

DOWNERS

He leaves his mark everywhere, in the lowest dives, down the darkest ally ways, on street corners...

Life gives you tension headaches and this stuff take 'em away.

The pusher doesn't miss a trick and his is the deadliest one of all. "The big fix." Once you're in it there's no way out.

"Ahhhh."

Whether obtained through legal sources or sold on the street, the effects of downers are similar. They all can block or slow pain messages, reduce anxiety, induce sleep, depress respiration and heart rate, and slow physical reactions. Stronger downers like heroin can also induce a rush and a high.

"I'd um, taken things like Vicodin and codeine before, I've known, you know, like when they're prescribed for me and I've used them other times so I liked the feeling and the first time I did heroin, um, it was like taking a bunch of Vicodin. It was euphoric, relaxing, I think I'm an opiate person."

The three main groups of downers (also called depressants) are opiates, sedatives-hypnotics and alcohol.

All of these depressants affect the same neurotransmitters; the main ones are endorphins, enkephalins, GABA, and of course, dopamine.

Opium from the opium poppy, is the raw ingredient or molecular model for a whole family of medications prescribed to calm diarrhea, treat headaches, and most notably, control pain.

Opium refinements, called opiates, include prescription medications like morphine, Oxycontin, Vicodin, and Percodan as well as the illegal street drug, heroin.

"It's like putting all your troubles in one bag and you got a solution for it, that's heroin. All you have is one problem then is to. . . worrying about getting your heroin every day."

"So I do it-like Vicodin I'd take a couple- I'd take like two to see how I'd feel and I, I'd feel a little buzz- you know. Then I'd take- eventually I'd, I'd take around five but then it would move up. I'd be like- this is pointless, Percocet is two Vicodin, you know. So now I had move up to Percocet and take two, three of those and then you feel it and then Oxycontin."

Synthetic, legal variations, called opioids, include Methadone, Demerol, Fentanyl, Dilaudid, and Darvon. Legal opiates and opioids are often diverted and misused.

"I've use Oxycontin, chewed them up. I have used um, I've used Vicodin, Narco, Percocet, Percodan in the earlier days, Darvocette, Vicoprophen, just about anything I could find. I raided people's medicine cabinets also."

The main use of opiates and opioids, pain control, occurs because these drugs block substance

P, the neurotransmitter that signals pain. Normally, when an injury, such as a severe burn, occurs, substance P is released to let the person know that tissue damage is occurring.

The body then limits the pain by releasing endorphins which latch onto the sending neuron and signal it to stop releasing substance P. In addition, some of the endorphins actually block the receptor sites and stop the substance P that does get through. When the pain is too intense, people use drugs to control it.

When a person takes an opiate or opioid, it mimics the body's own endorphin-based pain control system through the same mechanism. It latches onto the sending neurons inhibiting the release of substance P and blocking the receptors on the receiving neuron.

"Demerol seems to be holding pretty well or do you think you're going to need some more?"

"It slows down the pain."

"There is a myth that being prescribed prescription sedatives or prescription opiate pain killers leads to addiction. While being prescribed drugs and using them for medical treatment rarely actually leads to addiction. What usually happens is somebody has a genetic or environmental predisposition and gets prescribed these things becoming an addict and then there is also the situation where you have recovering people who have been maintaining their recovery for years but then need these medications for medical purpose, get prescribed them and that causes a relapse."

"I had Percocet after the birth of my first child and I loved it. I started in the hospital, saving up enough so that I could get loaded. I didn't take them for the pain. I just liked the feeling."

The second major effect of opioids is on the autonomic nervous system. Respiration, heart rate, and most bodily functions are slowed and depressed.

"The increased use of methadone to treat pain has also resulted in the number of increased overdoses. In fact it's become one of the leading causes of drug overdoses across America. It's actually you get more overdose deaths from methadone than you do from overdose deaths from heroin."

