

Heroin

Heroin (diamorphine) is an addictive drug processed from morphine, a naturally occurring substance extracted from particular varieties of the poppy plant. It is one of a group of drugs called 'opiates' which include morphine, methadone, opium, codeine, pethidine and dihydrocodeine (DF118). Opiates depress the central nervous system.

Heroin is normally sold on the street as a white/brownish powder. Although purer heroin is becoming more common, most heroin is 'cut' (mixed) with other drugs/substances such as sugar, starch, powdered milk or quinine. One of the major dangers of heroin is that users do not know the actual strength of the drug or what it has been 'cut' with. Most drug related deaths due to heroin misuse are due to overdosing or because the heroine bought on the street is either too pure or cut with dangerous substances.

Opium has been used in Europe in medicines since the 16th century. Laudanum was used for pain relief, as a sedative, for coughs, diarrhoea and toothache. Morphine was synthesised from opium and thought to be non-addictive. Heroin was first made from morphine and again was advertised as being a non-addictive substitute for morphine. How wrong they were.

Heroin can be smoked ("chasing the dragon"), snorted (inhaled through the nose) or injected. The short term effects appear soon after a single dose and disappear in a few hours. The user initially experiences a 'rush' accompanied by a warm flushing of the skin, a dry mouth and heavy extremities. Following this initial euphoric feeling, the user goes through a period of alternative wakefulness and drowsiness. Mental functioning becomes impaired. Relief from stress and anxiety and a feeling of calm relaxation prevails. Cardiac function and breathing slows, sometimes to the point of death. Many first time users experience nausea, vomiting and severe itching but, unfortunately, this disappears with continued use.

Heroin is not instantly addictive but with regular use the body builds up a tolerance and the pleasurable effects are no longer felt. Physical dependence develops with higher doses of the drug required as the body adapts to the presence of the drug and withdrawal symptoms occur if use is reduced abruptly. Withdrawal may occur within a few hours after the last time the drug is taken but by this time, the body needs the drug just to stay 'normal' and to avoid the very unpleasant effects of withdrawal e.g. restlessness, muscle and bone pain, insomnia, diarrhoea, vomiting, cold flushes and leg movements. Major withdrawal symptoms peak between 24-48 hours after the last dose of heroin and subside after about a week. Heroin produces profound degrees of tolerance and physical dependence, which are also powerful motivating factors for compulsive use. As with abusers of any addictive drug, heroin abusers gradually spend more and more time and energy obtaining and using the drug. Heroin literally changes their brains and their behaviour.

Medical Risks

One of the most detrimental long term effects of opiate use is addiction itself. Addiction is a chronic, relapsing illness, characterised by neurochemical and molecular changes in the brain and by compulsive drug use. All the opiates including those prescribed for pain relief are addictive drugs and can lead to dependence. Heroin itself is not a dangerous drug and withdrawal is never fatal to otherwise healthy adults but it can cause death to the foetus of a pregnant addict.

Heroin abuse is associated with serious health conditions including spontaneous abortion and collapsed veins. Sharing needles considerably increasing the chances of contracting HIV, Hepatitis B and C. Other diseases that can also be contracted include septicaemia, gangrene, pneumonia, body sores and ulcers. In addition to the effects of the drug itself, street heroin may have additives that do not readily dissolve and result in clogging the blood vessels that lead to the liver, lungs, kidneys or brain. This can cause infection or even death of small patches of cells in vital organs. Heroin suppresses the appetite, dehydrates the body and this can lead to users not eating properly and their health subsequently suffers.

Heroin Dependence (Addiction)

Any drug, which causes changes to the mind, can cause a dependence syndrome. This means there are symptoms and behavioural patterns which form a recognised illness:

There is a strong desire or compulsion to use, which overrides other everyday activities; family, friends, work and hobbies are neglected. They neglect the alternative pleasures of life as the heroin use becomes the major focus for the individual.

There is a degree of tolerance requiring higher doses to have the same psychological effect. There are difficulties in controlling the amount of use so consumption escalates.

The user continues to use heroin despite evidence of harm such as ill health, debts, relationship difficulties or psychological problems.

The people most at risk of heroin dependency are those who have difficulty dealing with their emotions and have trouble facing everyday life. Heroin is used as an "escape mechanism" for life's problems rather than confronting them. There is an increased risk for those who are shy, have low self-esteem and have problems with family/work. There are genetic risks for susceptibility to addiction. Research, particularly in the USA, shows that the risk for developing heroin addiction does run in families. The genes a person inherits partially explains this pattern but lifestyle and psychological environment are also factors. However, a genetic predisposition to heroin addiction does not mean it is inevitable; just because addiction tends to run in families, it does not mean that a child of an addict parent will automatically become an addict too. Some people develop an addiction even though no one in their family has a using problem.

Treatment of Heroin Dependence

Heroin affects your body, brain, heart and soul. It is a killer but many people don't realise this until it is too late. Like many other chronic diseases, addiction can be treated but successful treatment isn't just

about de-toxing, it's re-learning how to live. Detoxification programmes aim to achieve safe and humane withdrawal from opiates by minimising the severity of withdrawal symptoms and other medical complications but it is not in itself a treatment for addiction. It is a useful step only when it leads to or is incorporated in long term treatment.

There are several schools of thought on treatment of heroin dependency, ranging from abstinence to maintenance. Methadone (a synthetic opiate that blocks the effects of heroin and eliminates withdrawal symptoms) remains the leading drug for maintenance and for detuning but it is in itself an addictive drug and can be more difficult to detox from than heroin itself. Newer drugs now being used include Lofexidine which are less addictive and better for coping with the withdrawal effects. Naltrexone implants can be used to block the effects of heroin as part of a [treatment programme](#).

Heroin abuse or addiction is a complex problem involving social, family and environmental factors. Therefore, treatment of heroin addiction is complex and must address a variety of problems. Research has shown us that the most effective approach is integrating both behavioural and pharmacological treatments.

For those with dependence there is usually a repeated pattern of failed attempts to give up without seeking help. They need to be admitted into a [treatment centre](#) in order to address the underlying personal issues which have promoted the dependency and to counteract the effects of the illness itself. Invariably once this stage of dependency is reached, the user will never be able to control heroin use again and abstinence is the only way forward. A return to using will cause a return to the original patterns of use and the vicious circle continues. In-patient treatment looks at all factors hidden behind the dependency, such as relationship problems, previous psychological trauma or self-esteem issues.

Often the user does not recognise the harm that heroin is doing to themselves or others (denial) or the social isolation that it is causing. The illness is accompanied by guilt/shame so there is a reluctance to accept help. The therapeutic environment enables the return to previous attributes and the ability to ask for help when there is trouble so that they can view the future with confidence without returning to mind-altering substances. Family relationships, which are also damaged by the illness, can be repaired with the help of treatment.