

# Other Drugs



## KEY POINTS

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- The number of border detections of anabolic agents and selected hormones increased marginally from the previous year. The majority of these detections involved small quantities for personal use or small scale trafficking.
- The number of border detections of anaesthetics such as gamma-hydroxybutyrate (GHB), gamma-butyrolactone (GBL) and ketamine increased.
- The majority of border detections of illicit pharmaceuticals occurred in the postal stream.

# ANABOLIC AGENTS AND SELECTED HORMONES

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## Main forms

The Australian *National Standard Classification of Drugs of Concern* distinguishes anabolic agents and selected hormones as encompassing anabolic and androgenic steroids (AAS), beta<sub>2</sub> agonists, peptide hormones, mimetics, analogues, other anabolic agents and selected hormones (ABS, 2000). This section will cover anabolic and androgenic steroids and peptide hormones, mimetics and analogues only.

## Anabolic agents

Anabolic agents include anabolic and androgenic steroids and beta<sub>2</sub> agonists. These agents are prohibited under Australian and Olympic anti-doping conventions (ASDA, 2000). AAS can be used for human consumption, veterinary use or illicit purposes and are generally produced for the purposes of medical or veterinary treatment. Anabolic properties assist in strength training by increasing muscle bulk and stamina (Campbell, 2001) and are often taken for cosmetic reasons (AIC, 2005). Beta<sub>2</sub> agonists can be administered into the bloodstream to increase muscle mass and reduce body fat (ASDA, 2000).

Androgen is a steroid that acts as a male sex hormone and is responsible for male reproduction system development. Androgenic steroids include boldenone, decadurabolin (nandrolone), dehydroepiandrosterone (DHEA), stanozolol and testosterone. They are available in tablet form or can be injected (ASDA, 2000). Some research indicates an association between the use of AAS and other psychoactive substances. Some users may be at high risk of dying young compared to users of other drugs (Pettersson, Garle, Holmgren, Druid, Krantz and Thiblin, 2005). Steroid misuse is also linked to paranoia and delusion (Campbell, 2001).

## Peptide hormones, mimetics and analogues

Peptide hormones occur naturally and are often associated with enhanced athletic performance. This class of drugs includes substances that have analogous chemical structures and produce similar effects on the body (Sports Medicine Australia, n.d.). According to the World Anti-Doping Code, mimetics display similar pharmacological effects to other substances, regardless of the chemical structure. Analogues are derived from altered chemical structures of another substance but retain similar pharmacological effects (Australian Sports Anti-Doping Agency, 2006). The majority of peptide hormone mimetics and analogues are most likely to be used by professional athletes. Prohibited substances in this class are outlined in Table 15.

Table 15: Peptide hormones, mimetics and analogues commonly used in Australia

Drug name	Perceived effects	Brand name	Forms
Erythropoietin (EPO)	Increases endurance and recovery from anaerobic exercise	Eprex, Aranesp	Ampoules, pre packed syringe
Human chorionic gonadotrophin	Used to manage the side effects of AAS use such as gynaecomastia <sup>a</sup> and shrinking testicles	APL, Pregnyl, Profasi	Vial, Ampoules
Human growth hormone (HGH)	Used to increase muscle size and strength	Norditropin, Norditropin SimpleXx, Genotropin, Humatrope, Saizen, Scitropin	Penset, Vial, Injection, Vial, Auto injector cartridge
Insulin	Used because of the perception that it contributes to increased muscle bulk <sup>b</sup>		
Pituitary and synthetic gonadotrophins	Are used to overcome the side effects of AAS use or as a masking agent		
Insulin-like Growth Factor	Used to increase muscle bulk and reduce body fat		
Cortocotrophins	Used because of its anti-inflammatory properties and for mood elevating effects		

a. The development of breast-like tissue in males.

b. There is no scientific evidence of this.

## INTERNATIONAL TRENDS

As in Australia, AAS require a prescription for purchase in the US. The most common source of illegal steroids into the US is trafficking from Mexico and European countries, many of which do not require prescriptions for purchase. Other illegal sources include the diversion from licit sources and clandestine production (DEA, 2006a).

