The Ultimate Family Guide to Addiction Treatment

The use and subsequent abuse of substances—both legal and illicit—continues to be a significant public health concern in the United States. According to the Defining the Addiction Treatment Gap report released by the Substance Abuse and Mental Health Services Administration in 2012, it is estimated that 23.5 million Americans are addicted to alcohol and drugs. That number equates to 1 in every 10 Americans over the age of 12—roughly equal to the entire population of Texas. However, only 1 out of every 10 people with substance abuse and addiction problems receive treatment.

According to the 2012 National Survey on Drug Use and Health, the rate of substance abuse in males aged 12 and older in the U.S. was twice that of females between 2002 and 2012. Interestingly, substance abuse rates between males and females aged 12-17 were equal. Overall, 17.7 million people in the U.S. had alcohol dependence or abuse, and 7.3 million had illicit drug dependence or abuse.
Substance abuse costs the United States an estimated $510 billion annually, which includes specialty treatment and intervention services for both drug and alcohol abuse, as well as medical consequences, injuries, legal costs and lost productivity due to death and illness. In an article featured in Reuters last year, one factor influencing the stagnation of the U.S. economy was the rising financial burden of drug and alcohol abuse. Additionally, in 2009 (which was the last complete year statistics in this category were recorded), unemployed workers were twice as likely to report drug use, and one in twelve workers over the age of 18 reported drug use within the last month. Untreated addiction not only affects the person afflicted, but also our nation as a whole.
While substance abuse and addiction have significant impacts throughout the whole of American society, there are certain demographic groups in which the effects of drug and alcohol abuse are more pronounced. For example, there has been a sharp increase in the number of drug overdose deaths among women in the United States from prescription painkillers. Between 1999 and 2010, the rate of fatal overdoses quadrupled. Additionally, the Centers for Disease Control (CDC) reports that 42 women die every single day from prescription drug overdoses alone.

Another demographic group in which drug and alcohol abuse is more evident is U.S. teenagers and young adults. According to the 2013 Monitoring the Future survey, conducted by National Institute on Drug Abuse (NIDA), the use of marijuana among teenagers has increased significantly over the last two decades. In 2013, 36.4% of 12th graders reported marijuana use in the last year. That percentage is equal to approximately 11 students in an average class.

There have also been alarming rates in drug and alcohol abuse among the disabled. Within this group, substance abuse rates are 2 to 4 times that of the general population. Substance abuse rates also approach or exceed 50% for those with traumatic brain injuries, spinal cord injuries, and mental health issues.
A final demographic group to consider is the elderly. In a report published by the Center of Disease Control last year, excessive alcohol use and binge drinking accounted for more than 21,000 deaths among adults 65 years or older. Older adults who engaged in binge drinking did so with more frequency as compared to younger age groups. On average, older binge drinkers consumed an average of about six drinks per binge episode, increasing the risk of a myriad of health and social problems.

Despite the evidence of persistent, chronic drug and alcohol abuse seen across these U.S. demographic groups, we are lacking in substance abuse treatment options. In 2011, 20.6 million people aged 12 years and older were classified as having substance dependence or abuse issues. However, 19.3 million people aged 12 years or older who needed substance abuse treatment were not able to receive assistance. Additionally, 1 out of every 4 people with a mental disorder or substance abuse disorder lacks health insurance. For those with both mental and substance abuse disorders, that figure nears 30 percent.

Drug and alcohol abuse issues continue to compound and grow in the United States. A more comprehensive and proactive approach regarding the recognition of substance
abuse issues needs to come to the forefront. This increased focus can include the following goals:

- An exploration of how addiction is defined and understood.
- The exploration of the substances that are most commonly abused in the United States.
- Looking at both existing and emerging treatment options that can address the varied needs of different demographic groups.
- An increase in organized advocacy movements that focus on addiction issues, treatment, and ultimately recovery.

This guide explores these ideas, working to increase both awareness and knowledge. It is through an awareness of substance abuse issues, as well as the examination of credible and empirical data, that a meaningful dialogue can occur between people in the public health sector, people who work in the substance abuse field, along with the struggling addict and their families. The problem of drug and alcohol abuse in the United States will not change unless there is active exploration and engagement in those issues.
Understanding the definition of addiction in American society helps us to understand how the condition affects the addict, their family, and community systems. We need to consider what addiction encompasses in its truest sense. Our definition must also establish common ground across an array of demographic groups, in order to lay a foundation for intervention and advocacy that can best serve those affected by addiction.

However, the task of defining addiction presents challenges to the public health sector, as well as policy makers and the legal system. While some common threads have been established across demographic groups, the definition of addiction can take on different meanings depending on each group's concerns. These differing opinions pose new challenges in understanding the wide scope of the issue and agreeing upon how to best assist those who struggle with substance abuse.
The Current Definition for Addiction

The American Society of Addiction Medicine has put forth a definition of addiction adopted in 2011 that states the following:

“Addiction is a primary, chronic disease of brain reward, motivation, memory and related circuitry. Dysfunction in these circuits leads to characteristic biological, psychological, social and spiritual manifestations. This is reflected in an individual pathologically pursuing reward and/or relief by substance use and other behaviors.”

ASAM goes on to state the following:

“Addiction is characterized by inability to consistently abstain, impairment in behavioral control, craving, diminished recognition of significant problems with one’s behaviors and interpersonal relationships, and a dysfunctional emotional response. Like other chronic diseases, addiction often involves cycles of relapse and remission. Without treatment or engagement in recovery activities, addiction is progressive and can result in disability or premature death.”

Since the current definition of addiction focuses on the brain and its associated reward, neurobiological factors come to the forefront of the discussion. The fundamental areas of concern are the frontal cortex, along with the underlying white matter connections between the frontal cortex and the circuits that regulate reward, motivation, and memory. In these areas, substances alter impulse control and judgment. As a result, the rewards that an addict continues to pursue become ‘normal,’ despite the cumulative and often adverse consequences experienced.

Addiction is characterized by an inability to consistently abstain from substances and an inability to control behavior. An addicted individual experiences a craving (or an intense, insatiable hunger) for more drugs and/or alcohol—which produce a desired reward in the brain—despite any adverse consequences. Ultimately, there is an emotional response in the addict that deviates from normative behavior.
There are different ideas about the origins of an addiction, ranging from genetics to traumatic experiences to a learning disorder. What we do know is that addictive patterns of behavior are brought to the surface by environmental cues. Two major environmental factors are regular engagement in substance use and frequenting places like bars and clubs where potentially addictive behavior can occur.

If an addict does achieve a period of abstinence, or even several periods of abstinence, there is a persistent risk of relapse back into addiction, which is brought on by the
presence of environmental cues that trigger the stress circuits of the brain. This increased stress, along with a lack of proactive, healthy coping skills, typically leads an addict to seek relief through the use (and subsequent abuse) of substances. Ultimately, addiction causes behavioral, cognitive and emotional changes that have a profound effect on the addict and his or her ability to maintain their day-to-day existence.

Issues with the Current and Accepted Definition of Addiction

With this definition, emphasis is placed on genetics as an important factor in the development of addiction. In the definition proposed by the American Society of Addiction Medicine, genetic factors account for half of the likelihood that an individual will develop an addiction. Within this framework, environmental factors, such as exposure to alcohol, drugs, or a substance-using culture, are thought to interact with the individual’s biology. From that interaction, the individual’s genetic factors come into play and exert their influence. Additionally, genetic predisposition and culture play a role in the degree to which addiction becomes actualized.

The concept of addiction as a disease dates back to 1956, when the American Medical Association declared alcoholism a disease. The definition proposed by the American Society of Addiction Medicine was an attempt to lessen the stigma attached to addiction and addictive disorders. Using the “addiction as disease” paradigm is useful because it frames empirical evidence that shows addiction is rooted in distinct brain changes, much like mental illness. But, in an article published in 2011 on the TIME magazine website, author Maia Szalavitz argues that using the disease metaphor may not be the ideal definition.

As Szalavitz points out, the brain disease model can further fuel the stigma that still has strong roots to addiction. Similarly, framing addiction as a disorder with neurobiological roots may not help to reduce stigma, either. In fact, it may increase the stigma. The word “disease” is useful to describe the neurological pathology and processes of
addiction, but it can also imply that addiction is a fixed or unchangeable state. The inclusion of the word “chronic” may bolster such mindsets.

Furthermore, this label can lead to assumptions that the range of possible addictions are all seen as different expressions of the same disease. The concept of disease implies there are specific biological and psychological mechanisms at work that are shared across all substances. With genetic, familial, societal, and other environmental factors that play a role in the emergence of addiction, the mechanisms at work may differ depending on the substance being abused.

Differences between Addiction, Substance Abuse and Substance Dependence

Many people use the terms addiction, abuse and dependence interchangeably. The fact is these terms imply different conditions. As defined earlier, addiction is a primary, chronic, neurobiologic disease with genetic, psychosocial and environmental factors that influence its development and manifestations. It is characterized by behaviors that include one or more of the following:

- loss of control over drug use
- continued use despite harm
- compulsive use and craving

There are several theories of addiction that have been proposed and debated, but the most compelling view of addiction is as a multifactorial disease caused by predisposing and precipitating factors. Addiction is described as the interaction between the person who is addicted to the substance, the drug, and prevailing environmental factors.
Substance abuse, on the other hand, is defined as a maladaptive pattern of substance use leading to clinically significant impairment or distress. According to the criteria put forth by the Diagnostic and Statistical Manual of Disorders (4th edition, Text Revision—DSM-IV TR), at least one of the following manifestations must be observed in a twelve month period in order to meet the criteria as substance abuse:

1. recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home
   - repeated absences or poor work performance related to substance use
   - substance-related absences, suspensions, or expulsions from school
   - neglect of children or household
2. recurrent substance use in situations in which it is physically hazardous
   - driving an automobile or operating a machine when impaired by substance use
3. recurrent substance-related legal problems
   - arrests for substance-related disorderly conduct
4. continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance
   - arguments with spouse about consequences of intoxication
   - physical fights

Additionally, there is the concept of substance dependence. Like the definition for substance abuse, dependence is viewed as a maladaptive pattern of substance use, leading to clinically significant impairment or distress. Using the diagnostic criteria outlined by the DSM-IV TR, there needs to be at least three of these manifestations observed within a twelve month period:

1. tolerance, as defined by either of the following:
   - a need for markedly increased amounts of the substance to achieve intoxication or desired effect
   - markedly diminished effect with continued use of the same amount of the substance
2. withdrawal, as manifested by either of the following:
• the characteristic withdrawal syndrome for the specific substance
• the same (or a closely related) substance is taken to relieve or avoid withdrawal symptoms

3. the substance is often taken in larger amounts or over a longer period than was intended
• needing substance to “maintain” daily activities
• accidental overdose

4. there is a persistent desire to control substance use, or there are unsuccessful efforts to cut down on substance use
• talking about stopping use, yet never actually doing so

5. a great deal of time is spent in activities necessary to obtain the substance, use the substance, or recover from its effects
• visiting multiple doctors
• driving long distances
• chain smoking

6. important social, occupational, or recreational activities are given up or reduced because of substance use
• missing events with friends or family
• less engagement in old interests and hobbies

7. the substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance
• current cocaine use despite recognition of cocaine-induced depression
• continued drinking despite recognition that an ulcer was made worse by alcohol consumption
Finding Common Ground in the Definition of Addiction

The concept of addiction has multiple facets which are the topic of great discussion and debate. The current description of substance abuse addiction as a brain disease has been the prevailing definition. It falls nicely within the predominant medical paradigm in substance abuse treatment, which views addiction as a complex condition with several biological mechanisms at its roots.

Yet, focusing primarily on the biological and neurobiological factors that contribute to the development of substance abuse and addiction can be short-sighted. Addiction is a multi-faceted disorder, and equal attention needs to focus on familial, environmental, and societal components. As described earlier, the term “disease” may not change harmful preconceptions about addiction, because its implication that the condition unchangeable may increase the stigmas surrounding substance abuse and addiction.

In order for the definition of addiction to change in a way that is consistent and represents all demographic groups, the stigma that is attached to drug and alcohol abuse needs to be addressed. Addiction is still seen as a personal choice, as if the addict is choosing to ruin their economic situation, damage relationships with family and friends, and cause undue burdens to society.

Much of this stigma is rooted in deep-seated moral underpinnings. Addiction is not a conscious choice or an ingrained character trait. It can be viewed as a confluence of factors that evolve within a conducive environment over a period of time. By removing
the stigma and the labels we associate with it, we can address the range of underlying factors that contribute to substance abuse and approach addiction with a more pragmatic and realistic view.
Definition of Alcoholism

In a public policy statement issued in late 2011, the American Society of Addiction Medicine (ASAM) defined alcoholism in the following terms:

“Alcoholism is a primary, chronic disease with genetic, psychosocial, and environmental factors influencing its development and manifestations. The disease is often progressive and fatal. It is characterized by continuous or periodic:

- impaired control over drinking
- preoccupation with the drug alcohol
- use of alcohol despite adverse consequences
- distortions in thinking, most notably denial”
To clarify, ASAM explains that alcoholism is a primary and chronic disease—meaning alcoholic addiction is not a symptom of any underlying disease and that it is, in essence, an involuntary disability associated with a common set of characteristics. Additionally, alcoholism is viewed as being progressive and fatal because the condition persists over time and the physical, emotional, and social changes that occur are often cumulative.

Those who are alcoholic are unable to limit their consumption. Because of this, alcoholics have a preoccupation with drinking alcohol and obtaining alcoholic beverages, to the point that they experience adverse consequences. These consequences are pronounced in areas such as physical health, psychological stability, interpersonal relations, and occupational skills, along with legal, financial, and spiritual problems. Finally, alcoholics are often in denial, using a wide range of psychological maneuvers to rationalize their drinking and minimize the severity of their ensuing problems.

