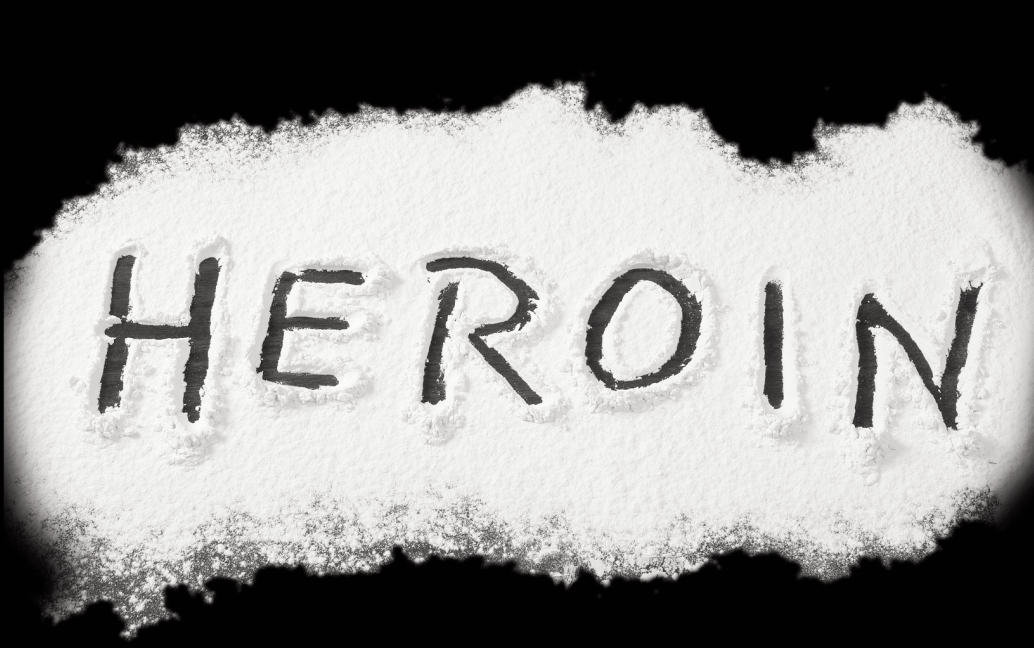

A Survival Guide

By:
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HARVESTING OPIUM

Opium has been with us since prehistoric times and I suspect the brain disease of addiction has been with us in some form or another for as long as there have been human brains. Historically the use of drugs tends to wax and wane in our society. We call the waxing times "drug epidemics". The types of drugs being used also tend to wax and wane. We have experienced many "fad" drugs here in America. In my patient population, the drugs most frequently used and abused currently include alcohol, cigarette tobacco, marijuana, synthetic marijuana, opiates, benzodiazepines (Xanax, Klonopin, Ambien), methamphetamine, amphetamines, and cocaine.

Currently heroin is gaining popularity throughout our country. Indeed, there appears to be such a surge of heroin addiction that we are justified in referring to the current trend as a "heroin epidemic". This publication is about how to survive the curse of heroin dependency. I treat a significant number of heroin addicts and the death and damage I see prompted me to write this survival guide. If you or someone you care about is caught up in this epidemic, I encourage you to read it.

This "survival guide" contains information on multiple topics related to heroin and opioid use including:

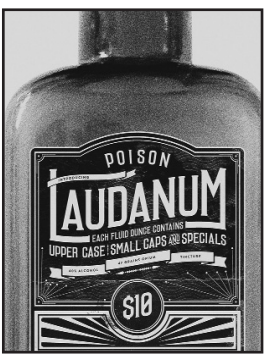
- Education about the drug heroin
- Education about other opiates
- Awareness of the current drug epidemic
- Specific awareness about heroin addiction
- Collateral damage to others and our society as a whole
- Recovery options

History: As Edmund Burke said some 250 years ago “those who do not know history are doomed to repeat it”. Here in the United States we certainly have a history of repeating opiate epidemics. As a scientist, I believe it is important to look at the past in order to hopefully learn to avoid or minimize past mistakes and to build on past successes.

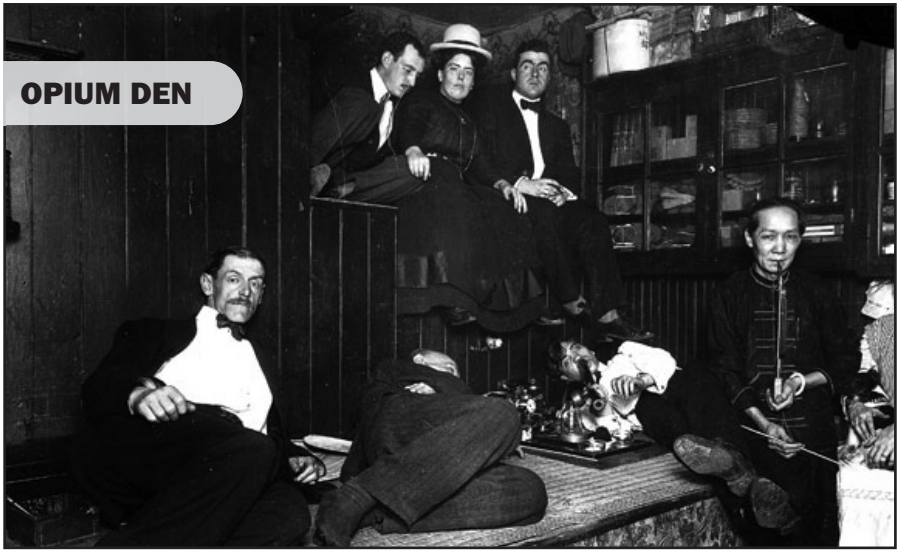
Opium is the mother of all opiates. Raw opium is actually a combination of several plant compounds called alkaloids. Those alkaloids include morphine and codeine as well as other psychoactive ingredients. Opium can be harvested from a plant known as Papaver somniferum. The name Papaver refers to the “poppy” and name somniferum refers to causing or inducing sleep”. The alkaloids obtained from the opium poppy are addictive substances known as opiates. The term “opioid” refers not only to the natural plant alkaloids but also to any synthetic “opiates”. Synthetic opioids are made in pharmaceutical labs and do not require plant alkaloids for their manufacture.