In December 2005, a DEA joint investigation led to the indictment of 23 individuals for illegal steroid trafficking, including the owner of three of the world's largest anabolic steroid manufacturers.

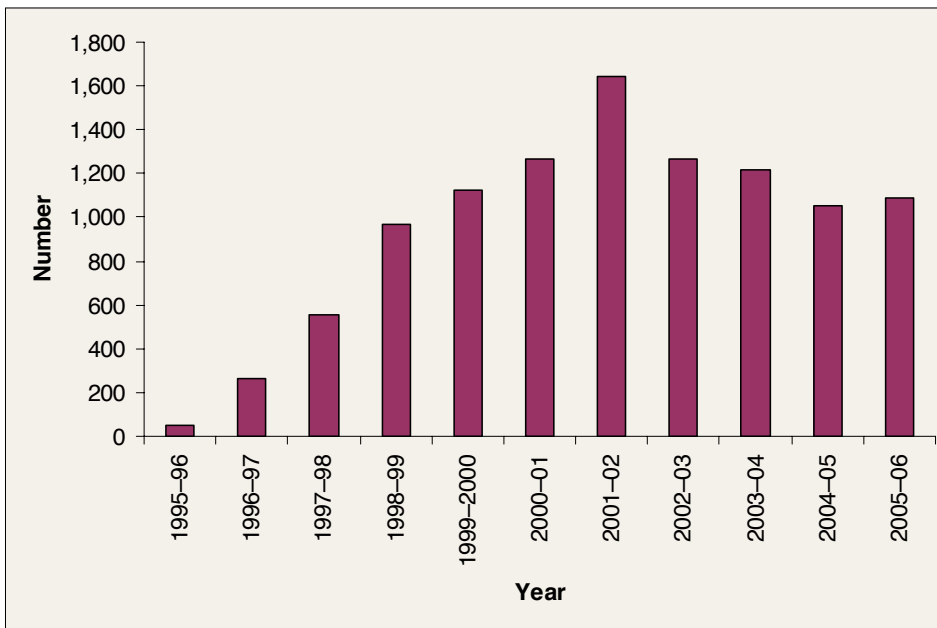
*Operation Gear Grinder* targeted eight major steroid manufacturing companies, based in Mexico, their owners, and trafficking associates who conducted sales via the internet (DEA, 2005). The use of the internet for illegal drug purchases is an emerging trend observed in Thailand. In recent years, authorities have identified the illicit marketing of steroids and pharmaceutical products over the internet that predominantly targeted US purchasers (BINLEA, 2006).

