

Factsheet 7 - Long-term abuse

Long-term abuse

Most of those who try sniffing only try it once or, at the most, a few times. This kind of solvent sniffing is generally labelled '**experimental**'. Some (perhaps one in one hundred young people) may use solvents over a longer period, perhaps for several months. Because these young people may use solvents regularly and often with a small group of others, they are often referred to as '**recreational**' users.

Those who use over an even longer period, say for a year or more, are often labelled '**dependent**' users. Their use of solvents frequently has the hallmarks of dependence, such as an unwillingness to do without the substance under any circumstances, a heavy and regular use of solvents and, mostly, the presence of pre-existing social or psychological difficulties, which the continued use of solvents may represent an attempt to solve. Sometimes these dependent or long-term users will form part of a group of sniffers, probably about the same age, who have been sniffing together for many years. Often, however, particularly in rural areas, there will be a few single and isolated individuals who sniff alone.

Who are long-term 'sniffers'?

Since most sniffers try out sniffing for the first time in their early teens, most long-term sniffers will be in their early twenties. However, there is now evidence both of extremely long-term sniffers approaching their thirties, who have sniffed ever since they were, say, thirteen years old and, of older sniffers who have taken up the practice in later life, perhaps in response to shortage of cash to buy alcohol or other, more expensive, drugs. As with other forms of drug use, published information gives the impression that long-term sniffers are most often male, but this may simply be another aspect of the problem of the hidden female drug user.

Certainly, evidence from recent questionnaire surveys shows that as many girls as boys have tried sniffing. Although it is possible that a few young women carry on sniffing for long periods; research shows that far fewer women die sniffing-related deaths. In 1997, 76.7% of recorded VSA deaths were males.

Hazards

Sniffing solvents may cause intoxication similar to the effects of alcohol. So a sniffer may become drowsy, confused, aggressive, may take more risks than they would when sober, and so on. Accidents are, therefore, quite common and sometimes death results. Deaths related to solvent sniffing have become a significant cause of death of young males. Over half of the deaths, which have been linked to solvent sniffing, appear to result from the direct toxic effects of the chemicals, which were sniffed; but other deaths result from accidents, choking on vomit or suffocation.

Deaths are often sudden, and often a mechanism of death involving cardiac arrest appears to be the cause. Deaths such as these have been dubbed "sudden sniffing deaths". Long-term users may have built up a tolerance and use much larger quantities than experimental users, but it does not appear especially likely that long-term users are more vulnerable to death, indeed, 37% of VSA deaths in 1997 were attributed to first-time experimentation.

Characteristics

Long term sniffing is characterised by a habitual and often ritualistic use of solvents. Generally, the same type of product and the same brand name is always used and myths about the effectiveness and safety of the chosen product must develop.

Most reports of long-term sniffers have been written about white males. There is little evidence of substantially different patterns of solvent abuse among minority ethnic groups in the UK, although the little evidence there is supports the idea that such groups are less likely to sniff solvents.

Other effects

Deaths are not the only problem associated with solvent abuse. 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

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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 potentiate 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 youngsters 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 a more recent 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.