**Alcoholism Statistics**

Alcohol is the number one drug problem in the United States. Each day, Americans spend approximately $197 million dollars on alcohol purchases. In 2006, the Centers for Disease Control estimated that alcohol abuse cost the United States $223.5 billion, with each state losing approximately $2.9 billion in expenses.
The National Institute on Alcohol Abuse and Alcoholism (NIAAA) released the following statistics concerning alcohol consumption:

- In 2014, 87.6 percent of people ages 18 or older reported that they drank alcohol at some point in their lifetime; 71.0 percent reported that they drank in the past year; 56.9 percent reported that they drank in the past month.
- In 2014, **24.7 percent** of people ages 18 or older reported that they **engaged in binge drinking in the past month** (drinking 5 or more alcoholic drinks on the same occasion, on at least 1 day in the past 30 days); **6.7 percent** reported that they **engaged in heavy drinking in the past month** (drinking 5 or more drinks on the same occasion, on each of 5 or more days in the past 30 days).
- An estimated **17 million Americans** have an **alcohol use disorder (AUD)**—a medical term that includes alcoholism, as well as harmful drinking that does not reach the level of dependence. Only an estimated 15% of the individuals with an AUD will seek treatment.
- **Each year in the U.S., nearly 88,000 people die from alcohol-related causes**, making it **the fourth leading preventable cause of death in the United States**. Additionally, liver cirrhosis—a common and serious condition associated with alcohol abuse and alcoholism—was listed as the 12th leading cause of death in the United States in 2009. Of those cirrhosis deaths, nearly half (48.2%) were alcohol related.

![Image with statistics]

1. **1 in 6**
   More than 38 million US adults binge drink.

2. **4X**
   Binge drinkers do so about 4 times a month.

3. **8**
   The largest number of drinks per binge is on average 8.
Withdrawal Symptoms & Consequences

Like any other substance that can be abused, alcohol has a unique set of withdrawal symptoms and consequences associated with long-term abuse. The more a person drinks regularly, the more likely he or she is to develop withdrawal symptoms when they stop drinking. Withdrawal from alcohol can be extremely dangerous in many ways—withdrawal can keep a heavy-drinker in a cycle of using in order to manage their symptoms, or the withdrawal symptoms can cause severe, even fatal, physical consequences.

According to the U.S. National Institutes of Health, the most common, mild symptoms are:

- Anxiety, nervousness
- Irritability
- Jumpiness or shakiness
- Depression, fatigue
- Mood swings
- Nightmares
- Not thinking clearly

As symptoms progress, a more moderate withdrawal can also look like:

- Headache, loss of appetite, clammy skin
- Enlarged (dilated) pupils
- Insomnia (sleeping difficulty)
- Nausea and vomiting
- Rapid heart rate, sweating
- Pallor (paleness)
- Tremor of the hands or other body parts
ALCOHOL ABUSE
is when your drinking leads to problems; however, there is no physical dependence. Some of the symptoms of alcohol abuse are:

- Failure to fulfill major responsibilities at work, school, or home.
- Drinking in dangerous situations, such as drinking while driving.
- Legal problems related to alcohol, such as being arrested for drinking while driving or for physically hurting someone while drunk.
- Continued drinking despite ongoing relationship problems that are caused or worsened by drinking.

ALCOHOL DEPENDENCE
is a chronic disease that includes symptoms such as:

- Craving
  A strong need or urge to drink.
- Loss of Control
  Not being able to stop drinking once drinking has begun or being unable to cut down on alcohol use.
- Giving up or reducing social, occupational or recreational activities because of alcohol use.
- Physical Dependence
  Withdrawal symptoms such as nausea, sweating, shakiness, and anxiety after stopping drinking.
- Tolerance
  The need to drink greater amounts of alcohol to feel the same effect.

ALCOHOL WITHDRAWAL
happens when you abruptly discontinue drinking after drinking heavily and frequently.

The symptoms of alcohol withdrawal range from mild to severe, and include:

- Headache
- Elevated Heart Rate and Blood Pressure
- Nausea or Vomiting
- Stomach Cramps and Diarrhea
- Trouble Sleeping or Concentrating
- Sweating
- Anxiety and Restlessness
- Shaking

Alcohol Withdrawal Symptoms usually start within 5-10 hours after you stop drinking, peak in 48-72 hours, and improve within five days. Alcohol withdrawal is unpleasant and painful and can be life threatening.

ALCOHOL DETOX
eliminates toxins in the body caused by excessive amounts of alcohol. The length of the detox process can vary between 3-7 days depending on the individual and the seriousness of their alcohol dependence. It is the first step in addiction treatment and should be followed by an alcohol rehab program.

ALCOHOL’S EFFECTS
vary from person to person, depending on a variety of factors, including:

- How Much You Drink
- How Often You Drink
- Your Age
- Your Health
- Your Family History
The most severe form of alcohol withdrawal is called delirium tremens, which is characterized by severe tremors in a heavy alcohol abuser’s body, as well as severe mental and nervous system changes. A person experiencing delirium tremens needs medical attention and detoxification in order to prevent life-long damage to their body.

Delirium tremens (DTs) is most common in drinkers who consume upwards of 4 pints of wine, 7 pints of beer, or 1 pint of “hard” alcohol every day for several months, as well as in people who have used alcohol for 10 years or more. Symptom usually arise within 48-96 hours after the last drink, but can still occur 7-10 days after the last drink. Beyond intense body tremors, the most common symptoms of delirium tremens are:

- Agitation, irritability
- Fever, delirium, stupor
- Hallucinations, fear, intense mood swings
- Severe confusion
- Restlessness
- Sleepiness, long periods of deep sleep
- Seizures

Medical attention is important to relieve these symptoms, prevent as many complications as possible, and, ultimately, save the person’s life. A hospital stay is needed to monitor a person’s vital signs, and medication can help sedate a patient until the DTs pass and their detoxification process continues. Without medical aid, a person experiencing DTs and detoxing on their own can suffer from serious injuries in the midst of delirium, life-threatening complications with an irregular heartbeat, and possible brain damage from seizures.

Risk Factors Associated With Alcoholism

The development of alcoholism in an individual occurs gradually over time, and there are many factors that contribute to its onset and progression. The following is a list of the major risk factors that need to be taken into consideration for their potentiality to lead to alcoholism:
Alcohol use, abuse, and addiction among young people has consistently been a significant concern. More youth in the United States drink alcohol than smoke tobacco or marijuana, making it the drug most used by American young people.

It is estimated that approximately half of all Americans under the age of 21 have used alcohol. It is estimated that about 2 million young people aged are considered heavy drinkers and 4.4 million have engaged in binge drinking. Every day in the United States, more than 4,750 kids under age 16 have their first full drink of alcohol.

The earlier a person begins drinking, the greater their potential for developing alcohol dependence and abuse issues. In the 12-17 age group, the average age a young person begins to drink is 13 years of age. The average age for first-time use among boys is age 11, while in girls the average age is 13. In regards to the development of alcohol abuse, additional risk factors seen in young people include a family history of alcoholism or addiction, past abuse, family violence, and depression, along with other environmental stresses.

Alcohol use and abuse are also a serious, growing problem among college students.
On many college and university campuses, there is an undeniable culture of partying that is extremely normalized and almost expected. There is even a list ranking the top “party schools” in the United States that is updated annually. Despite the fact that most college students are not of legal drinking age, about 4 out of 5 college students drink alcohol—half of which regularly binge drink, meaning they consume 5 or more drinks in a row.

Alcohol intoxication is particularly dangerous in college students because, for most of them, it is their first time living on their own with increased freedom, added peer pressure, and a lack of experience with alcohol consumption and how it effects their body. This can result in careless, reckless behavior, contributing to the 1,825 college students who die each year due to alcohol-related injuries. Alcohol use also has a significant association with severe problems like sexual abuse and assault on college campuses. Because partying and regular binge drinking are considered “normal” behaviors at this stage in life, it becomes much more difficult to recognize what could be the early stages of alcoholism.

There are also specific risk factors seen in both older adults (aged 40-65) and the elderly (aged 65 and older). Because of the natural aging process, the outward manifestations of alcohol abuse and alcoholism may not always be noticeable. For those over the age of 65, there are age-related body changes that make this age group more vulnerable if alcohol is abused:

- Decrease in body’s water levels
- Increased sensitivity and decreased tolerance to alcohol
- Decrease in the metabolism of alcohol in the gastrointestinal tract
As lean body mass decreases with age, the body’s total water content also decreases while fat increases. Because alcohol is water-soluble and not fat-soluble, this change means that, for a given dose of alcohol, the concentration of alcohol in the blood system is greater in an older person than it would be in a younger person. Therefore, the result is an increased sensitivity and decreased tolerance to alcohol as people age. For this reason, the same amount of alcohol that previously had little effect on a person can now cause serious damage. This also means an elderly person may seem to drink less, making their alcoholism difficult to discern. It is important to note those who abuse alcohol aren’t necessarily alcoholics; however, such abuse is a concrete risk factor.

Gender

Men are more likely than women to drink excessively, and ultimately develop an alcohol addiction. In March of 2016, 58% of adult men reported drinking alcohol in the last 30 days, and men are almost two times as likely to engage in binge drinking as women. Men who abuse alcohol have consistently higher rates of hospitalizations and alcohol-related deaths when compared to women. While those who engage in binge drinking...
may not necessarily be alcohol dependent or alcoholic, continued and excessive usage patterns, along with other factors, can increase the potential for alcoholism.

While alcoholism is seen more among men, the rate of women who are alcoholic has been increasing over the past three decades. In a report that was published in the *New York Times*, the CDC reported approximately 17% of men and 8% of women met the criteria for alcohol dependence issues at some point in their life. Women are increasingly at risk for developing alcoholism and similar alcohol abuse disorders due to differences in body size. Women are also more likely than men to develop alcoholic hepatitis, and more likely to die due to cirrhosis of the liver. Although men who abuse alcohol have higher rates of hospitalizations and deaths, there are unique risks women face when they binge drink:

Interestingly, another proposed explanation for the surge in the number of women with alcoholism or alcohol abuse issues is the increasing presence of women in the workforce, especially in the white-collar sector. With women becoming more upwardly mobile and holding white-collar positions, the social dynamic that is part of that lifestyle—including social drinking—becomes more normative. Additionally, the
added stress and social pressure that come with these jobs have the potential to lead to alcohol dependence and abuse patterns and behaviors, leading up to alcoholism.

**Abuse and Family History**

Individuals who were abused as children have a higher risk of developing substance abuse later in life. This abuse can be sexual, physical, or mental. Oftentimes, if the parents themselves abused alcohol and/or drugs, the potential for their children to develop alcohol abuse and other substance abuse issues increase. Having a parent who is or was addicted to alcohol increases your likelihood of becoming dependent upon alcohol. However, having a family history of alcoholism does not guarantee a child will develop the same problem eventually. In that same light, the absence of a family history of alcohol dependence does not always protect a child from developing an addiction later in life.

**Race and Ethnicity**

Overall, there are no discernible differences in the prevalence of alcoholism among African-Americans, Caucasians, and Hispanic-Americans. However, some population groups, such as Native Americans, have an increased incidence of alcoholism. Others, such as Jewish and Asian Americans, have a lower risk. Certain people in these various population groups may have a genetic susceptibility or invulnerability to alcoholism because of the way their bodies metabolize alcohol. The family dynamics and different cultural views on alcohol use also influence these patterns.

**Mental Illness: Psychiatric and Behavioral Disorders**

Depressed or anxious people, especially those who have symptoms severe enough to be diagnosed with a psychiatric disorder, are at high risk for alcoholism and addiction issues with other substances. A large proportion of people who are alcoholic also suffer from a co-existing psychiatric or substance abuse disorder. Disorders such as anxiety or depression may increase the risk for alcohol abuse and alcoholism. Depression is the most common psychiatric problem in people with alcoholism or substance abuse.
Additionally, people with either bipolar disorder or schizophrenia also have an increased risk for developing substance abuse problems, including alcoholism.

Social phobia disorders as well as panic disorders may also increase the risk for alcohol and substance abuse. Social phobia disorders cause intense fear of being publicly scrutinized and humiliated, while panic disorders cause intense anxiety and panic attacks. With these disorders, the use of alcohol becomes a way to ease those anxieties and to lessen the feelings of panic. Long-term alcoholism itself may in turn cause chemical changes that produce anxiety and depression.

Children with the behavior disorder that is known as attention deficit hyperactivity disorder (ADHD) have higher risks of developing alcoholism in adulthood. Studies
indicate that alcoholism is strongly related to impulsive, excitable, and novelty-seeking behavior, and such patterns are established early on. The risk is especially high in children with ADHD and a co-existing conduct disorder.

Generally, it is important to be aware of any mental illness or psychiatric disorder that you or a loved one may suffer from, because it may lead to substance abuse as an attempt to self-medicate the symptoms of illness. This doesn’t at all mean that every person living with a mental illness will turn to substances. However, substance abuse can actually amplify the symptoms of many mental illnesses and add additional challenges to daily living.
Chapter 3 – Understanding Drug Addiction

The Definition of Drug Addiction

The definition of drug addiction comes from the same defining principles as alcoholism, also known as alcoholic addiction. Drug addiction can be defined as both a chronic and progressive disorder that is characterized by compulsive drug seeking and using, despite the adverse consequences that can result.

