

# Addictions: Why Don't They Just Quit?

By Dr Ken J

One of the most frustrating issues surrounding addictions is, understanding addictions. Most people just go thru life assuming that we have the power to stop. But do we? Addiction is everywhere. It is said that one out of five adults has an immediate relative who has struggled with addiction to drugs or alcohol. One fifth of the population. So does one fifth of the population have a weak personality? Are they weak of mind or character? Or is there more to the story? Such as the Dopamine pathway?

There are four primary misperceptions about addiction that I would like to take a moment to address.

The first is that addicts cannot or should not be treated with medications. The truth is studies have shown that medications reduce the chance of relapse and enhance the effectiveness of psychotherapy.

The second is that if addicts simply go to a 12 step meeting you will stop. The truth is 12 step meeting while proven to be very effective are not a cure for everyone. Even if they really want to stop.

The third is that addicts are bad people. If this is true we should be leery of 1/5 of the people we know. The truth is addicts have a brain disease that needs treatment. Do drugs alter behaviors? The obvious answer is yes, however that does not mean the person is evil.

Then the fourth and most important, that Addiction is a will power problem. This is a very old belief that gets perpetuated by movies, media, 12 step meetings and worse of all therapists just like me who supposedly specialize in treatment of addictions. Be very careful of professionals who do not talk to you about the brains neuro pathways. There is an area of the brain called the mesocortico-limbic dopamine system that is activated by addictions that is not under conscious control.

What exactly is Addiction?

To be honest it is a very generic word that describes very little. Most use it liberally and it becomes a matter of opinion. Scary isn't it that the opinion of one can become a fact of another. Addiction is a word that is used to indicate there is a problem that seems to be an uncontrollable urge. People can be addicted to many things including: drugs, alcohol, food, sex, pornography, nicotine, gambling.

The four basic components of any addiction are pleasure, loss of control, compulsion and denial.

Then there is what is called simple addiction versus complex addiction.

Simple addiction has a superficial physical dependence; it involves physical cravings and withdrawal when the addictive substance is removed. Simple addictions can be treated or influenced by spiritual, economic, social and moral incentives. I.e.- someone may not drink again because they are afraid that they may lose their job, or that their standing in the community may be compromised.

Complex addictions are different in that they are self-protecting, there is an attempt to use the substance as a way of altering the individual's psychological mood, the person is seen as out of control, and willpower or self-talk do not work so well. Individuals with complex addictions usually require intensive, long-term treatment, and they must emphasize abstinence.

So what is the role of dopamine in addiction and how is it helpful or harmful?

According to a study in the *Journal of Psychosocial Nursing* the mesocorticolimbic dopamine system is the site of the rewarding effects of all the major classes of addictive drugs.

Addictive substances affect different structures of the brain, primarily the brain's limbic system. The limbic system, also commonly referred to as the brain's reward system, responds to a pleasurable experience by releasing the neurotransmitter dopamine. Addicts experience extremely intense feelings of pleasure and satisfaction because dopamine is flooding the limbic system.

Two other parts of the brain that are important in understanding addiction and neurotransmission are the Nucleus Accumbens and the Ventral Tegmental Area.

The Nucleus Accumbens, also known as the ventral tegmentum, is a complex structure of the basal forebrain that is closely associated with the limbic system. It plays a role in reward, pleasure, and addiction. Live studies show that most addictive drugs elevate dopamine levels in this area of the brain.

The Ventral Tegmental Area is a part of the midbrain that plays a role in mediating reward, pleasure, and addiction. This area is a part of the mesocorticolimbic dopamine system.

According to Nora Volkow, a leading medical specialist in addictions, the human brain is a complex and fine-tuned communications network containing billions of specialized cells called neurons that give origin to our thoughts, emotions, perceptions, and drives.

Usually a drug is taken the first time by choice to feel pleasure or to relieve stress or depression. But the choice is short-lived. Because repeated drug use alters the well-balanced systems in the brain, eventually replacing a person's normal needs and desires with a one-track mission to seek and use drugs. At this point, normal desires and motives will have a hard time competing with the desire to take a drug.

How Does the Brain Become Addicted?

Typically, a person takes a drug of abuse, be it marijuana or cocaine or even alcohol, activating the same brain circuits as do behaviors linked to survival, such as eating, bonding, and sex. The drug causes a surge in levels of a brain chemical called dopamine, which results in feelings of pleasure. The brain remembers this pleasure and wants it repeated.

Just as food is linked to survival in day-to-day living, drugs begin to take on the same significance for the addict. The need to obtain and take drugs becomes more important than any other need, including truly vital behaviors like eating. The addict no longer seeks the drug for pleasure, but for relieving distress.

Eventually, the drive to seek and use the drug is all that matters, despite devastating consequences.

