Benzodiazepines

AKA: Benzos, tranx, sleepers, downers. Specific drugs are referred to by their chemical name, brand name, and some have got slang names.

Drugs with similar effects and risks (though not benzos) include the “Z-drugs” such as Zopiclone and Zimovane.

More common benzodiazepines include:

Name	Brand	*Slang*
ALPRAZOLAM	Xanax	Xs
CHLORDIAZEPOXIDE	Librium	
DIAZEPAM	Valium	*Vallies, blues*
FLUNITRAZEPAM	Rohypnol:	*Rohies, rufies*
NITRAZEPAM	Mogadon	*Moggies*
TEMAZEPAM	Normison	*temazies, jellies, eggs*

SOURCE: Benzodiazepines are widely prescribed as sedatives, to combat anxiety, as skeletal muscle relaxants, anti-epileptics and anti-convulsants. However, some benzodiazepines leak onto the street, and are quite widely misused.

In addition to leaked pharmaceuticals, benzos have been illicitly imported in to the UK. Some have been entering from Eastern Europe and sold on the illicit markets. Others have been ordered on line from one of the many Internet Pharmacies. Some of these tablets are fake, or of variable quality.

From 2009, abandoned experimental benzodiazepines and novel ones appeared on the UK drugs market including etizolam, pyrazolam and flubromazepam. Whilst legal, they were sold on-line and via ‘head-shops.” These novel benzos were almost all brought under the MoDA in May 2017. Any not covered or emerging since then are automatically covered by the Psychoactive Substances Act 2016.

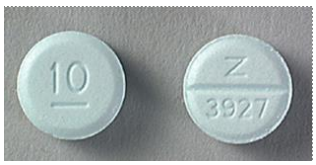
GPs are regularly reminded not to over-prescribe benzodiazepines and those on long term prescriptions are meant to have these reviewed regularly. Despite this, and prohibition of newer benzos, drugs in this family remain a key feature of the UK drugs market.

APPEARANCE: The appearance of each drug varies widely. Most are distributed as tablets or capsules. A small number of unregulated compounds are sold as powders. A few also come in preparations for injection, such as Valium ampoules, which command a higher street value.
Different brands of drug will vary from company to company. Tablets will vary in colour, shape and markings.

The mainstay of the street benzodiazepine market has, for a number of years, been **diazepam**. The most widespread and popular strength, a 10mg tablet, is often a

scored blue tablet. As a result, people manufacturing tablets to sell as diazepam invariably produce a blue tablet. These can vary massively in consistency and strength. Some are merely white powders, dyed blue and compressed in to tablets.

Alprazolam (Xanax) has become increasingly popular in the UK. As it is not widely prescribed on the NHS, Alprazolam sold in the UK may be from private prescriptions, overseas pharmacies of grey-market tablets batched from raw alprazolam powder. These can vary greatly in strength. Alprazolam is typically sold as white, scored bars with XANAX printed on them.



COST: At a street level, benzodiazepines have a very low value, typically around 50p per tablet. Ampoules can cost a pound or two. Depending on dose and quantity stronger pills like Xanax can sell for between £2-5 depending on claimed dose.

QUALITY: If pills are genuine pharmacy product, quality is assured. However, it is difficult to correctly identify all of the drugs in this family by eye, let alone assay the strength, so mistakes in strength and name are frequent amongst those purchasing non-medical products.

With so many imported, fake, unlicensed and novel products entering the market, the risks with non-pharmacy products will increase. Products could contain something stronger, weaker or different.

METHODS OF USE: Tablets are designed for oral use, though some users crush and inject tablets. As diazepam has very poor solubility in water this is damaging and not very effective. There are some reports of snorting, especially of novel, unregulated benzodiazepines.

MECHANISM of ACTION: Benzodiazepines interact with the GABA system in the brain. The regulatory neurotransmitter gamma-amino butyric acid (GABA) plays a role in moderating electrical activity in the brain. As GABA levels increase, so electrical activity in relevant neurons goes down.
Some drugs, like GHB and Barbiturates, are GABA agonists (mimics). Benzodiazepines are not thought to be full GABA mimics. Instead, benzodiazepines bind to Benzodiazepine Receptors (BZ receptors) and appear to increase the regulatory effect of GABA. They need GABA, or a GABA-mimic present to work.

Specific benzodiazepines are believed to be more active at different BZ receptors. This may result in different benzos having greater or lesser sleep-inducing, muscle relaxing or anxiolytic effects.

REASONS for USE: Benzodiazepines are still used medically for a range of conditions including:

Anti-convulsants	anti-anxiety (anxiolytic)	sleep-inducing (hypnotic)
muscle relaxant	amnesiac	alcohol detoxification

Non-medical use follows similar patterns, self-medicating for a range of conditions including anxiety and insomnia. They are also popular as “come-down” drugs following use of stimulants. The sense of intoxication when used with opiates or alcohol is greater, so these combinations are widely used. This brings a bigger risk of overdose.

STRENGTH: Benzodiazepines vary significantly in strength. They are generally compared in potency using diazepam (Valium) as a benchmark. So potencies are expressed in relation to 10mg of diazepam. 5mg of Alprazolam (for example) is equivalent to 10mg of diazepam. So Alprazolam is around twenty times the strength of diazepam.

