

# Drugs detected among Finnish apprehended drivers

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## Abstract

Driving under influence of alcohol has been forbidden since 1926 in Finland. Giving blood sample became obligatory in 1959 and legal limit (0.5 o/oo) was introduced for alcohol in 1977. Since 1950, the penal code has prohibited driving under influence of drugs.

Drugs and driving remained as a minor problem during several decades. In 1998, the number of suspected drunken drivers was 22855 and the number of drivers suspected to drive under influence of drugs was 1323. Until 1985, yearly only few illegal drug cases among drivers were found. During the last years, there has been a marked increase in number of apprehended drivers driving under influence of illegal drugs (1984: n=9, 1988: n=45, 1992: n=318, 1996: n=508, 1998 n=755).

The statistics of the National Public Health Institute show that the number of suspected drug cases, the number of positive findings and drug abuse have increased, whereas drinking and driving has decreased<sup>1</sup> during the past fifteen years in Finland **The most frequently detected illegal drugs are amphetamine and cannabis. Multi-drug use is commonly found (1998: two or more illegal drugs >30%). The most commonly detected medicinal drugs have been benzodiazepines.**

## Introduction

There are no legal limits for drugs and driving in Finland. A driver can be convicted for the intake of drugs if he/she is intoxicated to the extent that he/she may be dangerous to traffic safety (Penal code 23). The statutory limit for drinking and driving in Finland is 0.50 o/oo (w/w). The limit for severe drunken driving is 1.2 o/oo (1.5 o/oo until September 1994). The corresponding breath alcohol control limits are 0.25 mg/l and 0.6 mg/l (Law on amending no. 23 of the penal code 655/1994).

If a driver is under the influence of illegal drugs, he/she can be convicted also according to the Narcotic act (1289/93). Illegal drugs are listed in the international conventions from the years 1961, 1971, 1987 and 1988, and they are also mentioned in the narcotic decree (1603/93). Drugs that have potentially harmful effects on driving ability have warning labels on the packages (Circular of the National Board of Health 1758/81).

In order to identify drunken drivers in Finland, the police are authorized by law to submit drivers to the breath test even without any suspicion. The reasons are usually random control, impaired or dangerous driving, road traffic accidents or information of a bystander. When the breath test is positive or when drug-induced impairment of skills related to driving is suspected, the samples are taken as evidence that the drugs were

present in the body fluids at the time of driving. If necessary, a blood sample can be taken even against the will of the driver (Law on coercive means 450/87 and 213/95). It is recommended that both blood and urine samples should be taken in suspected cases of driving under the influence of drugs.

To demonstrate the impairment caused by drugs, the police officer who arrests the driver, offers evidence of impairment by observing and documenting the external signs of drug use. A standardized form for documenting the signs has been in use in Finland since October 1999. A clinical test for drunkenness is performed by a physician at the request of the police (Public Health Act 66/72; Direction of the Ministry of the Interior on confiscation and search 4377/401/81 and 4658/601/88).

The written laboratory report to the police includes the results of toxicological analysis, evaluation and conclusion with regard to possible impairment. Evaluation is done individually, taking into account the general characteristics of the drug, the concentrations of the drug in the blood, whether the drug use was acute or chronic, and the purpose of the use, whenever these can be objectively estimated, e.g. using the ratio of the parent drug to the metabolite concentration<sup>2</sup>.

A driver under the influence of drugs is liable to prosecution if the presence of a significant amount of drug(s) in the driver's blood can be measured, if impairment of performance has been demonstrated, and if the causative role of drugs is regarded as possible.

The penalties for drunken or drugged driving are fines, suspension of the driving licence for a certain period and, in severe cases, imprisonment

The concurrent use of drugs with alcohol may cause a stiffer penalty than alcohol alone. A driver who is convicted of driving while intoxicated has to pay the costs of the examination and of the court proceedings. In case of an accident he or she will lose part or all of the insurance compensation for the damages to the vehicle and may be sentenced to pay compensation to the persons who were injured in the accident.

The evaluation of alcohol and drug problems and treatment, when needed, are mandatory upon regranting the driving licence after driving under the influence of alcohol or drugs.

## Methods

**All suspected driving under influence of drugs cases in Finland and all the samples analyzed since 1977 are included in the study. E.g. the substances detected, concentrations found, age and sex of the driver are recorded for the statistics.**

Alcohol and drug determinations of suspected driving under the influence of alcohol and/or drugs are centered in the National Public Health Institute (KTL) in Finland. Alcohol is analysed nowadays mainly using evidential breath alcohol analysers. Drug analysis is performed at the request of the police. In these cases biological specimens (blood and urine) are taken. If a urine sample is not available, drug screening in blood is performed. After screening for the drugs in urine, the concentrations in blood are measured in order to evaluate the effects of the drug on driving ability (Fig. 1).

