Renegade's Amphetamine FAQ

PREFACE:

This guide is intended to provide a comprehensive, unbiased source of information for all things related to the drug commonly called Speed. This is the first in a series of guides I hope to produce on drugs as a project I have undertaken to become a better informed individual. The information in this guide is provided for educational purposes only. Please be aware that use of possession of amphetamines is restricted in most countries of the world. I won't be held responsible if you get into trouble misusing this information.

Most sections have a Short Answer and a Long Answer. While the short answer will give you the gist of what you want to know, I encourage you to read the long answer and get the full picture.

Special thanx to BigTrancer for his editorial input, without which, this document would be a steaming pile of misinformation.

Comments or suggestions should be sent to renegade at theposse dot kicks-ass dot net.

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Version 1.0 (finally)

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1. WHAT IS SPEED?

Short Answer: Any one of the drugs referred to collectively as amphetamines.

Long Answer:

'Speed' is the street name commonly used in reference to amphetamine(s), a psychomotor stimulant that affects the central nervous system. Amphetamine is the accepted pharmaceutical name for a specific drug (i.e., C9H13N as (+/-)-alpha-methylbenzenethanamine, or racemic 1-phenyl-2-aminopropane, see Merck Index Entry #623), while the plural amphetamines generally applies to a family of chemically related compounds with similar physiological effects. Amphetamine, dextroamphetamine, and methamphetamine are all types of amphetamines.

On the street, amphetamines go by many aliases, such as goey, wizz, speed, dex, crank, phet, tweak, yaba, and base. Methamphetamine is usually referred to simply as 'meth', 'crystal meth' or 'ice' (due to its appearance). This can be confusing however as ice is also a street name for the drug 4-methylaminorex (also known as 4-MAR or 'shabu', which is chemically unique from the amphetamines). Amphetamines are also sold in pharmacies by prescription in some countries, under various names such as Benzedrine (amphetamine), Dexedrine (dextroamphetamine), Methedrine, and Desoxyn (methamphetamine). Adderall (mixed amphetamine salts) and Ritalin (methylphenidate) are commonly prescribed medications that have amphetamine effects.

2. WHAT ARE ITS USES?

Short Answer:

Medically used to treat narcolepsy and attention deficit disorders (ADD). Recreationally used as a stimulant.

Long Answer:

In the past amphetamines have been prescribed by doctors for all manner of medical conditions, including weight loss, depression, schizophrenia, Parkinson's disease, epilepsy, fatigue, narcolepsy and attention deficit disorder. At one stage it was believed there were up to 39 medicinal uses for amphetamines, however these days they are generally only prescribed for narcolepsy and ADD.

Recreationally amphetamines are used to provide a boost in energy levels and feelings of euphoria and happiness. They are often used by truck drivers, students and other 'nocturnal' occupations as a means of staying awake for extended periods of time. Amphetamines are more popular amongst people who engage in extended periods of physical exertion, such as athletes, and physical labourers.

3. WHAT FORMS DOES IT TAKE?

Short Answer:

Sold as pills by prescription in pharmacies. On the street usually a white or off white powder, sometimes a paste or rock.

Long Answer:

As mentioned above, amphetamines are sold as prescription drugs in pharmacies (depending on local laws). Pharmaceutical amphetamines are usually a pill or capsule, though they contain relatively low doses - Usually 5 or 10mg tablets. Benzedrine was the first ever commercially sold amphetamine, originally it was sold as an inhaler for nasal decongestion.

In the case of illicitly produced amphetamines, there are 2 perspectives to consider - the physical form and the chemical form. Physically most illicit amphetamines are sold as a powder, though sometimes it comes as a paste, or even a rock when purchased in larger quantities. Pure amphetamine powder is white, but street speed rarely is, typically because street speed can be less than 15% pure. Impurities are usually the result of the drug being cut back (mixed with other, cheaper substances) by dealers, or due to poor synthesis techniques. It is not uncommon for street speed to be off-white, yellowish or brown in colour, although these are not the only variations. While the colour is by no means a gauge for what is in your speed, some causes of discolouration are listed below. It should be noted that some dealers add food colouring to their product to make it seem more appealing or merely for ease of identification.

* RED: The product was made from pseudoephedrine tablets, and the red colouring of the tablet was not adequately washed away (it is difficult).

* ORANGE: Ephedrine sulphate was used, and some of the sulphate was reduced to sulphur.

* PURPLE: Iodine from a phosphorus-iodine reaction was not washed out.

* GREEN: Copper (or other metallic) salts somehow made their way in to the mixture, probably due to the reaction vessel used in the manufacture.

* BROWN: Oxidized red colouring (see above), or tabulating agent was present in the reduction.

In many places, methamphetamine is more common than amphetamine, because it is more potent and easier to make. Pure methamphetamine is easily crystallised and is more readily smokeable than amphetamine because it doesn't have to be converted to freebase first (since methamphetamine sublimes directly from solid to vapour form with the application of heat). Due to the size and appearance of the crystals, methamphetamine is often referred to as 'crystal meth', 'ice' or 'glass'. While methamphetamine tends to have more pronounced effects than amphetamine, most things that are true for amphetamine also hold for methamphetamine.

Sometimes amphetamines are sold as a pasty or waxy substance. There are a few reasons this can happen; a common misconception is that pasty or damp amphetamine samples are 'stronger' than dry powder. Damp of pasty speed can result from leaving it out in the open, especially in a moisture rich environment, because certain chemicals absorb water from the air (explained below). Moreover, if all of the freebase is not properly reacted when converting to salt, the oil will cling to the crystals causing them to stick together in waxy clumps. Neither of these things makes the end-product any more potent than the dry salt (although freebase is more potent by weight than the salt form).

Chemically speaking, amphetamines are generally either a freebase or a salt. The term 'freebase' is widely misused in regards to amphetamines; used correctly, freebase refers to the drug in its natural (pure) form. Since amphetamines are amines, and amines are bases, the pure form is called the freebase because it is the base free of any other functional groups. Freebases tend to be oily liquids at room temperature and pressure, and are often quite volatile (i.e., they evaporate easily). As a consequence, the freebase form is generally preferable for smoking; however, freebase oils are also more difficult to store and measuring accurate doses can be problematic. For this reason the freebase is almost always converted to a salt.

