***The Addiction Inoculation: Raising Healthy Kids In A Culture Of Dependence***

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**Chapter 1**

**HI, MY NAME IS JESS, AND I’M AN ALCOHOLIC**

Hi, my name is Jess, and I'm an alcoholic.

It has taken me such a long time to arrive at that sentence, to be able to put the word “alcoholic” in such close proximity to the word “I” and to face the reality that no matter how diligent I am, I can't control my drinking and I must live a completely sober life. Eight years on in my recovery, I'm grateful to be here, beyond the shame, guilt, secrets, and lies. Now that my own relationship with addictive substances is well in hand, it's time for me to figure out how to prevent my children from having to travel the same path.

My alcoholism stemmed from anxiety disorder and compulsive perfectionism, both predictable, well-known causes of alcohol dependence and abuse. Anxiety and substance use disorder are familiar bedfellows, especially in women. Women are twice as likely to have an anxiety disorder as men, and women with anxiety disorders are more likely to use alcohol to self-medicate their symptoms. In fact, women with anxiety disorders are more likely to abuse alcohol than to drink normally, and progression from alcohol use to dependence happens faster in these women.

Alcohol is such a trickster; it works so well in the short-term to quiet the symptoms of anxiety, but over the long term, it exacerbates it. Alcohol compounded my anxiety and worked against the medication I took to manage it. As the consequences of my drinking began to mount up, they added to my anxiety, which made me want to drink more.

In my second year of college, I went all in on sobriety to become a peer drug and alcohol counselor. I graduated from college with my sobriety intact, but I had started to fall in love with the romance of drinking, and romance turned out to be the thin edge of my addiction wedge. The romance began to wear off in my thirties, and I was thirty-two when I realized I might have a problem, or at least the very beginnings of one. My husband and I lived in Cambridge, Massachusetts, where I worked as a nanny in exchange for an attic apartment while he completed his medical fellowship. My oldest son was five, the little girl I nannied was a toddler, and my second son was an infant. I never drank during the day, but I really looked forward to the moment I handed the child over to her mother and I could open that evening bottle of wine. I drank while cooking elaborate meals for my family, and I drank while we ate those delicious meals. At some point during those years, one bottle of wine split between the two of us was no longer just the right amount, and that made me nervous. We did not really have the money for multiple bottles of wine, but I rationalized the purchases somehow.

Eventually, though, those one or two glasses of wine at night turned into two or three and by the time I hit forty-four, I was drinking at least a bottle of wine a day, sometimes augmented by whatever else we had in the house. I drank in the afternoons, after I got home from teaching school but before my husband Tim got home from work. In service to my careful planning, I developed all kinds of rituals around hiding and protecting my right to drink.

Alcohol feels like a sleep aid because it's a sedative hypnotic. It puts you to sleep at first, but it blocks REM sleep, the most restorative sleep phase, and causes late-night (or in my case, early-morning) wakefulness. I'd fall into a nice, relaxing boozy slumber at ten, but at three, I’d emerge from a sound sleep and began the laborious and stressful process of piecing together the scattered fragments of the night before. By the end of my drinking, I was blacking out often and had to work hard to hide my memory lapses. What did we talk about? Is there anything I have to remember for tomorrow? Did I do anything stupid? Did I call anyone? Can I blame it on fatigue, or stress, maybe convince my family I was coming down with something? If stress over the blacking out snowballed into a full-on anxiety attack, I was done with sleep for the rest of the night.

My anxiety disorder had been fairly well controlled with medication since my mid-twenties, when my physician and I finally found a drug that kept my anxiety attacks at bay without side effects. My anxiety medication of choice is an SNRI, or serotonin-norepinephrine reuptake inhibitor. It isn't as dangerous in combination with alcohol as, say, benzodiazepines, but it definitely falls under “not all physician-approved and generally suboptimal.”

I made the same vow almost every night for two years: Never again. I'm done. That's it. No wine tomorrow. I was a chatty, happy drunk, and unless I burned dinner or wandered over to visit the neighbors with an apron full of tomatoes and forgot to go home, I looked fairly normal on the outside. Tim kept a close eye on me given our shared family history, but I was determined to elude detection. Keeping the full truth of my drinking from him required a great deal of planning and attention. I was so good at hiding my buzz then when I started telling my friends I’d gone into recovery, I found myself in the odd position of having to convince my closest friends that no, really, I do have a problem with alcohol.

An extremely high-functioning alcoholic, I had two full-time jobs, one as a teacher with a nightmare schedule of seven different preps- Latin 6, 7, and 8, English 7 and 8, and writing 7 and 8- and a second writing about education and child welfare for the *Atlantic* and the *New York Times*.

By June 7, 2013, I was exhausted. I am grateful I have no memory of what happened the night of June 6, 2013, when I hit my personal bottom. That night, we celebrated my mother's birthday with family and friends. Apparently, Tim took me up to bed around eleven. Early the next morning, while Tim was out on a run, my father knocked on the bedroom door. He came in, sat at the end of my bed, looked me in the eye, and said, “I know what an alcoholic looks like, and you are an alcoholic.”

All I had left in me was relief and assent. “I know,” I said, then waited for him to leave the room so I could run into the bathroom and throw up. That night, I attended my first twelve-step meeting. I'd felt pretty stable walking in, but the moment I sat down, I started crying. The tears started to flow. Two days after that first meeting, I wrote an essay that was published at the *Huffington Post* about coming out to my family as an alcoholic and my willingness to label myself as such.

My boys were young enough that they claim to have no memory of my drinking. My older son slept through my dry heaving in the bathroom right outside of his bedroom door. They are safe from my alcoholic past, so my worry has shifted to their futures. Now that I'm sober, with clarity to spare, all I can see is their inherited risk, hanging overhead like a sword of Damocles.

After all my research, interviewing, attending substance abuse and mental health conferences, and teaching hundreds of addicted kids, here is what I have learned about preventing substance abuse in childhood and beyond:

HUMANS HAVE USED MIND-ALTERING SUBSTANCES FOR THOUSANDS OF YEARS TO EASE OUR ANGST. If we can help kids manage their emotions and moods without having to resort to self-medication, we can increase their chances of making it to adulthood substance-free.

CHILDREN’S BRAINS ARE CELLULARLY, COGNITIVELY, AND FUNCTIOINALLY DIFFERENT FROM ADULT BRAINS. They respond differently to drugs and alcohol, and addictive substances do more damage in a child or adolescent brain that is still developing than in an adult brain.

THE YOUNGER KIDS ARE WHEN THEY START USING DRUGS AND ALCOHOL, THE MORE DAMAGE THEY DO TO THOSE BRAINS. Drugs and alcohol do both short- and long-term damage to the areas of the brain responsible for learning and memory.

THE YOUNGER KIDS ARE WHEN THEY START USING DRUGS AND ALCOHOL, THE MORE LIKELY THEY ARE TO DEVELOP SUBSTANCE USE DISORDER AS ADULTS. Adolescents who start drinking at twelve or younger are four times as likely to develop substance use disorder as people who start drinking after eighteen.

ADOLESCENTS ARE WIRED TO SEEK OUT NOVELTY AND RISK. Effective substance abuse prevention tools take these neurological and cognitive realities into account and capitalize on them.

EFFECTIVE SUBSTANCE ABUSE PREVENTION REDUCES RISK FACTORS WHILE AMPLIFYING PROTECTIVE FACTORS. The best risk-reduction measures and protections are applied early and are tailored to the whole child, taking their age, gender, developmental stage, ethnicity, socioeconomic status, family, and community into account.