**HANDLING OF DRUNKEN AND DRUGGED DRIVING CASES IN FINLAND**

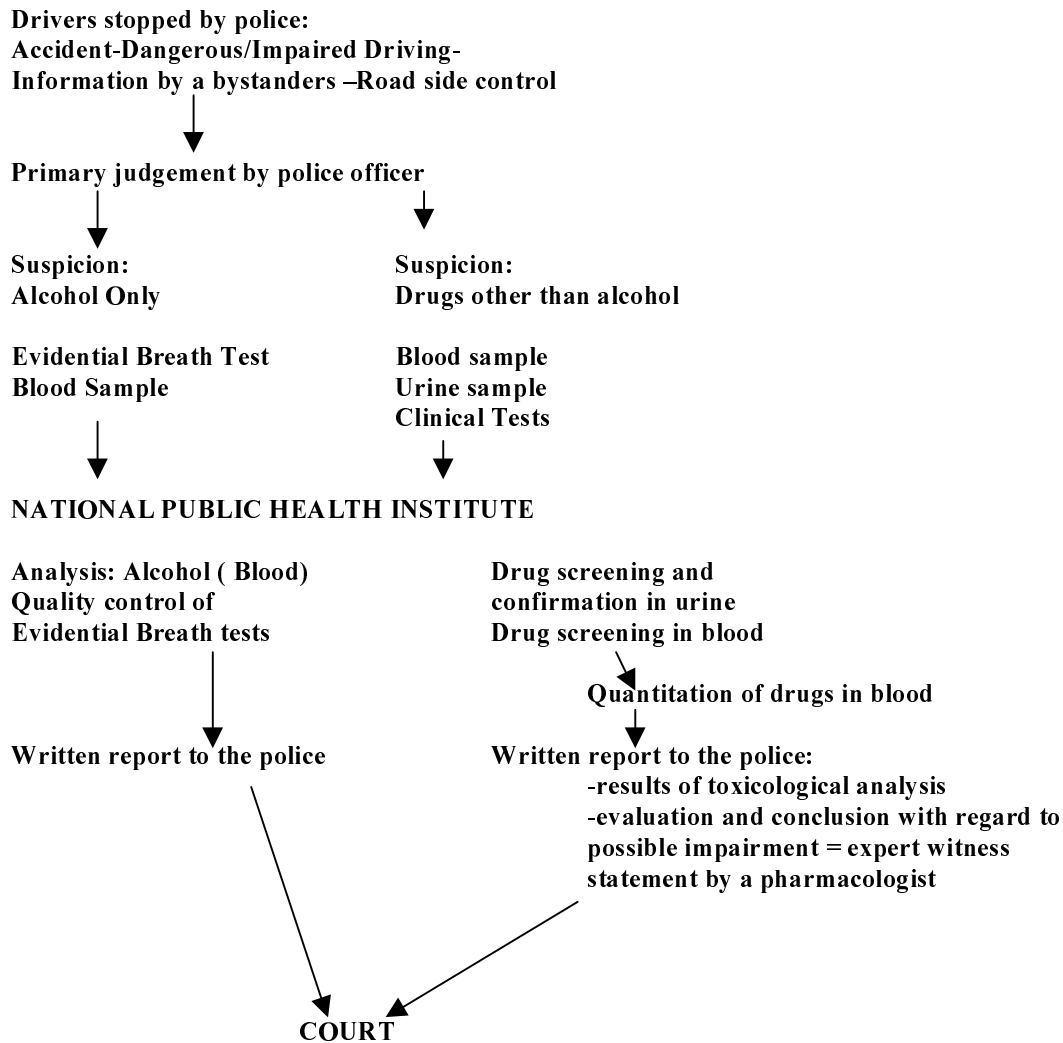


Figure 1. Handling of drunken and drugged driving cases in Finland

**Results and discussion**

Drugs and driving remained as a minor problem during several decades. Until 1985, yearly only few illegal drug cases among drivers were found. The results of epidemiological studies and statistics since 1977 indicate that the trend of drug use, multidrug use and drug abuse has increased in Finland (Fig 2).