# DOMESTIC TRENDS

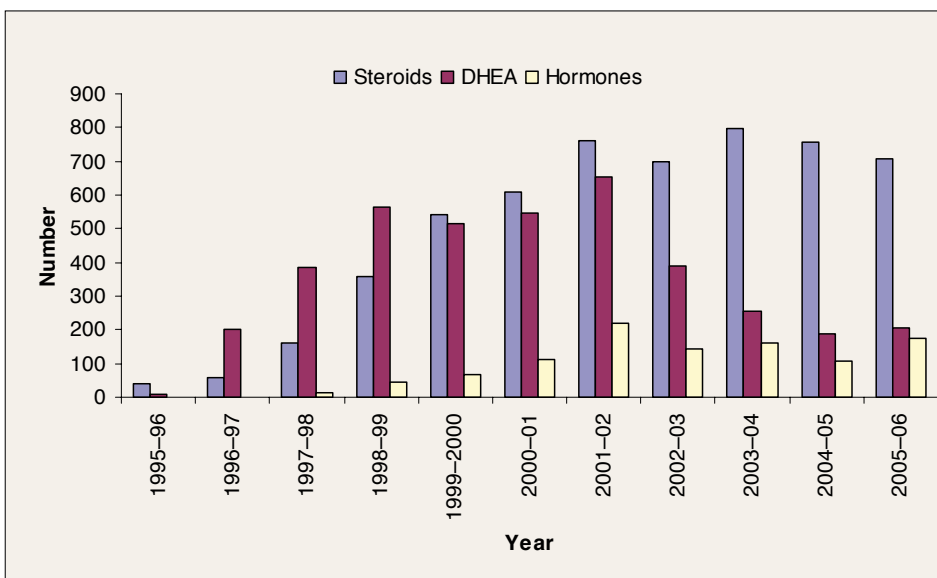
## Australian border situation

Customs made 1,087 detections of these substances in 2005–06, a marginal increase (3.6 percent) from 1,049 in 2004–05, and 10.4 percent decrease from 1,214 in 2003–04 (see Figure 24). These detections comprised 708 steroid detections, 204 DHEA detections and 175 selected hormones detections. These figures represented approximately a seven percent reduction in the number of detections of steroids, a 10 percent increase in the detections of DHEA, and a 63 percent increase in the detections of hormones (see Figure 25).

**Figure 24: Number of detections of anabolic agents and other selected hormones at the Australian border, 1995–96 to 2005–06 (Source: Australian Customs Service)**



**Figure 25: Number of detections of anabolic agents and other selected hormones, by category, at the Australian border, 1995–96 to 2005–06 (Source: Australian Customs Service)**



## Significant detections

The overwhelming majority of detections of anabolic agents and steroids involved small quantities imported for personal use or small scale trafficking. Anabolic agents and steroids are generally imported for illegal use as performance enhancing drugs in sports. DHEA is mostly imported as an unproven anti-ageing medication, legally available as a nutritional supplement in the US, but regulated in many other countries. Quantities detected occasionally point to a broader trafficking venture, however, attempted importations of over 100 tablets/capsules were rare in 2005–06. There were no major detections clearly intended for trafficking.

## Importation methods

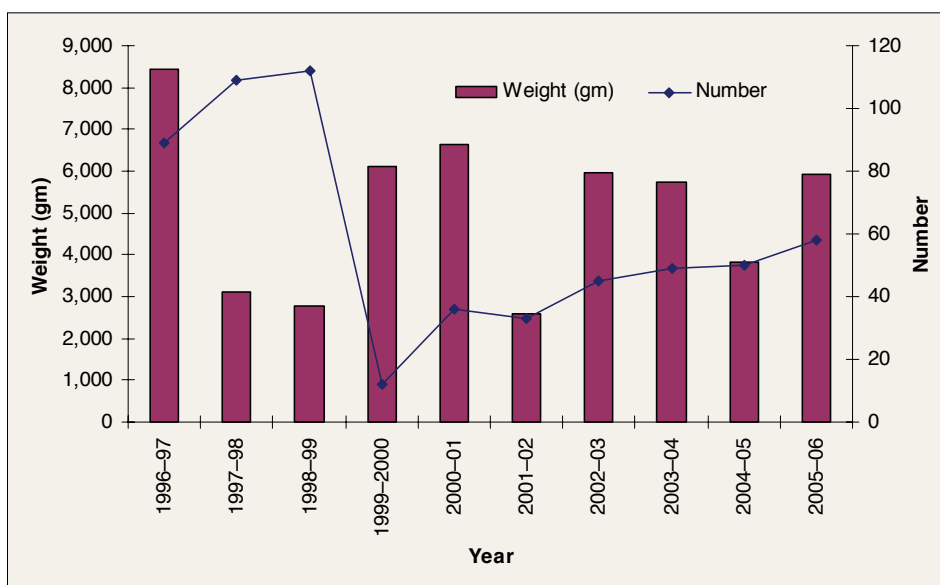
AAS were generally imported to Australia by postal articles and air cargo parcels in a methodology similar to 'scatter importations' of heroin and cocaine.

# DOMESTIC MARKET INDICATORS

## Seizures and arrests

The weight and number of domestic steroid seizures has increased since 2004–05, however, weight levels remain slightly lower than levels seized in 2002–03 (see Figure 26). The number of seizures represents the highest figures since 1999. The increase in domestic seizures coincided with the slight increase in border detections. Nationally, steroid arrests decreased from 124 in 2004–05 to 67 in 2005–06. These figures represented the lowest since 2001.

