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Depression is the number one risk factor for suicide. Substance abuse is the number two risk factor for suicide.
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Addiction is a Brain Disease

According to the American College of Neuropsychompharmacology, addiction is a disease of the brain. This view of addiction has long been widely accepted in the neuroscience community.

The National Institute on Drug Abuse has stated that addiction is a chronic, relapsing brain disease that causes habitual drug-seeking behavior and abuse in spite of destructive consequences to the addict and their loved ones.

Medical science has confirmed that addiction is a brain disease because the use of drugs leads to changes in the neurobiology (make-up and function) of the brain.

While it is true that for most people the initial choice to take drugs is deliberate, over time the changes in the brain caused by recurring drug abuse can affect a person's restraint and capacity to make sound decisions, and at the same time create a powerful desire to take more drugs.

It is because of these physical and psychological alterations to the brain that it is so difficult for a person who is addicted to stop abusing drugs. Fortunately, there are treatments that can help people to lessen the powerful and harmful effects of addiction and regain control.

How Drugs Affect the Brain

Drugs are chemical substances that tap into the brain's communication system and interfere with the way nerve cells normally send, receive, and process information. There are at least two ways that drugs can do this:

1. By mimicking the brain's natural chemical messengers, and;
2. By over-exciting the "reward circuit" of the brain.

Some drugs, like heroin and cannabis, have a similar structure to chemical messengers, called neurotransmitters, which are naturally created by the brain. Because of this similarity, these drugs can "fool" the brain's receptors and activate nerve cells to send irregular and nonstandard messages.

Other drugs, like methamphetamine or cocaine, can cause the nerve cells to discharge extra large amounts of natural neurotransmitters, or prevent the normal recycling of these brain chemicals, which is needed to shut off the signal between neurons. This disruption produces a greatly intensified message that ultimately interrupts normal communication patterns.

Dopamine and the Brain

Almost all drugs, directly or indirectly, target the brain's reward system by saturating the circuit with dopamine.

Dopamine is a neurotransmitter present in areas of the brain that control movement, emotion, motivation, and feelings of pleasure. The overstimulation of this system, which normally responds to normal behaviors that are linked to survival (eating, spending time with loved ones, etc.), produces euphoric effects in response to the drugs. This reaction sets in motion a pattern that "teaches" people to repeat the behavior of abusing drugs.

As a person continues abusing drugs, the brain adjusts to the overwhelming surges in dopamine by producing less dopamine or by reducing the number of dopamine receptors in the reward circuit. As a result, dopamine's impact on the reward circuit is lessened, reducing the abuser's ability to enjoy the drugs and the things that previously brought pleasure. This decrease causes those addicted to drugs to keep abusing drugs to attempt to bring their dopamine function back to normal. And they may now require larger amounts of the drug than they first did to achieve the dopamine high—an effect known as tolerance.

Managing the Disease of Addiction

Similar to other chronic, relapsing diseases, such as diabetes, asthma, or heart disease, drug addiction can be managed successfully in spite of the changes to the brain caused by drug use. But, as with other chronic diseases, it is not uncommon for a person to relapse and begin abusing drugs again. Relapse, however, does not signal failure—rather, it indicates that treatment should be reinstated, adjusted, or that alternate treatment is needed to help the individual regain control and recover.

Keep in mind however that addiction treatment, as with all chronic disease treatments, requires significant lifestyle and behavioral changes to maximize the chance of recovery. This is one of many reasons that it is critical when a person is going to stop taking drugs that they seek the help of a professional.

Because of the complexity of factors that can lead to addiction and because of the need for ongoing medical care and lifestyle change, most contemporary treatment strategies involve regular in-person and/or telephone monitoring of treatment protocol adherence, coupled with encouragement and support for pro-health changes in diet, exercise, and stress levels. More and more often, family members are being trained to also provide continued monitoring and support for the behavioral changes necessary to maintain symptom remission and sustain good quality of life.

Today's addiction treatment programs are designed to be client-centered and can not only make withdrawal comfortable for the person, but also equip the addict with the necessary tools to get clean and stay clean. And because addiction can affect so many aspects of a person's life, treatment must address the needs of the whole person to be successful.

If you are addicted to drugs or alcohol and considering getting help, start by asking yourself these four questions:

1. What do I enjoy about my addiction? (List as many things as you can that you like about being addicted).
2. What do I hate about my addiction? (List all the bad, undesirable results of being addicted).
3. What will I like about giving up my addiction? (This gives you a list of things to look forward to when you are no longer addicted).
4. What do I think I won't like about giving up the substance to which I am addicted? (This tells you what coping skills you will need to develop to enter and remain in recovery).

Making this list and continuing to add to it over time will help you to realize that the negative impact of addiction far outweighs any perceived benefits.