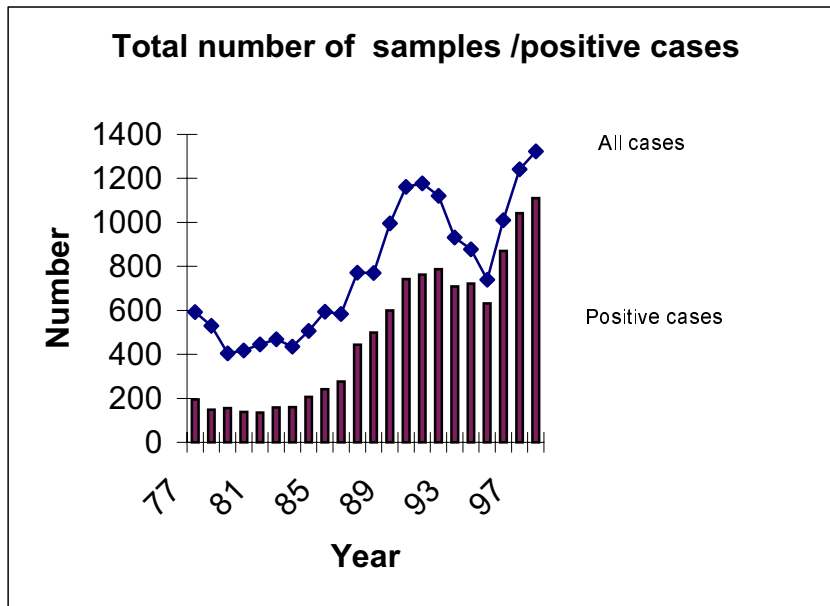


Figure 2. Driving under influence of drugs: Total number of suspected cases and drug positive cases

The number of inhabitants in Finland is 5 million. The number of drunken drivers pro year is about 20 000, in 1998 **22855**. In 1998, police asked laboratory analysis of 1323 samples in cases where a driver was suspected for driving under influence of drugs. That means 264 cases pro one million inhabitants. In 84 % of these cases, drugs were found. Benzodiazepines were found in 64 % and illegal drugs in 57 % of suspected drugs and driving cases. Amphetamines and cannabis were the most common illegal drugs (Fig.3).

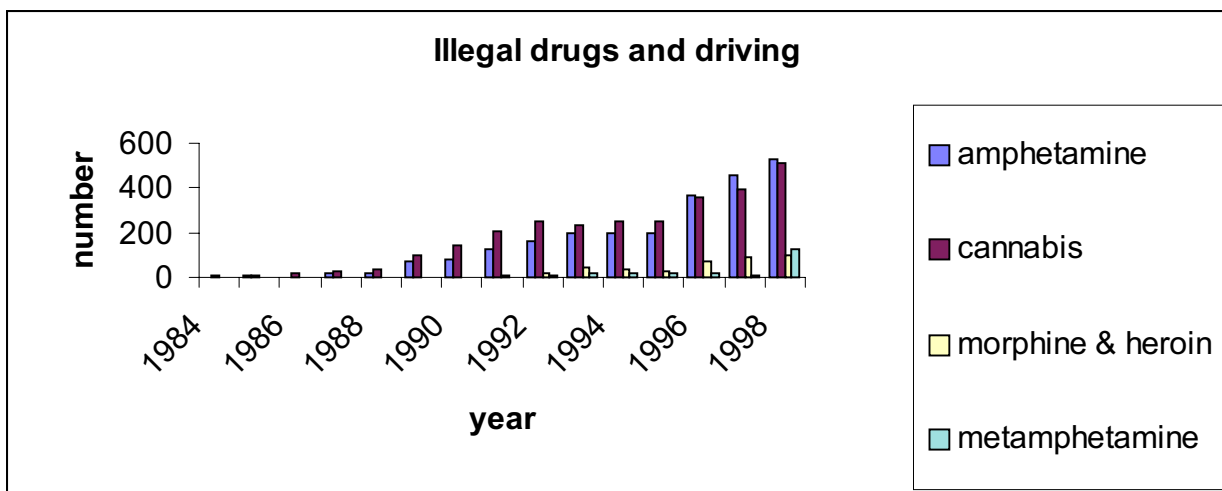


Figure 3. Illicit drug findings among drivers suspected for driving under influence of drugs

A considerable amount of amphetamine and/or benzodiazepine positive drivers are using these drugs in high concentrations. Multidrug use is commonly found (**more than one illegal drugs >30% of the drug positive cases**).

The most commonly detected medicinal drugs have been benzodiazepines. In 1998, benzodiazepines were combined with illegal drugs in 64 % of the benzodiazepine positive cases. Benzodiazepines were found in 77 % of the cannabis cases and in 70 % of the amphetamine cases in 1998. Of the benzodiazepines findings, diazepam (53%) was the most commonly found one. Also temazepam (18%), alprazolam (9 %), and oxazepam (8%) were frequently found, whereas midazolam (2%), lorazepam (1 %) and nitrazepam (1%) were more seldom. Flunitrazepam is not in the market in Finland.

Only small minority of drug using drivers are women. The proportion of women among cannabis, as well as among amphetamine positive drivers were 5 %. Of heroine & morphine positive drivers, 4% were women.

The statistics of the National Public Health Institute show that the number of suspected drug cases, the number of positive findings and drug abuse have increased, whereas drinking and driving has decreased during the past fifteen years in Finland.

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