Fossilized poppy seeds indicate that opium has been around and ostensibly used by humans for at least 30,000 years and the addictive potential and dangers of opium have been known for centuries. Ancient physicians used this medication rather liberally on their patients. If it did not cure you it certainly made you feel good enough to forget or just not care that you were sick. Nevertheless, adverse effects of opium such as tolerance and addiction were well known and documented by the same physicians. Opium was both a medication and a poison. Indeed Hannibal reportedly committed suicide with opium. Other ancients voiced that it was “better to suffer pain than to become dependent on opium.” Apparently few people heeded these warnings, including us. The United States underwent its first opium epidemic during the mid-1800s.

The Civil War resulted in untold injuries on both sides that produced chronic pain in many survivors. The horror of being held down on a table and having one’s leg or legs removed without adequate anesthesia is almost unimaginable today. The recovery process from these surgeries was just as brutal. Amputations were not infrequent and the surgical procedures often resulted in chronic pain and phantom limb syndromes among the survivors. These horrific experiences also resulted in Post-Traumatic Stress Disorder Syndromes.



Even though morphine had been isolated by scientists in 1804, it was not readily obtainable during the United States Civil War or in the early post war years. Injectable morphine was given in hospitals at times but supplies were limited. The pain medication most readily available to the soldiers was a concoction called laudanum. **Laudanum** is a blend of powdered opium and alcohol. It has been around since the 16th century. The name comes from a Latin word that means, “to praise”. This combination would certainly relieve physical pain and probably numb some of the PTSD symptoms.



Unfortunately more and more laudanum was required (tolerance) to the point that the person became addicted to it and a slave to the drug. It is estimated that up to 10% of the veterans of the Civil War became opium addicts. Reportedly, it was such a prevalent malady at the time that it was called "Soldier's Disease". Laudanum killed a lot of people (including a prostitute by the name of Mattie Blaylock who was Wyatt Earp's first wife).

Another phenomenon that was happening in the USA during the mid-1800s was the introduction of **opium smoking dens**. The practice of smoking opium was brought over from China with the influx of Chinese laborers building the USA's railroads. The Chinese practice of opium smoking subsequently spread outside of the Chinese community and proved to be a major problem until around the 1920s when opium smoking was largely replaced by the use of other opiates. The problems associated with the opium smoking dens and practices included all sorts of criminal behaviors (such as robbery, theft, and prostitution) required to finance an opiate addiction. We are seeing the same thing today with our current opiate epidemic. The reason for the switch from smoking opium to the use of morphine and heroin was in large part due to judicial interventions. Enforcement of laws aimed to curtail opium smoking drove the price of opium up. This resulted in an increase in the use of other opiates that were not so controlled.

History has repeated itself here also. Many of my heroin patients tell me they have switched from other opiates, such as oxycodone, to heroin because legal crackdowns have driven up the street price of these drugs and the price of heroin is cheaper. It is also more readily available than "pain pills" since many doctors and other prescribers have become more cautious in prescribing opioids.

Heroin (diacetylmorphine) was originally synthesized in, 1874, by Charles Wright, a British chemist. Ironically, he was trying to develop a non-addictive alternative to the addictive drug morphine. Diacetylmorphine sort of went by the wayside until around 1898 when a German company by the name of Bayer resurrected the drug for commercial reasons. The German name for the drug was "heroisch" which translates into English as "heroic". The drug was subsequently named heroin. By the 1920s, intravenous heroin addiction was in full swing. The Harrison Narcotic Act of 1914 had the effect of decreasing heroin availability and thereby increasing the price of heroin. To be able to afford the expensive drug, some addicts resorted to digging through junk piles to salvage whatever was of value to sell for drug money. These addicts became known as **"junkies".**

Two failed attempts to deal with the heroin addiction problem during the 1900s are glaring examples of just how little was known about drug addiction. One of the most incredulous was the decision of the Saint James Philanthropic Society to offer to mail heroin to morphine addicts to cure their addictions. Obviously that did not work out well.

Another attempt to treat addicts involved Shreveport, Louisiana. From 1919 until 1923 a clinic run by Dr. Willis Butler actually supplied heroin addicts with morphine. From what I have read, Dr. Butler was an amazing physician who really cared about addicts. Apparently the idea was that if a person could be maintained on morphine they would not be reduced to doing illegal activities required to support a heroin addiction. Obviously, no one had any real solutions. We had the Saint James group mailing out heroin to cure morphine addicts and the federal government handing out morphine to cure heroin addicts.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The Shreveport clinic, as well as others of its type throughout the nation, foreshadowed the development of methadone clinics. This concept centers around treating heroin addicts by maintaining them on a long acting and addictive opioid called methadone. This methadone maintenance movement took root in the 1960s. In order to have a methadone maintenance program, special licenses and rules and regulations are required. These requirements resulted in methadone specialty clinics.