NO DEMOGRAPHIC IS SAFE FROM SUBSTANCE USE DISORDER. Over the years, the media and popular culture create stereotypes about what type of people are addicted to certain drugs, but the reality is that substance dependence doesn't care about media stereotypes. Addiction happens in every community, at every socioeconomic level, and every demographic.

GENETICS MATTER, BUT THEY ARE NOT DESTINY. Genetics are about 60 percent of the picture, and the rest comes down to environmental factors. While we can't do much about genetics, we do have the power to prevent, intervene, and treat kids for the environmental risk.

PREVENTION WORKS. Current data shows a continuing decline in substance use, abuse, and dependence among children and adolescents, and those declines are correlated with the rise of evidence-based prevention programs.

Once I’d faced my own addictions, I was desperate to learn more about my children’s risk and understand the steps I could take to inoculate them against substance use disorder. I am so very, very lucky; I got sober before my life imploded, and I'd do just about anything to protect my children from the pain, anxiety, and sadness that come with this disorder. All kids are at some level of risk for substance abuse, but research shows that we can not only predict which kids are at high risk due to biological or environmental factors, we can also prevent those kids from taking their first drink or drug. So let's get to work.

**Chapter 2**

**A LONG, STRANGE TRIP**

**Drugs, Alcohol, and Us**

When kids use nicotine and alcohol they are much more likely to progress to illicit drugs, and conversely, adolescents are very unlikely to experiment with marijuana if they have not experienced previously with an alcoholic beverage or with cigarettes; very few try illicit drugs other than marijuana without prior use of marijuana.

If we can keep kids away from cigarettes, vaping, beer, and marijuana, we are more likely to keep them off the harder stuff. This information can be helpful not only for parents who are hoping to keep an eye on their own children’s risk for use and abuse, but it is extremely useful in designing programs for schools and communities. If we know which substances act as gateway drugs, we can focus prevention efforts and keep kids from going down the initiation sequence altogether.

Effective prevention requires us to understand why a kid packs up that first mind-altering chemical, be it nicotine, alcohol, or cannabis, and address that cause, head-on. If a child drinks her first beer to escape memories of sexual abuse or to quiet the voices of self-hatred in her head, no amount of evidence about the harm booze can cause in her body will stop her. And Chris Herren’s words, “If we can understand the beginning, we can help change the ending.”

The American Psychiatric Association (APA) has spent a lot of time and effort on proper naming of addiction over the years in the APA’s Diagnostic and Statistical Manual (DSM). In the DSM-V, they combined the terms “substance abuse” and “substance dependence” into one broad category, termed “substance use disorder.”

Language meant to describe the substance user has evolved, too. Disorder-oriented labels such as “addict,” “junkie,” and “alcoholic” are passing out of favor, while person-oriented language such as “person with substance abuse disorder” has become the preferred (if unwieldy) term. The 2017 edition of *The Associated Press* *Stylebook* codified this linguistic evolution for journalists, declaring that the noun “addict,” and by extension “alcoholic,” should no longer be used to describe a person with a substance use disorder.

There's lots of support for this linguistic and philosophical approach. The authors of two recent books about women and drinking, Holly Whitaker (*Quit Like A Woman: The Radical Choice to Not Drink in a Culture Obsessed with Alcohol*) and Laura McKowen (*We Are the Luckiest: The Surprising Magic of a Sober Life*), argue for abandoning the word “alcoholic” altogether. Alcohol is a poison: a toxic, corrosive chemical that alters our mental state and damages our bodies on the cellular level from the moment it passes our lips, Whitaker and McKowen argue. Alcohol, after all, is ethanol, “the same thing we use to make rocket fuel, house paint, antiseptics, solvents, perfumes, and deodorants, and to denature (i.e., take away the natural properties of, or *kill*) living organisms,” Whitaker writes.

In my talks or written work, I use descriptors that focus on the substance, not the person, yet I still call myself an alcoholic. The word is clear, unequivocal, honest, and blunt, and defines one of the most important chapters of my history.

**Chapter 3**

**WIRED FOR RISK**

**A Primer on the Adolescent Brain**

**Gap Years**

When a teen does something impulsive or foolish, with no forethought or regard of consequences, and we ask, “Why didn't you *think* before you acted?” we are tilting at the windmills of adolescence, weeping and wailing over behaviors they are not yet able to fully control. Teens are more focused on rewards than adults, and less able to weigh the long-term consequences of their actions.

However, even in the midst of our most frightening parenting moments, when they make us cry with frustration, when they do foolish, dangerous things and show little concern for their safety, remember that this is all developmentally appropriate. They are in their gap years, a trying period in which the system that derives their need for independence, risk, new experiences, and sensations is in high gear, but the system that drives higher-order planning, caution, and rational thought is still in park. It would be lovely if these two systems evolved on the same timeline, but they do not, and the gap between the mature, highly active limbic system and the immature, less than fully functional prefrontal cortex is what gets kids into so much trouble and drives teens’ vulnerability for substance abuse.

**There’s a Great Future in Plastics**

Try taking some kind of class with your kid, something that requires cognitive dexterity and mental flexibility. I took acoustic guitar lessons with my son Ben when he was fourteen and I was forty-five, and things got humbling fast. He’d acquired an entire classic rock repertoire by the time I could reliably stumble through a simplified, three-cord rendition of Fleetwood Mac's “Second Hand News.”

Ben learned guitar faster than I did, not (necessarily) because he's smarter than I am (he is), but because infant and adolescent brains are extremely **plastic**. Plastic brains learn quickly, but they are also highly sensitive to the good and bad in their environment. This is a boon for learning, but it is also a dangerous, precarious time. During this transition from child to adult, adolescents are much more sensitive to negative environmental influences such as trauma, stress, social rejection, and sleep deprivation. “Plasticity is the process through which the outside world gets inside us and changes us,” writes adolescent psychologist Laurence Steinberg in his book *Age of Opportunity*.

The adolescent brain is uniquely wired to crave the very experiences drugs offer, including risk, escape, novel sensations, reduced anxiety, and peer acceptance. The whole point of adolescence is to strike out on your own, prove yourself in a competitive world, establish your own unique identity, and forge a path into adulthood, and the scary truth is that kids who actively pursue new, daring, slightly scary experiences are more likely to accomplish these goals. The trick is to encourage and channel the risk-taking and sensation-seeking into healthy directions while helping them manage their impulsivity and appetite for dangerous risk. But first, we have to understand dopamine.

**My Chemical Romance**

Dopamine is our chemical reward, our reason for getting out of bed in the morning. It drives us to hunt down food and exciting experiences, and, yes, drugs and alcohol. Dopamine, at its essence, *is* drive.

Adolescents have lower baseline levels of dopamine than young children and adults. It may seem counterintuitive but it makes sense: low baseline dopamine levels make life pretty boring. Weekends with nothing to do? Boring. Activities they used to love when they were little? Yawn. That summer vacation they looked forward to all year? OMG, so boring.

When the things they used to love like reading, playing in a tree house or in the swings, or simply hanging out with friends do not provide the dopamine hit they used to, it's natural that they would seek out thrilling, risky, dangerous, and scary experiences that will.

Heightened dopamine response is what makes adolescence so exciting and visceral and memorable. The teen hippocampus, where short-term memories are archived for long-term retrieval, is working in overdrive. The limbic system is running the show, remember? The hippocampus is especially good at translating emotional, exciting experiences into memory; hence, teen love is more thrilling, heartbreak more devastating, anxiety more overwhelming, pleasure more all-encompassing.