DOSE RANGES: There are a wide range of benzodiazepines available and the lower dose ranges vary according to the potency of the drug, and its duration of effect. Medical guidance specifies upper dose ranges for medical use. In street settings upper dose range will vary massively according to tolerance. Some people will build up dose tolerance far in excess of the therapeutic dose range.

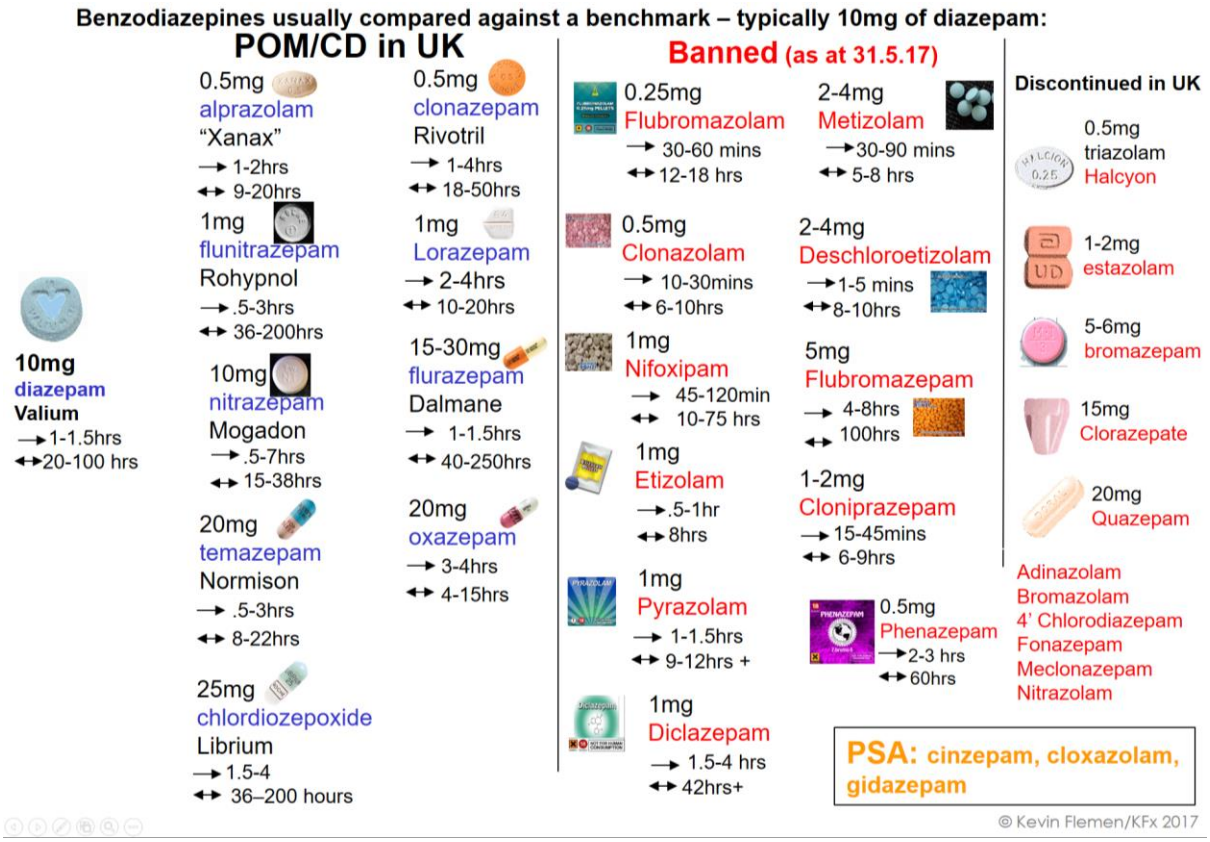
ONSET and DURATION: As with strength and dose, benzodiazepines vary significantly in terms of how fast they start working, and how long their effects last.

Slow-onset benzodiazepines increase the risk that a person will re-dose before drugs have started working properly.

Some benzodiazepines produce active metabolites, with very long half-lives. Some can last 100-200 hours or longer. These long-acting drugs increase the risk of building up tolerance, and that any later drug use will be taking place on top of residual benzodiazepines. For example, diazepam used on Sunday will probably still be in the system on Tuesday or Wednesday. This means that alcohol use on these days is effectively taking place on top of benzodiazepines.

INDICATORS of USE: Aside from physical evidence such as packaging, there are few markers for benzo use. Illicit fake diazepam can cause blue staining to lips and tongue. Otherwise indicators are simply drowsiness, relaxation and possibly appearing drunk, but without the smell of alcohol.

Whilst older benzos will show up on urine tests, some of the newer products such as Etizolam are sufficiently structurally different so won’t show up on urine tests.