The methadone clinics are now being rivaled by the buprenorphine (Suboxone) clinics, which can set up in just about any physician's office by jumping through a few minimal bureaucratic hoops. Buprenorphine is a long acting addictive opioid.

Using methadone or buprenorphine to treat heroin and other opioid addictions is referred to as **Opioid Replacement Therapy (ORT)** or **Opioid Maintenance Therapy (OMT)**. This essentially means the patient is being prescribed a legal opioid to keep him or her from using illegal or illicit opioids.

In the early 1900's, heroin addicts came to be viewed as morally depraved individuals (drug fiends) who were worse than their alcoholic counterparts (the skid row bums). Due to the criminalization of heroin, about 35% of all convicts in the USA in the 1930s were incarcerated secondary to drug offenses. In 1935, the federal government opened up a treatment center in **Lexington, Kentucky** called the **Narcotics Farm.** Patients ranged from addicted doctors to "street addicts". Several famous jazz musicians were treated there which is not surprising since recreational heroin had become intricately associated with the "Jazz Scene" and the "hipsters".

Much of the effort at the farm was centered around research on finding a cure for heroin addiction. It closed in 1970. It was a noble effort but the success rate was reported at only about 10%. I suppose only a government program could continue to be funded with a 10% success rate. This dismal number served to help foster the perception that heroin addiction was an incurable disease and the heroin addict was a hopeless case. World War II interrupted the heroin supply routes but this did not alleviate the problem. By 1965, the

"baby boomers" of Post-World War II had come of age. The permissive attitudes of the sixties and the "flower children" led to a tenfold increase in the number of heroin addicts. There was also a marked increase in criminal behavior fueled by the addict's need to obtain heroin. Today it is estimated that 50% of all crimes are drug related. FIFTY PERCENT! It is no great surprise that about 50% of all convicts in federal prisons are there due to drug offenses (not limited to heroin related offenses).

As previously mentioned, in the 1960s, methadone, which is an addictive opiate, became a form of treatment. The idea behind methadone is to give the addict enough of the opioid methadone so that he or she does not need to use heroin. Methadone programs did not stop the heroin epidemic's tide.

In 1971, then President Richard Nixon declared a war on drugs because heroin addiction was a national emergency. He stated: "America has the largest number of heroin addicts of any nation." Of course, at the same time of this declaration, the CIA was allegedly promoting heroin drug trafficking for political reasons in third world countries and thereby assuring a constant supply of heroin continued to flow into our nation. The **war on drugs** was declared a failure 40 years and one trillion tax payer dollars later.

From 1965 until 1973 the United States officially deployed troops into the **Vietnam War.** The Vietnam War created an astounding number of heroin addicts. Indeed, approximately 50% of a "general sample" of US military personnel reported trying some form of opium while in Vietnam and about 20% became addicted. War breeds opiate addiction. We saw this during the Civil War and the Vietnam War and we are seeing it right now in the **Afghanistan War**. Evidently, Edmund Burke was right because we keep repeating history. Or maybe we continue to fall into the trap that George Santayana cautioned us against in a similar statement: "Those who do not learn from the mistakes of their predecessors are destined to repeat them".

The whole drug addiction landscape began to change again with the introduction and aggressive commercial marketing of opioid pain pills. Talwin (Pentazocine) is a synthetic opioid that produced its own mini-epidemic in the 1970s. Talwin was initially classified as a drug with very low addictive potential. Subsequently, it was easily available and this availability helped create **Talwin** addiction. Addicts were dissolving the pills in water and injecting them. Ultimately, an opiate blocker by the name of naloxone was added to the pill form of Talwin to discourage injecting the drug. I treated several Talwin addicts in the late 1970s and from my experience I believe the drug needed to be rated at a much higher level or schedule.

OxyContin (oxycodone) became the main catalyst of the opioid epidemic we now find ourselves in. Oxycodone, which is the active and addictive opioid in OxyContin, has been around since the early 1900s. So why did it get so "popular" in the 2000s? The answer is marketing and greed.

Purdue Drug Company introduced a "time release" version that supposedly was difficult to abuse. Purdue "wined and dined" physicians from all over the country and even offered free "starter coupons" for the drug. They told them the drug had a low addictive potential and produced fake "scientific" charts to prove it. The results were catastrophic. People, especially younger ones, quickly learned that all you had to do was crush it up to snort or shoot it and "it was as good a heroin". Purdue ultimately pled guilty to the felony of "mislabeling" OxyContin - which is fraud and therefore a criminal offense. Purdue paid out over $600 million dollars in fines and its medical director, president, and lawyer pled guilty to "miss-branding". They received fines and some community service. At one time, OxyContin accounted for 90% of Purdue's revenue. Narcotics are big business.