The dopamine rush of drugs is followed by a precipitous fall to levels below baseline, because as the body struggles to keep some kind of balance in the face of this dopamine flood, it releases less dopamine, lowering the teen’s baseline levels even further. Life between hits becomes even more boring, and eventually, as Dr. Cory Waller of the Americans Society of Addiction Medicine explains, “You can't produce enough dopamine to get out of bed.” In other words, kids who use drugs and alcohol early in adolescence rewire their brains such that the substance is required in order to feel normal. Not high. Not buzzed. Normal.

The work of the adolescent brain is to develop and maintain a moving target of “normal” as it matures, and it simply can't do that when it's competing with addictive substances. Keeping kids off drugs and alcohol is difficult enough, but as those substances hijack, then completely take over the reward system in the brain, it only gets more challenging.

The more kids (and the adults in their lives) understand about how drugs and alcohol impact the adolescent brain, the more opportunities we have to combat misunderstandings and opinions about the hypothetical “everyone” who was doing it, how much they are doing, and how it can permanently alter their lives.

**Youth is Wasted on the Young**

The brain plasticity of adolescence is what allows for massive learning and growth, but when the chemical complications of drugs and alcohol enters the mix, they can interrupt and even permanently derail brain maturation. There are many different classes of drugs, and each has slightly different effects on the brain, but taken as a whole, drug and alcohol use is a disaster for learning.

Some of the most dramatic damage to the brain is caused by drugs that cause sedation and reduce anxiety. These drugs include alcohol, benzodiazepines, and marijuana because their tendency in the brain is to inhibit memory formation and retention. Unfortunately, drugs that cause sedation and reduce anxiety are also the drugs kids seek out first and use most often, and once they begin using these drugs, their lives can become a real self-perpetuating cycle of despair. A kid who has academic problems is at higher risk for substance abuse, and kids who use addictive substances are at higher risk for developing academic problems. And so it goes, and so it goes.

Finally, substance use increases already elevated stress levels in adolescence. Kids often drink (and use drugs like marijuana and opiates) to silence their anxiety and stress, but these substances can increase stress levels in the long term due to these changes in the amygdala and because of the increased complexity of juggling substances with the business of everyday life.

Increased stress levels are exhausting, but unfortunately, drugs and alcohol interrupt sleep cycles and duration even when they facilitate falling asleep. Stress and anxiety cause teens to use more substances, and using more substances further increases stress levels, which further undermines sleep quality and duration. The quickest way to interrupt learning in the brain is to introduce high levels of stress, so you can see where this is going. Exhausted, stressed-out teens can't learn as well as their sober peers, which can lead to academic failure. Academic failure feeds substance use… and here we are again in that maddening, self-perpetuating loop of substance abuse.

Now let's look at what difference addictive substances do to the adolescent brain.

**Alcohol: I’m Wasted and I Can’t Find My Way Home**

Adolescents consume alcohol differently than adults. When kids drink, they tend to binge drink, and binge drinking is associated with increased rates of smoking, illicit drug use, drunk driving, risky sexual behaviors, auto accidents, physical fighting, fewer hours of sleep, and lower grades. Currently, binge drinking is defined as four or more drinks in succession for women and five or more drinks in succession for men. I say “currently,” because these will change if the American Academy of Pediatrics (AAP) has anything to say about it.

Adolescents don't just drink differently than adults; their bodies process it differently, too. Teens are more likely to feel the positive sensations associated with drinking, like loosened inhibitions and decreased social anxiety, but less apt to experience the negative ones like sedation, loss of motor control, and hangovers. They feel brave, loose, social, and expansive, but the usual checks on drinking to dangerous excess, such as a subjective feeling of being “too drunk” or passing out, are less likely to kick in. Because teens don't feel as drunk or as tired as an adult might given the same blood alcohol content (BAC), they may believe they are okay to drive, expose themselves to social or sexual risk, or drink to the point of alcohol overdose.

Girls are at higher risk when it comes to many of these dangerous outcomes because their bodies tend to be smaller, with a higher percentage of fat, which means they can't process the same amount of alcohol as boys can. They also produce less of an enzyme required to break alcohol down in the stomach, which means more alcohol makes it to their bloodstream. A girls BAC may be up to 30 percent higher than a boy’s, even if they are the same age and drink the same amount.

As many as 40 percent of college students report having experienced a blackout. If kids black out early on in their drinking, especially after drinking less than their peers, it can be a flashing red warning sign that they are at greater risk of alcohol dependence during their lifetime.

**Nicotine**

Nicotine use, unlike the use of other drugs, is increasing thanks to the popularity of e-cigarettes. In 2018, three million kids in the United States, or 21 percent of high school students, used e-cigarettes. And 28 percent of those kids do at least twenty times a month.

Nicotine is highly addictive because it delivers immediate cognitive rewards, including dopamine release, increased focus and concentration, reduction in anxiety and hyperactivity, and appetite suppression, and the rituals around nicotine use can be as comforting and pleasurable to users as the nicotine itself.

While e-cigarettes are relatively less toxic than traditional cigarettes, in that they don't contain tar and other carcinogens, they significantly increase the risk of developing both chronic respiratory diseases such as bronchitis and asthma as well as acute lung damage.

**Marijuana**

Adolescents’ brains are more vulnerable to the adverse effects of marijuana than adult brains, especially when it comes to learning and memory.

THC and its effects remain in the body for a long time, so long that people who smoke every few days are likely to have a persistent level of memory and problem-solving deficits and mental inflexibility. Heavy THC use is associated with adverse effects in the brain that can translate to adverse effects in life, such as academic failure, risky behaviors, motor vehicle accidents, and social isolation, which can lead to more marijuana use, and so on and so on.

Marijuana use can also cause slower mental processing speeds, unstable moods, decreased perseverance and lethargy, inflexible thinking, decreased attention, and motor impairment.

The younger kids are when they start using marijuana, the heavier their use is likely to be over their lifetime, and the more significant their cognitive decline and deficits are likely to be. Some of the damage done to the brain by marijuana use during adolescence is reversible, but a significant portion of it is not.

**Opiates**

When I talk about opiates, I am talking about both the prescription opiates teens find in the medicine cabinet and illegal “street drugs” like heroin. They are, for all chemical and practical purposes, the same thing. More than one in five Americans will take some form of opiates during their lifetime, and those opiates live up to their hype as some of the most addictive (second to nicotine) and deadly drugs of abuse.

Opiates (opium, heroin, codeine, fentanyl, oxycodone, morphine, and there are many variants)work because they act like our body's own natural analgesics (pain killers). Opiate drugs are effective (and addictive) because they fill our naturally occurring opiate receptors with a more potent opiate than our bodies could ever produce on their own, in greater quantities.

**Stimulants**

Stimulants do exactly what their name implies: they stimulate the body and brain, decrease fatigue, and can increase attention while producing feelings of euphoria and invincibility. This euphoria comes from a deluge of dopamine and a trick the drug uses to keep the floodgates open.

Chronic methamphetamine use can change the brain permanently, in ways that look a lot like premature aging. The effect of this is cruel: long-term users systematically reduce their ability to feel pleasure by reducing the amount of dopamine and serotonin that's available in the brain. Methamphetamine highs, in other words, rob kids of their ability to experience natural highs or even normal levels of happiness.

