

Heroin and other opiates

Boy, brown, china white, dragon, gear, H, horse, junk, skag, smack...

...Diamorphine, morphine, methadone, opium, codeine, pethidine, dihydrocodeine (DF118), palfium, Diconal, Temgesic, physeptone

What is heroin?

Heroin (medical name diamorphine) is one of a group of drugs called 'opiates' which are derived from the opium poppy.



Opium poppy (*Papaver somniferum*)

Opium is the dried milk of the opium poppy. It contains **morphine** and **codeine**, both effective painkillers. Heroin is made from morphine and in its pure form is a white powder.

The main source of street heroin in the UK is the [Golden Crescent](#) countries of South West Asia, mainly Afghanistan, Iran and Pakistan.

Today street heroin usually comes as an off white or brown powder. For medical use heroin usually comes as an tablets or an injectable liquid. A number of synthetic opiates (called opioids) are also manufactured for medical use and have similar effects to heroin. These include **dihydrocodeine** (DF 118s), **pethidine** (often used in childbirth), **Diconal**, **Palfium**, **Temgesic** and **methadone**, a drug which is often prescribed as a substitute drug in the treatment of heroin addiction.

Heroin can be smoked (['chasing the dragon'](#)), snorted or prepared for injection. Opioids made for medical use usually come in tablet or injectable form and may be used for non-medical reasons, especially by heroin users who cannot get hold of heroin. Methadone is usually prescribed as a syrup which is drunk.

The UK sitaion

The street price of heroin was 50 per gram at June 2005 (source:Druglink survey, Sept 2005), and 75 per cent of Europe's heroin comes from Afghanistan, with UK-based Turkish groups behind 70 per cent of heroin in the UK. Heroin / morphine remain the top-ranking substance implicated in death in the UK; heroin / morphine accounted for just over 18% of drug related deaths where only one drug was indicated but 38% where more than one drug was found between January and December 2003.[1]

Cultivation and production

[The World Drug Report 2006](#)(pdf) [2] states that the total area under opium poppy cultivation declined in 2005, as did global opium production. Global seizures of opiates (heroin, morphine and opium) increased, particularly in South-East Europe, and global abuse of opiates appears to be stable.



Poppy field

The report also states that, in 2005, the estimated area under illicit opium poppy cultivation in the world decreased by 22 per cent (from 195,940 hectares to 151,500 hectares) due to lower cultivation in the three main source countries of illicit opium in the world: Afghanistan, Myanmar and Lao People's Democratic Republic (Lao PDR).

Global opium production was estimated at 4,620 metric tons of which 4,100 metric tons (89 per cent) were produced in Afghanistan.

Treatment and prevention

There are several schools of thought on treatment for heroin dependency ranging from [abstinence](#) to maintenance. The National Treatment Agency (NTA) formulates policy for treatment in England. As part of the national drug strategy their target is to double the numbers in treatment by 2008.[3] Methadone is the leading drug for substitute prescribing and can be used to maintain or detox. It has a reputation among users as being more difficult to detox from compared to heroin. From April 2001 **Buprenorphine** can also be prescribed by GPs. This is marketed under the trade names **Subutex** and may be useful when methadone is not the best choice, for example when a person is in the early stages of dependency.

[Naltrexone implants](#) can be used to block the effects of heroin as part of a treatment programme they are not yet licensed in the UK but are available from private practitioners.



Heroin powder and equipment

There is support for the idea that doctors should return to prescribing heroin as they did in the 1960s rather than methadone because users prefer it and by prescribing heroin, the view is that the illicit market would be undercut.

However, there is no government support for this policy; in fact, there are plans to tighten up on prescribing to users.

Needle Exchange

Needle exchanges are a pragmatic response to the rise in blood borne diseases such as [HIV](#) and [hepatitis B/C](#). The first needle exchange opened around 1987. There is now 100% coverage across England with every PCT having at least one[5]. Injecting drug user's hand in used needles and syringes in return for sterile injecting equipment.

Dihydrocodeine

While methadone is the most frequently prescribed substitute for the management of heroin misuse, GPs seem to be increasing their prescribing of **dihydrocodeine**. Although not licensed for the management of drug dependence, dihydrocodeine is used by some practitioners to reduce the severity of withdrawal symptoms, usually at the end of a methadone reduction programme. However, the drug is also used in cases where the dispensing of oral methadone is inappropriate, for example when an user is going on holiday for a period longer than methadone storage will allow. The drug is usually dispensed in tablet form.

History

The earliest reference to use of opium is amongst Sumerian people in the Middle East 6,000 years ago. It was used as a medicine and recreational drug amongst the Ancient Greeks and by the 7th or 8th century AD commonly used in Chinese medicine.

Use in China became widespread and caused great concern to the Emperor and authorities. Most Chinese opium was imported into China from India by the East India Company. In other words a British company was the main supplier to China using opium grown in conquered lands in India and the British government benefited greatly from the tax revenue. The Chinese introduced harsh laws to try and stop their people using opium. When this did not work in 1839 the Chinese authorities in Canton seized opium from British ships and flushed it into the sea. The British sent in troops and the Chinese authorities backed down.

In 1856 a similar incident led to a second 'Opium War' with the British navy shelling Canton and opening up other ports. The opium trade increased again so that up to 15 million Chinese became regular opium smokers. The Chinese authorities made opium use legal and began to grow their own poppies. Within a few decades Chinese opium production outstripped the Indian grown supplies and British sales and influence declined. In time China became a main supply for opium use in Europe.

Opium was used in the UK (and the rest of Europe) in medicines from the 1550s and by the 17th century drugs like laudanum - a mixture of opium and alcohol - were used for all sorts of ailments including to kill pain, aid sleep, for coughs, diarrhoea, period pains and for toothache and colic in babies. This trend continued well into the 19th century with the availability of many opium-based medicines bought from grocery stores and use of opium by many famous writers and poets. Concerns about the rising number of infant deaths through opium overdose resulted in the first controls on sales of opium in 1868.