The salt form is more common on the street, and is made by performing an acid/base extraction of the freebase, where the type of salt produced depends on the acid used. With most drugs, hydrochloric acid (HCl) is used, which produces HCl salt. However in the case of amphetamines, the HCl salt is not particularly suitable because it absorbs moisture from the air quickly (i.e., amphetamine HCl is 'hygroscopic'). For this reason the sulphate salt is preferable to the hydrochloride salt; as a consequence, most 'street speed' is amphetamine sulphate. In the case of methamphetamine, the HCl salt is far more common, because it forms better crystals and the sulphate is not suitable for smoking.

Amphetamines are also sold in illicitly produced pills and often passed off as ecstasy, referred to as 'speed bombs'. This is generally done for 2 reasons: 1) amphetamine is cheaper to make than ecstasy; 2) Some people prefer to take a pill because they perceive a pill as being 'safer' than a powder, or they don't like snorting. (Note: methamphetamine tablets known as 'yaba' are common throughout Southeast Asian countries; these tablets are cheap, and quite strong, and are designed to be smoked rather than eaten like ecstasy).

It is also common practice for dealers to 'cut' their speed. This refers to mixing the speed with some other powder, usually a sugar of some kind like glucose, or a bitter agent such as Epsom salts. This makes the product go further when selling it but the diluted end-product and inflated prices are undesirable to many users.

4. HOW DO YOU IDENTIFY IT?

Short Answer: You can't reliably tell by appearance smell or taste, use a reagent tester to be sure.

Long Answer:

Street speed is most frequently a white powder. It has a very bitter taste, and is quite caustic. It has an acrid smell.

That said however, you cannot identify speed based on its appearance. Taste is also unreliable (and dangerous) because it may have been cut with glucose, which will just make it taste sweet, or something more dangerous and toxic. I find that speed does tend to have a very characteristic smell, but it can be difficult to discern and is still not as very reliable method. (note: the smell of speed can vary hugely from synthesis to synthesis, products with smells ranging through 'paint thinner', 'dead ants', 'nail polish remover', and other volatile organic chemical aromas are possible from improperly cleaned product).

An easy and cheap way to identify a substance such as speed is to use a 'reagent tester'. A reagent is a liquid that reacts when exposed to another substance; reagent-based drug tests work by using reagents which undergo characteristic colour changes in the presence of illicit drugs. There are many different kinds of reagent tester, and the same reagent can sometimes be used to detect a range of substances (e.g., MDMA, ketamine, speed). Reagent testers can be bought in head shops, record stores or porn stores in some countries. Alternatively they can be purchased on the Internet from <u>http://www.eztest.com/</u> as well. Simon's reagent is most useful for telling the difference between amphetamine and methamphetamine, while Marquis reagent is most useful for discriminating between ecstasy-like chemicals and the amphetamine family.

5. HOW DO AMPHETAMINES WORK?

Short Answer:

Amphetamines stimulate the central nervous system and promote the activity of certain neurotransmitters in the brain.

Long Answer:

Simply, amphetamines work by stimulating the central nervous system (CNS). This stimulation leads to the acceleration of other bodily functions, which is what ultimately causes the effects of the drug. Loss of appetite is caused by increased metabolic rate, while increased blood pressure and temperature can result from an increase in heart rate.

Mentally, amphetamines work by stimulating the release and/or inhibiting the reuptake of three specific neurotransmitters. Dopamine is the most prominent, and is what causes the general lift in mood. Dopamine is often connected with the action-reward system in the brain, which associates enjoyment with things like eating chocolate or having sex. Serotonin is another neurotransmitter, which produces euphoria and feelings of happiness, and is also the primary neurotransmitter involved in ecstasy use. The serotonin system is marginally affected by amphetamine, however methamphetamine is suspected to be more serotonergic due to the euphoria experienced by meth users. The last neurotransmitter to mention is Noradrenalin, which is related to adrenalin and is what causes the enormous increase in energy and insomnia experienced by amphetamine users.

6. HOW IS IT TAKEN?

Short Answer: Basically, you can eat it, snort it, smoke it or inject it intravenously.

Long Answer:

Depending on the form its in, amphetamine can be taken in a number of ways, each having a different affect on the user:

ORALLY:

The simplest way is just to eat it. This can be done in a number of ways. Licking some from the end of a finger or car key is probably the easiest, but most unpleasant since speed tends to have a very bitter taste. It also tends to be quite caustic, so it can result in a chemical burn on the tongue (assuming pure amphetamine that hasn't been cut back). More than likely the powder has been cut with something like glucose, and will have a slightly sweeter taste and be less caustic. Similar to this is 'gumming' it. This involves dabbing a bit on one's finger and rubbing it above

the teeth, around the gums; the blood vessels in the gums absorb some of the drug before it gets to the digestive system. This is more effective than other oral ingestion methods, but corrosive to the teeth and gums.

Another method is to dissolve the powder in water (it is a salt after all) and drink the water. Again, the taste is not pleasant, however a benefit of this ingestion method is that any nonsoluble adulterants will sink to the bottom of the drinking vessel, allowing the user to avoid ingesting them. To avoid the taste of the speed altogether, some people prefer a method called 'parachuting' or 'bombing'; the powder is wrapped up in a piece of tissue paper or a cigarette paper, and swallowed whole like a tablet. This way the powder arrives in the stomach at the same time, and the paper dissolves quickly, allowing the chemical to be absorbed at once. Another way to do this is to buy empty gel capsule from your local health food store and put the powder in one of these and swallow it.

The main advantage with oral administration is that it is quick and easy. There are however some fairly major drawbacks. Apart from the foul taste, taking speed orally is the most inefficient way. It takes the longest time to for the effects to come on, typically between 30-45 minutes, and your body will only absorb around half of the drug when taken this way. The reason for this is that the ingested chemical passes through the liver prior to entering the bloodstream, where enzymes metabolise some of the drug before it takes effect. The long onset often means the effects seem quite mild as opposed to the 'rush' obtained from other methods. This can lead to a careless user taking a much larger dose than necessary.