**Sedatives**

There are a few different types of sedatives, and when used by physicians, they are extremely effective in reducing anxiety, promoting sleep, and calming seizures. When used without a physician's guidance, sedatives cause memory impairment, extreme fatigue, and dangerous levels of sedation.

Sedatives are specially deadly when taken in combinations with other drugs, like opiates and alcohol. Ask anyone who treats substance abuse and they will tell you, opiates are dangerous, but it's the combination of opiates and sedatives that kills people.

One need not look much further than the death of Michael Jackson for evidence that even under physician supervision, sedatives can be lethal. What started for Jackson as a way to ease anxiety and get to sleep at night ended up as a sedative (propofol) and benzodiazepine overdose administered by his Mayo Clinic-trained, licensed, and board-certified personal physician, someone who understood complex dosing schedules and drug interactions and still managed to kill his patient.

**Hallucinogens**

First, we have the traditional psychedelics, drugs that cause psychological “trips” like LSD, mescaline, psilocybin, and ayahuasca.

Next we have the so-called horse tranquilizers or disassociate anesthetics like PCP and ketamine.

Finally, there is dextromethorphan, the active ingredient in cough syrup.

**Ecstasy**

Ecstasy is a synthetic drug in its own category, an entactogen or empathogen, used most often in clubs or at raves to, as the name implies, create a sense of empathy and closeness to other people while lowering inhibitions, anxiety, and fear. Studies in people (and rats) show it causes both an amphetamine-like high and stimulant response in the body as well as mild hallucinogenic effect in the brain, paired with teeth clenching, dry mouth, nausea, blurred vision, chills, sweating, muscle cramps, increased heart rate and blood pressure, and, at higher doses, seizures.

**Inhalants**

Inhalants generally create a brief euphoria, stimulation, dizziness, and loss of inhibition or consciousness followed rapidly by depression that may or may not be accompanied by hallucinations. Adverse effects in the short term include airway damage ( from rapidly expanding compressed gas, such as dusters), burns (these chemicals are often highly flammable), and loss of oxygen while the chemicals are being inhaled instead.

**Chapter 4**

**NOT MY KID**

**Who Gets Addicted, and Why**

Addiction exists in all ethnicities, socioeconomic groups, and geographic regions of the United States, and kids consume over 10 percent of the alcohol sold in this country. In any given month, between 8 percent (eighth graders) 33 percent (twelth graders) of American middle and high school students drink some alcohol, 10 percent take some illegal drug, 18 percent drink enough to count as a binge, 8 percent drive after drinking, and 20 percent have ridden with another person who has been drinking. Teens are the biggest abusers of prescription pain pills, stimulants, and anti-anxiety drugs, And consequently, drug overdoses in young adults have increased more than fourfold over the past decade.

No matter where they come from, children share a predictable list of developmental stages, life experiences, and traits that lead them to seek out, experiment with, and become dependent on drugs and alcohol. When researchers ask kids why they drink or take drugs, many report they do it to feel better, to relieve emotional and physical pain, or to concentrate, relax, decrease anxiety, sleep, and cope with their problems. Of course, some say they like to experiment and that they like the way drugs and alcohol make them feel, but the vast majority of addicted kids are caught in a powerful, self-perpetuating cycle of self-medicating their pain, anxiety, and trauma.

Addiction gains power over children in the presence of risk factors and loses power when exposed to “protective factors,” but it's important to remember that lots of kids grow up under the weight of multiple risk factors, had never develop substance dependence or abuse. A risk factor for one person may not be a risk factor for another. However, experts agree on one thing: the sooner parents and teachers begin arming kids with these protective factors, the more effective they will be in preventing addiction.

**Epigenetics**

Scientists refer to epigenetics as the science of how our environment impacts our DNA. These environmental factors, including trauma, exercise, sleep deprivation, diet, mental illness, and stress, chemically altered DNA through the addition or deletion of chemical compounds such as methyl groups, which in turn change the way the gene is expressed, but they do not change the DNA itself.

**Addiction at Home**

In the words of just about every addiction expert, “Addiction is a family disease,” both because of the genetic and epigenetic footprint of the disease and its tendency to negatively impact the lives of everyone in the family. Children who grow up with addicted parents are “primed” genetically, emotionally, and experientially for addiction. They are not only more likely to become alcoholics themselves, they are also more likely to marry an alcoholic even if they are not alcoholics themselves, thus perpetuating the intergenerational cycle of addiction.

Part of the reason this happens is that kids are born into a lifestyle built on what researchers call “experiential factors.” Children of substance-abusing parents learn how to adapt to lives of chaos, and most get really good at it. Some get so good at it that they come to expect the chaos, and intentionally or unintentionally invite it into their lives. These experiential factors are, in effect, an education in managing addiction: lessons on how to care for a future addicted spouse, on the painful burden of shame, on how to keep a family secret and smile on your face, pretending that “everything's fine” well life at home is anything but. Addicted parents often can't parent as effectively as sober parents, and this puts their children at risk for physical harm, neglect, depression, hopelessness, and, once again, addiction.

**Adverse Childhood Experiences**

Our understanding of addiction has evolved tremendously over the years. What was once viewed as a failure of character or lack of self-control is now understood as a disease or, more recently, as a developmental disorder. Daniel Sumrok, director of the Center for Addiction Science at the University of Tennessee, believes we should not even call drug- and alcohol-seeking behavior “addiction.” we should be calling it “ritualized compulsive comfort-seeking,” an expected, predictable response to painful life experiences. Taking drugs or drinking alcohol in order to alleviate the pain of early life, he believes, is as understandable as taking aspirin for a headache. My rehab students take drugs, he would likely say, because they are self-soothing, blunting their physical and emotional pain the only way they know how. Our goal, then, should be to identify the reasons kids need to self-medicate, and help them lessen the pain before they feel the need to resort to drugs and alcohol for relief.

Childhood experiences, both negative and positive, have an enormous impact on health and welfare. When a person endures what the Center for Disease Control and Prevention (CDC) Calls and “Adverse Childhood Experience,” or ACE, They are far more likely to have chronic health conditions, and to engage in high-risk behaviors that threaten their health and safety.

Most of us hear the phrase “adverse childhood experience” and immediately think of kids raised in poverty by drug-addicted parents. Growing up in a White, wealthy neighborhood where I felt insulated from trauma, I allowed television and movies and my own implicit bias about race and wealth and power to shape my assumptions about childhood trauma and its victims. Poor kids get beaten. Black and Brown kids have drug-addicted parents and live in violent neighborhoods. Uneducated parents neglect their children.

These beliefs are not just wrong, but they also feed our denial and keep us from facing the reality that adverse childhood experiences happen in every demographic, every geographical region, and to every race and ethnic group.

So take a deep breath and be prepare to view our family history with a clear eye, on obstructed by the blinders of shame and blame. Remember, ACEs are surprisingly common in every demographic, so most people you know have experienced one of them. The CDC sorts them into three categories: abuse (emotional, physical, and sexual), household challenges (witness to violence, substance abuse, mental illness, criminal behavior, and separation or divorce), and neglect (emotional or physical).

Adverse childhood experiences put people at increased risk for negative health and behavioral outcomes such as heart, liver, or lung disease, as well as a higher incidence of smoking, alcoholism, and drug use; early initiation of sexual activity, multiple sexual partners, teen pregnancy, and fetal death; poor academic achievement and subsequent financial stress, depression, and suicide attempts; and a higher likelihood of experiencing sexual violence and intimate-partner violence. People with an ACE score of four on the CDC's assessment are seven times more likely to develop alcoholism than people with a score of zero. Some ACEs, such as sexual abuse, have been identified as particularly powerful predictors of substance abuse.

