

Understanding Drug Addiction & Abuse

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What is Drug Addiction?

Is it a series of bad decisions? Negative environment? Or just plain bad luck?

If you're reading this, you're probably one of two people...

Either

1. You're addicted to drugs and are at a loss of what to do, or
2. You have a loved one who is fighting addiction and you want to help them.

Note: This is mostly written for those who are struggling with abusing drugs. But if a loved one of yours is struggling, feel free to join in!

It's well known that drug addiction is a significant problem around the world. We know this problem by a number of terms -- substance abuse, drug abuse and drug dependence..

According to DrugAbuse.gov...

“Estimates of the total overall costs of substance abuse in the United States, including productivity and health- and crime-related costs, exceed \$600 billion annually. This includes approximately \$193 billion for illicit drugs,¹ \$193 billion for tobacco,² and \$235 billion for alcohol.³”

Is Drug Abuse a Moral Failure?

Drug abuse has always held a negative connotation. For many years, drug addicts have been looked down on by society because of their “bad decisions” and/or moral failure. For those of us who don't understand drug addiction, it is difficult to have compassion toward an addict -- especially if you have never experienced addiction.

We know that choices do play a part in our substance abuse. But we would be making a huge mistake if we didn't realize that it's much more than that.

In fact: In recent years, scientific advancement has shown that drug addiction isn't just a lack of "self-control" or a matter of making the wrong decisions.

It is actually more complex and involves the study of human nature, biology and culture.

If you are an addict, you likely blame yourself for the decisions you've made and think yourself a moral failure. At the other extreme, you may realize it's something you can't help, and so you "pass the buck" or "give up" by placing blame elsewhere. Either belief system is damaging, and it's important to find a balance.

So...where do we start?

If you want to overcome addiction or help a loved one overcome, a **thorough understanding of addiction is the place to start.** To completely understand drug addiction, it's important to understand the science and cultural implications behind the problem. By knowing the truth about drug addiction, you'll have a starting point to begin your journey toward a life of freedom. There is one Bible verse that puts it very well...

"...the truth will set you free"

Answer: Understanding the problem (or knowing the truth), is first step to freedom.

To begin, we're going to explore how your brain works and the effects of drugs on the brain. We'll also see how your culture and childhood environment may have contributed to your addiction.

First things first. You need to know something.

Drug Addiction is a Complex Disease

That's right. Just like people suffer from major organ diseases like asthma, diabetes and heart failure -- your addiction is also classified as a brain disease.

DrugAbuse.gov definition:

“Addiction is a chronic, often relapsing brain disease that causes compulsive drug seeking and use, despite harmful consequences to the addicted individual and to those around him or her.”

Good news! It's not just about Moral Failure.

In order to understand this concept, we need to learn...

How the Brain Works with Drugs

The Brain is the Headquarters for all your bodies communication.

Your brain is the headquarters for the nervous system that communicates with the rest of your body. It's made up of billions upon billions of tiny **neurons or nerve cells**. We need to know these different part of the brain in order to understand how drugs manipulate them.

Let's Explore how the Brain Communicates

The Nerve Cell: The nervous system is made up of “**Nerve Cells**” or “**Neurons**.” These neurons communication with each other relaying messages throughout the body. They communicate through electrochemical messages. The chemical that passes these messages are called...Neurotransmitters

Neurotransmitters are the chemicals that carry messages between the nerve cells. The primary neurotransmitter that affects drug addicts is the neurotransmitter “dopamine.”

Dopamine is the neurotransmitter that is part of your brain's **reward system**, which we will talk about in a minute. It is activated when something pleasurable happens. It also participates in other functions like movement, emotion and

motivation. This is partly why those who are high may be “out of sorts” for a period of time.

Receptors: Receptors are found on the neuron receiving the message. They only accept neurotransmitters that fit. At this stage, the “message” has been delivered from neuron to neuron.

Transporters: Transporters complete the loop of communication between cells by pulling the neurotransmitter back to their original neuron. Transporters are then tasked with the job of recycling the neurotransmitters for later use.

In a nut shell...

Your nerves communication with each other using messengers called **neurotransmitters**. They are accepted by **receptors** and then retrieved back by **transporters** to be recycled for use again. This process happens on a very fast and at a large scale. Your brain actually has large networks of these communicating neurons.

One of these networks (on a basic level) is called the...

Brain's Reward System

(Note: In reality the brain's reward system is actually made up of several nerve systems working together)

Do you remember the first time you tasted your favorite food? You probably thought it was amazing.

In fact...

It was so good you decided to have several helpings.

Why did you eat so much?

When you ate the first bite, the neurotransmitter **dopamine** was activated and your brain stored that memory. This is why the next time you encountered the

food, your brain immediately knew how good it was and the way it made you feel. You were then prompted to eat it the next time you saw it!

You see:

The reward system is the ultimate learning software.

Normally, your reward system is activated when it experiences natural pleasures in life like eating good food, winning a baseball game, having sex, or social interaction.

The reward system gives us motivation and incentive to keep doing things that are good for us and give us pleasure. If we didn't have these natural instincts, we wouldn't have motivation. This portion of our brain is actually designed to keep us alive.

This **reward system** is generally a good thing.

but then there is...