Chronic use and abuse of drugs, whether illicit in nature or prescribed, can cause long-term damage to both the user’s body and brain. Each class of substance comes with unique risks, and abuse can often be recognized by specific warning signs. Yet, it’s important to know there are specific characteristics a person exhibits when he or she is abusing substances or addicted.
The American Society of Medicine describes drug addiction using what is called the ABCDE Model:

- **A**—Inability to consistently *abstain* from using drugs, characterized by the persistent recurrence of *relapse* after periods of abstinence. There are also problems with both *compulsivity* and judgment.
- **B**—Impaired *behavioral* control, which is characterized by a frequent and excessive engagement in *addictive behaviors* and a focus narrowed on the obtaining and using of drugs. There are adverse impacts on work, school and relationships, yet, even if these adverse impacts are realized by the addict, they will do little or nothing to change behaviors.
- **C**—*Craving*, or an increased hunger for drugs and the rewarding experience that drug use brings to the brain and body.
- **D**—*Diminished* recognition of significant problems with behaviors and interpersonal relationships. Evaluations of one’s drug use is *distorted*, often rationalized as being productive and normal, and any problems related to addiction are attributed to other sources.
- **E**—Dysfunctional *emotional* response, which is marked by increased anxiety, emotional pain, and sensitivity to *external triggers*. Impairments are seen not only in the ability to identify one’s own emotions, but also in the dynamics of *relationships* with others.

**Commonly Abused Drugs**

There are many classes of drugs that are being *used and abused* by Americans and these drugs can be either illicit or prescribed by health professionals. Rather than list every drug in the myriad of categories they occupy, here is a breakdown of the commonly abused drugs that are being used in the United States.
Marijuana

Marijuana belongs to a family of substances called cannabinoids that are related to delta-9-tetrahydrocannabinol (THC), which is the main psychoactive ingredient. Marijuana refers to the dried leaves, flowers, stems and seeds from the Cannabis sativa plant which contains THC. Also part of the cannabinoid family is hashish, which is produced by collecting and compressing the most potent parts of the female cannabis plant.

Marijuana is usually smoked, either in hand-rolled cigarettes, pipes, or water pipes—also known as bongs. Another method that is used to smoke marijuana is through the use of blunts. Blunts are cigars that have been emptied of the tobacco and refilled with a mixture of marijuana and tobacco. Marijuana can also be used in food recipes and brewed as a tea.

When marijuana is smoked, THC is rapidly processed from the lungs and into the bloodstream, which transports the chemical to the brain. Whether marijuana is smoked, prepared in food, or brewed as a tea, THC specifically acts upon certain molecular targets on brain cells called cannabinoid receptors. Such receptors normally activate in
the presence of chemicals that naturally occur in the body and are similar in makeup to THC, such as anandamide—a neurotransmitter known as “the bliss molecule” because of its positive effects on mood. These receptors are part of a neural communication network called the endocannabinoid system, which plays an important role in both brain development and functioning.

Cannabinoid receptors are concentrated in the parts of the brain which influence pleasure and memory, as well as sensory perception, coordinated movement, thinking, and concentration. Marijuana overstimulates the endocannabinoid system, causing altered perceptions and changes in mood, as well as impaired coordination, thinking, and decision making. Marijuana can also affect brain development, especially in young people who use the drug. The use of marijuana can also impact cardiopulmonary health, because marijuana smoke is an irritant to the lungs. Users may experience the same respiratory issues that are experienced by tobacco smokers, including chronic cough, increased risks of lung infections, and a greater frequency of chest illnesses.

Marijuana use can also affect mental health. For people with existing mental health issues such as anxiety, depression, or schizophrenia, marijuana use can worsen the symptoms associated with these disorders. While not all people who smoke marijuana will develop schizophrenia, people who are already at risk for developing this illness—including individuals with family relatives that have severe mental illness—will be more likely to experience psychosis if they are using marijuana.

In this population of individuals, people who regularly smoke marijuana are diagnosed with schizophrenia at a younger age, hospitalized more frequently for their illness, and are less likely to experience complete recovery even with high quality treatment. This is particularly concerning, as approximately one-third of people in America with schizophrenia regularly abuse marijuana.

**The Effects of Marijuana Use on the Body and Brain**

The effects of marijuana use can be seen physically, as well as physiologically and psychologically. As previously stated, the physical effects of marijuana use can include
impairments in coordination and motor movements. Among the brain structures that marijuana effects are the cerebellum and basal ganglia. Marijuana’s effects on these regions can cause disturbances in walking, talking, and performing tasks like driving a vehicle.

The physiological effects of marijuana use can range from:

- rapid heart rate
- increased blood pressure
- elevated breathing rate
• red eyes
• dry mouth
• increased appetite
• slower reaction times

While the effects of the drug are reduced three to four hours after using, THC stays in the system for a much longer period—sometimes as long as a month. Lingering effects of marijuana use can still manifest for weeks after use.

Additionally, there are the psychological effects in connection with marijuana use. Along with increasing manifestations of both anxiety and depression, a user can experience paranoia. There are also impairments in short-term memory, and some users will engage in magical thinking, in which a person may believe her or she can bring about events by merely wishing for them to occur. Long-term marijuana users trying to quit report withdrawal symptoms including irritability, sleeplessness, decreased appetite, anxiety, and drug craving, all of which can make it difficult to abstain.

**Cocaine**
Cocaine belongs to the *stimulant* family of drugs and is derived from the leaves of the coca plant, which is native to South America. Cocaine is either inhaled through the nose, mixed with water and injected intravenously, or smoked when it is in *crack cocaine* form. Crack cocaine is a processed form of cocaine powder which transforms to a crystalline rock form. The crystal is heated to produce vapors that are absorbed into the bloodstream via the lungs.

The intensity and duration of the pleasurable effects of the drug depend on the *route of administration*. If cocaine is injected or smoked it produces a quicker and stronger high, but will be shorter lasting in comparison to snorting cocaine. The high from snorting cocaine may last between 15 to 30 minutes, while smoking or injecting the drug may last 5 to 10 minutes. Because there is such a short period between the time that the drug is taken and the time that its effects start to subside, cocaine users often take the drug repeatedly and frequently (known as *binging*) in an attempt to maintain the pleasurable effects of the high.

**The Effects of Cocaine Use on the Body and Brain**

Cocaine is a *powerful* stimulant that acts upon the central nervous system. When cocaine enters the bloodstream, the levels of the neurotransmitter dopamine spike in the brain circuits that regulate pleasure and movement—most notably the nucleus accumbens. The nucleus accumbens is the brain structure located in the limbic system, and it regulates both reward and pleasure sensations. In general, dopamine is released by neurons in brain circuits and structures like the nucleus accumbens in response to potential rewards, and then it is recycled back into the cells that released it.

With *regular cocaine use*, there is no recycling of dopamine and excessive amounts start to build up in the synapses. Therefore, the dopamine signal is magnified and there are *disruptions in normal brain functioning*. Additionally, repeated use can change the brain’s reward system, as well as other brain systems, and lead to *more addictive behaviors*.
ADVERSE EFFECTS OF COCAINE

BEHAVIOR
- Losing touch with reality
- Confused or disoriented behavior
- Violence
- Aggressiveness

BODY RESPONSES
- Increased heart rate
- Increased blood pressure
- Increased body temperature
- Dilated pupils
- Increased light sensitivity
- Constriction of peripheral blood vessels
- Rapid speech
- Abnormality or impairment of movement
- Nausea and vomiting

BRAIN
- Brain matter atrophy
- Prevents reuptake of dopamine, leading to a "crash"
- Decreased glucose metabolism in the frontal and temporal lobes
- Impaired brain functioning

GENERAL HEALTH
- Chronic illness or risk of infection
- Psychotic episodes
- Danger to the reproductive system
- Dysphoria or general dissatisfaction

PSYCHOLOGY
- Drug craving and compulsion
- Depression
- Paranoia or fear
- Irritability

WORK
- Underperformance
- Neglect responsibilities and duties
- Increased risk for job loss
- Work drug testing failure
In regards to other effects that cocaine has on the body, some of the effects seen include the following:

- Blood vessels constriction
- Dilated pupils
- Increase in body temperature
- Increase in blood pressure
- Headaches
- Gastrointestinal complications
- Decrease in appetite

In the most serious cases, those who use cocaine have a greater risk for suffering heart attacks or strokes. If cocaine is injected intravenously, there is a risk of contracting HIV, hepatitis, and other diseases from dirty needles. If cocaine is snorted frequently, it can lead to a loss in the sense of smell, nosebleeds, and difficulties in swallowing. If cocaine is ingested, it can lead to severe bowel gangrene, bring about severe allergic reactions, as well as bring on an increased risk of contracting hepatitis C, HIV, and other blood borne diseases.

Cocaine abuse also comes with a host of psychological effects, starting with general suspicion and paranoia. These symptoms are early indicators of psychosis developing, which can produce hallucinations and delusions. These effects are especially pronounced if a user is experiencing cocaine withdrawals. It also has been hypothesized that these psychological symptoms may produce violent behaviors. The neurotransmitter norepinephrine, released by cocaine, is also involved in “fight-or-flight” behavior. Individuals who use cocaine are often considered “hyper alert” and “armed to the outside world.” Any rapid or unexpected movement by those around them “may be interpreted as hostile.”

Cocaine abusers may also have problems thinking logically. The most frequently reported cognitive difficulties involve impaired executive functioning—decision making, judgment, attention, planning, and mental flexibility. Research has shown that this relates primarily to the functionality of the brain’s prefrontal lobe, which also regulates
impulse control. The impulsivity experienced in the face of severe cocaine craving can lead to poor judgment and decisions.

**Other Stimulant Drugs**

In addition to cocaine, there are several other substances in the stimulant family of drugs, all of which are amphetamine-based: amphetamines, methamphetamine, and MDMA (also known as Ecstasy or Molly). Both amphetamines and methamphetamine can be administered orally, snorted, or injected intravenously. In the case of methamphetamine, it can also be smoked. Ecstasy (MDMA) is almost always taken in pill form. It can also be crushed into a powder and snorted, or ingested in liquid form.

Each of these drugs has specific properties, but stimulants generally have some characteristic effects:

- surges of energy
- feelings of euphoria
- extreme talkativeness
- feelings of restlessness
- elevated heart rate
- increased blood pressure
- enlarged pupils

Taken in larger doses, as well as over extended periods of time, people can become hostile, violent, and paranoid. A user may also experience fevers, sweating, headaches, blurred vision, dizziness, chest pain, nausea, vomiting, and diarrhea. Duration of these effects vary depending on the route of administration. For example, the effects of both methamphetamine and amphetamine can last 6 to 8 hours if injected or taken by mouth, and 10 to 12 hours if smoked.
Amphetamines

Amphetamines were developed in the late nineteenth century, but were not used until the 1920s when medical professionals discovered their beneficial uses. Researchers at the time learned that the drug widened airways, and therefore could treat asthma, allergies, and colds. It was also discovered that amphetamines helped people stay awake and alert, and was even given to some soldiers during wars.

The drug eventually became available legally, purchased by housewives and other people who sought the increased energy and suppressed appetite that amphetamine produces. By the 1970s, restrictions on the drug were enforced and it is now only allowed in certain medicines. Today, a prescription containing amphetamines (such as Ritalin and Adderall) may be given to people with narcolepsy and ADHD.

Amphetamines are extremely addictive drugs and the body quickly builds up a tolerance to them. Withdrawal symptoms can also occur in regular users who suddenly stop taking the drug. Symptoms such as extreme fatigue, hunger, irritability, and depression can occur. Long-term use can lead to serious physical and mental health problems. One of the more common consequences of using amphetamines on a regular basis is called amphetamine psychosis, which consists of hallucinations, paranoia, and bizarre or violent behavior.
Methamphetamine was first developed in Japan in the late 1800s and was derived from an amphetamine called ephedrine. Methamphetamine was not widely used until World War II, when American, German and Japanese governments gave the drug to their military personnel to enhance performance. In addition to its usage on the war-front, it was also used by Japanese factory workers to work longer hours.

In comparison to other amphetamines, methamphetamine has longer lasting and more toxic effects. This is largely because of a group of compounds called the \( \text{N-methyl group} \) that differentiates methamphetamine from amphetamine. Methamphetamine is \textit{methylated} and more water soluble, so it’s absorbed into the bloodstream quicker and it crosses the blood/brain barrier much easier.
Unique **physical and psychological characteristics** develop with chronic use of methamphetamine. Blood vessels begin to constrict, and, with increasing constriction, blood flow is gradually cut off throughout the body. **Heavy usage** can weaken and destroy these vessels, causing tissues to become prone to damage and inhibiting the body’s ability to repair itself.

This damage eventually becomes visible physically, manifesting in severe acne, the appearance of sores which take longer to heal, and the loss of skin’s elasticity. Some **chronic users** are covered in small sores and scabs, caused by obsessive skin-picking brought on by the hallucination of having bugs crawling beneath the skin—a disorder known as **formication**.

Constant tooth grinding and poor hygiene is also common among meth abusers, and can cause their teeth to rot. A condition known as **“meth mouth”** is a tell-tale characteristic, marked by the appearance of discolored, broken, and rotted teeth. This occurs because the chronic use of methamphetamine dries up the salivary glands, causing the mouth’s acids to build up and rot the teeth away.

**MDMA**

**MDMA**, also known as Ecstasy or Molly, is a synthetic chemical made in labs. The compound is similar in structure to methamphetamine, as well as mescaline, which is a hallucinogen. Because of this, it acts as both a **stimulant and a psychedelic**, producing a surge in energy, distortions in time and perception, and enhanced enjoyment of tactile experiences. Users who take MDMA say they are “rolling.” Ecstasy is typically sold in the form of colorful tablets that can look like candy, but MDMA can also be found in powder and crystal form.