EFFECTS: Benzos can cause physical relaxation, reduce stress and anxiety. Users may become drowsy or fall asleep. They can have a big impact on memory, causing amnesia. They can also cause slurred speech, clumsiness and confusion. People report euphoria and some people find benzos disinhibiting, in the same way that alcohol is. Some users gain a feeling of invulnerability or invisibility when using benzodiazepines. They may find this useful when, for example, shoplifting. Some users experience depression and, paradoxically, a few users become over-excited or violent.

HEALTH IMPLICATIONS:
Dependence: When used within a supervised medical regime, benzodiazepines should not be used for extensive periods as tolerance develops rapidly and withdrawal can be an unpleasant and, in some cases, dangerous process. After a few weeks, and certainly within a few months, they cease to be therapeutic, and use is now primarily to stave off withdrawal symptoms.

For physically dependent users, abrupt withdrawal can cause insomnia, anxiety, tremors and, in severe cases convulsions.
Withdrawal from Benzodiazepines should always be tapered rather than done suddenly.

Where there is evidence of high doses, long-term use, or where the person has a history of illness such as epilepsy, withdrawal should be done under medical supervision. IT IS POSSIBLE TO DIE DUE TO SEVERE BENZODIAZEPINE WITHDRAWAL. However this is unusual and most people are able to withdraw rapidly, through a tapering reduction programme.

Overdose: There is a low risk of fatal overdose when benzodiazepines are used on their own. They have a very high therapeutic index, and while there's a risk of unconsciousness or possible coma, the risk of death is low. This risk is raised through ignorance as to the strength of various tablets.

However, in combination with other drugs, especially alcohol and opiates, the risk of fatal overdose is far higher. A large number of dependent drinkers and people on opiate substitution therapy are also prescribed diazepam, increasing risk of dangerous polydrug use.

Other risks: When tablets are crushed for injection, this brings with it a range of associated health risks. Of specific concern were Temazepam Capsules. These capsules were originally introduced as a response to growing concern over Temazepam tablets being crushed for injection. The capsules contained a viscous jelly that was intended to discourage injecting. However, users found that heating the jelly made it become liquid, and so injected it. However, at lower temperature, such as at body temperature, the gel solidifies, and a large number of gruesome injecting injuries were reported. Gel capsules have not been legitimately available in the UK for over ten years.

LEGAL STATUS: Most Benzodiazepines are class C drugs. The majority are Schedule 4i drugs, meaning that they can only be supplied, produced and possessed by those authorised to do so. The law on Schedule 4 drugs changed in 2002; prior to that it was not an offence to possess benzodiazepines without prescription.

The penalty for supply of a Class C drug was increased from 5 years to 14 years, so it is a serious criminal offence.

Temazepam and Flunitrazepam (Rohypnol) were rescheduled, and are Schedule 3 drugs.

Formerly unregulated benzodiazepines (such as etizolam) were brought under the MoDA in May 2017. The benzos were added as a list rather than via an "analogue" clause which means that there is scope for developing new benzos that will not be covered by the MoDA. Any such emergent benzos will automatically be covered by the Psychoactive Substances Act 2016.

OTHER INFORMATION:
Benzodiazepines were introduced and have largely supplanted the BARBITURATE group of drugs, which were widely prescribed and widely misused in the seventies. They were seen as preferential to barbiturates as the risks of overdose, dependence and side-effects were thought to be less. They are very widely prescribed; some critics argue that they are over-prescribed, and do not tackle the causes, merely masking symptoms temporarily.

They are used recreationally in a number of settings. Some people combine benzodiazepines with alcohol to enhance and increase intoxication. Some stimulant

users take benzodiazepines to alleviate the "come-down" from speed, Ecstasy or cocaine, and to promote sleep.

It is not uncommon for dependent heroin users to use benzodiazepines when heroin is unavailable, or to use them to help offset some of the symptoms of withdrawal. The use of benzos on top of prescribed opiates - such as with methadone or Subutex - is also common as it can make the effects of the opiates feel stronger. Such use increases risk of overdose.

Many people self-medicate with benzodiazepines to alleviate mental discomfort caused by mental health problems, painful memories, or to escape unpleasant circumstances. For such users, where unsupervised use may be long-term and extensive, careful assessment of needs, of underlying reason for the drug use, and comprehensive care plans are likely to be needed to achieve reduction and cessation of drug use.

Prescribers are very aware of benzodiazepine over prescribing, and in many areas greater care is now taken to reduce and monitor prescribing. However, a number of other drugs have been less closely monitored and have increased in popularity.

Initially, the “Z-Drugs” (Zopiclone, Zimovane, Zaleplon) increased and of course started to be misused. The law in relation to some of these has now been tightened and they are now Controlled Drugs.

More recently, Gabapentin and Pregabalin have emerged as the latest of the sedating drugs to shift from medical to non-medical settings. Although not benzodiazepines, they work in the same parts of the brain, with similar risks in terms of tolerance, dependency and overdose.

Whilst the use of prescribed diazepam is undoubtedly lower, levels of benzo-type drugs (including illicit market, novel psychoactives, and similar prescribed drugs) means overall use is probably increasing. Workers have reported people entering treatment with staggeringly high levels of benzodiazepine dependency, built up exclusively using street benzos.

Alongside opiates, alcohol and strong stimulants, benzos remain a core feature of the UK drug scene.