INTRANASALLY (or INSUFFLATION):

Probably the most common way to take speed when it is in a powder form is to 'snort' it. This is usually done by laying out the powder in a thin line (rail) or a small pile (bump) and snorting it through a tube. You can also buy 'snuff bullets/rockets/snorters' from some head shops, which is a device that looks like a large bullet and ejects a small (roughly measured) amount of the powder when the button on the bottom is pressed, allowing the device to be pushed up to a nostril and the small dose of powder to be snorted. The powder then gets caught in the nasal passage and the drug is absorbed directly into the blood stream through the mucous membranes.

The advantages of snorting speed over taking it orally are that it has a much quicker onset and higher rate of absorption. This is because the chemical is absorbed straight into the blood stream through the mucous membranes rather than passing through the liver first. The effects will come on in a matter of minutes and the onset is much more pronounced, giving the user a 'rushing' sensation. Usually more than about three-quarters of the drug is absorbed into the blood stream when snorted.

The disadvantages of snorting are mostly to do with the experience being rather unpleasant. Since amphetamines are corrosive, they can cause burning when lodged in the nasal passage. Because the mucous membranes are quite thin and delicate, this can lead to a bleeding nose. Not all of the speed will dissolve in the nose and be absorbed through the mucous membranes, and sometimes speed is cut with something that isn't water-soluble, so you are going to end up with a lot of powder stuck up your nose. Whatever doesn't dissolve eventually ends up 'dripping' down the throat and tastes very unpleasant. Any speed that wasn't absorbed in the nose is then swallowed, and subject to first-pass metabolism in the liver before reaching the blood system as discussed above.

RECTALLY:

"WTF?" I hear you saying... Yes, it is actually possible to take speed by sticking it up your arse (note: many medications are formulated for 'suppository' administration, quite simply this is the most efficient way to deliver water-soluble drugs to the blood system without puncturing the skin, due to the large number of blood vessels and the warmth and moisture in the rectum). To do this buy some empty gelatine capsules from a health food store, put the powder in a cap and ... 'plug it' ;-). In order to make it as 'clean' an experience as possible, I suggest going to the toilet first, and washing your hands before and after with antiseptic soap.

Gross you say, well maybe, but it has the main advantage of being the most efficient way to take most drugs that doesn't involve needles or flame. Based on the same principle as snorting - there are lots of blood vessels in your rectum which means easy absorption directly into your blood stream. Nearly all of the drug will directly enter the blood stream when taken this way, which can result in effects twice as strong from the same dose of drug when compared to oral ingestion. Onset time can range from 20 minutes up to more than 90 minutes, depending a number of factors; however, primarily the delay in onset is a result of the time taken for the capsule to dissolve.

This brings us to the disadvantages. Again, the caustic nature of amphetamines turns out to be a pain in the arse (pun intended), when the cap finally dissolves you may feel some burning/discomfort and a need to go to the toilet (which is another reason it is preferable to go first). If you can resist, the discomfort should pass within 5-10 minutes. A further disadvantage is that you have to stick your finger into your rectum (at least as far as the second knuckle) to locate the capsule. One suggestion to make the insertion of the capsule slightly more hygienic is to put a condom on your finger. The other main disadvantage is that anything non-soluble is just going to come out again (sooner rather than later), so whatever you do DON'T FART before you go to the toilet.

INHALATION:

Inhalation of amphetamine is possible by heating the drug until it turns to vapour and inhaling the vapour. This is often referred to as smoking, but that is technically incorrect since you are not inhaling the products of combustion. Smoking has an almost instantaneous onset, giving a sudden rush of euphoria (more so for smoked methamphetamine). Most of the drug will be absorbed into the blood stream (the only part that won't be is any vapour that dissipates before you inhale it), so the required dose is a fraction as much as required by other methods. This would then seemingly be the best method of administration but it does have some serious drawbacks.

The rush is short lived and the come down is pretty harsh, making it extremely habit-forming and physical and psychological dependence can result. Even though you really only need half as much this way, you frequently end up using twice as much. It is also quite harsh on the lungs (note: due to the solubility of amphetamines discussed above, these drugs do not 're-crystallise' in the lungs when smoked; this is a common myth which seems to be brought up whenever

smoking speed is discussed).

There is also an array of chemical related problems. You can't smoke the sulphate salts, because the melting points are too high (around 300C), it the powder substance will actually combust before it releases an appreciable amount vaporised amphetamine. If you have amphetamine sulphate it must be converted to freebase before it can be smoked efficiently. Methamphetamine HCl is smokeable, because it sublimes into the freebase and HCl under application of heat. Methamphetamine is also easily re-crystallised to form 'crystal meth'. Crystal is better for smoking because the powdered salt tends to burn easily, and is generally free of impurities because crystals only grow from pure substance. However it is possible for impurities to get trapped between crystals as they are forming. Purity of the drug is important when smoking because any impurities will require a much lower dosage to be toxic when smoked.

Freebase is more suited to smoking since it evaporates easily; however, since freebase is hard to come by, if you want to do it this way you will likely have to do the conversion from the salt yourself (for information on this see the CHEMISTRY section). Also, the boiling point for (meth)amphetamine freebase is about 203C, which can be difficult to produce with a normal cigarette lighter (use a jet lighter for best effect)

INJECTION:

There are several different ways to inject things into the human body - two prominent routes, intramuscular (IM) and intravenous (IV), are used commonly for illicit drugs. The difference between IM and IV is the injection of the drug either into a large muscle or a vein, respectively. In the case of injecting amphetamine, IM is an inappropriate method of ingestion that can lead to dramatic swelling, loss of feeling in the area, discolouration of the skin, abscesses and infection. These can also occur if you miss the vein while trying to inject intravenously. Complications due to infection require emergency medical attention, and occasionally amputation in cases of tissue necrosis.

Injecting amphetamine gives the 'best and fastest' high, as all of the substance makes it straight into your blood stream. The rush experienced from IV is much stronger than from smoking but also less long lasting, making it even more habit-forming. Even the process of injecting can become habit-forming for some people.