Ecstasy is often called a “party” or “club drug” because of its popularity at night clubs, music festivals, and concerts. It’s euphoric and surge of energy are known to lower users’ inhibitions, inspire them to dance, and heighten sexuality. Users report a general feeling of closeness, warmth, and empathy, earning the drug its reputation as a “love drug.” MDMA is often combined with a hallucinogen like LSD so a user can “candy flip.”
This drug has even become more popular among working adults because of its reputation as a “love drug,” producing warm and empathic feelings.

Despite many of the positive feelings associated with MDMA, a user takes serious risks. MDMA severely dehydrates a user and elevates body temperature. Combined with a culture of clubbing, the drug can cause hyperthermia and lead to the damage of internal organs. The biggest risk is the lack of certainty concerning the potency and dosage of most Ecstasy tablets. Such tablets are often produced in underground black market laboratories, and the MDMA is almost always mixed with other, harmful drugs (i.e. meth, ketamine, cocaine, flakka). Some tablets and powders don’t even contain any MDMA.

With Ecstasy use, the brain releases a dramatic surge of serotonin and a slight surge of dopamine. Serotonin is a neurotransmitter which plays a crucial role in the regulation of sleep, mood, pain, and appetite. It has been suggested that damage to the serotonin receptors can result in long-lasting confusion, chronic depression, as well as deficits in learning and attention. For women who are pregnant—especially young women—MDMA use can cause damage to the fetus, especially in the brain areas that regulate learning and memory.

Ecstasy also has addiction potential, though not as high as other stimulants. The withdrawal symptoms are similar to cocaine and amphetamine use—confusion, anxiety, depression, strong cravings, sleep problems, and paranoia.
Heroin belongs to a family of drugs called narcotics. Narcotics are analgesics, also known as pain relievers that work by binding to receptors in the brain and blocking sensations of pain. Heroin comes in the form of a white or brown powder, or a black, sticky goo called tar heroin. Heroin is derived from morphine, a natural substance which is found in the seedpod of the Asian poppy plant. Heroin can be mixed with water and injected with a needle, as well as smoked or snorted. Regardless of the means of administration, heroin is highly addictive.

Heroin was developed initially in an effort to replace the extremely addictive drug morphine, which was used widely in the 1800’s as a pain reliever. By the mid-19th century, morphine was commonly prescribed by doctors and touted as a “wonder drug”. However, the addictive side of the drug become more prevalent, and, during that time period, addiction to morphine could rival alcohol abuse. In 1874, German scientists developed heroin and it was imported to the United States shortly after its invention. At the time, heroin was marketed as a safe alternative to morphine.
The Effects of Heroin Use on the Body and Brain

The initial effects of heroin include a surge of intense sensation, which is often described as a rush, usually accompanied by a warm feeling on the skin and a dry mouth. Sometimes, a user's initial reaction after the administration of heroin can include vomiting or severe itching. After these initial effects fade, the user becomes drowsy for several hours. The basic body functions, such as breathing and heartbeat, slow down. A user can also experience clouded mental functioning or hypothermia—a potentially dangerous drop in body temperature. If there is an overdose, a user may go into a coma or die. Especially with heroin, the danger of overdose is extremely real. Considering how common intravenous injection is among users, along with the fact that heroin is not regulated and can often be laced with other drugs, heroin overdose has become a serious national problem.

The intense high a user seeks lasts only a few minutes. Within hours after the drug’s effects have decreased, the addict’s body begins to crave more. With continued and chronic use, the heroin user needs increasing amounts of the heroin just to feel normal. If the user does not get another fix, they will begin to experience withdrawal symptoms. Withdrawal symptoms can include restlessness, aches and pains in the bones, diarrhea, vomiting and severe discomfort. In many users, especially with high frequency and dosage, medical detoxification is necessary to ensure the person’s safety.
For a long-term heroin user, frequent injections of the drug can cause their veins to collapse and, resulting in infections of the blood vessels and heart valves for some. Diseases such as tuberculosis, hepatitis C, and AIDS are seen in greater frequency with heroin addicts, typically from sharing needles. It is estimated that 35,000 new cases of hepatitis C2 infections are reported in the U.S. each year. Hepatitis C2 is responsible for the formation and progression of liver disease. Other long-term effects of heroin use include:

- Bad teeth
- Inflammation of the gums
- Cold sweats
- Itching
- Weakening of the immune system
- Muscular weakness
  - Possibility of partial paralysis
- Reduced sexual capacity and long-term impotence in men
- Menstrual disturbance in women
- Inability to achieve orgasm (both women and men)
- Depression
- Loss of appetite

**Prescription Narcotic Drugs**
There are two distinct classes within the narcotic drug family: opiates and opioids. These terms are often seen as interchangeable but, while the effects of these drugs have a great amount of similarities, there are notable differences that need to be understood.

Opiates originate from naturally occurring alkaloids found in the immature seedpods of the opium poppy plant. The pain-killing properties of opiates are derived from these plant alkaloids. Heroin falls within the opiate class of narcotics, along with morphine, codeine and opium.
Opioids are synthetically derived narcotics that produce opiate-like effects, but are not derived from the opium plant. Some example of opioid drugs include the following:

- Demerol
- Oxycodone
- Fentanyl
- Methadone
- Percodan
- Percocet
- Roxicodone

Another difference between opiates and opioids is in how the drugs interact with the body. Natural opiates, such as heroin and opium, activate opioid receptor sites and stimulate endorphin secretions. Opiates also have the highest potential for addiction. Some opioid drugs—such as oxycodone and hydrocodone—are called agonists because they activate cell receptors. Opioid drugs that block cell receptor sites are called antagonists, such as naloxone and naltrexone. Antagonists do not have any potential for abuse, because they are used to block the high of opioid agonists or reverse the effects of an opioid overdose.

**Effects of Opiate and Opioid Use on the Brain and Body**

Opiates are designed to resemble the naturally occurring chemicals in the brain, like endorphins, that have binding sites called opioid receptors. When the opioid receptors are activated, our body experiences a surge of pain relief and euphoria. There are three major areas that are affected by opiates:

- The **brainstem**, which controls functions like breathing and heartbeat:
  - Opiates can affect the brainstem by slowing breathing or reducing coughing.
- The **limbic system**, which controls emotions:
  - Opiates may act upon the limbic system to create feelings of pleasure or relaxation.
- The spinal cord, which sends messages from the brain to the rest of the body, and vice versa:
  - In this part of the body, opiates work to reduce pain.

When opiates and opioids are taken for a considerable length of time, the body becomes desensitized to the drugs’ effects. With increased tolerance, the body needs more and more of the drug to achieve the same effect. With chronic use, anyone can become physically dependent upon an opiate or opioid and experience withdrawal if they abruptly stop taking the drug. However, physical dependence is different than addiction, which is the compulsive seeking and using of a drug despite the consequences. This physical dependence can still be very dangerous though, and increases the risk of accidental overdose.

Prolonged use of these drugs changes the way nerve receptors work in the brain, and these receptors become dependent upon the substance to function. Withdrawal symptoms are the body’s physical response to the absence of the drug. Withdrawal symptoms for opiates and opioids are similar to those of heroin withdrawal, both of which are safer through a medical detoxification process.
Central nervous system (CNS) depressants—also referred to as sedatives and tranquilizers—are used to treat anxiety and sleep disorders. These drugs slow down brain activity, which makes them useful for people with anxiety or insomnia. Most CNS depressants are prescribed medications that serve a specific purpose, but these drugs are also commonly abused.

There are three classes of CNS depressants: benzodiazepines, non-benzodiazepine sleep medications, and barbiturates.

Benzodiazepines

- Often referred to as “benzos”
- Not prescribed for long-term use because of the risk for developing tolerance, dependence, or addiction
- Used in the treatment of anxiety, acute stress reactions, and panic attacks
  - Valium (diazepam)
  - Xanax (alprazolam)
Non-Benzodiazepine Sleep Medications

- Different chemical structure than benzodiazepines, but act upon the same brain receptors
- Thought to have fewer side effects and less risk of dependence than benzos
- Prescribed to people with insomnia and other sleep disorders
  - Ambein (zolpidem)
  - Lunesta (eszopiclone)
  - Sonata (zalepon)

Barbiturates

- Used less frequently to help with anxiety or sleep problems because of their higher risk of overdose
- Still used in surgical procedures, and in the treatment of seizure disorders
  - Mebaral (mephobarbital)
  - Luminal Sodium (phenobarbital)
  - Nembutal (pentobarbital sodium)

Effects of CNS Depressant Use on the Brain and Body
Each of the three types works in a unique way but, in general, CNS depressants affect the GABA neurotransmitter in the brain. These drugs have the ability to increase GABA levels, which inhibits brain activity and produces a drowsy, calming effect. When used as prescribed for people with anxiety or sleep disorders, the function of these drugs is extremely beneficial.

Despite their medical utility, CNS depressants have a high potential for abuse. Initially, when a person first takes a CNS depressant, there are a few days of drowsiness and lack of coordination while the body adjusts. As the body becomes accustomed to the drug’s effects and develops a tolerance, such side effects stop occurring. In a long-term user, much like with narcotics, larger doses are needed to achieve the drug’s therapeutic effects.

Physical dependence develops with continued use of CNS depressants, and a user will experience withdrawal if they abruptly stop taking the drug. Since CNS depressants are intended to slow down the brain’s activity, a chronic user’s brain is at risk for seizures or other harmful consequences if they stop taking the drug. Benzodiazepine withdrawal can be uncomfortable and problematic for a person’s health, but it is rarely life-threatening. Withdrawal from chronic use of barbiturates, on the other hand, can produce life-threatening complications. Anyone taking a CNS depressant, whether abusing it or taking it as prescribed, should consult with a doctor before they stop using it.

Because many people are poly-drug abusers, those who incorporate CNS depressants can face serious dangers if they use them with other drugs. Mixing CNS depressants with opiates, opioids, or alcohol is especially risky, because all of these substances depress the central nervous system and slow down the brain. In combination, these substances can affect a user’s heart rhythm, slow down breathing, and even lead to death.
Club Drugs

Club drugs are often abused at bars, nightclubs, and parties by teenagers and young adults. There are many different club drugs, like MDMA, methamphetamine, and ketamine. But, two of the most popular—and most dangerous—club drugs fall within the CNS depressant class: GHB and Rohypnol.

Both GHB and Rohypnol are abused for their intoxicating effects, similar to other CNS depressants, but they each have unique effects. GHB acts on the GABA-B receptor and, if it is taken in high doses, the intense sedative effects may result in sleep, coma, or death. Rohypnol, on the other hand, acts on the GABA-A receptor and, if taken in high doses, can cause anterograde amnesia—loss of memory after an incident.

Because GHB and Rohypnol are both available in odorless, colorless, and tasteless forms, they are frequently combined with alcohol and other beverages. Both of these drugs have become well-known for their frequent use in sexual assaults (also known as “date rape,” “drug rape,” “acquaintance rape,” or “drug-assisted” assault). Because these CNS depressants can sedate and incapacitate unsuspecting victims, it preventing them from resisting sexual assault.

GHB (Gamma-Hydroxybutyric acid)

Also known as Xyrem, GHB was approved by the FDA in the early 2000s for the treatments of narcolepsy. However, its approval came with severe restrictions: it
can only be used for the treatment of narcolepsy, and users are required to enter into a patient registry that is regularly monitored by the FDA.

GHB is usually sold as a liquid, or as a white powder that is dissolved in a liquid like water alcohol and packaged in small vials or bottles. It is clear and colorless with a slightly salty taste. In addition to its effects as a CNS depressant, it can also produce visual hallucinations and violent behavior. The drug also has anabolic effects (it stimulates protein synthesis), and has been used by bodybuilders to aid in fat reduction and muscle building.

High doses of GHB can cause unconsciousness, seizures, slowed heart rate and breathing, lower body temperature, nausea, vomiting, coma, and death. Chronic GHB use leads to withdrawal effects that include insomnia, anxiety, tremors, sweating and, in some cases, psychotic thoughts. If GHB is used in conjunction with other drugs, withdrawal reactions can be more severe. In general, when medical detoxification is utilized to wean someone off of GHB, it will take between 10 to 14 days to stabilize the individual.

**Rohypnol**

Also known as Flunitrazepam, Rohypnol is a benzodiazepine with a similar chemical structure to Valium and Xanax. It is a powerful sedative that currently is not approved for any medical use in the United States. It is also considered a hypnotic and a muscle relaxant. Rohypnol is typically taken orally in pill form, which can be swallowed, crushed and snorted, or dissolved in liquid.

Formerly, Rohypnol was colorless, tasteless, and odorless when mixed into a drink. Because of concerns about the drug’s role in sexual assaults, Rohypnol is now manufactured as an oblong olive green tablet will dye light-colored drinks blue when dissolved. However, generic versions of the drug may not contain the blue dye.

Since it is part of the benzodiazepine family of drugs, Rohypnol produces tolerance and physical dependence issues. This means a chronic user can also experience withdrawal
from Rohypnol. Because the drug has no medical use, it’s mostly used for recreational purposes and often mixed with other drugs. Combined with other depressants like alcohol or heroin, Rohypnol can cause severe sedation, unconsciousness, slow heart rate, and suppression of respiration that may result in death.

**Hallucinogens & Dissociative Drugs**

**Hallucinogens** are a class of drugs that cause profound distortions in a person’s perception of reality. These drugs can be found in certain plants and mushrooms, or they can be man-made. Hallucinogens can fall into two broad categories: [hallucinogens and dissociative drugs](#). Those who are under the influence experience rapid and intense emotional swings and report audio, visual or tactile hallucinations and other sensations that are perceived as real but are not.