**Toxic Stress**

Kids are incredibly stressed out. According to the “Stress in America” report published by the American Psychological Association, the most stressed-out people in this country are adolescents between the ages of 15 an 21. “The Kids are Not Alright,” a 2010 paper released by the American Psychiatric Association, details the stress affecting kids, and indicates that it's causing more than emotional distress; it's causing physical symptoms like headaches and sleeplessness, symptoms that parents are failing to recognize as signs of anxiety.

Anxious, stressed-out kids are at risk for addiction Because drugs and alcohol seemingly can make problems go away, at least until the buzz wears off. Kids self-medicate with alcohol and drugs (as well as with food, the internet, self-injury, or lots of other forms of emotional release) In order to escape, even for just a moment, the discomfort of long-term threats, harm, or challenges.

Because ACEs are long-term, prolonged, negative experiences, they tend to cause so-called toxic stress. Toxic stress is particularly harmful because it doesn't just cause short-term symptoms like headaches and sleeplessness; it actually changes the way our bodies cope. It alters our stress-response systems and brain architecture, and interrupts learning.

**Academic Failure**

according to the National Institute of Drug Abuse, children who struggle in school when they are between 7 and 9 are more likely to be using addictive substances when they reach 14 or 15. Academic failure is yet another risk factor that can emerge either as a primary risk or as a consequence of some other risk factor such as aggressive behavior or adverse experiences at home. No matter the cause, it's imperative that parents, schools, and learning specialist work together to figure out what's going on and confront the issue. So many factors can cause academic failure, from learning disabilities to behavioral issues, and it's important to find the underlying cause of the deficit.

Untreated attention deficit hyperactivity disorder (ADHD), in particular, has been identified as a major risk factor for addiction.

Academic failure can happen for many reasons, and of course it's important to get answers as to why. However, while we are investigating the why, while we line up the testing and counseling and search for ways to support their learning the most important thing we can do as parents and educators is give kids reasons to believe their lives will get better. Kids who struggle to keep their heads above water at school often feel worthless, helpless, and hopeless. When kids feel hopeless, they are vulnerable to increased rates of substance abuse, absenteeism, expulsion, depression, inactivity, and sleeplessness.

On the other hand, kids who believe their future will be better than their present do better across the board. Hope increases academic performance, graduation rates, career success, and happiness and provides a psychological buffer from the effects of negative life events.

**Transitions**

Kids are most vulnerable to substance abuse- especially initiating that first sip or drag or huff- during periods of transition. These transitions can be around stages of maturation, such as from childhood to adolescence or from adolescence to early adulthood, or they could be due to life changes, such as divorce, death of a loved one, are moving from one residence to another.

**Summer**

Even summer, for all its fun and free play, presents a heightened risk of substance use. According to the 2019 National Survey on Drug Use and Health, “Thirty percent of marijuana use, 28 percent of cocaine use, 34 percent of LSD use, and 30 percent of ecstasy use was initiated in summer compared with other seasons.” The authors conclude that the increase in drug use, and especially first-time use, may be chalked up to increased idle time combined with more opportunities to attend parties and music festivals during the summer months.

**Chapter 5**

**TIPPING THE SCALES OF ADDICTION**

**The Protective Factors That Outweigh Risk**

My goal in this chapter is to help adults understand what aspects of substance abuse we can control for our kids, but there are so many we cannot.

**Substance Abuse in the Home**

Here are some ways to manage your child's epigenetic and family risk for substance abuse:

* CALL IN REINFORCEMENTS. When one family member suffers from substance abuse, everyone in the family needs emotional and mental health support, even kids who appear to be coping well. Children raised around substance abuse are often high-functioning people pleasers and perfectionists, And can suffer in silence for years before anyone thinks to offer mental health support. As with all risk and prevention measures, the earlier children get counseling to help them cope with the stress of an addicted parent or sibling, the better.
* BANISH SECRETS AND SHAME. Most families have secrets. In fact, research shows that most families harbor two to three of them. Family secrets, usually in the form of an unspoken agreement to ignore the elephant in the living room, are destructive, because secrets tear families apart and make room for more substance use. Growing up with alcoholism was painful, but not as painful as being told that what I was seeing and hearing did not exist, and even if I did, I was not allowed to talk about it. I adapted by being as perfect and low-maintenance as possible, Behaviors that worked in the short term but set me up for a lifetime battle with anxiety and, of course, my own substance abuse.
* TALK OPENLY ABOUT YOUR FAMILY RISK. When children are aware of their genetic predisposition for substance abuse, that knowledge can serve as a positive, preventive factor. For example, my older son told me that that he used his heightened genetic risk as an easy, readily available excuse not to drink during high school.
* KEEP ADDICTIVE SUBSTANCES UNDER LOCK AND KEY. Alcohol, as well as narcotics and other prescriptions, should be kept away from kids. Half of the teens who admit to misusing prescription drugs report they acquired those drugs from their parents medicine cabinet. If you must have opioids or other narcotics at home, purchase a storage safe and keep it locked.
* GET MOVING. Physical activity has been associated with a lower prevalence of cigarette use and some harder drugs. Exercise relieves stress and benefits the brain. Learning new sports can also satisfy teens’ cravings for novelty and stimulation.
* GET A PET. Human-animal interactions have been shown to improve behavior, mood, and interpersonal interactions; reduce symptoms of stress such as raised cortisol levels, high blood pressure, and elevated heart rate; reducing negative behaviors such as aggression; enhance trust levels and empathy; and enhance learning.

**Build Kids Self-Efficacy**

In the face of adverse childhood experiences, one of the most powerful protections for kids is self-efficacy: their belief in themselves to succeed; to regulate their thoughts, emotions, and life; and to cope with challenges in a positive way. The theory of self-efficacy, as posited by psychologist Albert Bandura, is the foundation for so many other positive traits, including resilience, grit, fortitude, and perseverance. Self-efficacy is what gives kids a sense of control, agency, and hope, even when the world around them feels out of control.

A belief in one's own self-efficacy is, Bandura argues, “the foundation of human motivation, well-being, and accomplishments.” when people possess a strong sense of self efficacy they are more likely to connect with the future they want with the actions they must take to make that future happen. They will be more committed, diligent, and determined even in the face of obstacles and failures, and consequently, more likely to succeed (and be rewarded with a dose of dopamine for their efforts). If they fail, they will be more likely to pick themselves up and try again. If they prevail, their success reinforces and feeds feelings of self-efficacy and motivation, which cranks the positive feedback loop into high gear, fueling future success and confidence.

People with a strong sense of self efficacy are more likely to be optimistic, motivated, confident, competent, adaptive, resilient, flexible, goal oriented, and self-driven. They're also more likely to set and achieve goals under their own steam, view obstacles as surmountable, have a lower fear of failure, and approach new challenges with the assumption that they can succeed. On the other hand, people with a weak sense of self-efficacy are pessimistic, inflexible, quick to give up, have low self-esteem, exhibit learned helplessness, get depressed, and feel fatalistic and hopeless. Not coincidentally, people who exhibit these traits are more likely to turn to drugs and alcohol to alleviate these negative feelings.

