

Chapter 2

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*W*hat is Chemical Dependency?

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*We can easily forgive a child who is afraid of the dark; the real tragedy of life is when adults are afraid of the light.*

-Plato

*As I said* in the previous chapter, chemical dependency is a complex disease—primary, chronic, progressive, oftentimes fatal, and prone to relapse. It’s difficult to isolate any single cause of the disease, for its causes are the interrelated influence of your interpersonal, physiological, psychological, cognitive, behavioral, and spiritual beings.

We do know that there are several factors that increase your risk for developing chemical dependency.

## Pathfinder’s Checklist



*Factors that increase your risk for developing chemical dependency.*

- 1) Attitudinal factors: As you grow up, you develop a belief system in which you have specific attitudes about alcohol and other drugs that may inhibit or justify your use of alcohol and other drugs.
- 2) Dose, frequency, and duration of use: How much, how often and for how long you use alcohol and other drugs are three variables that influence chemical dependency. We know that use of crack cocaine after only a short period of time can lead to dependency, whereas the onset of dependency for alcohol may take as long as thirteen years.
- 3) Drug availability: The more available alcohol and other drugs are, the more likely one is to use them.
- 4) Genetic factors: There’s a genetic component to alcohol and drug addiction. Whether it be groups

of people or members of a family, genetic factors make certain people more vulnerable to alcoholism and drug addiction.

- 5) Emotional and physical disorders: Alcohol and other drugs are often used to excess in attempts to medicate emotional and physical discomfort. People who experience chronic emotional and physical pain are vulnerable to developing an alcohol and other drug dependency if they use mood-altering substances to medicate their pain.
- 6) Route of administration: How you ingest drugs determines how quickly and intensely you experience the euphoria created by the chemicals ingested. Chemicals that provide you with a quick and powerful high can potentially be very addicting. Inhaling and injecting drugs are almost an instantaneous means of experiencing your desired high. On the other hand, swallowing drugs and drinking alcohol are ways of ingesting that produce a more slowly achieved high. The quicker the high, the more vulnerable one is to habituating use of that drug.

When you consume alcohol and other drugs, these mood-altering chemicals are absorbed into your blood stream and carried to your brain. Once they reach your brain, they create chemical reactions that distort your sense of reality. This distorted sense of reality is what you refer to as being high, stoned, buzzed, or intoxicated. Your reaction to this altered sense of reality—pleasurable or not—will influence the quantity and frequency with which you’ll repeat your use of alcohol and other drugs.

Knowledge of the effect mood-altering substances has

on your brain will help you understand why chemical dependency is not caused by weak character, insufficient willpower, moral depravity, or a specific personality trait. There's considerable research demonstrating that addiction is linked to how your brain functions. Chemicals called *neurotransmitters* control the activities in your brain. These neurotransmitters carry messages from one neuron to another. The number of neurotransmitters released in your brain varies. Two variables that effect how many neurotransmitters are released in your brain are how much and how often you consume alcohol and other drugs.

There's an area in the stem of your brain called the *limbic system*. The limbic system stimulates your sense of smell, motivation, sex drive, and emotional responses. The limbic system also has a role in regulating basic bodily functions and other actions that occur automatically. Your limbic system is where the process of addiction occurs.

To understand the role of the limbic system in the process of addiction, you need to understand a part of the limbic system known as the *pleasure center*. The pleasure center responds to pleasurable stimulation and learns to repeat it. Neurotransmitters such as *endorphins* and *dopamine* are what activate the pleasure center. When you consume alcohol and other drugs, you increase the activity of the neurotransmitters that produce the feeling of being high or euphoric.

This process of creating euphoria by consuming alcohol and other drugs that releases neurotransmitters that activate the pleasure center of the limbic system can set up a cycle. By repeating the pattern of this cycle, your desire

to repeat this pattern can escalate from a desire to a need to a craving to an obsession. As you repeat the pattern of use with ever increasing amounts of alcohol and other drugs, your body eventually adapts to having alcohol and other drugs present in your blood stream and brain. One result of this adaptation is that your brain stops releasing neurotransmitters on its own and becomes reliant on your consumption of alcohol and other drugs to release neurotransmitters that stimulate the pleasure center of the limbic system.

Once your brain becomes reliant on alcohol and other drugs to stimulate the release of the neurotransmitters, you can feel lower than low when you have not consumed alcohol and other drugs for a period of time. This is because your body is out of balance due to the adaptations it has made to the continued presence of alcohol and other drugs.