The dangers, however, can far outweigh the benefits gained from injecting. In short, the use of hypodermic needles effectively bypasses every natural filtration system the body has, introducing a foreign substance to the blood system directly. Even injections carried out by trained practitioners in sterile situations, using pure pharmaceuticals, are not without risk; however in circumstances of questionable hygiene, untrained users, and black market drugs with no knowledge of purity this method of administration is extremely high risk. The addictiveness of the rush and the short duration of the high often mean that injecting users will use much more drug over time than other users. Those things aside there are still serious problems involved with injecting in general: the ease of catching a disease, the extra expense of needles, problems with purity of the drug.

I will not go into the details of injecting since there are many guides to safe injecting on the net

already, and I personally do not see the need to inject anything which can just as easily be swallowed, snorted or smoked. I will say this though: if you must inject ALWAYS use fresh sterilized needles for EACH INJECTION, do NOT share needles EVER, and finally, when injecting anything it is VITALLY important that the substance be PURE. If you inject cutting agent or some other additive you greatly increase the risk of developing life-threatening health complications. Do not inject anything you haven't made/tested the purity of yourself. For more information on this see the CHEMISTRY section.

7. ONSET AND DURARTION OF EFFECTS.

Short Answer:

Onset between 0 - 40 minutes, duration 4 - 8 hours, both depending on method of ingestion.

Long Answer:

Onset of the drug will depend on the method of ingestion and the bodys metabolic rate where applicable. The numbers given below are only a guide (based on the experience of myself and people I know), and will vary from person to person:

- * Injecting: Instantaneous.
- * Smoking: Almost instantaneous.
- * Snorting: 2 10 minutes.
- * Rectally: 10 20 minutes.
- * Orally: 30 40 minutes.

The duration of the effects also depends largely on the method of ingestion, dosage, and the type of amphetamine taken. Other influencing factors include tolerance to the drug (developed through frequent and repetitive use) and body mass of the user. Assuming a single average dose (outlined below) of pure amphetamine for an infrequent user, I have given a rough guide below (regular users shouldn't need any help with this section). Again these numbers will vary from person to person. Duration will be lengthened by re-dosing. Note that delayed absorption (e.g., orally) offers a more prolonged experience than via direct administration (e.g., IV).

- * Injecting: 20 30 minutes for the rush, 4 6 hours for the high.
- * Smoking: 20 40 minutes for the rush. 4 6 hours for the high.
- * Snorting: 6 8 hours.
- * Rectally: 6 8 hours.
- * Orally: 6 8 hours.

The above figures refer only to the primary effects of the drug, side affects may continue for many hours (sometimes days) after the 'high' wears off. It is my experience that the primary effects can be extended to a maximum of about 15 hours with larger and repeated doses. After this, the body simply will not respond to any more CNS stimulation. It is possible to repeat the 'rush feeling' by taking repeated doses; however, the feeling wears off more quickly each time, and requires a larger dose to achieve each time. Also, in the case of methamphetamine, these durations will likely be extended from anywhere between 20 - 40%.

8. WHAT IS THE REGULAR DOSE?

Short Answer:

Beginners should take less than 50mg intranasally or orally.

Long Answer:

A 'normal' dose is really subjective - it will be different for each person, and many factors can influence how responsive a person is to the drug. Body mass, metabolic rate, and tolerance are obvious factors to consider. Blood pressure, and medical conditions like anaemia will also have some bearing on how effective a drug is. Method of ingestion will also affect the required dosage, as a consequence of the absorption rates, and most importantly the purity of the substance will also affect the 'dose' of powder used.

Medically, amphetamines are distributed in 5 and 10mg doses, with maximum recommended doses for most medical conditions rarely exceeding 30mg spread out over the course of 24 hours. People who take amphetamines for medical reasons like narcolepsy or ADD will feel less pronounced effects than someone who doesn't, because the body builds up a tolerance.

So what is a good dose for a beginner? Well the first thing to keep in mind when trying something new is you can always have more but you cant have less, so start small and wait a while, if you don't feel the effects then you can have a bit more. Take something less than 50mg of pure substance either snorted or swallowed for your first attempt (note: 50 milligrams is equal to half a 'point', which is a measure commonly used for illicit powders. One 'point' is equal to 'point-one' or a tenth of a gram (0.1g = 100mg). Smoking or injecting for your first time could be considered a bad idea for a couple of reasons: First, the sudden rush can be a bit overwhelming for someone who doesn't know what to expect. Second, these methods are significantly more habit-forming.

One important thing to consider is that street speed is never going to be pure, and the purity will vary widely from one batch to another. Typically, the purity can be around 10-15% amphetamine, but sometimes as low as 2%; the rest is known as an 'adulterant', usually a cutting agent like glucose, Epsom salts or sometimes caffeine. Half a point of street speed is probably not going to have a much of an effect (this dilution by cutting is why 'street speed' is sometimes sold in 'weights' (grams) or 'half-weights' (0.5g = 500mg), whereas speed and methamphetamine of much higher purity can be obtained in measures a fraction the size (i.e., 'points') for a similar price), so a larger dosage will be required to have the desired affect. How much larger is impossible to determine without knowing the purity so the best idea is to ask the person you got it off how strong it is, and how much they would recommend for a beginner. If it's your first time don't take more than a point at once. Given time and experience you should be able to gauge what a decent dose for yourself. The key is to be sensible with it.

One last note, is that since methamphetamine tends to be more potent, you likely won't need as much. The above guidelines can still apply to methamphetamine but it won't hurt to take a bit less.

