's well-being. It is very difficult for addicts to utilize willpower to withstand the symptoms, increasing the likelihood of using the drug again.

#### What Are the Underlying Causes of Substance Abuse?

It is now understood that there isn't just one single cause of addiction, but rather, a highly complex illness that develops when many different factors come together. One of the most common factors is a mental health disorder. According to the National Alliance on Mental Illness, 50% of all drug addicts have also at least one, if not more, severe mental health illness. An addiction combined with mental illness is a co-occurring disorder; it is irrelevant which one came first, or which one caused the other. They must both be treated together if the patient wants to recover. By treating them individually or separately, the patient is at much greater risk of relapsing. Relapse is already common in addiction, so steps must be taken to reduce this as much as possible. This can be difficult if the addiction has taken hold in a case where the drug is genuinely needed, such as someone with anxiety who is prescribed Klonopin.

It is also believed that genetics have a role to play in addiction. Addictions and Recovery has stated that those who have at least one parent who had an addiction are eight times more likely to become addicted themselves compared to the normal population. In fact, research by the National Institute on Alcohol Abuse and Alcoholism states that 50% of addiction development comes from hereditary factors. A child doesn't have to grow up in an addicted household: parenting styles are also important. The Pennsylvania Family Support Alliance has made people aware that when parents behave as if drugs are no concern or no big deal; their teenage children are more likely to experiment with drugs. Different Factors that make people more susceptible to addiction are circumstantial, some of these factors include:

- a) The individual's genetic makeup and how vulnerable someone is to stress
- b) How young they were when they first started to use
- c) However, other processes must also take place, because even someone who has a genetic predisposition to addiction, copes very poorly with stress, and started using very young, does not have to become addicted.
- d) Does drug abuse cause mental disorders, or vice versa?
- e) Drug abuse and mental illness often co-exist. In some cases, mental disorders such as anxiety, depression, or schizophrenia may precede addiction; in other cases, drug abuse may trigger or exacerbate Negative effects of prenatal drug exposure on infants and children. Bate those mental disorders, particularly in people with specific vulnerabilities.
- f) A mother's abuse of heroin or prescription opioids during pregnancy can cause a withdrawal syndrome (called neonatal abstinence syndrome, or NAS) in her infant.

#### How can addiction harm other people?

a) Secondhand tobacco smoke, also called environmental tobacco smoke (ETS), is a significant source of exposure to

- a large number of substances known to be hazardous to human health, particularly to children.
- b) Increased spread of infectious diseases Injection of drugs such as heroin, cocaine, and methamphetamine currently accounts for about 12 percent of new AIDS cases. Injection drug use is also a major factor in the spread of hepatitis C, a serious, potentially fatal liver disease.
- c) Nicotine is an addictive stimulant found in cigarettes and other forms of tobacco. Tobacco smoke increases a user's risk of cancer, emphysema, bronchial disorders, and cardiovascular disease.
- d) Alcohol consumption can damage the brain and most body organs. Areas of the brain that are especially vulnerable to alcohol-related damage are the cerebral cortex.
- e) Marijuana is the most commonly abused illegal substance. This drug impairs short-term memory and learning, the ability to focus attention, and coordination. It also increases heart rate, can harm the lungs, and can increase the risk of psychosis in those with an underlying vulnerability.
- f) Prescription medications, including opioid pain relievers (such as OxyContin® and Vicodin®), anti-anxiety sedatives (such as Valium® and Xanax®), and ADHD stimulants (such as Adderall® and Ritalin®), are commonly misused to self-treat for medical problems or abused for purposes of getting high or (especially with stimulants) improving performance.
- g) Cocaine is a short-acting stimulant, which can lead users to take the drug many times in a single session (known as a "binge").
- h) Amphetamines, including methamphetamine, are powerful stimulants that can produce feelings of euphoria and alertness.
- i) MDMA (Ecstasy or "Molly") produces both stimulant and mind-altering effects.
- j) LSD is one of the most potent hallucinogenic, or perception-altering, drugs.
- k) Heroin is a powerful opioids drug that produces euphoria and feelings of relaxation. It slows respiration, and its use is linked to an increased risk of serious infectious diseases, especially when taken intravenously.
- l) Steroids, which can also be prescribed for certain medical conditions, are abused to increase muscle mass and to improve athletic performance or physical appearance.
- m) Drug combinations. A particularly dangerous and common practice is the combining of two or more drugs. The practice ranges from the co-administration of legal drugs, like alcohol and nicotine, to the dangerous mixing of prescription drugs.

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