Current Opioid Addiction: At the time of this writing I am actively seeing at least 10 **new** patients for heroin and/or other opiate addictions each month in my office practice. As an **Addictionologist**, I have treated thousands of heroin and/or other opiate addictions on both an inpatient and outpatient basis. There are hundreds more in aftercare. This patient population consists of men and women. The ages range from 17 years old to around 45 years old with most being in their mid-twenties. There are about three male admissions for every two female admissions. The "typical" addict that I see comes from the middle or upper middle socioeconomic sector. Over 50% have been to college. About 70% are employed although many are underemployed given their education and skill sets. About 80% have concerned and supportive family members. Some patients have co-occurring diagnoses that include depression, Post Traumatic Stress Disorder, anxiety disorders including social anxiety, and mood disorders such as Bipolar Disorders. Some have personality disorders. Some succeed. Some just get a little better. Some cycle between recovery and relapse. All are miserable and suffer numerous consequences from their usage. It's a **progressive and chronic brain disease**. Once you get it, you cannot use opioids "successfully". It is also a potentially fatal brain disease and some die due to accidental or intentional overdoses or they get into fatally dangerous situations.

Using Heroin: Heroin can be snorted up into the nose. This is call insufflation. For some addicts, this is how they use it initially. Heroin can also be smoked. One method of smoking heroin is to place it on a piece of foil, heat the foil, and inhale the smoke. At one time this was called "chasing the dragon". Most, but not all people who use heroin progress to intravenous (IV) use.

Needles and Syringes: Injectable use of opiates has been around since the invention of the medical syringe in 1854. While the syringes have changed, the addiction has not. Nowadays, heroin addicts usually use "insulin syringes". It is best to use a new syringe each time but that is rarely the case for a variety of reasons. These syringes are relatively easy to acquire but planning is not necessarily an addict's strongest personality trait.

There is a lot of **misinformation about syringes** on the street. For instance, reusing the same syringe will not give the user Hepatitis C if he or she is the only

person using it. Obviously, it is not the syringe but what is in it that is the main problem. Repeated use of the same syringe is going to cause some level of contamination of the syringe. Human skin is an effective barrier against infections caused by viruses and bacteria. But, these germs are always present on our skins. That is why the nurse always scrubs your skin with an alcohol swab prior to giving you an injection. The scrubbing gets rid of the germs for a short period of time. If this was not done, the needle might push some germs into your body. That could result in various types of infections including the formation of an abscess. If you are loaded up on dope, you are probably not using good injection techniques. That is one of the reasons addicts get infections. Cleaning the skin with alcohol at the intended injection site may decrease infection rates.

Washing a syringe out with bleach offers some protection, but if you are sharing syringes, you are endangering yourself. If you do decide to bleach a syringe, make sure you flush all the bleach out of it before you use it. No amount of cleaning is going to make a used syringe a sterile syringe.

Another problem with reusing syringes is that the needle gets dull. If you look at the tip of such a needle under magnification, it looks like a jagged beat up knife blade that reminds me of the edge of a carpenter's saw. This means that you are literally tearing through the skin and into the vein when you use it. This promotes more scar tissue and more potential for infection. Some of the needle re-sharpening techniques you might hear about on the street may actually make things worse because the sharpening material may get ground into the needle. When you use the needle, that stuff gets into you.

There are other injection dangers that an intravenous drug user (IVDU) needs to be aware of. Some of it relates to the contents of the drug itself. When I ask my patients about the contents of the powdered heroin they are using, the universal answer is "who knows".

The Cut: Heroin is cut with just about anything including but not limited to sugar, powdered milk, starch, or other drugs. In addition to "the cut" there may be other contaminants. Some street samples have historically been positive for cadmium, which is a toxic metal that over time can cause bone and kidney damage. Evidently the cadmium contamination of heroin occurs during the manufacturing of heroin from the opium plant. There is not a whole lot of quality control in the jungle. Some of the drugs used to cut heroin are really "out of the box" or out of the prescription bottle. There have been cases of heroin being cut with blood pressure medication. I guess anything in the medicine chest is OK when you need to cut dope. Unfortunately, that particular cut resulted in a flurry of emergency room visits due to toxicity. Years ago there was a contaminant that caused the IVDUs to develop a neurological disease called Parkinsonism. Fortunately, such "outbreaks" are few and far between but it does happen.

Powdered heroin is never pure, but even if it was, it would still have germs such as bacteria, viruses, and even fungus in it. So many people in so many places have handled the stuff that it is impossible to know what is there. Heating it up in a spoon with water does kill some of the germs. The operative word is some. That means there are still some germs in the dope solution. Black tar heroin deserves special mention due to the risk of botulism contamination. Heating black tar heroin does not kill the botulism spores. Botulism causes progressive paralysis of the entire body.

The Filter: Powdered heroin is placed in a spoon (or some other small metal container like a bottle cap) and a small amount of water is squirted upon it. The water is seldom sterile. It is then mixed and heated. After that, the liquid is drawn up into the syringe through a piece of cotton or a cigarette filter. The idea here is that particles or impurities will be filtered out of the heated solution. This solution is then injected through the skin and into a vein. Sharing filters or spoons is almost the same thing as sharing needles. It is a good way to get Hepatitis C or transmit it to someone else. The same risks hold true for HIV infection and Hepatitis B. Multiple users drawing up water from the same source can also increase the risk of infection.

Cotton fever is characterized by a relatively sudden onset of fever usually within 30 minutes after injecting heroin (or any other drug). The victim generally has a rapid heart rate, difficulty breathing, headache, body aches, and feelings of panic.