9. WHAT IS THE OVERDOSE LEVEL?

Short Answer:

Varies from person to person, but 50mg of pure amphetamine can be toxic for a non-tolerant user

(note: this figure is for hypersensitive users, and since amphetamine is rarely encountered in a pure form, this is why the above section reads 'less than 50mg'). Lethal dosage in rats is 55mg/kg taken orally (ref: Merck Index)

Long Answer:

Much like the recreational dose, the overdose level is difficult to pin point because of differences between people. Deaths have been reported at levels as low as 1.3mg/kg (i.e., at a dose level equivalent to 1.3 milligrams of amphetamine per kilogram of the users bodyweight; e.g., in a 80kg human this would equate to a dose of 104mg), other reports state tolerance has been built up to 1 gram at a time and up to 5g in a day without being toxic to the user. These extremes indicate the variation of overdose levels. People who are allergic to a component of the substance ingested (recall that these 'drugs' are powdered mixtures which may have significant adulterants due to lack of any quality control in the synthesis procedure and overzealous cutting) or anaemic people have a higher risk of overdose at very low levels, while people who are frequent users may be able to withstand a much higher dose. Because of the difficulty in determining the overdose level it is important to be sensible with your consumption and to know your own limits. It is also important to be able to identify the symptoms of an overdose.

Symptoms of acute overdose can include restlessness, rapid respiration/perspiration, confusion, tremor (the shakes), and nausea. Presence of these symptoms generally indicate only mild levels of toxicity and you should probably just lay off it for a while, drink some water and try to calm down.

Symptoms of high level overdose include vomiting, diarrhoea, abdominal cramps, hallucinations, panic attacks, paranoia and circulatory collapse. These symptoms are indicative of a much higher level of toxicity and occur from much larger doses. If you (or friends) experience these sorts of symptoms a doctor or paramedic should be contacted immediately (emergency). Fatal poisoning is usually preceded by muscular convulsion and coma.

LD50 is a term for the dosage required to kill 50% of the test subjects. According to the Merck Index, the LD50 for amphetamine in rats is 55mg/kg taken orally. There isn't really any data specifically on the lethal dosage for humans since no formal testing can be done.

10. WHAT ARE THE PRIMARY EFFECTS?

Short Answer:

Increased energy levels and mental alertness. Often accompanied by feelings of euphoria and suppression of appetite.

Long Answer:

Amphetamines work by stimulating the CNS, which in turn speeds up bodily functions. It is the speeding up of bodily function that is responsible for the primary effects of the drug:

* Increased energy levels: caused by speeding up metabolism and heart rate, which means you have more energy to burn your blood is carrying the energy around your body.

* Increased mental awareness: caused by stimulated release of neurotransmitters.

* Sense of elation, increased self-confidence: amphetamines stimulate the dopamine system in

the brain, causing amplified emotions and energy levels.

* Other noticeable effects include talkativeness, dry mouth, sweating, dilated pupils, rise in body temperature, and suppression of appetite.

* The 'rush' effect is caused by large amounts of the drug reaching the brain at once. The effect goes away once the drug dissipates in the blood stream.

11. WHAT ARE THE SIDE EFFECTS?

Short Answer:

The most common side effects include insomnia (inability to sleep), twitching, muscular soreness, increased aggression, inability to regulate body temperature and restlessness. At higher doses the side effects become more severe, including diarrhoea and psychosis.

Long Answer:

There is a long list of side effects associated with amphetamine use. Most users will be familiar with the more common ones - inability to sleep for extended periods of time after the drug has seemingly worn off, muscle spasms (twitching), muscular tension and soreness, nausea, fluctuation of body temperature and sweating. Some people experience aggressive mood swings and irritability, headaches, dizzy spells, slurring of speech and loss of coordination. Loss of appetite is also quite common but I tend to describe this as one of the primary effects of the drug since this is one of the things it was originally prescribed for.

There are more serious side effects but they generally are only associated with very high doses or overdoses. They include vomiting, diarrhoea, and psychosis. Amphetamine psychosis is a mental disorder with similar symptoms to schizophrenia, and is brought on by repetitive, high dose, prolonged use of amphetamines. It is caused by subtle hallucinations and changes in state of consciousness, which are difficult for the user to perceive. In some cases users may experience full-blown visual and auditory hallucination.

Then there is always the come down. 'What goes up must come down', as the saying goes. Coming down refers to the primary effects of the drug wearing off, in the case of amphetamines, the fading of any euphoric feelings and extra energy. The thing about coming down is that you rarely come down just back to your normal state. More often than not you travel a proportionate distance down the scale, as it were, before returning to normal. The result is that users often feel tired, lethargic and depressed or irritable on a come down. The effects of the comedown are more severe at higher doses, and as the drug dose is increased, the negative after-effects can be amplified far more than the increase in positive effects. A small to medium sized dose will most likely leave you feeling a little worn out. Staying awake for three days on speed will likely result in collapsing from exhaustion and a foul temper, followed by several days of 'hangover' type effects.

12. WHAT ARE THE LONG TERM EFFECTS?

Short Answer:

Anorexia and malnutrition, insomnia, skin disorders, depression, anxiety, psychosis, high blood pressure, stroke, neurotoxic damage.

Long Answer:

The most common side effect of long-term amphetamine use is insomnia. In some cases this may mean inability to sleep for more than a few hours at a time, in more server cases inability to sleep for days on end. Chronic fatigue syndrome and depression may follow as a result. Another common long-term effect is malnutrition or anorexia, which happens as a consequence of long-term appetite suppression.

Frequent higher doses can lead to hypertension (high blood pressure), and in some cases can increase the risk of a stroke. Amphetamine psychosis can also be caused by either long-term use or long periods spent under the influence of the drug.

There is some research that suggests extended amphetamine use may cause neurotoxic damage by constant over stimulation of dopamine receptors in the brain (ref: see bibliography for details.) Most of the effects of long-term amphetamine use are believed to fade within 4 months after last use of the drug, meaning that the drug has few lasting permanent effects. The possible exception to this is reversal of neurotoxic damage. It is believed that while some recovery is made, not all neurotoxic damage heals. (Note: excessive use of amphetamines over long periods can cause damage to the teeth and gums, particularly when 'gumming' powdered street speed. This damage is not reversible, as the tooth enamel can be pitted and the gums can retract).

13. WHAT ARE THE DANGERS?

Short Answer:

Addiction, disease (from sharing needles, etc), overdosing, death, amphetamine psychosis, possible long-term neurotoxic damage.