The exact mechanisms by which these drugs work aren’t exactly known, but research has suggested that hallucinogens and dissociative drugs work by disrupting the communication between the neurotransmitter systems throughout the brain and spinal cord. These disruptions in communication impact mood, sensory perception, sleep, hunger and muscle control among other functions.
Examples of drugs in the classic *hallucinogen* family include the following:

- **LSD** is a clear or white, odorless, and water-soluble material synthesized from *lysergic acid*. It is produced initially in a crystalline form, which can then be used to produce tablets, thin squares of gelatin, or liquid. It is most often dosed onto sheets of blotter paper when sold for recreational use.

- **Psilocybin**, also known as *magic mushrooms*, is extracted from certain types of mushrooms that are found in tropical and subtropical regions of South America, Mexico, and the United States. Psilocybin comes in either dried or fresh forms, and it can eaten raw, mixed in with food, or brewed into tea.

- **Mescaline**, also known as *peyote*, is an intoxicating liquid extracted from a small, spineless cactus. It is known for its use in some religious ceremonies among native cultures in northern Mexico and the southwestern United States. Disc-shaped buttons are cut out from top of the peyote cactus, then chewed or soaked in water to produce liquid mescaline. Because the extract is so bitter, some users boil peyote cactus into tea instead.

- **DMT** (Dimethyltryptamine) is a powerful hallucinogen that occurs naturally in some Amazonian plant species, which are used to make a hallucinogenic brew called *ayahuasca* tea. Synthetic DMT is synthesized in a lab, usually in the form of a white, crystalline powder that users vaporize or smoke in a pipe. It's gained popularity as “the spirit molecule,” because of a theory proposed in the 1990s that DMT is found in the human brain and is released in large quantities just moments before we die.

Examples of *dissociative drugs* include the following:

- **PCP**-PCP, or *phencyclidine*, was originally developed in the 1950’s as a general anesthetic and can be found in a variety of forms including tablets, capsules, powder or liquid. PCP can be smoked, snorted, injected, or swallowed, and it can also be mixed with marijuana or tobacco.

- **Ketamine**, or *Special K*, is currently used an as anesthetic on both humans and animals. It is manufactured as a liquid that is injectable, but it is also evaporated to a powder form that is either snorted or compressed into pill form. Most of the
ketamine that is available for sale on the street has been taken from veterinary offices. Ketamine is odorless, tasteless, and has amnesia-inducing properties. It can create pronounced distortions in perception of sight and sound.

- **DXM**-DXM, or dextromethorphan, is a cough suppressant found in some over-the-counter cough medicines. The most abused are typically extra-strength cough syrups, pills, or gel capsules with around 15 milligrams of DXM per dose.

- **Salvia** is a plant with psychoactive properties that is found most commonly in southern areas of Mexico, as well as South America. Salvia is most commonly consumed by chewing fresh leaves or drinking the juices that are extracted from the plant. The dried leaves can also be smoked, as well as vaporized and inhaled.

**How Hallucinogens and Dissociative Drugs Affect the Body and Brain**

As stated earlier, the precise mechanisms of how these drugs work is not fully understood. However, research has shown that classic hallucinogens act on the neural pathways of the brain that use serotonin. The most prominent effects are seen in the prefrontal cortex area which is the area involved in mood, cognition, and perception. These areas of the brain are also important in the regulation of arousal, as well as the physiological responses to both stress and panic.
The short-term general effects of classic hallucinogens include:

- Hallucinations (audio, visual, tactile)
- Greater intensity in emotions and sensory experiences
- Mixing of the senses
- Altered perception of the senses and time
- Nausea
- Increased heart rate

The following symptoms are common after long-term use:

- Persistent psychosis
- Disorganized thinking
- Paranoia
- Mood disturbances

There is also a disorder called hallucinogen persisting perception disorder (HPPD) that can occur with prolonged use of hallucinogens. The common traits of this disorder are:

- Hallucinations
- Other visual disturbances, such as seeing spots, halos, or trails
- Symptoms that can be mistaken for other neurological disorders, such as stroke or brain tumor

Research suggests that dissociative drugs disrupt the actions of glutamate at certain types of receptors in the brain, known as the NMDA (N-methyl-D-aspartate) receptors. Glutamate plays an essential role in learning, memory, emotion, and the perception of pain. Salvia, on the other hand, acts upon a certain type of opioid receptor in the brain called the kappa opioid receptor, but it’s still considered a dissociative drug.

The short-term effects of dissociative drugs depend largely on the dosage taken. In the case of those who take dissociative drugs in low to moderate doses, the following effects are common:
- Numbness
- Loss of coordination
- Dizziness, nausea, and vomiting
- Hallucinations
- Feelings of detachment from both self and their environment
- Increases in blood pressure, heart rate, and body temperature

In higher doses, the following effects may be experienced:

- Memory loss
- Physical distress
  - severe changes in blood pressure, respiration and body temperature
- Psychological distress
  - panic, fear, anxiety, aggression, exaggerated strength

The longer an individual stays “high” on dissociative drugs, the greater the risk of brain damage. This is especially true with excessive use of ketamine, PCP, or DXM.
In particular, ketamine has caused long-term cognitive impairments, psychosis, and paranoia in chronic users. Users often experience cognitive and psychological symptoms similar to stimulant withdrawal, which makes ceasing use more difficult. If a person’s ketamine abuse resulted from a mental health issue, mood disorder, or behavioral problem, the co-occurring disorder may also prevent stopping without professional intervention.

Among dissociative drug abusers in general, there is an increased risk of experiencing seizures in the brain. These phenomena are especially pronounced if a user has a history of epilepsy, but can also be seen in people with normal brain functioning. Individuals who abuse dissociative drugs are also at a greater risk of developing psychosis and schizophrenia.

**Synthetic Drugs**

Synthetic drugs, also referred to as “designer drugs,” are chemically created in a lab to mimic the effects of another drug. However, synthetic drugs have a different effect on the brain and body than the drugs they seek to mimic. Many are created in illegal labs, making their ingredients and strength nearly impossible to know. Abuse of these new,
unregulated drugs has often resulted in violent and unpredictable behavior. Like any psychoactive substance, synthetic drugs have the potential for abuse and addiction.

**Synthetic Marijuana**

*Synthetic marijuana* is usually called *Spice* or *K2*, all of which are known as *synthetic cannabinoids*. These drugs are meant to mimic the effects of THC, the active compound in marijuana, and are often sold as “herbal incense” or “potpurri.” *Spice* or K2 can usually be bought at small convenience stores, gas stations, head shops, and even online.

Synthetic marijuana is essentially a chemical compound that comes in powder form. Before it’s packaged, the powder is dissolved in a solvent (like acetone) before it’s applied to the dry plant matter that is sold as “herbal incense.” Most users then smoke the plant material in many of the same ways as actual marijuana. There are also liquid cannabinoids now, which are typically vaporized in electronic cigarettes.

These substances have a host of *adverse effects* on a user:

- elevated heart rate and blood pressure
- unconsciousness
- tremors
- seizures
- vomiting
- pallor
- numbness and tingling
- anxiety
- hallucinations
- agitation
- paranoia

Some users have even died of a heart attack. These substances are *particularly dangerous* because of the ease with which large-scale laboratories can develop new
compounds and manufacture them. Though the DEA has worked to control many synthetic cannabinoids, there are so many more that have yet to be controlled by legislation and more are being created all of the time. Abuse of synthetic marijuana comes with countless additional risks because these new compounds have not been regulated and their effects are not well understood, especially in chronic users.

**HOW AND WHERE ARE THEY SOLD?**

Synthetic drugs are sold legally, often in convenience stores and gas stations. They are labeled for some other use and “not for human consumption.”

Bath salts are marketed as:

- **Plant food**
- **Jewelry cleaner**
- **Phone screen cleaner**

Synthetic marijuana products are marketed as:

- **Plant food**
- **Herbal incense**
- **Potpourri**
**Bath Salts, Including Flakka**

The name “bath salts” refers to **synthetic cathinones**—CNS stimulants that are designed to mimic the effects of stimulants like cocaine, methamphetamine, and MDMA. These substances are often marketed as “research chemicals” labeled “not for human consumption” in order to evade the law and disguise the true reason for the product’s existence. They are commonly sold on the Internet, as well as head shops, convenience stores, gas stations, and sex shops.

Many synthetic cathinones come in crystalline or powder form, while some are compressed into gelatin capsules. Users typically sniff or snort bath salts, but some also swallow, smoke, or inject them. They are sought out and abused because of the euphoria and alertness that they produce. Yet, this euphoria also comes with a host of undesired side-effects:

- sweating
- headaches
- palpitations
- rapid heartbeat
- hyperthermia (over-heating)
- breakdown of muscle fibers
- teeth grinding
- seizures
- confusion
- paranoia, hallucinations, and delusions
- acute psychosis
- agitation, aggression, and violence
- self-destructive behavior

One synthetic cathinone that is extremely popular in Florida and has caused significant concern is **flakka**. It was first developed in the 1960s using a chemical found in the **khat plant**, native to Ethiopia. With the chemical name **alpha-PVP**, flakka takes the form of a white or pink crystal with a foul smell. It can be eaten, snorted, injected, or vaporized in
an e-cigarette. Vaporizing has proven to be particularly dangerous, sending the drug quickly into the blood stream and often causing overdose.

It is popular among users for the same reasons people have feared it’s spread across the country: flakka produces a state of “excited delirium,” which involves hyperstimulation, paranoia, and hallucinations that can lead to violent aggression and self-injury. In the thick of this delirium, some users have jumped from extremely high places, jumped through glass windows, and even scratched of large portions of their skin.

The drug has also been linked to deaths, either by suicide or heart attack. It can also dangerously raise body temperature and lead to kidney damage or kidney failure. In 2013, CBS News reported 126 flakka-related deaths in Florida. Authorities have tried to crack down on the sale and distribution of flakka, due to national concern that the deadly and toxic drug will spread throughout the rest of the country.

The DEA is constantly discovering new synthetic drugs and actively works to bring each new compound under the jurisdiction of the law. Considering the similarity of their effects with those of non-synthetic stimulants, these drugs have a high potential for abuse. Like synthetic marijuana, using these substances comes with some of the highest risks because their effects are hardly understood at all, especially in the brand new compounds that appear on the market all of the time.

**Anabolic Steroids**

Anabolic steroids are a synthetically-produced variant of a naturally-occurring male hormone, testosterone. These drugs also have a high potential for abuse, although not because of their psychoactive effects. Anabolic steroids are abused in an attempt to promote muscle growth, enhance athletic performance, and alter physical appearance. They are commonly referred to as “Juice,” “Roids,” and “Pumpers.”
While anabolic steroids do serve various therapeutic and medical purposes, they are only prescribed in rare and extreme cases. Steroid abusers are often competitive athletes and bodybuilders, but some people abuse them solely to modify their physical appearance. Many users purchase steroids on the Internet, or through local connections like gyms, bodybuilding competitions, and even school athletic trainers or coaches.

Some of the most frequently abused steroids are:

- testosterone
- nandrolone
- stanozolol
- methandienone
- boldenone

These steroids come in a variety of forms, which can be ingested orally, injected intramuscularly, or applied to the skin. The doses people abuse are often 10 to 100 times higher than any approved therapeutic and medical treatment dosages. Abusing high doses of anabolic steroids can cause serious mood and behavioral problems. Some people experience dramatic mood swings, impaired judgment, as well as increased hostility and aggression—often referred to as “roid rage.” Anabolic steroid
abuse causes psychological dependence and addiction, like other synthetic drugs. When steroid use stops, users often experience depression that can become suicidal.

Most alarming are the physical consequences of steroid abuse. In young people, anabolic steroid use can stunt growth. In young boys, it can cause early sexual development and acne. Young girls and women can experience a deepening of the voice, increased facial and body hair, menstrual irregularities, and baldness. Men who abuse steroids deal with testicles shrinking, enlargement of breast tissue, and sterility. In general, steroid abuse can cause high cholesterol as well as an increased risk of stroke and heart attack. Those who inject steroids face the same dangers of contracting serious infections from contaminated needles.

Inhalants

The term *inhalants* refer to the vapors that come from toxic substances which are inhaled to reach a quick high. There are more than 1,000 household and other common products that could be abused as inhalants. The most often used are:

- shoe polish
Most of these produce effects similar to anesthetics, which slow down the body’s functions. After an initial high and loss of inhibition comes drowsiness, light-headedness, and agitation. The chemicals are rapidly absorbed through the lungs into the bloodstream and quickly reach the brain and other organs. Sometimes this rapid absorption causes irreversible physical and mental damage.

Users inhale the chemical vapors directly from open containers (“sniffing”) or breathe in fumes from rags that are soaked in chemicals (“huffing”). Some spray the substance directly into the nose or mouth, while others pour it onto their collar, sleeves, or cuffs and sniff them periodically. “Bagging” is when the user inhales the fumes of a substance that is inside a paper or plastic bag. Bagging in a closed area greatly increases the chances of suffocation.

**Effects of Inhalants on the Body and Brain**

There are numerous effects on both the body and brain of a person who abuses inhalants. Firstly, inhalants starve the body of oxygen and force the heart to beat more rapidly and irregularly. Inhalants can also cause significant damage to the following organs:

- **Lungs**: repeated use of spray solvents as an inhalant can cause severe lung damage.
- **Heart**: inhalant abuse can cause the heart’s rhythm to be disturbed, which can result in what is called *sudden sniffing death syndrome*.
- **Liver**: some of the chemicals used in solvents can permanently damage the liver.
Kidney: inhalants which contain toluene can impair the kidney’s ability to regulate the amount of acids in the blood, and long-term abuse can lead to kidney stones.

