

What are the dangers of sniffing?

The biggest danger from misusing these products is **INSTANT DEATH**.

Anyone experimenting with solvents is at risk from sudden death. Death may occur at the first attempt or following many attempts – it can happen at anytime. Death can occur due to the following:

- **Heart failure - Sudden Sniffing Death Syndrome**

This is when the heart becomes oversensitive to adrenaline and beats ineffectively. If the 'sniffing' is then followed by exertion or over excitement, there is a sudden onset of abnormal heart rhythm (cardiac arrhythmia) so that the heart stops pumping blood.

- **Fatal accidents when 'high' or hallucinating**

Accidents can include the 'sniffer' being knocked down by a car or train, drowning, or falling from high buildings. This can happen due to the 'sniffer' being intoxicated whilst in dangerous places. Also, if the 'sniffer' is hallucinating, seeing things that aren't really there, or thinking they are some kind of superhero, they can act in ways or do things that put them in danger.

- **Choking on vomit**

Many abusable products can cause the 'sniffer' to blackout, faint or go into a dreamy state. They may also vomit, which could ultimately result in them choking if not placed on their side. (Recovery position.)

- **Suffocation**

This can occur if the 'sniffer' is using a plastic bag over the head to sniff or if the substance (glue) blocks the nose and mouth.

- **Asphyxiation**

Can also occur when the fumes replace all the oxygen in the body.

- **Burns and explosions**

Many of these products are highly flammable and if sniffed at the same time as smoking, or using a naked flame, can cause fires or may even explode.

What damage can sniffing these substances have on the body?

Most young people who try solvents only use them once or twice, but there are a small minority who progress to be chronic long-term 'sniffers'. After continued use of these products, tolerance to the effects of solvents develops, that is, the body adapts to solvent use and people need increasingly more to get the desired effect.

Psychological dependence develops in a small number of people, as they come to rely more on solvents to manage their life. This sort of dependence means that solvents become central to a person's thoughts and actions. They begin to crave its use and can find it very difficult to stop. Physical dependence (where the person develops withdrawal symptoms) on solvents is rare, but can occur in some circumstances as the body gets used to functioning with the solvent present.

Unfortunately, very little research has been conducted into long-term effects and the damage that may be caused. Yet it has been identified that substances that are absorbed and metabolised, stay in the body longer, posing greater danger of tissue damage than substances that are rapidly eliminated in the breath, like butane. (However, some ex-'sniffers' have talked about noticing their reactions slowing down and speech being slurred, although this has reversed once the misuse has stopped.)

Products that contain toluene such as adhesives, paint thinners etc, which are chronically sniffed (everyday for many years) may cause some of the following effects:

Damage to the body

- Damage to the nervous system: involuntary twitching and numbness
- Breathing difficulties – damage to the lungs

- Liver damage
- Kidney damage
- Damage to the eye (optic atrophy)
- Damage to the inner ear (cochlea)
- Damage to reproductive systems - lowers sperm count
- Damage to the brain

Various other health effects have been noted. Some of the reports of detrimental health effects are based on studies of individuals who have been exposed to solvents in industrial settings. But these are not immediately applicable to solvent sniffers. Industrial exposure may occur over many years at concentrations lower than those achieved by abusers, and industrial workers are generally older than the average long-term solvent sniffer.

Industrial workers can be exposed to a variety of chemicals, so that the interaction between these may alter or even increase the effects. Many of the reports of damage accruing from solvent sniffing are merely anecdotal, but there are also case reports in medical journals based on evidence from only one, or in some cases, just a few individuals. In these reports, there have been suggestions of kidney and liver failure or damage associated with the use of solvents, as well as indications of particular sorts of mental impairment such as: hearing loss, slurred speech, memory loss, attention deficits, perceptual problems (for example, particular visual deficits), and loss of inhibitory control over certain behaviours (for example, increased impulsivity).

There have also been problems with the use of anaesthetics with young people who have previously sniffed; and there has been some suggestion of a syndrome similar to foetal alcohol syndrome in babies born to solvent-using mothers.

Zur and Yule found a clear association between chronic solvent sniffing and depression in their study of 12 sniffers. An extensive survey of the subject by Dr. Maria Ron (published in 1986) criticised many studies of solvent users for their poor matching controls and failure to distinguish between acute and chronic effects. Dr. Ron concludes that the evidence for permanent structural brain damage remains inconclusive.

The impairments mentioned have been found to effect particular individuals. It may be that certain people are more vulnerable to the effects of certain chemicals than others. Encouragingly, such problems do not emerge in studies of sniffers conducted on a larger scale. For example, of 300 sniffers who attended a Glasgow clinic, none had any serious health problems as a result of their solvent misuse.

In another study, Oliver Chadwick carried out a study of sniffers identified through a questionnaire survey of secondary schools in London. He found that on a test of IQ there were deficits among solvent users on both verbal IQ and full-scale IQ of about 5 points. In addition, there was a difference on a vocabulary test and on a measure of impulsivity (the ability to withhold an inappropriate response). There were also marked differences between sniffers and non-sniffers in their exam performance. However, after parental occupational status, family size and the pupils' scores on educational tests (administered at the time of transfer from primary to secondary school at age ten or eleven and therefore pre-dating the start of the pupils' solvent sniffing) were taken into account, the deficits on the four measures which previously had shown impairment among the solvent abusers were no longer statistically significant. Although few of the users in this study were long-term, the findings do suggest that the frequency and intensity of solvent use normally encountered among secondary school pupils is unlikely to result in brain damage.