Long Answer:

Aside from the all the side effects outlined above, there are numerous other dangers associated with amphetamine use. Addiction is probably the most prevalent. While speed may not seem like a particularly habit-forming drug, because dopamine is replenished so efficiently by the body, it is easy to taking speed every day without instantly noticing the effect of tolerance (this compares, for example, with MDMA pills which have rapidly diminishing returns on the second and third days). What starts out as a little 'pick me up' in the morning can quickly turn into half-gram-a-day habit, because tolerance to the drug builds quickly. Once you start using every day it will almost certainly be a monster effort to stop. This compounded by the exponentially harsh comedowns associated with taking a break after frequent use. People have been unable to get out of bed for days after a speed binge.

Then there are the dangers associated with addiction - supporting a daily speed habit is expensive (which can be a HUGE problem if you lose your job due to drug use), and while getting involved in crime to support a drug habit is a bad idea, many people have found themselves doing just this. Addiction also creates a level of desperation in drug users, which makes them less cautious about their drug use. In the case of speed, oral and intranasal administration tend not to be very addictive but people who have been using these methods for some time frequently turn to smoking or injecting as a means to get a better high once they have developed a tolerance. Smoking and injecting are much more addictive because of the rush experienced when doing the drug using these methods. There are also dangers associated with them that do not apply to other methods. In both cases purity of the substance is much more vital since any impurities will make

it straight into your blood stream much easier. When injecting there is always the issue of disease associated with needle use, sharing and so on. It is easy to say that common sense dictates no one would be so stupid, but to a serious addict all that matters is getting the next hit, and concerns like these are often laid aside in the name of getting high. I don't think anyone starts out with the intention to become a drug addict.

The other big danger I have mentioned briefly above is the risk of getting bad quality product. Amphetamines more than most other drugs are prone to impurities and tampering. This stems from the fact that amphetamines are quite easy to make, and the majority of street amphetamines are manufactured in clandestine laboratories. Inexperienced and uneducated chemists frequently leave impurities in their finished product because they either don't know how to detect them or how to separate them out (furthermore, properly drying and cleaning the end-product reduces the overall mass of substance, and therefore the profit). Some chemists will even add other, often toxic chemicals to the mix to make it seem more potent. The other problem is that amphetamines are often cut back with sugars and salts and other things to make the powder go further, enabling dodgy dealers to sell 5 grams of active content as 10 grams for twice the profit. Since many users haven't the knowledge or the time to test purity, this almost an accepted consequence of being a speed user.

Lastly, while it is rare that someone dies directly as a result of amphetamine overdose, death can also result from amphetamine induced strokes, or even self injury while suffering a psychotic episode. People with heart conditions should avoid taking amphetamines. It can also harm a developing baby while pregnant or transfer through breast milk. NEVER use un-prescribed drugs while there is a chance of pregnancy.

14. WHAT SHOULDN'T IT BE COMBINED WITH?

Short Answer:

You should avoid taking amphetamines if you are on MAOI medication. Taking it combination with cold remedies is dangerous because they frequently contain chemicals similar to amphetamines which when combined can raise the blood pressure to dangerous levels.

Long Answer:

Taking amphetamines while using a Monoamine Oxidase Inhibitor (MAOI) can lead to dopamine poisoning in the brain. This is because MAO is the enzyme which breaks down dopamine, and taking amphetamine causes high levels of dopamine to be released into the brain.

Also, there has been research to link the combination of amphetamine and MDMA (ecstasy) with increased serotonogenic neurotoxic damage. The theory behind this is that the excess dopamine from taking amphetamine enters into serotonin cells once the serotonin is depleted, and dopamine is toxic to serotonin cells. This research is somewhat dated however, current opinion seems to be that neurotoxic damage caused by taking ecstasy is mostly related to increased body temperature.

Another thing to note is that taking amphetamines with other stimulants can be dangerous because it can lead to excessively high blood pressure and dangerous increases in body temperatire.

Finally, taking amphetamine with GHB/1,4B or other depressants can be dangerous as well. Use of amphetamine allows a much higher dose of GHB to be taken, but if the amphetamine wears off first, loss of consciousness and repertory functions may result. Or if the GHB wears off first, over stimulation can occur.

15. HOW LONG DOES IT STAY IN YOUR BODY FOR?

Short Answer:

It is difficult to detect metabolites of speed using standard (e.g., NIDA-5) blood or urine tests after approximately 48 hours.

Long Answer:

Amphetamines have a plasma life of 4 - 6 hours, meaning it stays in the blood for about that long. After that period of time your body starts to purge it. The half life (time it takes for half of the remaining substance to be purged) of amphetamine is about 4 hours, so after 48 hours $\sim 0.02\%$ of the original dose is left in your body. Accordingly, larger doses will take longer to reach undetectable amounts, but after 72 hours the level of metabolites in the blood or urine should be below detectable concentrations.

16. LEGAL ISSUES

The legalities of amphetamine production, possession and use will vary depending on what country (and usually state) you are in.

The United Nations has various Conventions on how member counties should deal with illicit drugs. Amphetamines are regulated as directed by Schedule II of the United Nations Convention on Psychotropic Substances 1971. The Convention is an international treaty that sets out a list of rules on the way participating countries control the substances listed in its 4 schedules. The full text of the Convention is available at <u>http://www.incb.org/e/conv/1971/</u>, but I have quoted a few of the important bits from the Article section below:

* Each party shall, except as provided by in article 4, limit by such measures as it considers appropriate the manufacture, export, import, distribution and stocks of, trade in, and use and possession of, substances in Schedules II, III and IV to medical and scientific purposes.

* The parties shall require that the manufacture of, trade (including export and import trade) in, and distribution of substances listed in Schedules II, III and IV be under licence or other similar control measure.

* The Parties shall require that substances in Schedules II, III and IV be supplied or dispensed for use by individuals pursuant to medical prescription only, except when individuals may lawfully obtain, use, dispense or administer such substances in the duly authorized exercise of therapeutic or scientific functions.
* A Party may adopt more strict or severe measures of control than those provided by this Convention if, in its opinion, such measures are desirable or necessary for the protection of the public health and welfare.
Click to expand...

This basically says you cannot make it without a licence and you cannot possess it without a prescription, and that if those controls aren't tight enough the government can implement tighter controls as it sees fit.