Finally, control and choice and everything that once held value in a person's life, such as family, job, and community, are lost to the disease of addiction.

What brain changes are responsible for such a dramatic shift?

Research on addiction is helping us find out just how drugs change the way the brain works. These changes include the following:

Reduced dopamine activity. We depend on our brain's ability to release dopamine in order to experience pleasure and to motivate our responses to the natural rewards of everyday life, such as the sight or smell of food. Drugs produce very large and rapid dopamine surges and the brain responds by reducing normal dopamine activity. Eventually, the disrupted dopamine system renders the addict incapable of feeling any pleasure even from the drugs they seek to feed their addiction.

Altered brain regions that control decision making and judgment. Drugs of abuse affect the regions of the brain that help us control our desires and emotions. The resulting lack of control leads addicted people to compulsively pursue drugs, even when the drugs have lost their power to reward.

The disease of addiction can develop in people despite their best intentions or strength of character. Drug addiction is insidious because it affects the very brain areas that people need to "think straight," apply good judgment and make good decisions for their lives.

No one wants to grow up to be a drug addict, after all.

Which is why there is the following percentage of addiction after first use.

Tobacco – 32%

Alcohol – 15%

Heroin – 23%

Cocaine – 16%

In simple terms because of the role of elevated dopamine levels in the brain, our brains perceive the substance or addiction as wonderfully pleasurable. Over time the brain actually changes its structure and how it works.

In 2005 there was a national survey done by the Substance Abuse and Mental Health Service Administration on individuals ages 12 and up. The following numbers were given as to individual Americans who suffer from a specific area of addiction.

Alcohol – 18,658,000

Marijuana – 4,090,000

Cocaine – 1,549,000

Pain Relievers – 1,546,000

Tranquilizers – 419,000

Stimulants – 409,000

Hallucinogens – 371,000

Heroin – 227,000

Inhalants – 221,000

Sedatives – 97,000

But addiction is not limited to just drugs. The same principles apply to other addictions. Research continues to suggest that dopamine plays a role in the formation and maintenance of addictive behaviors such as gambling, pornography, sex and even eating. So the same chemical and physiological changes that we see in substance abuse exist in all forms of addiction.

Did you know that 60% of all website visits are sexual in nature. That 20% of men and 13% of women admit to viewing porn at work. 10% of adults admit to having internet sexual addiction.

According to the National Council on Addiction Compulsivity 8% or 24 million Americans are sex addicts.

It is also estimated that 2 million American adults are compulsive gamblers at some point in their life. In any given year 4.8 million Americans are considered problem gamblers.

So do you have an addiction problem?

The best way to get an answer to this question is to seek a professional assessment.

Below is a quick list to determine if you do have a problem. Remember these are not just specific to drugs or alcohol they are true of any addiction.

The difference between abuse and dependence is not always clear to the general public, but therapist use a set of criteria to distinguish between these two categories of problem use.

The essential feature of abuse is a pattern of substance use that causes someone to experience harmful consequences. Therapist diagnose substance abuse if, in a twelve-month period, a person is in one or more of the following situations related to drug use:

- Failure to meet obligations, such as missing work or school
- Engaging in reckless activities, such as driving while intoxicated
- Encountering legal troubles, such as getting arrested
- Continuing to use despite personal problems, such as a fight with a partner

Dependence is more severe. Therapist will look for three or more criteria from a set that includes two physiological factors and five behavioral patterns, again, over a twelve-month period. Tolerance and withdrawal alone are not enough to indicate dependence. And not all behavioral signs occur with every substance.

The physiological factors are:

- Tolerance, in which a person needs more of a drug to achieve intoxication
- Withdrawal, in which they experience mental or physical symptoms after stopping drug use

The behavioral patterns are:

Being unable to stop once using starts  
Exceeding self-imposed limits  
Curtailing time spent on other activities  
Spending excessive time using or getting drugs  
Taking a drug despite deteriorating health

So why doesn't everyone get help?

Recent studies have shown that the primary reasons people don't get help is:

44.4% - cost or insurance barriers.  
21.2% - Not ready to stop using  
21.1% - other barriers to access treatment  
18.5% - Stigma  
9.4% - Lack of knowledge or don't know where to go  
3.8% - Did not have the time  
0.4% - thought treatment would not work

Treatment does work when it is properly given. The combination of professional treatment, and support groups has a significant chance of success.

Most people want to find a qualified therapist like those found at the Family Counseling & Psychological Services, and a support group like AA, NA, SA, Celebrate Recovery or Rational Recovery.

If needed your therapist can refer you to a medical program or detox program for the use of medications to help with the addiction, to help reset some of the dopamine pathways that may have been altered during addiction.

There is hope, don't let previous failures or relapses discourage you from getting the most current and beneficial help available