The following complications can occur in an inhalant user’s brain:

- **Senses and psychology**: the chemicals abused by inhalant users affect different parts of the brain, producing a variety of sensory and psychological disorders.
- **Cells**: Many inhalants are thought to dissolve the protective myelin sheath that surrounds neurons (brain cells) resulting in cell death.
- **Cerebral Cortex**: if there is cellular death at the cerebral cortex, permanent personality changes, memory impairments, hallucinations, and learning disabilities occur.
- **Cerebellum**: inhalants cause a loss of coordination and slurred speech, as well as tremors and shaking over a period of abuse.
- **Ophthalmic Nerve**: using inhalants—especially toluene—can cause sight disorders.

**Short and Long-Term Effects of Inhalants**

In addition to the complications and symptoms listed above, the short term effects of inhalants may include:

- Hostility
- Apathy
- Severe headaches
- Unconsciousness

**Long-term effects** can progress into:

- Muscle weakness and deterioration
- Hearing loss
- Bone damage
- Death from heart failure or asphyxiation

More than 22 million Americans age 12 and older have used inhalants, and every year more than 750,000 use inhalants for the first time. Despite the substantial prevalence and serious toxicities that are seen with inhalant use, it has been termed “the forgotten epidemic.” Inhalant abuse remains the least-studied form of substance abuse, although research on its abuse has increased over the past few years.

**Natural Sedatives**
Natural sedatives, or herbal sedatives, are plants and other naturally-occurring substances that produce stress-relieving, soothing, and tranquilizing effects. Many cultures embrace different plants that function as sleep-aids, aphrodisiacs, and psychoactive relaxants. Because these substances occur in nature, there is an assumption that they are all safe.

Yet, besides synthetic drugs, all of the substances that have been discussed thus far are produced from plants and the psychoactive chemicals that occur naturally within them. While some natural sedatives have only mild effects, there are other natural sedatives powerful enough to cause full sedation. Especially in high doses, these natural sedatives have a potential for abuse:

**Kratom** (*Mitragyna speciosa*)

*Kratom* is a tropical tree that is native to Southeast Asia, and its leaves contain a psychoactive substance called *mitragynine*. The leaves are classified as an herb that is part of the coffee family. These leaves are crushed and then smoked, brewed into a tea, or put into gel capsules. Consuming these leaves can produce stimulant effects in low doses, but produces intense, sedative effects in high doses.

In alternative medicine and drug communities, kratom is seen as a way to combat fatigue, ease pain, and even treat heroin addiction. Some researchers consider kratom an opiate alternative, with the potential to help opiate addicts kick their habit without a painful withdrawal. Yet, in many countries and states, kratom is illegal or consumption of it is banned.
The danger in kratom is that the herb's psychoactive ingredient activates opioid receptors, similarly to morphine. This part of the brain regulates pain, along with rewards and addictive behaviors. Though it's not classified as an opiate, kratom affects the body and brain much like an opiate would—creating cravings and physical dependence with chronic use.

Most people who abuse kratom ingest it in pill form. Some chronic users of kratom have exhibited psychotic symptoms, such as confusion, hallucinations, and delusions. Because of its strong sedation effects, it's also dangerous to mix with other CNS depressants, like alcohol. In combination, there is an increased risk of sedating the cardiovascular system until the heart stops beating.

**Kava (Piper methysticum)**

The kava plant is a member of the pepper family and is native to the islands of the South Pacific. It has been used as a ceremonial drink in that region for hundreds of years. The main active ingredient in kava is called kavalactones, which is found in the root of the plant. In some parts of the world, whole kava roots are chewed for their medicinal value and pain-relieving properties, which may explain why it creates a temporary numbness and tingling sensation on the tongue. Kava is also available in liquid form, as a standardized extract, and can be powdered into capsules or tablets.

Kava is known best for its relaxing qualities. Some people report its effects are similar to alcohol, and that it can elevate mood and well-being. Several studies have found that kava may be useful in the treatment of anxiety, insomnia, menopausal symptoms, and related nervous disorders. Yet, some countries have taken kava off the market due to serious concerns that kava may cause liver damage.
It remains available in the United States, but the Food and Drug Administration (FDA) issued a consumer advisory in March 2002 about the “rare” but potential risk of liver failure in people who consume kava-containing products. Despite this warning, kava bars have become popular places of recreation, much like hookah bars, where bar-goers can purchase “relaxation drinks” that contain kava. Some online vendors also sell kava, promoting it as a “legal alternative” to other, illegal sedatives.

Many researchers claim that kava does not have addictive properties, and there are lots of people who consider kava an effective treatment for their anxiety. Yet, especially for an addict or substance abuser, kava can be psychologically addictive. The sedative effects it produces can leave a user wanting to come back for more, and can even produce the same kind of compulsive substance-use as other drugs. For people in recovery, kava can produce effects that mimic other CNS depressants or opiates, potentially sparking a craving that could lead them back to these more powerful substances.
Chapter 4 – Addiction Treatment and Steps of Care

When an individual is struggling with an addiction to drugs and/or alcohol, the idea of long-term sobriety and recovery may seem impossible. As defined earlier, addiction is both a chronic and progressive disease that compromises an individual's physical, psychological, and spiritual well-being through the abuse of substances. People who were once happy and productive gradually become consumed with the procurement and use of drugs and/or alcohol, to such a point that their daily activities revolve around using substances and being around other people who use.

Despite the debilitating nature of addiction, recovery is possible. However, finding help and deciding which steps to take can be a daunting experience. Some individuals and their families are exploring these options for the first time. Others have attempted to get sober in the past, only to relapse and fall back into old, familiar and dangerous patterns.
The important take-away message is that, despite any pitfalls or setbacks that may occur, the individual who is addicted to drugs and/or alcohol should not quit in their pursuit of recovery. In order to fully understand the process of addiction recovery, one needs to both understand which steps need to be taken, as well as the underlying goals of each step. It is important to note that the journey to sobriety and recovery is different for each addict—what may work for one person may not work in the same ways for another.

The Steps of Addiction Treatment and Recovery

This chapter explores the steps that are involved in the recovery process. The layout of these steps run along a continuum, from the very beginning through their completion. Again, it can’t be stressed enough that the steps outlined may not apply to everyone in recovery. However, it is important to note all of the facets of addiction treatment.

Intervention
There are formidable challenges when seeking help for oneself or a loved one who is struggling with substance abuse. Sometimes, a direct, heart-to-heart conversation sparks the addict to start their own path to recovery. In other cases, this candid conversation needs a more focused approach in order to achieve the best possible outcomes. This focused approach is called an intervention.

An intervention is a carefully choreographed process that involves family, friends, and other people who are concerned about the welfare of the struggling addict. People who struggle with addiction are often in denial about their situation and can be unwilling or unable to seek help on their own volition. Additionally, an addict is not always aware of the negative consequences their behavior has on themselves and others. In the intervention process, these people will come together to confront the addict about the consequences of their addiction and ultimately ask them to accept treatment.

The intervention serves three purposes:

1. Provides specific examples of destructive behaviors and their impact on the addicted person, as well as their loved ones
2. Offers a pre-arranged treatment plan with clearly demarcated steps, goals, and guidelines
3. Spells out what each person will do if a loved one refuses the offer to go through treatment

**What are the Steps of an Intervention?**

While there are differences in philosophies and the means of presentation, interventions usually involve the following steps:

1. **Planning**—A family member or friend proposes an intervention and forms a planning group. It’s best that the group consults with an intervention professional (interventionist)—a qualified counselor or social worker—when planning an intervention. An intervention is a highly charged situation that has the potential to cause anger, resentment, or a sense of betrayal. Especially if there are concerns
that the intervention may trigger anger or violent behavior, consult an intervention professional before taking any action.

2. **Gathering information**—The group members find out about the extent of the loved one’s problem, then research the condition and treatment programs. The group may make arrangements to enroll the loved one in a specific treatment program.

3. **Forming the intervention team**—The planning group forms a team that will personally participate in the intervention. Team members set a date and location, then work together to present a consistent, rehearsed message along with a structured treatment plan. Do not let your loved one know what you are doing until the day of the intervention.

4. **Deciding on specific consequences**—If your loved one doesn’t accept treatment, each person on the team needs to decide what action he or she will take. Examples include asking your loved one to move out, cutting off any financial support, or taking away contact with children.

5. **Writing down what to say**—Each member of the intervention team should detail specific incidents where the addiction has resulted in problems, such as emotional or financial issues. The goal here is to present these issues in a way that is firm, while still expressing care and concern.

6. **The intervention meeting**—Without revealing the reason, someone from the group asks the loved one to meet them at the intervention site. Members of the core team then take turns expressing their concerns and feelings. If an interventionist is present, he or she helps to moderate the session. The loved one is presented with a treatment option and asked to accept that option on the spot. Each team member will say what action they will take and which specific changes they will make if the addicted person doesn’t accept the plan.

7. **Follow-up**—The continued involvement of a spouse, family members, or other close friends is critical in helping someone with an addiction stay in treatment and avoid relapse. This can include changing patterns of everyday living to make it easier to avoid destructive behavior, offering to participate in counseling with your loved one, seeking your own therapist and recovery support, and knowing what to do if relapse occurs.
The intervention must be planned carefully and meticulously. **Interventions that are poorly planned have the potential to make the situation worse.** It is highly advisable that the group seeks professional help with planning, through an interventionist, psychologist, or mental health professional. This is especially true if the loved one has a chance of showing up to the intervention under the influence of substances, has a history of **serious mental illness**, has a history of **violence**, or has displayed suicidal thoughts.

**Detoxification**

A crucial early step in the recovery process to consider is **detoxification**. The detoxification process is **generally defined** as a set of interventions whose purpose is the management of both acute intoxication and the withdrawal symptoms that can be experienced by an addict. Detoxification allows the body to clear out the toxins that have accumulated during the addict’s period of substance use and abuse.

The concept of detoxification can be traced back to the 1970s, when perceptions of treatment and the overall conceptualization of addiction started to change. Prior to the 1970s, public intoxication was viewed as a criminal offense. People who were arrested
for this offense were held in so-called “drunk tanks” (which were cells in the local jails) and went through withdrawal with little or no medical intervention. With the advent of the disease model in our understanding of addiction, perceptions started to shift. Addiction went from being a criminal offense to a condition that needs to be treated humanely and with compassion.

Ideally, this process should be undertaken medically. Its purpose is not to resolve any underlying psychological, social, and behavioral problems associated with addiction and substance abuse. There are three objectives of detoxification and they are the following:

- **Evaluation**—involves testing the bloodstream to determine which substances are being abused and measuring their concentrations, as well as screening for any co-occurring mental and physical conditions that may be the underlying factors for an individual’s substance abuse. Additionally, there is a comprehensive evaluation of a patient’s medical and psychological conditions, as well as their social environment and personal relationships. From these assessments, the foundation for an initial substance abuse plan is created.

- **Stabilization**—includes both the medical and psychological processes of assisting the addict through their acute intoxication and withdrawal to a state where the addict is substance-free. The addict will become more familiarized with the treatment process and what their role is in that process. Family, friends, employers, and other members of the addict’s support system can become involved at this stage.

- **Entry into Treatment**—involves preparing the addict for entry into a substance abuse treatment program. The importance of following through and completing the entire continuum of substance abuse treatment must be stressed. For those who have completed detoxification in the past but failed to follow through with treatment, a written treatment contract may be written up in which the patient agrees to participate in a care plan.
Other Guiding Principles

In addition to the three major objectives of evaluation, stabilization, and fostering an addict’s entry into treatment, there are several principles that effectively shape the detoxification process:

1. Detoxification can take place in a wide variety of settings with varying levels of intensity. Specific placement within these parameters should be appropriate and geared towards the specific needs of the patient.

2. No matter what the setting or intensity level, persons who are seeking detoxification services should have access to the core components.

3. All who require treatment for substance abuse should receive treatment of the same quality and thoroughness, and should be put into contact with a substance abuse treatment program after the detoxification process. These programs don’t necessarily have to be at the same location where the detoxification took place.

4. Insurance coverage for the full range of detoxification services should be cost effective. If the reimbursement systems do not provide payment for complete detoxification, unwanted or unattended medical and/or social withdrawal could occur. These complications ultimately can drive up the overall cost of health care.

5. Those who seek detoxification come from diverse cultural and ethnic backgrounds, and each person has unique health needs and living environments. Organizations that provide detox services must have standard practices that address cultural diversity. In addition, care providers at these facilities need to possess the special skills required to adequately provide culturally competent assessments. The administrative bodies at these facilities also need to provide the appropriate and continual training needed to address these diversities.

6. Ultimately, successful detoxification can be measured in part by whether a substance-dependent individual enters, remains in, and complies with the treatment protocols of a substance abuse treatment and rehabilitation program after detoxification.
Options and Levels of Detoxification Care

There are several options for detoxification services that a recovering addict can pursue:

- **Medically Monitored Inpatient Detoxification**—provides around-the-clock supervision, observation, and support. This level of care is more restrictive. The underlying foundation of this option is ensuring the patient is medically stable, as well as stable psychologically and socially. Physicians are available 24 hours a day by telephone, while licensed and accredited staff oversee each patient and closely monitor their progress.

- **Clinically Managed Residential Detoxification**—this option can vary in levels of care: some settings adopt the medically monitored model, while others may have minimal medical oversight. In settings with minimal oversight, there should be clear procedures in place for the implementation of the detox process as dictated by the appropriate medical referrals. However, there is 24-hour supervision, observation, and support for those experiencing withdrawal or still experiencing intoxication.

- **Intensive Outpatient or Partial Hospitalization Programs**—these programs are appropriate for people who are experiencing moderate to mild withdrawal symptoms. Many of these programs are part of a larger hospital or linked to one, so they can provide “triage-type” services to higher levels of care if needed.