The third major effect of the stronger opioids such as heroin, hydrocodone, or Oxycontin is the intense high or euphoria they can induce by releasing excess dopamine. This impacts the nucleus accumbens in the reward-reinforcement pathway in the same way as other addictive drugs. That rush, for first-time users in particular, can be indescribable and unfortunately for most, not repeatable.

"When I first started using I thought it was the greatest thing since sliced bread and um, until one night I um, wasn't feeling good and I didn't know that I would, I could get a habit from it."

Opiate dependence develops because of tolerance, tissue dependence, fear of withdrawal, and alterations in the reward-reinforcement pathway.

"Tolerance and tissue dependence to addictive drugs are really inter-related. As the brain reacts to addictive substances to accommodate them, or to block them, or to get them somehow out of the body, it's also causing brain cells to build up a, a reaction, a counter

reaction to those drugs so that once the drug is no longer there, they go into what's called a withdrawal phenomenon."

Tolerance develops through several mechanisms as the brain tries to protect itself from repeated exposures to foreign substances.

One is that the body metabolizes the drug faster than normal, the nerve cells become less sensitive to the effects of the drug, the brain learns to compensate for effects by using other parts of the brain, and receptor sites retreat from the excess endorphins into the membranes of the receiving nerve cells through a process called down regulation.

"It's really cheap when you are starting out."

"Really cheap."

"I mean, a \$15 bag would last us, the two of us, like two or three days when we were first starting out and like later on, like at this point, we are spending \$100 to \$120 a per day just to stay well."

"It would take 4 to 6 bags to each of us to stay well, not even to really get high."

After a person's body and brain have changed to adapt to the excess drugs, a cessation of use causes the body to suddenly attempt to return to normal even though the changes might have taken place over weeks, months, or even years.

"I could take up to eight 80mg Oxycontin at a time at the end and that would last for about maybe 5 hours then I would go into withdrawal which would be just like doing heroin and I'd become very depressed and suicidal um, my skin would itch, I would ache to the bone."

"Withdrawal, oh gosh. That's the one thing that keep a lot of people using, kept me using. I would have plenty of heroin, all depends on, I would dread the day I've got to kick this habit."

"Stomach cramps. Not just stomach cramps, diarrhea...everything that can go wrong with your intestinal tract, happens. Your legs, you kick constantly at night, I think that's why they call it kicking. Your legs will jerk and kick uncontrollably, keep you up. You have insomnia. You vomit,"

"I have at times wished, I was dead, that's how severe it would be rather than go through this. I have seen people in jail try to hang themselves. I've seen people in jail shoot their own urine to try to get the heroin out of the urine that's left in there."

Over time, extensive changes in the reward-reinforcement circuit along with the development of tolerance and tissue dependence, lead to addiction.

"I was ordering them off the internet and getting them daily. But um, I couldn't get enough and I, I had to just maintain. I wanted to feel normal and at that time, just to feel normal I needed about 12. I was getting um, number 10, Vicodin."

The reinforcement of drug use is so powerful that satisfying the craving for the drug becomes a user's main focus in life. Common sense is often a casualty.

"Dope can come, Heroin can come into town today and it's all over town. Two people died of heroin. Everybody's looking for it. They know it's good heroin, know it's strong and everybody in town is trying to get to that heroin."

Among heroin abusers, the preferred method of use is injection because it delivers more of the drug in the shortest period of time and delivers a more intense high. Unfortunately, with this method of use, overdose is often possible.

"I woke up Monday morning in the hospital. I OD'd, I OD'd on whatever it was that I took. I woke up Monday morning, lost a day and a half in there and they pumped my stomach"

Other consequences of injection-drug use are needle-related infections.

"Abscesses have been a big problem. I don't know why, but some people are just more sensitive to, than others, in getting abscesses and I'm one of those people. But I've also like, I've lost all my veins um, I've hit nerves, um, I've hit arteries. Too much, if you shoot up into an artery, it's extremely painful."

One million Americans are affected with the HIV virus that causes AIDS while four million are infected with the hepatitis C virus.