Here are some practical ways parents can boost kids’ perceptions of their own self-efficacy and help kids with low self-efficacy get back on the right path:

* START WITH YOURSELF. Model, model, model self-efficacy for your kids. Start questioning your own assertions of “I can't” with “I can't *yet*,” then turn that perspective outward, toward your children. The best response to our children’s frustrated sigh of “I can't do it” is “You can't do it *yet*,” a phrase that helps kids believe competence is not congenital, it is learned, and often hard won.
* BELIEVE IN YOUR CHILDREN AND MAKE SURE THEY KNOW IT. Kids who know their parents believe they are competent and have faith in them to make the decisions have higher levels of self-efficacy and self-confidence.
* GIVE KIDS SKILLS. Praise alone won't give your child a sense of self-efficacy or competence; these things come from the actual experience of trying, doing, failing, trying again, and succeeding.
* SET INDOVIDUAL AND FAMILY GOALS WITH AN EYE TOWARD LEARNING, NOT ACCOLADES. Start by setting your own goals and your plan of action. Yes, you have to talk to your kids even when you fail- especially when you fail. Success and accolades are great, but teaching kids to learn from their mistakes is how we help kids value learning and mastery, which is a part of building self-efficacy.
* BE OPTIMISTIC. Optimism is about more than seeing a glass as half full; it's a mindset that has a very real impact on physical and mental health.
* BE SPECIFIC IN YOUR PRAISE. Aim for behavior-specific praise that reinforces practices you want to encourage, such as, “I'm so proud of you for sticking with that project even when you got frustrated.”

**Mindfulness**

I recently listened to a podcast featuring guest Daniel J Siegel, clinical professor of psychiatry at the UCLA School of Medicine. He was on the podcast to discuss his new book, *Aware: the Science and Practice of Presence*, And to talk about the benefit of meditation for people in substance abuse recovery, people who, and Siegel’s opinion, tend to suffer from a lack of “integration” in their thinking.

This fundamental principle of Siegel’s work states that the brain functions best when the higher-order thinking of the frontal lobe and the lower-order thinking of the primitive lower brain are integrated. It is, in his words, “the way we avoid a life of dull, boring rigidity on the one hand, or explosive chaos on the other.”

Anyone can lack integration between the rational, higher-order and primitive, emotion-driven areas of the brain, but this lack of integration is more likely for adolescents, whose brains develop on two very different timelines. The emotion areas are in overdrive well before the reason regions mature. Their brains can swing wildly and unpredictably between these states, and his infuriating and perplexing as the swings can be, they are developmentally appropriate. Some teens, however, have more trouble moving toward integration than others, and it's important to address this developmental delay, because lack of control over impulsivity and emotion is associated with early-age onset substance use disorder.

One way to treat a lack of integration, argues Siegel is through a regular mindfulness practice. Multiple studies on mindfulness have found measurable change in brain structures and activation in people who meditate, changes that are of particular benefit in the adolescent brain.

Mindfulness practices promote integration and allow adolescents to focus and gain objectivity and control of their impulses and emotions. Better yet, mindfulness practices can lower the body's autonomic response to stress. Kids who are freaking out over a test or a perceived social media slight may feel physical symptoms such as a racing heartbeat, stomach ache, cold fingers and toes, or lightheadedness. Having perceptual distance from feelings not only allows them to feel less out of control, but it also lessens the physical responses that make them feel so panicky.

If a teen can go from feeling overwhelmed by a stressor to observing its existence from a bit of distance, she can begin to understand those stressors as passing experiences rather than overwhelming, out-of-control bottomless pits of despair. Most significantly, this shift in perspective can grant kids the ability to let go- of obsessions, of bad relationships, of material pursuits, or simply of the niggling problems of the day. Depending on the practice, it can also lead to greater spirituality, which can give kids hope and faith in a power greater than themselves.

I've seen meditation work wonders on my students in rehab, and even the doubters and mockers admit that meditation, as well as yoga, allow them to quiet their brains and gain some perspective on their chaotic thinking.

**Reframe Stress**

According to the psychologist Lisa Damour, author of the book *Under Pressure: Confronting the Epidemic of Stress and Anxiety in Girls*, “Somewhere along the line we got the idea that emotional discomfort is always a bad thing. This turns out to be a very unhelpful idea.”

We can't remove all stress from kids’ lives, nor should we, because some kinds of stress can be beneficial for physical and psychological health. So-called Positive stress is a normal and important part of growing up and figuring out who we are, usually an experience that is challenging but limited in duration. Think about a time your child was allowed to struggle with a task and emerged out the other side with the words “I did it!” These moments of good stress can feed a child’s sense of purpose, self-esteem, self-efficacy, and agency, and are a powerful tool in combating learned helplessness, depression, and addiction. “Working at the edge of our capacities often extends our capacities, and moderate levels of stress can have an inoculating function which leads to higher- than-average resilience when facing new difficulties,” says Damour. the second kind of stress, “tolerable stress,” is more serious, but it, too, is temporary. Tolerable stress is caused by experiences such as divorce, the loss of a family member, or dealing with a serious injury. These stresses can be alleviated by positive relationships with family or adults that can help kids cope.

**Get Plenty of Sleep**

Adolescents should be getting between eight to ten hours of sleep a night, But four out of five teens are getting less than that. National Sleep Foundation surveys reveal that the average weeknights sleep hovers between seven to seven and a half hours over the course of adolescence, mainly because teens face two hurdles in getting a good night's sleep. First, adolescent brains function on a circadian delay. When teens say they are not sleepy at midnight, they are not lying. Teen brains simply don't release the hormones that promote sleep until later in the evening. Adolescents’ natural time to fall asleep is 11:00 p.m. Or later, and given early school start times, there's no way they can get enough sleep.

Alcohol abuse is more prevalent among people who get too little sleep, and lack of sleep causes many of the mood disorders people tend to self-medicate with alcohol. The link between sleep and substance use is what's called “bidirectional,” in that sleep disorders can cause substance abuse and substance abuse can cause sleep disorders. Alcohol is a sedative, and may appear to work as a sleep aid, but it disrupts sleep cycles because as it's processed, it stimulates arousal centers in the brain. People who drink report falling asleep well but waking up in the middle of the night and being unable to go back to sleep.

Chronic sleep deprivation is a serious problem for adolescents, and proper sleep habits should be parents’ top priority.

First, sleep keeps us physically healthy. People who get inadequate sleep have weaker immune systems, are more likely to be obese, have type 2 diabetes, develop hypertension and heart disease, and have shorter lifespans. Second, sleep improves mental health. People who get inadequate sleep report poorer mood, motivation, judgment, perception of their environment, and functionality for routine tasks. One night of poor sleep can cause crankiness, but chronic lack of sleep has been shown to induce serious mood disorders. Finally, sleep plays a vital role in learning.

**Chapter 6**

**HOUSE RULES**

**Parenting for Prevention**

Family factors, above all else, are the most important influence on children's well-being and determine their potential for engaging in risky behaviors such as substance use. The most significant risk factors for substance use disorder arise out of family factors, yes, but so do the most powerful protections.

Some of the most frequently cited family risk factors include substance abuse in the home, mental illness in the home, domestic violence or sexual abuse, neglect, divorce or separation, adoption, and living in areas where addictive substances are available. Less obvious, however, is the very real risk that lies in not talking substance use with kids.

Even in the face of these risk factors, family can offer some of the most powerful protections. They can ensure kids have accurate information about their familial risk and the specific dangers of various addictive substances, correct to their mistakes and ill-informed beliefs about drug and alcohol use, and help them cultivate healthy, positive relationships.