"It was like I was going to die. A few minutes after I shot up I had this headache and chills and my whole body started jerking and I felt like my heart was going to pound out of my chest. My boyfriend said my skin felt like it was on fire. I was really sick and scared. I waited a few hours and sort of slept it off."

Cotton fever is usually self-limiting which means it wears off or goes away on its own. It is not uncommon for my patients to report a history of past episodes of cotton fever. One of the things that will increase the risk of getting sick is the practice of reusing cotton filters. The street reasoning for the filter reuse is to limit the loss of any heroin, however minuscule, that might be retained in the cotton fibers. Another problem is that in a moment of desperation, some addicts retrieve the trashed filters and try to "wash them down" to get some dope out of them. This is another bad decision. Not only will there be very, very, very little dope to be had, the risk of infection or of getting toxic is definitely heightened. Plus, the used cotton may actually break down somewhat and then cotton fibers are drawn up into the syringe and injected into the bloodstream. These cotton fibers may have bacteria and viruses clinging to them and cause infections of the body including an infection on the valves of the heart called endocarditis. Unfortunately, knowing all this is not going stop a desperate addict from compulsive behaviors that place self in harm's way.

The most probable cause of cotton fever is the growth of bacteria on cotton fibers. The bacteria secrete a poisonous or toxic substance. It is the toxin that causes the fever. If symptoms of cotton fever persist for over a few hours, it could mean something else is going on like a generalized bacterial infection of the body.

Most addicts I treat tell me that they use cotton from Q-tips. As an aside, dental cotton is supposedly the safest. Then again, injecting heroin is not a safe practice.

Cigarette Filters: Supposedly cigarette cotton filters are not as efficient as cotton. This type of cotton tends to break up easily and fibers are pulled up into the syringe and subsequently injected into the bloodstream. These fibers carry germs and other particles and can become lodged in very small blood vessels and clog them up.

Patterns of Heroin Use: I have yet to meet anyone whose first drug experience was with heroin. Heroin is not a "gateway" drug. That means that use of other drugs precedes the decision, or desperation, to use heroin. Many of the people I see who are addicted to heroin started out on narcotic pain pills. Some of these individuals were initially using hydrocodone or oxycodone recreationally. These are the addicts who were generally introduced to the drugs by friends. No one who uses drugs recreationally plans on becoming an addict but many do. Other addicts became addicted to opiates after getting narcotic pain medication as a prescription for various types of pain.

"I was in a car wreck when I was 17 years old. They gave me some pain pills for the broken bones. I found out I really liked that stuff. I guess that's where it all started."

The availability of narcotic pain pills has decreased "somewhat" which in turn means the cost of narcotic pain pills has increased somewhat. Heroin is readily available and when compared to some of the narcotic pain pills is less expensive. Subsequently, opiate addicts are using more heroin.

Many patients tell me that heroin addiction sort of snuck up on them. By the time they come in for detoxification, they are typically using around-the-clock. It is not unusual for a heroin addict to prepare a syringe to keep at the bedside so that he or she can inject the drug upon awakening. They do this not so much to get high but to be able to get out of bed and function. Many opiate addicts use opiates to energize themselves.

"It's like speed to me. I can get things done and work all day and night."

Many of the people I treat use over a gram of heroin a day in order to be able to ward off withdrawal and to function. Maintaining an addiction of that severity is costly. While some of my patients have a "drug habit" that can cost up to $300 (or $600) a day, I have found that a "$100 a day habit" is a relatively common occurrence, at least in my practice. Of course as the disease progresses, the ability to earn legitimate income generally decreases. Therefore, it is not uncommon for individuals to turn to criminal means in order to support their addiction. This includes stealing, dealing, pawning, pimping, and/or prostituting, just like it did 100 years ago.

Overdoses: Heroin can shut down the center of the brain that tells us to breath. Death by heroin overdose is usually due to respiratory arrest. The person simply stops breathing and essentially smothers to death. In the situation of a heroin overdose, providing mouth-to-mouth breathing can save that person's life. Unfortunately, the overdosed addict is usually not in the presence of people who know cardiopulmonary resuscitation (CPR). There are various "home remedies" on the street about how to treat a heroin overdose. The only effective way is to support the person's breathing and call EMS. There is a medication called Narcan, which can immediately reverse the respiratory arrest.

Narcan has recently been made available to the general population and to opioid addicts in Louisiana (Act 192). A bystander who witnesses an opioid overdose can administer Narcan and reverse the drug induced respiratory depression or respiratory arrest. This can be lifesaving. Making Narcan available is not without its own risks. One such risk is related to "addict thinking." If an addict has a medication that he or she thinks can protect them from an overdose, he or she may be more likely to push the envelope and overdose.

All and all, Narcan on the whole is a beneficial harm reduction tactic. That argument entirely aside, heroin overdoses are acute medical emergencies. Respiratory assistance should be offered (mouth to mouth resuscitation) but this should not delay administering Narcan and calling EMS. EMS will subsequently monitor the patient and administer additional Narcan if indicated. Narcan can wear off and this can be especially hazardous if the person has overdosed on a long acting opioid such as methadone. In this situation, once the Narcan wears off, the respiratory depression of the methadone returns and the person stops breathing again. Another problem with the respiratory depressing effects of heroin is the fact that a person can nod out repetitively to the point of developing a condition called **anoxic brain damage.** This simply means that there was a decrease supply of oxygen to the brain to the extent that brain cells died. The end result is of course brain damage.