"Hepatitis C is rampant in the drug abusing community and especially so in those drug abusers who use needles or inject drugs into their system. Hepatitis C is a very, very slow-acting infection in that it starts to eat away your liver and a good portion of the people who are infected with Hepatitis C will have a total liver failure within about 20 years."

"Actually, both of my parents passed away from hepatitis C just in the last few years, like six months apart. So, that's what doing drugs did to them and they caught, they like contracted Hepatitis C um, 30 some years ago like before I was born from shooting heroin. That's what this is all about here. It says, um, in loving memory Mommy and Daddy."

Sedative-hypnotics have been around since the 19th century. These drugs from bromides to barbiturates, to Miltown, to benzodiazepines have been used to relieve anxiety, diminish emotional pain, and induce sleep.

The most widely used sedative-hypnotics over the last 35 years have been the benzodiazepines such as Xanax, Klonopin, and Valium.

"Benzodiazepines are among the most wonderful and most terrible medicines in medicine. Virtually everybody who has major surgery gets a short-acting benzodiazepine as part of induction of surgery to take advantage of the fact that when you give a bolus of a strong short-acting benzodiazepine, you get retrograde and anterograde amnesia and nobody wants to remember going under anesthesia or listening to the saw or the knife."

Benzodiazepines and other sedative hypnotics, have also been called alcohol in pill form because they cause the same lowered inhibitions, muddled thinking, loss of muscle control, and aggression, when one drinks too much.

"The benzo problem patient of the 90's is different than the benzo problem patients of the 2000's. I think in the 90's it was more anxiety, alcohol, poly substance abuse, that way. These days, I think there is a lot of benzo use in the heroin crowd. It's used along with opiates."

"The difference between a heroin high and a benzo high would be that heroin would take me

out and the Valium or the Xanax in my case would just lower me, my hyperactivity.”

Like opioids, excess use of sedative-hypnotics can depress the respiratory system and heart rate to dangerous levels. The greatest danger and the most emergency room visits occur when alcohol, another downer, is used at the same time as a benzodiazepine or opioid. This occurs because the liver becomes incapable of simultaneously filtering both drugs allowing the sedative or opioid to enter the blood stream at full concentration.

The abuse of prescription drugs whether through over-prescription by physicians, diversion of legitimate supplies, or counterfeiting of wanted medications has led to a number of cycles of sedative-hypnotic abuse.

“I, I really had a hard time accepting the fact that I was addicted to benzos. I had, you know, because they were so easy to get that there was, there was no really an illegal aspect to it.”

Many of the overdoses are due to experimentation by teenagers with different combinations of pills at “pharm parties,”

"I don't know just kid's had 'em or like my friends' parents' like, cabinets or whatever."

"My best friend's mom had card, like little like prescription bottles of a, Percocet and Vicodin. Like hundreds of them and so we'd just take them. Take them at school, just go to school."

"Well, I would take it sometimes like from people that I knew like friend's moms but that, but that was like when I was like really shady like when I used to like do anything for drugs. But like I got prescribed it a couple times for like colds because I kinda like lied to them. Like 'Yeah, like Advil doesn't work for me like ever and like I need hard drugs' and like my mom just kinda like went along with it."

Because sedative hypnotics, including Rohypnol and GHB cause amnesia, they have been slipped into the drinks of unsuspecting women to make them vulnerable to sexual predators. They are known as date-rape drugs.

“They took advantage of me when I passed out at a party and I was sleeping on the couch and I woke up and they were doing stuff to me that they shouldn't have been doing and I remember running into the bathroom and throwing up and then sleeping on the floor that night.”

In recent years, newer sedative hypnotics including Ambien, Lunesta, Rozerem, Lyrica, and Sonata, along have become popular. The long-term effects of these medications and their addiction liabilities are being continually examined.

“These substances have great potential to be good medications . . . The have amazing psychoactive effects and change the way a person thinks and feels but we also have to always be aware that they have great potential for abuse and addiction as well.”