Social Detoxification

Social detoxification programs are short-term and non-medical treatment services for individuals with substance abuse disorders. These programs offer room and board for people with substance abuse issues, including those who are experiencing withdrawal. Social detoxification programs vary widely in the scope of their services: some programs offer limited medical and nursing supervision onsite, while others refer patients to clinics and hospitals for further evaluation. Additionally, there are other social detoxification programs that only offer room and board for people who are going through withdrawals “cold turkey,” or without medical assistance.
While 24-hour medically based monitoring is ideal, there are certain situations where social detoxification programs may be the only available resource. These programs are largely funded by faith-based organizations, charitable community organizations, and municipal or other local governments. Social detoxification programs operate on several guidelines, including the following:

1. These programs should follow local governmental regulations, including licensing and inspection.
2. People who enter these programs should be assessed by primary care practitioners that have some experience with substance abuse treatment.
3. Assessments should determine the patient’s degree of intoxication, type of withdrawal symptomology, severity of withdrawals, past substance abuse history, as well as the presence of co-occurring physical and mental disorders.
4. There should be protocols in place for individuals who have histories of undergoing multiple withdrawals.
5. Social detoxification environments should have an alcohol- and drug-free environment with personnel who are familiar with the features of withdrawal. Additionally, these places should have access to emergency medical care and be able to provide transportation for patients needing emergency services.

Substance Abuse Treatment
Substance abuse treatment is a program intended to help people who are struggling with substance abuse issues. The goal of treatment is to help an individual stop engaging in the compulsive behaviors that are associated with their alcohol and/or drug abuse. There are many different options for treatment. Each option has a number of therapeutic and clinical protocols, and can take place in a variety of settings. Because of the complex, chronic nature of addiction, short-term and “one-time-only” approaches usually will not work. Treatment for substance abuse and addiction is a long-term process that involves multiple stages of intervention and ongoing monitoring.

In a general sense, here’s what can be expected when an individual enters substance abuse treatment at an inpatient facility. Ideally, long-term sobriety and recovery—the best possible outcomes—are achievable when individuals undergo intensive drug treatment at a facility where they will reside for a considerable period of time. The suggested length of stay that’s used as a rule of thumb is 90 days. However, that timeframe can be shortened or lengthened depending on a number of factors, some of which include: the individual’s insurance concerns, how he or she responds to treatment, their drug abuse history, and the number of previous recovery attempts.

Assessment

At an inpatient drug treatment program, individuals actually reside within the facility in order to do intensive work confronting any issues that have led to their drug abuse and obtaining the tools needed to overcome those obstacles. Inpatient drug treatment begins with a comprehensive clinical assessment of an individual’s specific treatment needs. This assessment is essential because it lays the foundation for an effective treatment plan that will be tailored to the needs of the individual.

Once assessment is completed, many inpatient treatment facilities have medical facilities onsite or in close proximity (such as hospitals or clinics), where immediate medical needs can be addressed. Some individuals need medical detoxification and some will need to be screened and treated for other medical conditions, such as hepatitis, HIV/AIDS, and sexually transmitted diseases, among other things. It is important to screen patients and treat other medical disorders, especially because some
disorders can potentially jeopardize the health and well-being of the patient, others in treatment, and the staff.

Counseling and Therapy

In the initial phases of treatment, the main focus centers on motivating an addicted individual to stop using drugs and/or alcohol. Treatment professionals accomplish this through counseling and therapy sessions, in both group and one-on-one settings. Counseling continues throughout treatment, and the goals of these sessions are to help the individual:

- Recognize the problems caused by substance abuse
- Find the motivation to change
- Change his or her behavior
- Repair relationships with both family and friends
- Build new relationships with people who don’t use drugs and/or alcohol
- Create a lifestyle based on recovery

Along with group and individual counseling, some treatment programs incorporate behavioral therapy treatments. These methods help a recovering person to let go of their old attitudes and addictive mindset in order to embrace a new way of thinking in sobriety. There are many different behavioral therapies, some of which include:

- **Cognitive-behavioral therapy** (CBT) is a form of treatment examines the relationships between thoughts, feelings, and behaviors. By exploring the patterns of thinking that lead to self-destructive actions, as well as any underlying beliefs directing these thoughts, people with substance abuse issues can modify their patterns of thought and improve their coping skills. In this type of therapy, the therapist and the patient actively work together to help the patient recover.

- **Family Therapy** in substance abuse treatment has two main purposes. First, it uses the family’s strengths and resources to help develop new ways for the individual to live without substances of abuse. Second, it helps to lessen the impact of chemical dependency on both the individual and the family.
• **Motivational Interviewing**, in the scope of substance abuse treatment, is both centered on the individual and collaborative between patient and therapist. The purpose of this therapy is to elicit and **strengthen motivation for change**. It is an empathic, supportive counseling style that supports the conditions necessary for change—practitioners are careful to avoid arguments and confrontation, which often make a patient defensive and resistant.

• **Contingency Management**, also known as motivational incentives, gives positive reinforcement to motivate individuals to move away from old behaviors and attitudes centered on substance use and abuse. This is accomplished using tangible rewards.

To supplement these group and individual sessions, patients also participate in educational sessions to better understand the impact of alcohol and drugs on their brains and bodies. Counselors present lessons, lectures, and activities centered on substance abuse, often using videotapes and audio-tapes. The purpose of an educational element is to help the patients better understand the mechanisms underlying substance abuse and how they can manage it in their lives.

**Life Skills**

Another significant focus of inpatient drug treatment is the acquisition of *life skills* that a recovering person will need to **function outside of treatment**. This *life skills training* can include the following:

• Learning and practicing *employment skills*
  • resume writing, interviewing, etc.

• Acquiring hobbies and leisure activities that give the recovering person *healthy outlets*

• The formation of healthy, proactive social and communication skills

• Anger and *stress management*

• *Money* and time management
Relapse Prevention

As an individual enters the later stages of inpatient treatment and begins to discuss appropriate aftercare options, the focus shifts to relapse prevention. Relapse prevention training is designed to help people identify specific stimuli (triggers) in their day-to-day environments that might increase their risk for relapse. Patients in treatment will also learn how to deal with cravings, how to handle stressful situations, and what to do if there is a relapse.

Within inpatient treatment, some facilities orient clients towards self-help groups such as Alcoholics Anonymous (AA), Narcotics Anonymous (NA), Cocaine Anonymous (CA), among others. Other treatment centers take a non-12-step approach, connecting their clients with groups like SMART Recovery and Women For Sobriety. The purpose behind introducing these self-help groups to people in treatment is to help them understand, at an early stage in the recovery process, the importance of peer support. Once formal treatment is completed, feeling supported and empowered among people who are on a similar recovery journey are essential components to achieving long-term sobriety.

Co-occurring Mental Disorders

Inpatient drug treatment also seeks to address any co-occurring mental disorders that might contribute to an individual’s substance abuse. This is called a dual diagnosis. Many people who abuse substances issues suffer from depression, anxiety, or post-traumatic stress disorder (PTSD). Adolescents who may be in treatment have behavior problems such as conduct disorders or attention deficit and hyperactivity disorders. Treating both substance abuse and any underlying mental disorders can improve the odds of long-term recovery significantly.

There are many different settings where formal treatment for both substance abuse and co-occurring disorders can take place. Each person who seeks help for a dual diagnosis has different needs and challenges, depending on the severity of their mental
disorder and the role that it plays in their substance abuse. Beyond an intensive inpatient setting, there are several other options with varying degrees of structure:

- **Residential treatment program**—similar to intensive inpatient, but the patients themselves are responsible for the upkeep and maintenance of the facilities. The typical length of stay is 7 to 30 days.
- **Halfway House**—has around-the-clock monitoring by non-medical staff, or individuals who are involved in recovery and have sustained sobriety. In these programs, clients usually have a job and participate in counseling or therapy in the evenings.
- **Day Treatment**—uses a combination of both medical and non-medical staff to deliver a high concentration of counseling services during the daytime, allowing patients to return home in the evenings. This option can also include partial hospitalization programs.
- **Intensive Outpatient**—usually done in a clinical setting, patients receive approximately 6 to 9 hours of counseling services weekly. In comparison, traditional outpatient services are typically delivered by counselors in a clinical setting and provide fewer hours of service.

**Aftercare Programs**

![Aftercare Programs](image-url)
Once an individual has completed a formal treatment program, it can be difficult to adjust to the normal routines and day-to-day stresses while transitioning into independent living. Aftercare programs give an addict who’s new in recovery opportunities to adjust to all of these new changes, easing their transition back into a normal life with the empowerment and support that they need to stay sober.

There are several options that individuals can pursue in regards to aftercare programs following treatment. The type of aftercare that will work best depends on the individual. Some common aftercare options that are available include the following:

**Counseling**

The primary goal of counseling in an aftercare program is to help patients identify some of the reasons for their substance abuse. This is often done in a group setting, where patients can share common experiences during the counseling sessions. Group therapy also reduces the cost of counseling, although individual sessions may be required for patients who have unique psychological issues that relate to their addictions.

The majority of drug counseling sessions take place on a regular schedule. Counseling in an aftercare program typically begins with a high frequency of counseling sessions, often on a daily basis. The frequency of these sessions typically decreases over time as the patient progresses in their recovery. Some programs even provide drop-in counseling, so a patient can come in to the office for a session during regular business hours but doesn’t need an appointment. Emergency counseling, otherwise known as crisis counseling, may also be required if a patient is at a serious risk of relapsing.

**Relapse Prevention**

The use of counseling and therapy to bolster relapse prevention is a helpful continuation of the work that was started during drug treatment. Usually, relapse prevention counseling is based in cognitive-behavioral therapy and centers on the four types of psychosocial processes that are involved in relapse:
- **Self-efficacy**: a person’s ability to effectively deal with situations that carry a high risk of relapse
- **Outcome expectancies**: a person’s expectations about the effect an addictive substance will have on them
- **Attributions of causality**: a person’s belief that a relapse is caused by internal causes, not external causes—yet, this belief actually makes the person more likely to relapse when unusual external circumstances occur because they do not recognize the trigger.
- **Decision-making processes**: when decisions seems “insignificant” or “apparently irrelevant,” but they collectively result in a relapse.

### Sober Living Environments

For someone who is new in recovery, a [sober living environment](#) is an ideal place to take the life skills they've learned in treatment and put them into action. It can provide a safe place while a recovering person transitions back into society. Sober living houses are alcohol- and drug-free environments for individuals who have completed treatment and are looking to continue on the path of sobriety and recovery. They are often the final transition point between inpatient care and full integration back into normal life.

Those who live in [sober living houses](#) generally can stay as long as they wish, and the residences themselves are sustained through resident fees. Most houses are privately owned and will bill directly for services, though some do accept insurance payments or even Medicaid. People at many different stages of recovery are brought together in sober living homes.

Sober living is structured to supplement the total recovery process. These environments have far more freedom and much less supervision in comparison to inpatient treatment. The people who staff these living facilities typically have significant recovery time, and many are employed by a health care facility or private organization that runs them. Because sober-living residents are all in various stages of recovery, there is consistent peer interaction, support, and accountability which can benefit everyone’s recovery.
Residents are urged to avoid friends and family who they once used alcohol and/or drugs with, or who might incite them to do so again. Sober living homes typically conduct weekly or bi-weekly drug screenings of the residents. Residents are usually required, or strongly encouraged, to attend meetings and actively work a 12-step recovery program.

Sober living homes provide a recovering addict with the kind of space they need to formulate a new sober lifestyle. But, this freedom comes with structure and rules—sober living is not the kind of residence for people who want to sit idly and “wait out their time.” With peer encouragement and support, those who live in sober living homes are able to:

- **Organize a job search**: Looking for employment can be easier in recovery when a support system is in place. Residents can share information about available jobs or even provide recommendations for one another. Many homes schedule time during the day when individuals are supposed to search for employment, as well as provide resources to help with resumes and interviews.

- **Adjust to sobriety**: In a residential inpatient program, a patient has very few liberties. If an individual is back at home, on the other hand, the prospect of making responsible decisions can be overwhelming and difficult to handle. A sober home has rules to follow, but these rules create a structure that best-prepares residents for their eventual transition back to independence.

- **Arrange housing**: Many residents come to a sober-living community with no other place to call home. For these people, they can begin to search for an apartment while they live in a halfway house, with lots of feedback from other residents and the staff regarding what to look out for.

- **Mend fences**: An important step in the recovery process is making amends—apologizing to the people an addict has harmed during their substance abuse and righting their wrongs. Within a community of fellow addicts in a sober living house, a resident had support and guidance through the process of rebuilding past relationships.
**Therapeutic Communities**

Therapeutic communities (TC) are drug-free residential settings that use a hierarchical model of treatment stages. With each stage, a resident’s level of responsibility and freedom increases. These residential settings allow for peer interaction and influence, which can help people in recovery learn to participate in a household and develop effective social skills.

Therapeutic communities are operated by treatment professionals alongside people who are in active recovery. Residents who are admitted have a history of substance abuse, as well as behaviors that have eroded their ties with family members, friends, and their communities. Many residents also have co-existing issues, such as addiction to multiple drugs, criminal activity, and mental health issues.

The average length of stays in a therapeutic community has traditionally ranged from 18 to 24 months. However, due to funding restrictions for these programs, stays have been reduced and alternatives to the resident treatment model have been created to fill the void. Fortunately, this option still remains available for people seeking recovery. Unfortunately, the duration of a patient’s stay is a solid predictor of treatment success: with a stay of just ninety days, treatment outcomes are significantly better than for patients who stay only thirty or sixty days.