Drugs and the Brain

Drugs abuse and trick our reward system.

Drugs work in one of two ways...depending on the type of drug.

1. **The Copycat Drug:** Copycat drugs, like marijuana and heroin, imitate the brain's neurotransmitters in the reward system. Because these drugs are not natural to the brain, it causes unusual messages to pass between neurons.
2. **The Simulator Drug:** The simulators "excite" the nerve cells causing them to flood the brain with an excess of neurotransmitters (mostly dopamine). Additionally, these types of drugs also prevent the transporters from working properly which contributes to more flooding. Drugs that do this are cocaine and methamphetamine among others.

This unnatural increase and imitation of neurotransmitters causes the brain to react and reduce the production of our natural neurotransmitters. It even goes as far as reducing the amount of dopamine receptors.

Daily Pleasures Become Dull

Now, feeling pleasure in day to day activities like eating, sex and other social interaction becomes difficult because the brain's reward system has been abused and now needs **more dopamine** for the person to feel pleasure.

As a result... the user will need the drug just to feel normal pleasure again.

Furthermore, if you want to experience a "high" again, it'll take more of the drug than previously used. As this process continues, the addict builds up what is called a "**tolerance**" to the drug.

This path begins a vicious cycle. One that is hard to break.

This is the basics of how drug addiction works.

Why Relapsing is So Common

Relapsing is the returning to a drug after quitting for a period of time.

Long Term Memory and the Reward System

Because the Reward System is a big part of our long term memory, it becomes increasingly hard to stop using the drug. When you see or smell the drug, you remember how it made you feel.

These moments of seeing something or smelling something that reminds you of that feeling are called "triggers."

Even when you've been "off the substance" for weeks, months or years it can be difficult to resist because of your long term memory. That's why it is often necessary to find a sobriety house or treatment center to help you make a clean break.

There is where the “rubber” meets the “road.”

The Hard Truth About Recovery

Many think that addicts can just “change their ways” or “try harder.” The problem with that way of thinking is that once a person is addicted, it is “hard-wired” into their brain, making it nearly impossible to completely “be healed.”

That is why it has been categorized as a disease. And like many diseases, is treatable, but very difficult to cure.

Now that we understand the **science behind addiction**, we’ll explore the **risks of addiction**. Knowing how people are at risk to substance abuse gives us a deeper understanding of addiction from a cultural standpoint.

Addiction Risk: Cultural Influence

Now that we understand how drugs affect the brain, let’s explore how cultural influence play a part in your drug addiction. This may include someone’s upbringing, their genes, surroundings and more.

Culture: Your Heritage

Research has shown that your drug addiction may be rooted in your cultural background. For example, if you’re an immigrant to America or a Native American your risk of drug addiction may be higher than others.

According to the PsychiatricTimes, when individuals from a specific culture experience a major change in environment or identity, they are more likely to participate in drug abuse. This is seen in many immigrants who move outside their normal protective environment. It is also seen in the Native American community where much of their traditional culture has been lost over time. ([full article](#))

Unfortunately, these cultures can experience generational addiction to drugs because of the way we as humans pass on our traits, behaviors and beliefs on to the next generation.

Culture: Your Family Tree

It may be difficult to believe that something that happened so long ago can affect people to this day. However, this helps us understand the risk of addiction on a family level. You don't have to be from a Native American heritage to be addicted.

If you're from a family who's had a history of drug addiction, then your risk is much higher for addiction as well. This happens when parents pass on their outlook on life, their beliefs and their traditions on to their children. They don't intentionally pass on "traits" of drug addiction but it gets passed through their attitude and actions. Knowing this can go a long way in helping you understand your addiction.

Not all are in a position to change their environment, but by understanding it we can see it for what it is and takes steps to change the family tree.

Culture: Immediate Surroundings

We've learned that your heritage and genes may put you at risk for drug abuse. This leads us into your immediate surrounding -- how you were raised, how your family treated you, your school environments and many more risks. For example, if you were abused at home and experienced bullying at school, the risks of drug addiction were much higher for you. Peer pressure and lack of security or powerful things.

Family and friends have a huge influence on the risk level of drug addiction. It's important to develop healthy relationships with family and friends if possible.

The Good News

Having a working knowledge of Drug Addiction is the best **place to start** toward your recovery. We've learned that it's not just about making bad decisions or having the "will-power." Your addiction problem is also a disease that needs to be treated like one. Culture and society around you have also played a role in your addiction and explain your struggle. But knowing these things we can make actionable decisions that result in a better a more successful recovery.

By switching the storyline around, you can live a fuller life.

The old story line says: “If you just have enough will-power or discipline, you can stop your drug abuse and have a life of freedom.”

The new story line says: “Armed with this knowledge about myself, how my brain works and the effects of culture around me, I am now better equipped to ask the right questions and get the right help.”

It’s not just about will-power. It’s about improving your life on all fronts in order to make it further down the path of recovery and lead a successful and happy life.

From here, you can start asking questions and helping loved ones from the right perspective that doesn’t involve judging and accusation. But from the perspective of understanding drug addiction and providing REAL help.

If you've gained some help from this article, we'd love to hear from you. Please feel free to contact us with questions or comments.