Many people, including children, can use substances without escalating to the level of substance abuse or dependence. In fact, most do. Addictive substances may be more harmful to children than they are to adults, both because of the damage they do to the brain and because the earlier the first use, the greater the risk of progressing to substance abuse, But lots of kids try drugs and alcohol without falling victim to substance use disorder. That said, it's the kids who use early, progress from occasional use to regular use, and then escalate who are at the highest risk of developing a substance use disorder.

**Parenting: A Balancing Act**

There is data that suggests kids who hang out unsupervised with peers who use drugs are more likely to use drugs themselves.

A surprisingly large percentage of parents admit that they have checked which websites their kids visit and their social media profiles (including checking to make sure the settings are set to private), looked through their teens’ phone calls and messages, and used monitoring tools to check on their teens’ location using a cell phone. Adolescent psychologist and author Lisa Damour challenged parents in an article in *Time* magazine to ask themselves: If we are raising one of the best-behaved generations on record, kids who use less tobacco, alcohol, and drugs, and are more likely to hang out at home, “why do we worry so much about them?” She concludes, based on her research and years of experience in private practice and working with schools, “Regardless of how closely we decide to monitor our teens’ lives digitally, no amount of surveillance can take the place of having a sturdy, working relationship with them.”

Put the bulk of your effort toward the relationship, not the surveillance. When a parent and child have a warm, mutually respectful relationship, the child is more likely to perceive monitoring as coming from a place of warmth and respect rather than control and manipulation.

**Style Your Parenting for Prevention**

Today, developmental psychologist defined parenting styles according to four categories:

AUTHORITARIAN: highly demanding and directive, but not very responsive to children's needs.

AUTHORITATIVE: demanding but responsive to children's needs

NEGLECTFUL: neither demanding nor responsive

PERMISSIVE/INDULGENT: not demanding of kids, but highly responsive to their needs.

If you want to raise kids who feel supported and connected to their parents, kids who are relatively protected from substance use and fuel a sense of self-efficacy and competence, adopt an authoritative parenting style. Generally, authoritative parents do the following:

* Have high expectations for conduct
* Enforce high expectations fairly
* Are warm and supportive
* Support kids through failures and mistakes
* Offer verbal reasoning for expectations as opposed to “because I said so” dictum
* Prioritize children's learning over blind obedience
* Give children autonomy and space to learn and grow
* Recognize the child's own interest and goals as valid and worthy of support and respect

Here is some advice on the practice of authoritative parenting against the backdrop of the three domains of parenting that have been shown to have a significant impact in preventing substance use and other risky behaviors in children and adolescents: knowledge, expectations, and practice.

**Knowledge**

Authoritative parents teach and guide children according to a “here's why” approach as opposed to a directive, authoritarian “because I said so” strategy, and as any teacher will attest, you have to understand the topic yourself before you can help someone else understand it.

**Expectations**

These mutually agreed-upon expectations help everyone understand how to act and why, and keep everyone accountable. Authoritative parents explain the reasoning behind expectations, because rules enforced without reason tend to be ineffective, especially as children grow into adolescents and begin to mature into their frontal lobe, higher-order cognitive abilities.

**Practice**

Practice is where knowledge and expectations join forces and were action meets consequence. Practice dictates how individual members apply family expectations in daily life, and how parents react when expectations fall short. The best parenting practices help children feel an even greater sense of self-efficacy by connecting actions to natural consequences, whether good or bad. Make a good decision, and they get to enjoy the good things that happen as a result. Make a bad decision, and the consequences are theirs to deal with as well. Sure, this is the hard part, but enforcing consequences does not make you a mean parent, it makes you the type of parent who does not expect the world to make exceptions for your child.

Natural consequences are the most effective way to help kids understand the relationship between cause and effect. This education should start when they are young, so for example, if a young child forgets her lunch when she heads off to school, she will be hungry at lunch time or have to share with a friend. If a child forgets his math homework, he will get a zero for that assignment. If your teen drinks alcohol when he is under twenty-one, The police may cite him or take him to jail.

It's important to implement natural consequences from an early age because they are the best possible way to help kids understand the connection between their actions and the effect of their actions.

**When Addiction Runs in the Family**

Experts agree that genetics make up about half of the substance use disorder causation equation. I've heard many experts use the following analogy: if genetics are the loaded gun, then a child's environment, especially adverse childhood experience, or the trigger.

Here is what we know about the genetics of addiction. There is no single “gene of addiction,” and even were experts have identified specific genetic markers, the picture is much more complicated. The genes that control whether or not a child may be susceptible to substance abuse also control many aspects of personality that can predispose them to just that.

Even when children don't have a genetic predisposition, or when it's impossible to know what their genetic history looks like, as in the case of adoption, addiction and family history is about so much more than genes, which is where epigenetics and environmental forces come into play. Children's perception of alcohol norms, such as drinking habits and frequency of use, come from observing their parents, and this education begins at a very early age. Modeling a healthy relationship to drugs and alcohol, whether that looks like abstinence or moderation, may just be one of the most important lessons we teach our children.

Talk openly about your family history of substance use disorder and teach your children about the impact of their genetics. Help them understand that because grandma or dad or their sister has a substance use disorder, they are much more likely to become dependent on drugs and alcohol. Make it clear that your family expectation is that alcohol use before age twenty-one will not be tolerated, not just based on state and local laws, but on your families heightened risk. The stakes are higher for kids with a genetic predisposition for substance use disorder, so help them use that knowledge to guide their decision making.

**Divorce, Separation, and the Single Parent**

Divorce and separation are so common in today's society that we often forget these events can have a significant impact on children's emotional well-being. No matter how hard divorcing parents worked to keep the transition smooth, amicable, and gentle, the experience of divorce is, at baseline, a stressful and confusing experience for kids.

No matter how amicable the split, it's a stressful ordeal. When divorce is contentious and chaotic however, that can be deeply traumatic for children.

It's important to note that the period prior to divorce and separation is a risky time for kids as well. Several studies have shown teens may increase their substance use during this period in order to cope with the stress of heightened conflict.

When a troubled marriage ends in a respectful manner, research shows, it can provide relief for the entire family and act as a protective factor for kids. Strong connections between parents and kids will be an essential element of any healthy divorce or separation.

**Substance Use and Gender Differences**

Trauma and other negative life experiences set kids up to self-medicate, and this is particularly evident when we look at the data on gender and addiction. For example, sexual abuse is one of the most significant risk factors for early substance use, and girls are more likely to have suffered childhood sexual abuse than boys

**Alcohol**

In adults, men drink at higher rates than women, and are more likely to binge drink. However, in adolescents, the picture is flipped: while boys start drinking alcohol earlier than girls, girls drink slightly more once they get started and are more likely to binge drink. As girls and women have different body compositions than boys and men (more fat, less muscle, and therefore less water), and less of an enzyme required to break alcohol down in the body, they metabolize that alcohol less efficiently than boys. This means girls and women generally get drunk faster, stay drunk longer, and feel worse on the morning after than their male counterparts who drink the same amount.

Women have higher rates of liver disease, stroke, and heart disease as a result of their drinking and are more likely to suffer drinking-related accidents, and die by suicide. Girls and women who drink heavily are at much higher risk of being the victim of violence including sexual assault.

**Marijuana**

Men are more likely to be addicted to marijuana, but women are more likely than men to suffer from panic and anxiety disorders as a result of their marijuana use.

**Stimulants**

Women are more vulnerable to stimulant abuse for biological, mental, and cultural reasons.