Drinking alcohol or taking benzodiazepines (Xanax, Klonopin, Ambien, etc.) greatly increases the risk of dying due to respiratory arrest when using any opioid (including buprenorphine). While Narcan can reverse the impaired breathing component in an opioid overdose, it has no effect on alcohol or benzodiazepine toxicity.

Detox: Heroin detox in and of itself is probably not going to kill the addicted person. Although some people who have detoxed “cold turkey” in jail or self-detoxed at home have told me they feel like they are going to die during the process. There are actually two phases of heroin withdrawal. The first is the acute phase in which the person exhibits physical signs and symptoms of withdrawal. This usually lasts about a week. The second phase, which may last for months, is called Post-Acute Withdrawal Syndrome or PAWS.

A typical acute untreated heroin detox goes like this:

- The heroin withdrawal syndrome generally starts 8-24 hours after the last injection.
- By 24 hours the person starts to feel and/or exhibit the following:
    - Generalized restlessness
    - Restless leg syndrome (legs jerk uncontrollably)
    - Irritability
    - Hot and cold flashes
    - Sweats
    - Muscle aches in the legs and back and then all over
    - Enlarged pupils
    - Mild light sensitivity
    - Abdominal cramps
    - Nausea, vomiting, diarrhea
    - Yawning
    - Low energy level
    - Insomnia which includes difficulty going to sleep and difficulty staying asleep
- Day 2 through day 5
    - Symptoms tend to worsen and peak on about the third of fourth day. There is a risk of dehydration and electrolyte imbalance.
    - After day 5 the person generally starts to feel somewhat better.
- Day 6 and 7
    - The person starts to exhibit improved appetite, feels somewhat lethargic, but the acute signs and symptoms have generally resolved.

Some people use buprenorphine (Suboxone) in an attempt to self-treat their opiate withdrawal symptoms. There is plenty of buprenorphine on the street and it goes for about $20 per 8 mg tablet or strip. One problem that some addicts get into with this practice is taking the Suboxone too early. If a person physically addicted to heroin takes Suboxone prior to having signs and symptoms of withdrawal, the Suboxone itself may precipitate an acute heroin withdrawal state. Once this happens, there is really nothing to do except ride it out. The use of any benzodiazepines such as Xanax or Klonopin with buprenorphine is extremely dangerous and such combinations are to be avoided due to the risk of respiratory arrest. Self-detox can be dangerous and can result in long lasting effects such as precipitating anxiety and or panic disorders. Plus, medical conditions such as sepsis (infection of the body) can be misinterpreted as detox symptoms and if left untreated can progress to even more serious infections.

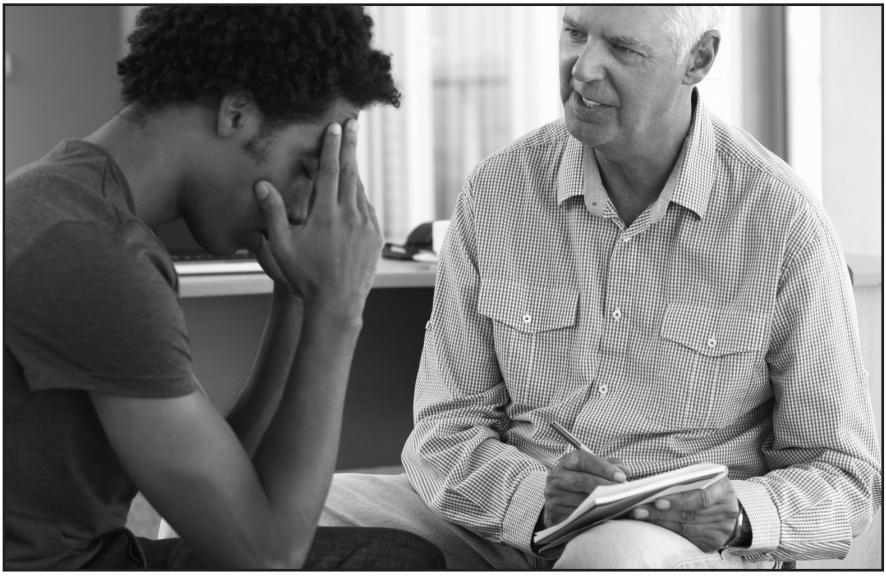
Unfortunately, detoxification is not a cure for heroin addiction. The person may experience intense cravings during and after detox. This is part of the insanity of addiction. The addict goes through the pain of detox and then has craving to use and start the cycle all over again.

"Doctor, I feel so guilty. I know I just finished detox and I know I said that if I got though it I would never use again, but I am really craving heroin. I think about it, I dream about it, and I can even taste it. I promised my family I would stay straight this time. I know this sounds crazy but the drug is calling me. Help me!"