This is what produces cravings. Your body has adjusted to the continued presence of alcohol and other drugs. Your brain has adapted to a specific interplay between the presence of alcohol and other drugs and the release of neurotransmitters that stimulate the pleasure center of the limbic system. So when you have not consumed alcohol and other drugs for a period of time, you experience cravings caused by psychological and physical withdrawal. As your body adapts to the presence of alcohol and other drugs in your system, as the pattern of stimulating the pleasure center of the brain by the presence of alcohol and other drugs becomes more ingrained, as the onset of psychological and physical symptoms becomes more pronounced, as the cravings for alcohol and other drugs become stronger and stronger, your need to consume alcohol and other drugs

becomes more powerful than your intellectual faculties telling you not to drink and drug.

This is the point where you have crossed the line from experimental and social use to abuse to dependency. Your brain has adapted to your consumption of alcohol and other drugs to the extent that your rational thought process is overridden by the need to keep the cycle of stimulation described above going. It's at this point that the reward of your chemical use and its stimulation of the pleasure center of the limbic system becomes habituated. Once this occurs, your ability to control your use becomes impaired and controlled drinking and drugging are no longer possible.

Once your use has progressed to the point of dependency, you no longer crave a particular drug but rather the euphoria created by the consumption of alcohol and other drugs. While you may rely on a particular drug to become intoxicated, your addiction is to the *feeling* of being intoxicated. What this means is that although you may use a narrow range of mood-altering substances, you can easily become addicted to any mood-altering substance. Therefore, you won't be able to stop your use of a drug you are addicted to by substituting another drug. If you decide to stop using alcohol and other drugs you must decide to stop using **all** alcohol and other drugs.

As I have said before, chemical dependency is a disease that is primary, chronic, progressive, oftentimes fatal, and prone to relapse. It's the progression of your disease that perpetuates your disease once you've developed chemical dependency. If you choose not to manage your disease, you can be assured of one simple fact—your disease will get progressively worse. Left unmanaged, the

progression of your disease can lead to your death, either through an accident that occurs while under the influence of alcohol and other drugs or through physical, emotional, and spiritual deterioration caused by chronic alcohol and other drug use.

It may be hard to believe that things could ever get that bad for you—that your life could deteriorate to such an extent—but it can and will. As your tolerance to alcohol and other drugs increases, you'll need to consume more of these chemicals to experience your desired effect.

As you consume more and more alcohol and other drugs, the level of toxic chemicals present in your body will increase. The more toxic chemicals you put into your body, the more damage you will do to your organs and nervous system.

Once you've crossed the line into chemical dependency, you're no longer able to control how often and how much alcohol and other drugs you'll consume. No matter how often and for how long a period of time you stop using, once you start again, you'll quickly begin to consume alcohol and other drugs in the same manner as you did just before you stopped. This occurs because chemical dependency continues to progress even if you stopped using for any period of time.

Another phenomena, *automatic recall of emotions and memories*, may reinforce habituated consumption of alcohol and other drugs. Think of the times you've heard a song from your childhood. In listening to the song, you find yourself experiencing emotions and memories from that time in your life. Or perhaps you've walked past a bakery and smelled the odors that you associate with your mother's baking when you were a child. These are exam-

ples of experiencing a stimulus that triggers feelings and memories from your past. The same phenomena exists in regard to your drinking and drugging. Automatic triggers such as experiencing uncomfortable emotions (anger or fear), or circumstances such as being in a specific bar, spending time with certain people, or watching others drink beer on a hot day all can stimulate memories and feelings associated with your consumption of alcohol and other drugs. These triggers and the automatic recall of emotions and memories they create can make you want to drink and drug to relieve the cravings stimulated by your emotions and memories.

Because of: 1) adaptations your brain makes to the presence of alcohol and other drugs, 2) the cycle created in the pleasure center of the limbic system, and 3) automatic recall of emotions and memories, it's difficult for the thinking part of your brain to override the cravings stimulated by your dependency on alcohol and other drugs. Knowing that you're dependent on alcohol and other drugs is not enough to stop you from actually abstaining from all mood-altering substances.

To stop drinking and drugging, most people require more than the mere knowledge that they are chemically dependent. Chemically dependent individuals need involvement in a process of change that will empower them to not only manage their cravings and impulses to consume alcohol and other drugs, but heal the damage done to themselves, the people in their life, and their relationship with their spiritual creator.