**Chapter 7**

**WE HAVE TO TALK ABOUT IT**

**Starting the Conversation**

Having dinner together as a family is one of the most important things parents do to protect kids from all kinds of high-risk behaviors, including substance use. Dinner time is valuable not because of our sturdy table, the food we cook, or even the little wooden animals, but because we predictably and regularly come together to talk, report back on life outside our family, look at each other in the eye, and take each other's emotional temperatures.

The more dinners per week kids have with family, the less likely they are to drink. Thirty-three percent of kids who eat zero to two dinners a week with family use alcohol, but if kids eat dinner five to seven times a week with family, their prevalence rate drops by half.

**Teens**

adolescence may be when kids are most likely to use drugs and alcohol, but if you are just beginning your prevention efforts now, you are going to be doing a lot of makeup remedial work. Your kids have likely already been offered drugs and alcohol; they have seen kids drink or tried it themselves; and they know who they could go to if they wanted to buy stimulants or ecstasy or pot. Whether you are starting now or building on a long history of prevention education, continue to focus on shoring up competence, helping kids make good decisions, encourage them to set meaningful goals, exploring ways to manage their stress, and building healthy relationships.

Family dinners get very interesting when our family expectations are tested with kids’ newly burgeoning skills of argumentation, linear thinking, and logic. You hear them say things they don't really believe but want to test out by saying them out loud, but this is good. This means they are trying out identities and ideas and sampling the world around them as they find out what kind of adults they want to be.

**Expectations**

Adolescence is hard on family expectations. They fray, they get trampled on a little, and that's to be expected as teens test, push, stretch, and experiment with the limits of those expectations. They want- no, need- to know how far our expectations extend, how durable they will be in the face of various situational ethics, and what will happen if they violate them. Given this reality, open communication remains their lifeline. They have to make complicated social and emotional decisions every day, and they are going to make mistakes. If teens feel as if they can trust us to remain supportive and present, even during difficult conversations, we are more likely to hear the truth from them.

**Chapter 8**

**EVERYONE’S DOING IT**

**Friendship, Peer Pressure, and Substance Abuse**

Peer use of substances has consistently been found to be among the strongest predictors of substance use among youth. The simplicity of this statement is the stuff of every parent’s nightmare: Your kid- a good kid, a sober innocent- falls in with the bad kids. They lure him in, offer him drugs, and as a direct result, your good kid becomes a drug addict. This is a tempting cause-and-effect narrative because it allows a parent to view their own kid as a victim and places blame elsewhere, on the so-called bad kids or on the bad kids’ parents.

The secret sauce of parenting and educating for substance abuse prevention is to help our kids form and maintain positive, healthy relationships, harness the positive social pressure in their peer groups, and equip all kids with the skills they need to stay safe and healthy, no matter who they hang out with. Here are some practical ways to do just that.

**Tips for Helping Kids Build Healthy Peer Groups**

BE YOUR CHILD’S EMOTIONAL ROLE MODEL. Kids learn what healthy friendships look like from us. If we maintain relationships with people who hurt, demean, undermine, and sabotage us, our children are more likely to form the same kind of relationships.

ASK YOUR KIDS WHAT THEIR IDEAL RELATUONSHIPS WOULD LOOK LIKE. Think of this as goal-setting for friendships. If your child knows what they want in a friend, they will be more likely to befriend those kinds of people.

TAKE STOCK OF YOUR OWN FRIENDSHIPS. If you have friends or romantic partners who treat you badly, your child is learning to have the same kind of expectations in their own relationships. Model healthy self-respect by cutting those people loose and teach your child to value positive relationships over negative ones.

KNOW THE PARENTS OF YOUR CHILDREN’S FRIENDS. As neurologist Frances Jensen writes, “you are sharing parenting with all the parents of your kids friends,” and she's absolutely right.

**Chapter 9**

**THE ABC’S OF ADDICTION PREVENTION**

**Best Practices for Schools**

**Effective high school prevention programs focus on:**

* Knowledge that combats myths around substance use, including rates of alcohol drug use, its impact on mental and physical health, and adverse consequences such as academic failure, social conflict, and increased life stress.
* Good decision making around healthy behaviors and personal health choices.
* Personal safety and the right to have physical and emotional boundaries
* Personal risk factors for substance use and abuse, including genetic and environmental risk, personality type, peer influence, and exposure through high-risk sports, with an eye toward the decisions they will have to make in college.
* Continued analysis of medical influences, including alcohol and drug marketing.
* Building on a repertoire of tools for managing kids’ stress and anxiety, stressors that can cause teens to seek out relief through drugs and alcohol.
* Practicing and improving social skills and cues, including listening, greeting, and social exchanges from small talk to deep, meaningful discussions on challenging topics.
* Building on conflict resolution skills and learning how to diffuse high emotion in challenging discussion and debate using anger management skills, mediation, and dispute resolution.
* How personal needs and desires intersect with school, community, and societal standards, and discovering ways to balance them with the betterment of the greater community.
* Strengthening refusal skills, reinforcing concepts of personal safety and boundaries in the face of peer pressure.
* Assertiveness and self-advocacy practices as well as discussion of how to respond to pressure in the form of counterarguments.
* Healthy relationships: what they look like, how to achieve them, what kind of communication skills to use, and how to resolve conflicts.
* Planning long- and short-term goals and time management.

**Chapter 10**

**HEALTHILY EVER AFTER**

**Preventing Addiction in College and Beyond**

**College Drinking, Defined**

When we talk about college drinking habits, we have to talk about binge drinking, defined as five drinks in a row in one episode of drinking for men, and four for women. The heaviest drinking college students consume 68 percent of all the alcohol drunk on campus, and the heaviest binge drinkers chug 72 percent of all alcohol consumed by college students.

**Most Likely to Kill the Keg**

Who are the binge drinkers? White men under twenty-four. Students who live in the Greek system (four out of five students who live in fraternities and sororities are classified as binge drinkers). Sorority and fraternity presidents (Greek leaders not only drink the most, they also set the norms for drinking within the house). Student athletes (29 percent of student athletes are binge drinkers, but again, this figure is deceptive because rates are disproportionately higher among athletes in high-contact sports: football, hockey, lacrosse, and wrestling). Kids who intend to drink in college, who rank parties as important, and who look forward to and romanticize drinking culture, Drink more in college. Finally, students whose personalities can be described as pleasure-seeking, extroverted, impulsive rebellious, and nonconforming drink more often, in greater amounts, and with more negative consequences than other college students.

**The Happy Drunk and the Sad Drunk**

Now that we know the who, let's talk about the why, because knowing why kids drink can help us target our preventions and interventions more effectively. For example, we know that when kids drink to cope emotionally, rather than for social reasons, they are more likely to drink more heavily and face more negative consequences as a result of all that self-medication. In surveys, college students report they drink to relieve stress, dull inhibitions in order to become more extroverted or socially competent, to cope emotionally, for sensation-seeking, and because they are impulsive and don't think before they drink.

**How to Talk Using the Right Tone**

BE PREPARED WITH DATA. Parents are a young adult’s primary source of information about health and healthy behaviors, so we'd better know what we are talking about.

DON’T LECTURE. Lectures don't work in school-based substance abuse prevention programs and they definitely don't work when discussing alcohol and drugs around the dinner table.

ASSUME A TONE OF RESPECT AND TRUST. When adolescents feel they are respected and trusted to make a decision, they are more likely to warrant your respect and make good decisions. Balance admonitions and warnings with praise; if they mAKE a good decision, tell them how proud you are.

LISTEN, EVEN WHEN YOU DISAGREE. Not everyone speaks and fully formed, meticulously thought-out statements. Allow for some silent pauses, and then reflect back what you heard.