The second phase of detox is called Post-Acute Withdrawal Syndrome (PAWS) and it may present and persist for several months. Symptoms vary with the individual but can include:

- **Anhedonia** - *"Nothing seems to make me happy. I cannot even get excited about things that used to make me feel good."*
- **Negative World View** – *"Sometimes I just feel like saying to hell with it. I am craving drugs so I guess I am just destined to be a junkie. I am a disappointment to everybody including myself. What is the use of staying sober if I have to feel like this the rest of my life?"*
- **Mood swings** - *"It is like I am okay one minute then I am depressed the next minute then I am angry the next minute even when there is no reason."*
- **Impaired Thinking** – *"I feel like I am living in a fog. I am also finding it hard to concentrate and my memory still little fuzzy. I keep losing stuff like my keys and my phone. "*
- **Irritability** – *"Everything is getting under my skin. I snap out at people automatically. Then I feel bad about it."*
- **Lack of Motivation** – *"I find it really hard to get up and get going. The dope used to energize me but I do not have that anymore. There must be something I can do to get some energy."*
- **Anxiety** - *"I never had this much anxiety. I really think it all started when I decided to go cold turkey. I am even uncomfortable around people now. And sometime I get panicky. I have got to do something about this."*
- **Sleep problems** - *"I cannot get to sleep and then I cannot stay asleep. I wake up all the time."*
- **Physical Discomfort** – *"I feel like I am uncoordinated at times. I still get some chills and flashes every now and then. It is like I am detoxing. But I know that cannot be true because I have not used for 2 months."*
- **Boredom** - *"All of a sudden I have all this time on my hands because I am not out hustling dope. Sometimes I miss the drug life. Plus I get really bored at times and that is when I started craving."*

It takes months if not years for the addict's brain and body to heal and recalibrate. PAWS is a high-risk time for relapse. Therefore, ongoing support and structure are essential. In order to maintain sobriety the individual generally needs to be involved in some type of structured therapy which can range from residential inpatient care to intensive outpatient care to living in a "sober house". Involvement in self-help recovery groups is also essential. There are also non-addictive medications and other therapeutic interventions that can be prescribed and/or recommended for some of the PAWS signs and symptoms.



Medical complications of IV Drug Use (IVDU):
(This is not an all-inclusive list.)
- Liver disease due to infections and/or toxic chemicals
- Hepatitis C Virus infection
- Hepatitis A, B, D Virus infections
- Human Immunodeficiency Virus infection
- Subacute bacterial endocarditis
- Abscesses
- Vein infections
- Collapsed and scarred down veins
- Track marks
- Hormone imbalance and resultant sexual dysfunction.
- Lung disease
- Septic emboli – This means that small clumps of bacteria break off from other areas of infection or get injected from a syringe into the body. These infected clumps (emboli) lodge in the lungs and/or the brain as well as other organs and cause severe infections there such as brain or lung abscesses.

Medications specific for treatment of heroin and/or pain pill addiction:
There are several medication approaches that can assist with recovery from heroin addiction. Some medications function to decrease craving. Some medications block the effects of the drug. Other medications replace the heroin with a different opiate.

Vivitrol – This medication is an opiate antagonist. This simply means it blocks the effect of opiate receptors in your brain. In other words, if you inject, inhale, or swallow an opiate, the opiate has no effect. There is some indication that

Vivitrol may also decrease craving. It is given as an injection into muscle and lasts for four weeks at a time. There are pros and cons to this medication and you make a fully informed decision with your **Addictionologist** before you enter into this course of medical treatment. My patients who take the Vivitrol injection generally report very few side effects and good responses.

"It takes away the option of using so I don't have to get up wondering where I am going to get opiates, or how much I have left, or what I have to do to get the stuff. I like the freedom."

"I don't know if I really need it or not but it makes my wife feel better knowing she will not be getting a call from the jail or the emergency room tonight."