The United Nations Convention Against Illicit Traffic In Narcotic Drugs And Psychotropic Substances 1988 outlines in more detail how the legislation of participating countries should be written. Probably the most important thing to note is:

* Each Party shall adopt such measures as may be necessary to establish as criminal offences under its domestic law, when committed intentionally:
(a) (i) The production, manufacture, extraction, preparation, offering, offering for sale, distribution, sale, delivery on any terms whatsoever, brokerage, dispatch, dispatch in transit, transport, importation or exportation of any narcotic drug or any psychotropic substance contrary to the provisions of the 1961 Convention, the 1961 Convention as amended or the 1971 Convention;

The full text of the convention is available at <u>http://www.incb.org/e/conv/1988/</u>

The specific laws which implement these rules vary from country to country. In Australia the relevant pieces of legislation are the PSYCHOTROPIC SUBSTANCES ACT 1976 and CRIMES (TRAFFIC IN NARCOTIC DRUGS AND PSYCHOTROPIC SUBSTANCES) ACT 1990 respectively.

17. CHEMISTRY

Amphetamine belongs to the family of chemicals known as phenethylamines. A phenethylamine is the combination of functional groups phenyl (-C6H5), ethyl (-C2H5) and amine (-NH2).

The phenyl (benzyl) group is 6 carbon atoms bonded together in a hexagonal ring structure, in which each carbon can be thought of as being held in place by a double-bond on one side and a single-bond on the other (this simplification is explained in any organic chemistry textbook). Each carbon acts as a place for another functional group to bond to, in this case one carbon in the ring bonds to an ethyl group, and the other five carbons are saturated with hydrogen atoms.

An ethyl group (Et) is essentially two carbon atoms singly bonded together. One has two hydrogen atoms bonded to it and the other has three. The first carbon is bonded to the phenyl group in place of the 3rd hydrogen.

An amine group is a nitrogen atom singly bonded to 2 hydrogen atoms, which has room for one more bond. If you take away the 3rd hydrogen from the ethyl group previously mentioned and bond the amine to it there, you have a phenethylamine.

Amphetamine is actually a shortened version of the full chemical name dl-Alpha-MethylPHenEThylAMINE. It is one of the simplest variations to the basic phenethylamine molecule. A methyl group (-CH3) is bonded to the 2nd carbon in the ethyl group in place of one of the hydrogen atoms. The molecule has the chemical formula C9H13N and is structurally represented as: Code:

Methamphetamine is a simple variation, where a second methyl group is singly bonded to the amine in place of one the remaining hydrogen atoms.

18. HOW IS IT MADE?

Synthesis of amphetamines is a relatively simple process, assuming you have access to the right precursors and equipment, and a decent understanding of chemistry. Interestingly, it is actually easier to make methamphetamine than regular amphetamine (at least using clandestine methods), which is largely responsible for its popularity on the street in certain countries. There are many commonly used methods of synthesis, the most popular of which is probably the reduction of (psuedo)ephedrine using Hydroiodic Acid and Red Phosphorous (HI/RP reduction). Amphetamine can be made by further reducing methamphetamine to lose its second methyl group but most people would consider this a waste of good meth. The most popular method for synthesis of amphetamine is reductive amination of Phenyl-2-Propanone (P2P). The use of this method is also a bit puzzling because methamphetamine can also be made from P2P using the same reaction with different reagents.

The exact details of these reactions are beyond the scope of this document, mostly since there is already a wealth of good information on Rhodium. Please keep in mind that amphetamines are controlled substances in most countries and synthesis of such could land you in serious trouble. Furthermore, possession of information detailing how to synthesise methamphetamines (with or without the glassware or reagents) may be illegal in certain jurisdictions.

19. HOW CAN I PURIFY MY SPEED?

There are a few different methods for purifying amphetamine, but one of the simplest and best ways to do this is with a dual solvent re-crystallisation. If you plan to do this however, be prepared for a LARGE reduction in volume. Keep in mind however the stuff you separate out isn't really any good to you anyway. Consider the fact that most street speed is less than 15% pure, which means the gram you just bought has about less than 150mg of active content. If done extremely carefully you won't lose much of the actual speed.

Re-crystallisation is based on the different saturation levels of hot and cold solvent. A saturated solution is one which has the maximum amount of solute dissolved in it. The saturation level of

any given solvent rises and falls with the temperature. Put simply, when a solvent is heated it can dissolve a larger volume of solute, and as it cools and the saturation level drops, excess solute will form into crystals and sink to the bottom.

A simple purification can be done using a single solvent. Add hot solvent to the amphetamine in small amounts until it is all dissolved. Anything that will not dissolve is adulterant and should be filtered out using coffee filters or filter paper (mositen filters first to prevent them soaking up solution). Next, allow the solution to cool slowly to room temperature, then place it in the fridge and allow it to cool further. Once it has cooled in the fridge filter the crystals out and allow them to dry.

It is worth noting that some adulterant may also be soluble and form its own crystals in the process, so what you have at the end may not necessarily be pure amphetamine. This is why a dual solvent re-crystallisation is preferred.

A dual solvent re-crystallisation works by using a second solvent to dissolve many of the impurities, but that the drug itself is not soluble in. The second solvent also acts as a cleaning agent for the new crystals being formed.

In the case of amphetamines the 2 best liquids to use are acetone and alcohol. Acetone is a component of paint thinner (and nail polish remover) and can be bought from hardware stores or art supply stores. Alcohol can be obtained from hardware stores or liquor stores. Acetone is used as the 'mother' liquid, amphetamine is insoluble in acetone but most of the crap used to cut it is.