Treatment in a therapeutic community is comprised of **three stages**:

- **The first stage** is the introduction to the community, its rules, and its expectations. The resident also starts early treatment, which involves a personal assessment of self, circumstances, and needs. This all occurs within the first thirty days.
- **In the second stage**, the primary treatment phase begins and a structured model of progression is put into place. As a resident progresses, increasing responsibilities are placed upon them, along with an expectation that their attitudes and perceptions are improving.
- **The third stage** is the creation of a re-entry strategy and a plan for the person’s transition back into society.
A resident is expected to follow the community’s **behavioral and structural norms**. These norms are reinforced with rewards and punishments, helping residents to develop self-control and responsibility. **As a person progresses** through their treatment, they are given increasingly important roles in the community and greater responsibilities. People in these residential programs are expected to become active role models in the process, **guiding new entrants** by their example. These transformations are accomplished in-house, through individual and group therapy, role-playing, and peer sessions.

Daily life in a therapeutic community consists of a variety of activities, designed to keep participants working towards **new ways of thinking** and living. Activities include things like house meetings, groups, twelve-step meetings, recreation, scheduled personal time, and counseling sessions. The **National Institute on Drug Abuse** (NIDA) outlines four main types of activities:

- **Clinical Groups**—use a variety of therapeutic approaches to confront **significant life problems**
- **Community Meetings**—daily house meetings and groups, which are used to reinforce house rules and the dynamics of the community
- **Vocational/Educational Activities**—group sessions that provide work, communication, and interpersonal skills training
- **Community/Clinical Management**—the use of privileges, punishments, and surveillance to maintain the physical and psychological safety of residents

Some therapeutic communities are modified to accommodate specific populations, such as **women**, people who are incarcerated, adolescents, people with co-existing mental disorders, or people with HIV/AIDS. Other modifications can include limited length of stays or solely “day treatment” community models, which are less intensive.
Chapter 5 – The Need for Increased Awareness

As stated in the introduction to this guide, the ramifications and consequences of substance abuse in the United States continues to be a significant health concern. As a matter of review, it is estimated that 23.5 million Americans are addicted to alcohol and drugs, which equates to 1 in every 10 Americans over the age of 12. Substance abuse costs the United States an estimated $510 billion annually, which includes specialty treatment and intervention services for both drug and alcohol abuse, as well as medical consequences, injury, legal costs, and lost productivity due to death and illness. However, only 1 in 10 of those with substance abuse and addiction problems receive treatment.

A report released by the Substance Abuse and Mental Health Services Administration (SAMHSA) details some of the more startling facts concerning substance abuse and
addiction, especially the connection between mental illness and substance abuse. For example:

- By the year 2020, mental and substance abuse disorders will surpass all physical diseases as a major cause of disability worldwide.
- Approximately 5,000 youths under the age of 21 die yearly as a result of underage drinking.
- Half of all lifetime cases of mental and substance abuse disorders begin by age 14, and three-fourths by the age of 24.
- Adults who begin drinking alcohol before age 21 are more likely to be classified later on as having alcohol dependence of abuse in compared to those who started to drink after age 21.
- In 2009, young people aged 18-25 had the highest rates of binge drinking in comparison to other age groups.

The complex nature of substance abuse has been a significant health problem in the United States for several decades. Finding constructive and proactive ways to increase awareness concerning issues surrounding substance abuse has been an ongoing battle. Finding common ground between differing moral, medical, and social philosophies has been the main challenge in trying to promote meaningful dialog and action. While there are a wide range of talking points that can be discussed, there are four points of interest listed in this last chapter that hopefully will help spearhead meaningful discussion and eventually could lead to meaningful action.

The Affordable Care Act
With the passage of the Affordable Care Act, there is potential for an increased commitment to substance abuse prevention. The main thrust of this commitment would be fostering physical health, mental health, and overall well-being—especially to those populations that have not been served by the existing health plan structures. Under the Affordable Health Care Act, coverage of substance abuse disorders will be part of primary care and will be focused more towards prevention.

With mandates in place requiring people to obtain health insurance or risk paying a penalty, the Affordable Care Act will create Affordable Insurance Marketplaces and subsidize individual coverage for people earning up to 400 percent of the federal poverty level. With these changes in place, the Medicaid system will further expand healthcare coverage and it’s estimated that the ACA will cover approximately 27 million previously uninsured individuals by the year 2022.

The result will be that these newly covered individuals will have substance abuse benefits, which will alter the landscape of substance abuse treatment and fill the behavioral health system with new clients. Substance abuse prevention would be considered an essential health benefit (EHB) for newly eligible Medicare enrollees and most individual and small group plans. Although each state will have some flexibility
regarding the details of their EHB’s, substance abuse care would be among the required benefit categories.

Additionally, applicable plans under the ACA will have to comply with the Mental Health Parity and Addiction Equity Act (MHPAEA), which was passed in 2008. This act is a federal law that generally prevents group health plans and health insurance issuers that provide mental health or substance use disorder (benefits from imposing less favorable benefit limitations on those benefits than on medical/surgical benefits. While the passage of the Affordable Health Care Act will cause an expansion of both mental health and substance abuse treatment and services, there are some issues that need to be considered.

For instance, solid ground rules regarding what is considered “medical necessities” in substance abuse treatment are still being finalized, which results in some people being denied or made to wait for essential services. This can include emergency medical services or the duration of stays in an inpatient and/or outpatient facility.

Expanding healthcare services to include provisions for substance abuse treatment and prevention also presents an interesting tug of war between medical models of treatment and more social-based models, which advocate for peer interaction, participation in twelve-step groups, and other forms of mutual self-help. For some treatment centers, this new wrinkle in the expansion of treatment may feel like an infringement on a system and has worked for so many addicts before the passage of the ACA. For these provisions to ultimately work, health care professionals will need to devise a hybrid model that signals a middle ground between medical and social philosophies, while establishing ground rules and foundations that can be agreed upon.
A common root of substance abuse—along with mental illness, suicide, and other disorders—is the presence of trauma in an individual’s life or a history of traumatic experiences. Trauma can take many forms including the following:

- Maltreatment
- Natural and man-made disasters
- Physical and sexual abuse
- Criminal victimization

Additionally, there are certain demographic groups that may be more vulnerable to trauma, such as military families, Native American populations, and African-American populations. In order to address the impact trauma has on the development of substance abuse, as well as mental health and other issues, a public health approach addressing trauma on multiple levels is necessary. Among the key goals in this multifaceted approach includes:
• Develop of a comprehensive public health approach to trauma that develops an easy-to-understand list of warning signs along with national campaigns addressing trauma’s impact on behavioral and mental health.

• Make screening for trauma, early intervention, and treatment common practice. This should include culturally-informed training that is flexible dependent on the cultural needs of each individual. Additionally, there needs to be engagement among trauma survivors, service providers, researchers, domestic violence services, and stakeholders from the behavioral health field, in order to develop and implement a culturally competent strategy for trauma-informed care.

• Reduce trauma and violence on youth, children, and families. This can be achieved through prevention programs at the school level or through state, territorial, tribal, and local child welfare agencies. Special focus should be placed on children in minority demographics, who are disproportionately represented in out-of-home care and in the child welfare system.

Recovery Support

Recovery is a unique journey, and each individual who is on that journey must choose from a range of services to find which will best fit their needs. This includes clinical
treatment and peer services, as well as treatment for any co-occurring mental disorders that may accompany substance abuse and addiction. Effective substance abuse treatment that supports long-term recovery must merge the different domains of an individual’s environment into a new lifestyle. The goals of recovery include the following four elements:

- Health
- Home
- Purpose
- Community

Good health is the first key element in recovery support. People who die prematurely from substance and/or mental disorders often do so because of risk factors that could be minimized through proper intervention, such as smoking, high blood pressure, obesity, and substance use. There is also an understanding that behavioral disorders can be chronic, long-term conditions that frequently occur alongside and worsen other medical conditions. Having easier access to quality medical care and behavioral health outlets is key to good overall health.

Secondly, it’s important for people to have stable and safe places to live. Homelessness continues to be a growing concern, especially among families. It is estimated that, on any given night in the United States, there are approximately 643,000 people that are homeless, of which 63% are individuals and 37% are families. The formation and maintenance of permanent supportive housing programs can help minimize the impacts of substance abuse.

Permanent supportive housing can provide individuals and families with the means to secure housing, as well as access critical mental health and substance abuse services. Recent research has shown these types of supportive housing programs help decrease symptoms, increase housing stability, and prove cost-effective in the long run. Recovery housing can exist in a variety of settings, ranging from peer-run drug-free homes that are self-sustaining to community-based housing that offers a range of supportive services.
A third key to effective recovery services is finding meaningful and gainful employment, as well as opportunities to enhance skills through education. Unemployment rates are higher in populations with substance abuse disorders in comparison to full- and part-time employed adults. Employment enables people to improve their living situation and end homelessness, thus reducing stressors that have adverse effects on health.

Individuals with substance abuse and mental health disorders also have the lowest levels of education in comparison to all other disability groups. In 2009, people who graduated college had lower rates of substance dependence and abuse in comparison to people who only graduated from high school as well as people who didn’t complete high school. Instituting a solid supported education plan for those vulnerable populations (those with behavioral, mental and/or substance abuse problems) to stay enrolled in school can help them maintain recovery.

Lastly, the final component of quality recovery support is the ability for people to feel as though they are productive and contributing members of society. Individuals with behavioral health conditions such and mental and/or substance abuse issues do not recover in isolation—they recover in families and communities. While living in the community is necessary, it is still not sufficient for individuals with behavioral health disorders to be included fully in society.

Even if recovering people live in neighborhoods alongside people without disabilities, individuals with substance abuse and mental conditions may lack socially-valued activity, adequate income, personal relationships, recognition, and respect from others—fostering feeling of social exclusion. Successful recovery outcomes are highly desirable, and when those outcomes are achieved it alleviates both economic burdens and reliance on government-based support programs. Implementing innovative programs that promote economic resiliency in combination with other rehabilitation and support programs will help people in recovery to feel more integrated into society as a whole.
A crucial foundation of sustainable, long-term recovery is active participation in recovery programs and communities. Some of the most popular and well-known of these are twelve-step support groups. Twelve-step groups such as Alcoholics Anonymous (AA), Narcotics Anonymous (NA), and more than 50 other such groups are effective for two reasons. First, millions of people have recovered through them. Second, they're free and universally available. Almost every country, city, even cruise ship has a twelve-step group.

In the simplest terms, twelve-step programs are designed to help individuals overcome an addiction, compulsion, shortcoming, or traumatic experience by adhering to a set of 12 tenets that emphasize both personal growth and dependence on a higher spiritual being. The steps themselves can be seen as a guide, from the first step of admitting one is powerless over their addiction, then turning over their will to a higher power, performing inventories, making amends to those that have been harmed, and ultimately having an awakening and carrying the message that recovery is possible to others.
While twelve-step programs have helped countless people emerge victorious against their addictions, there are also critics who feel that twelve-step programs hinder recovery or that the philosophies don’t fully resonate with them. The main points of contention center around the spiritual framework and language embedded in the steps. Additionally, some people feel there are too many rules in twelve-step fellowships and that the concept of powerlessness fails to account for an individual’s responsibility in their addictions and behavior. Because of the prevalence and popularity of twelve-step programs within treatment and recovery communities, those who shy away from twelve-step programs may feel there are no other alternatives in the realm of self-help and peer empowerment.

There are many other kinds of recovery supports, including doctors, therapists, addiction counselors, and treatment programs. There are also many other support groups and programs that are available that are non-step based. While these groups don’t have the same outreach as AA, NA and other twelve-step groups, these non-twelve-step groups can provide the necessary peer support and empowerment with an overall philosophy that may be more agreeable to some people.

One example of a non-step, abstinence based self-help program is SMART Recovery. SMART recovery teaches self-reliance and self-empowerment and provides meetings that are educational, supportive and allows for open discussion on addiction and recovery-related topics. Other aspects of the SMART Recovery approach includes the following:

- Encourages individuals to recover from addiction and alcohol abuse and live satisfying lives
- Teaches techniques for self-directed change
- Supports the scientifically informed use of psychological treatments and legally prescribed psychiatric and addiction medication
- Approaches substance abuse, alcohol abuse, addiction, and drug abuse as complex, maladaptive behaviors with possible physiological factors
- Evolves as scientific knowledge in addiction recovery evolves
• Differs from Alcoholics Anonymous, Narcotics Anonymous and other twelve-step programs with no specific focus on spirituality

SMART Recovery utilizes a four-point plan that serves as the basis for progressing on the journey of recovery. Those points include the building and maintaining of motivation, coping with urges, managing thoughts, feelings, and behaviors, and the ultimate goal of living a balanced life. SMART recovery has meetings in various cities, although they are not as wide-spread as twelve-step groups. SMART also features online meetings and training sessions for those who wish to be facilitators, as well as an online library and resource center.

Some other example of abstinence-based self-help programs are the following:

• Rational Recovery
• Women for Sobriety
• Secular Organizations for Sobriety (SOS)
• Moderation Management

Because everyone’s journey in recovery and sobriety is different, the resources that are available to those in recovery—especially self-help resources—must reflect this diversity and there needs to be enough variety to fill most needs.

Conclusion

The issue of substance abuse addiction and recovery has many facets, and with each facet there are many questions and issues that need to be addressed. Substance abuse has been a persistent public health issue and a societal problem for a number of decades, and as time passes those issues become more nuanced. The goal of this guide is to provide the reader with needed information about substance abuse and recovery issues to further their knowledge and deepen exploration. With this information, there can hopefully be a meaningful and productive dialogue, which will eventually increase awareness and lay a foundation of support systems, programs, and legislation that effectively meet the challenge posed by substance abuse.