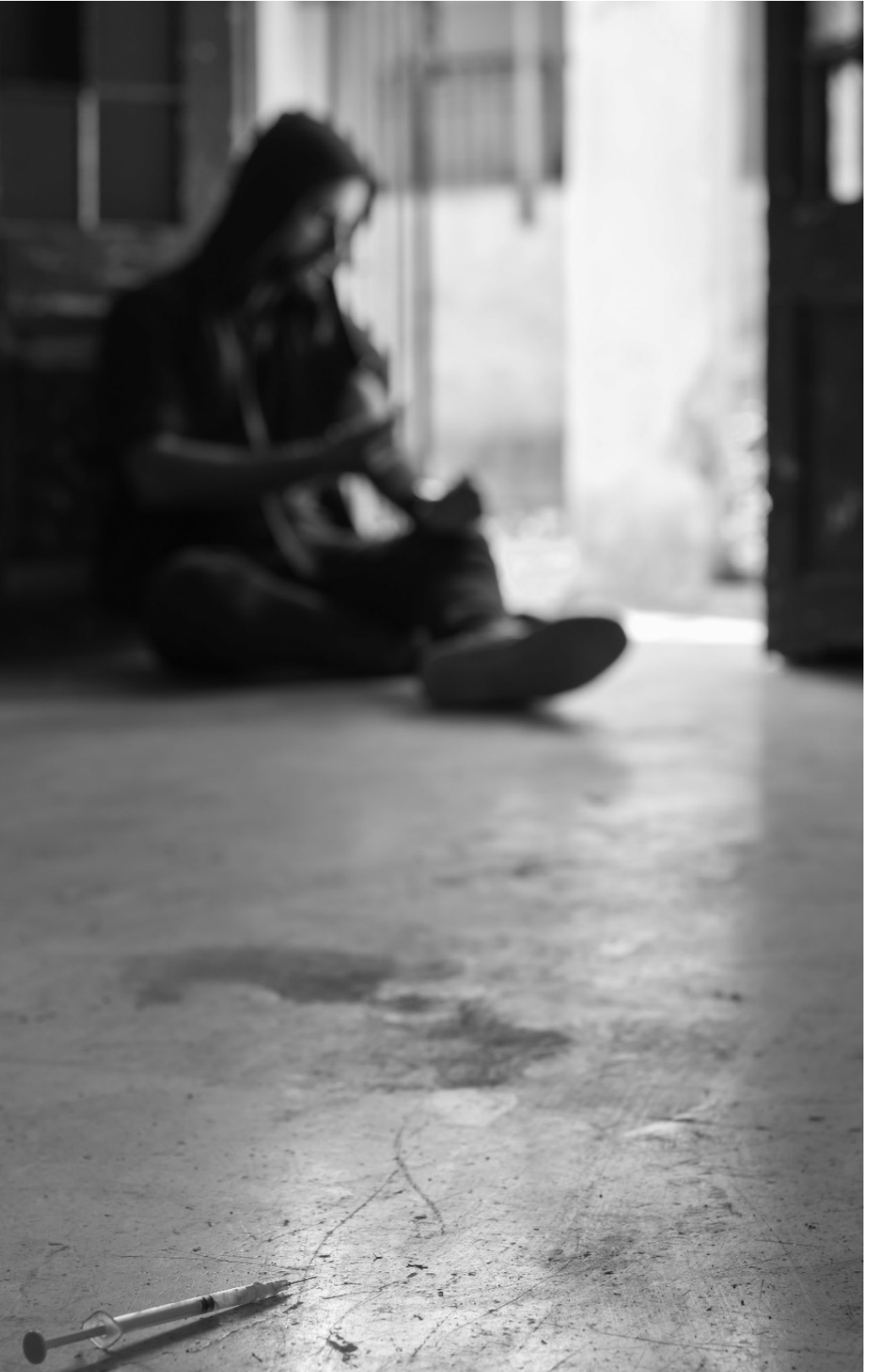
"I will not lie to you, Doc. I tried some oxy after the shot and it did nothing. This stuff really does work. I was angry that I spent $300 on the drugs though."

By the way, I do not recommend taking **opioids** to see if the Vivitrol works. I actually condemn such behavior. It is possible to take enough of the opioid to kill yourself while on Vivitrol but you will not get the high.

Baclofen – This medication is actually a muscle relaxant but it has anti-craving properties for opiates such as heroin. It may also help with alcohol cravings.

Buprenorphine – This medication is an opiate. One of the trade names is Suboxone. There is a relatively new form out called Zubsolv and another called Bunavail. Buprenorphine is addictive. It is prescribed as an opioid substitute for some addicts. It occupies the opiate receptors of the brain so that other opiates, such as heroin, do not have any effect if used. If this medication is stopped abruptly, it causes an opiate withdrawal syndrome to occur. There is a place for this drug in the treatment of addiction but it is not a stand-alone treatment. I prescribe buprenorphine for the following situations:

- To detox patients over a short term of 5 to 7 days on an inpatient basis
- To detox patients over a short term of 7 to 10 days on an outpatient basis
- To detox patients over a 4 week period on an outpatient basis
- To stabilize an opioid dependent patient for several months with the agreed intent to ultimately get off the buprenorphine by slowly decreasing the dosage.
- Once the person is detoxed, I encourage consideration of Vivitrol injections.
- Medications alone are not the answer to an addiction. Treatment should be tailored to the needs of the individual addict. This includes counseling and behavioral therapies the discussion of which is beyond the scope of this survival guide.
- Long term buprenorphine treatment may have a place in the treatment of chronic pain patients who are also opioid addicts.



Frequently Asked Questions:

How do I know if someone is on heroin?
The acute effects of heroin and other opioids include pinpoint pupils. Pupils enlarge when the heroin addict is detoxing. Users tend to run with users. It is an expensive addiction so there may be financial issues. Track marks are a dead giveaway. There may also be some drug paraphernalia around such as syringes, or a spoon with soot stains on the bottom, or even very small amounts of white or brown powder wrapped in clear plastic. Secretive behaviors are common (such as not taking phone calls in front of others, not accounting for whereabouts, not accounting for money, missing work and/or appointments, not bringing "friends" around).

What is harm reduction?
Harm reduction refers to measures used to decrease the consequences of addiction and Intravenous Drug Use (IVDU). Such measures include needle exchange programs, Narcan availability programs, methadone maintenance programs, and buprenorphine maintenance programs.

What about heroin and pregnancy?
A pregnant addict by definition has a high risk pregnancy. She should seek immediate medical care and detoxification options should be explored with an obstetrician and an addictionologist. Some pregnant patients prefer to enter a "harm reduction" program such as buprenorphine maintenance.

What does heroin look like?
Pure heroin is white. There is no pure heroin on the streets. Cut heroin can be various colors but brown is most common.

Can people recover from heroin addiction?
Yes. People can and do recover. Treatment for heroin addiction begins with a safe detoxification. Addiction is a biological, psychological, social, and spiritual brain disease. Most heroin addicts require some form of structured treatment initially. Continued care is essential for recovery.

Is there a "reader friendly" book about addiction that is more in-depth about all this? Yes!

10,000 Addicts Later
By: Louis Cataldie, MD

You can get it from Amazon or come by the office and purchase a copy.

Lane
Recovery Solutions
A Substance Abuse Treatment Program at Lane Regional Medical Center

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