Morphine was first synthesised from opium in 1805 by a German chemist and was advertised as a new wonder medicine that was non-addictive and could even be used for the treatment of opium dependence. About 1850, the hypodermic syringe came into use and at that time people believed that smoking opium, rather than injecting opiates led to dependence. Thousands of soldiers in the American Civil War came home addicted to morphine given to them to ease the pain of their injuries. In 1874, again in Germany, heroin was first made from morphine - again it was advertised as non-addictive, this time as a substitute for morphine.

Although many people in the USA were addicted to medical opiates, all the press attention was focused on the Chinese community and their use of opium in opium dens. The Chinese were accused of fostering addiction and luring especially young women into white slavery through opium; the evil Fu Manchu image of the Chinese became a standard racist stereotype in both the USA and Britain.

Non-medical use of opiates was not an offence in the UK until after the First World War but doctors were still allowed to prescribe them (mainly morphine) to people who had become dependent. Not many people used morphine or heroin and most who did obtained it from doctors. Diversion of heroin from doctors saw the number of users increase in the 1960s and all but a few specialist doctors were stopped from prescribing it.

The mid 1970s saw the beginnings of a significant market in imported illegally manufactured 'chinese' heroin from Hong Kong. In the mid 1980s the number of users of heroin and other opiates increased dramatically, particularly in inner city deprived areas. This heroin came from the so called golden crescent countries of Iran, Pakistan and Turkey. This type of heroin was originally produced for smoking rather than injecting and followed the rise in Iranian refugees to the UK after the fall of the Shah in 1979. [4]

The government responded by developing new community based drug services and running anti- heroin media campaigns as well as needle exchange schemes to reduce needle sharing and the incidence of HIV.

The law

Heroin and other opiates are controlled under the [Misuse of Drugs Act](#) making it illegal to possess them or to supply them to other people without a prescription. Heroin is treated as a Class A drug where the maximum penalties are 7 years imprisonment and a fine for possession and life imprisonment and a fine for supply.

Morphine, opium, methadone, pethidine and Diconal are also Class A drugs under the Act. Codeine and dihydrocodeine (DF118) are Class B drugs and Temgesic and Distalgesic are Class C drugs.



Methadone linctus

Only a very few specially licensed doctors can prescribe heroin to maintain a drug user. Methadone is much more commonly prescribed. Heroin can, however, be prescribed by doctors to relieve severe pain and has been found very effective with terminally ill cancer patients.

Methadone can be taken abroad in some circumstances, provided you have a prescription and sometimes an export permit for the drug and the destination country permits import. See the Home Office website for full details on what you can and can't take out the country.

Effects/risks

Heroin and other opiates are sedative drugs that depress the nervous system. They slow down body functioning and are able to combat both physical and emotional pain. The effect is usually to give a feeling of warmth, relaxation and detachment with a lessening of anxiety. Effects start quickly and can last several hours but this varies with how much is taken and how the drug is taken.

"It is probably one of the most pleasurable experiences I've had. All the pain goes. All the anger is gone. I was lying on the sofa floating happily. It makes you feel safe and warm like being wrapped up in a blanket."

Initial use can result in nausea and vomiting but these unpleasant reactions fade with regular use. With high doses sedation takes over and people become drowsy. Excessive doses can produce stupor and coma and even death from respiratory failure.

With regular use [tolerance](#) develops so that more is needed to get the same effect. Physical dependence can also result from regular use. [Withdrawal](#) after regular use can produce unpleasant flu like symptoms and may include aches, tremor, sweating and chills and muscular spasms. These fade after 7- 10 days but feelings of weakness and feeling ill may last longer. Whilst many people do successfully give up long term heroin use, coming off and staying off heroin can be very difficult.

"You can get addicted pretty quickly and start feeling you have to have it all the time. It's cut with all sorts of rubbish but you don't really care. The only goal in life became getting more. It kind of took all my feelings away".

Fatal [overdoses](#) can happen, especially when users take their initial dose after a break during which tolerance has faded, or when opiate use is combined with use of other depressant drugs such as an alcohol, tranquillisers or other opiates. Many regular heroin users will use other opiates or depressant drugs when they cannot get hold of heroin.

It is often difficult to know exactly what is being taken because the purity of street heroin varies and it is often mixed with adulterants. Injecting increases these risks and also puts users at risk of a range of infections including hepatitis and HIV if injecting equipment is shared. The physical effects of long term heroin use are rarely serious in themselves but may include chronic constipation, irregular periods for women and possibly pneumonia and decreased resistance to infection. This can be made worse by poor nutrition, self neglect and bad housing. Regular injectors may suffer more health problems including damaged veins, heart and lung disorders.

Opiate use during [pregnancy](#) tends to result in smaller babies who may suffer withdrawal symptoms after birth. These can usually be managed with good medical care. Opiate withdrawal during pregnancy can be dangerous for the baby, so the preferred option is often to maintain the mother on low doses until birth of the child.

References

- [1] **Drug-related deaths as reported to participating Procurators Fiscal & Coroners in England, Wales, Northern Ireland, Scotland, Isle of Man, Guernsey, Jersey, annual report 2004.**
- [2] [World Drug Report 06 \(PDF\)](#) United Nations Office for Drugs and Crime (UNODC), 2006
- [3] **National Treatment Agency** (www.nta.nhs.uk)
- [4] **Heroin Addiction and Drug Policy: the British system**, J. Strang and M. Gossop (eds), Oxford University Press, 1994
- [5] Department of Health, Substance Misuse Team. 2004

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