So the procedure: Put your speed into a flask, beaker or some other container you can heat on a stove (note: use a stove without a naked flame, as these volatile organic chemicals produce explosive vapours). Pour acetone into the container so that the speed is completely submerged in it with a centimetre or 2 of excess liquid and swish it around to dissolve any soluble impurities. Next gently heat the acetone until it boils, and then take it off the heat. Now slowly add (with an eyedropper or pipette) just enough alcohol for all the speed to dissolve - stirring gently until the speed dissolves. If you add too much alcohol you won't get as high a yield as possible so don't add too much. Anything that doesn't dissolve is adulterant and should be separated out by filtration: use 2 coffee filters in a funnel to filter the solution, then cover it so a little air can escape and leave to cool to room temperature. Once it has cooled down you should notice crystals starting to form. Put the container in the fridge, and then the freezer to encourage more crystals to form (i.e., increasing the yield). The slower the solution cools, the larger the dry crystals will be. Once the solution has been freezer cooled, filter the crystals out with some coffee filters, then wash the filtered out solid in the funnel with a few drops of alcohol and allow to dry. Voila, you have pure speed. Save the acetone, it can be reused.

20. HOW CAN I TURN SALT INTO FREEBASE?

Salts are the reaction of an acid and a base, so converting the salt back to freebase requires the reversing of the initial reaction, this is called an acid/base extraction. It's a fairly simple process for someone with a decent understanding of chemistry and the right equipment. There is a wealth of information online about how to do A/B extractions and any decent chemistry textbook will

cover it so I won't go into too much detail here. Before attempting an A/B you should probably purify the drug first as described above.

The basic procedure involves basifying the speed with lye (sodium hydroxide/caustic soda). This is done by dissolving the speed in distilled water and mixing this with a solution of distilled water saturated with lye. This reduces the amphetamine to its freebase form which should separate from the water once it settles because it is not water soluble.

21. HISTORY

Amphetamine was first synthesised in 1887 by German chemist L. Edeleano. Originally he named it phenylisopropylamine. Methamphetamine was first synthesised in 1919 by Japanese scientist A. Ogata. However, it wasn't until the 1920's that physicians began to investigate medicinal uses for amphetamines. Around 1927 it was discovered to dilate nasal and bronchial passages, elevate blood pressure and stimulate the central nervous system.

In 1932 amphetamines debuted on the pharmaceutical market in the form of the Benzedrine inhaler, produced by Smith, Kline & French. It was sold as a treatment for nasal congestion to asthmatics and people with colds.

In 1935 it was successfully used as a treatment for narcolepsy, a medical disorder characterized by sudden and overwhelming feelings of sleepiness and fatigue.

In 1937 it was found to improve concentration and mental performance in people suffering from ADD (or ADHD: attention deficit hyperactivity disorder). Amphetamines were approved for sale in tablet form in 1937, by the American Medical Association. It was sold by prescription as a treatment for ADD and narcolepsy.

During World War 2 (1939-1945) amphetamine use rose rapidly, as soldiers on all sides were given tablets to help keep them awake and alert for extended periods of time. This lead to an epidemic of amphetamine use in Japan that continued throughout the 1950s.

In 1940 methamphetamine became available in tablet form, sold as Methedrine by Burroughs Wellcome. By 1942, both methamphetamine and dextro-amphetamine were widely available over the counter without a prescription, and were aggressively marketed by manufacturers as a treatment for a range of ailments from weight loss and depression, to epilepsy, Parkinson's disease, and asthma.

In 1956, amphetamines were restricted from being sold without a prescription in the UK. Despite this, non-medical use of amphetamines boomed amongst the general population throughout the 50s and 60s. 'Pep pills' were taken by bored housewives and students started combining them with barbiturates in a concoction called 'purple hearts'.

Towards the end of the 60's, physicians began to seriously question the medical value of amphetamines, as the hype surrounding non-medical abuse of the drug heightened. Many believed that doctors were too quick to prescribe the drug for just about anything without fully

understanding its effects.

In 1970, the Comprehensive Drug Abuse Prevention and Control Act was passed in the US, which defined a scheduling system for drugs. Injectable methamphetamine was placed in schedule II, while other amphetamines were placed in schedule III. Shortly afterwards in 1971, all amphetamines are placed in schedule II (note: the lower numbered schedules represent more tightly regulated drugs).

By the 1980's clandestine speed laboratories had become the greatest source of illicit amphetamines sold throughout the world (by FAR). Prices fell as speed became readily available on the street. Smoking amphetamines became popular, and amphetamine use continues to maintain popularity among the young people of society.

Fast forward to present day, nothing much has changed. Governments around the world struggle to curb amphetamine use, despite the 'War on Drugs' measures such as tighter controls on precursor chemicals (and glassware) vital to amphetamine synthesis, and ludicrously high penalties for manufacture or possession.

Like it or not, amphetamines are here to stay. Better to be informed than die from ignorance.

22. BIBLIOGRAPHY

Much of the information in this document was sourced from a few key websites:

- * <u>http://www.erowid.org/</u>
- * (URL removed)
- * <u>http://www.rhodium.ws/</u>
- * http://www.lycaeum.org/

In addiction to those excellent sites, I have sourced information from a few other sites as outlined below. I may have forgotten to paste a few links as I was working so this list may not be exhaustive. Most of the information was found using Google.

toxic data:

http://www.inchem.org/documents/pims/pharm/pim178.htm#SubSectionTitle:7.2.1 Human data

<u>neurotoxicity:</u> <u>http://webpages.csusb.edu/~mcnair/wendy.html</u> http://www.dancesafe.org/slideshow/slide19.html

effects:

http://www.mydr.com.au/default.asp?article=2969 http://www.pharmacynetworkgroup.com/amphetamine-side-effects.htm http://www.unodc.un.or.th/ats/ http://dallassociety.com/dallassociety/AODResources/AODBasics/amphetaminebasics.html http://www.drugstv.com/Methamphetamine.htm#long_term_effects_of http://www.drugs.com/amphetamine.html

psychosis:

http://www.paihdelinkki.fi/english/faq/faq_aineet_02e.htm

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http://www.spiritplants.com/articles/pt/pihkal_tour.html#chem

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http://www.drugscope.org.uk/druginfo/drugsearch/ds results.asp?file=\wip\11\1\amphetamine s.html

I worked on this FAQ with Renegade some time ago now, but have been way too busy to get around to formatting the finished product into VBcode for the forum. Hopefully there aren't too many typos - please feel free to give feedback either in this thread or to the email address listed in the preamble.