Figure 26: National steroid seizures, by weight and number, 1996–97 to 2005–06



# TRYPTAMINES

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## Main forms

Tryptamines can be sourced from various plants and animals. A variety of synthetic and semi-synthetic tryptamines are available but have limited legitimate use. Commonly used tryptamines in Australia include lysergic acid diethylamide (LSD), which produces psychedelic effects, and psilocybin, a perception altering substance found in various mushroom species. This section will cover LSD and psilocybin mushrooms only.

## Lysergic acid diethylamide (LSD)

LSD produces acute effects including hallucinations (NIDA, 2006). Believed to be 100 times more potent than psilocybin (Ghuran and Nolan, 2000), the hallucinogen is synthesised from the parasite fungus ergot. It is similar in structure to serotonin, and produces varying degrees of central nervous stimulation (Campbell, 2001). LSD is a white odourless powder in its pure form and is often mixed with additives. LSD may be sold as a liquid or in tablet or capsule form, however, it is generally sold in perforated sheets of five millimetre by five millimetre squares (known as tabs).

## Psilocybin mushrooms

Psilocybin mushrooms, or 'magic mushrooms', are fungi that contain the hallucinogen psilocybin. Mushrooms can be eaten raw, cooked or infused into boiling water (NSW Department of Health, 2003). A major risk related to psilocybin mushrooms is the consumption of poisonous varieties (Campbell, 2001).

Globally, 216 varieties of neurotropic mushrooms exist (Guzmán, Allan and Gartz, 1998), with at least 186 varieties constituting psilocybin mushrooms (Allen, 2002). There are at least 30 known types of psilocybin mushrooms in Australia.

## INTERNATIONAL TRENDS

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According to the UNODC (2006), LSD seizures in 2004 decreased 51 percent. There was a sharp decrease in LSD trafficking and use in the US since 2000, and a resurgence of the drug is reported to be unlikely (NDIC, 2006). Manufacture of LSD is limited due to the complexity of production and the limited availability of precursor chemicals (NDIC, 2006a).

The nature and extent of psilocybin use internationally is difficult to ascertain given that most data sources exclude psilocybin. Varieties of psilocybin mushrooms are found in tropical and subtropical regions of South America, the US and Mexico (NDIC, 2003). In the US, they are popular amongst the rave and nightclub environments.

A recent study conducted by the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) found that student use of hallucinogenic mushrooms exceeds that of MDMA in many European countries. The highest consumption rates—up to eight percent—were reported in the Czech Republic, Netherlands, France and Belgium (Hillebrand, Olszewski and Sedefov, 2006). The online sale of hallucinogenic mushrooms is identified as an emerging issue for European countries with websites selling growing kits and spore prints (EMCDDA, 2006).

## DOMESTIC TRENDS

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### Australian border situation

Tryptamines most commonly encountered at the Australian border are LSD and psilocybin-containing mushrooms. LSD detections at the Australian border remained a rarity. There have been a total of 24 detections since 1999. There were three Customs detections of LSD in 2005–06, the same as in 2004–05. The number of identified individual doses of LSD was just 11. Additionally, Customs detected 24.9 grams of suspect unidentified powder, and 32 unidentified tablets, both testing positive for LSD in presumptive testing. This is a steady fall in the number of doses of LSD found at the Australian border, from 273 doses in 2004–05, and 589 doses in 2003–04.

There were 23 detections of psilocybin-containing ‘magic mushrooms’ in 2005–06, a decrease from 24 in 2004–05 and 39 in 2003–04. Twenty-two detections were in postal parcels and one in an air cargo parcel. Most finds were mushroom spores for home growing. ‘Magic mushroom’ growing supplies are traded online by specialised traders operating from Western Europe and the US.

## DOMESTIC MARKET INDICATORS

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### Price

Price data relevant to LSD and psilocybin mushrooms is limited. According to a study of regular MDMA users in 2005, LSD was commonly purchased in tab form and ranged from \$10 in South Australia to \$20 in most other jurisdictions (NDARC, 2006).

Psilocybin mushrooms grow in the wild and can be harvested freely. Consequently, it is difficult to establish current prices. Law enforcement prices were not available for the reporting period.

### Availability

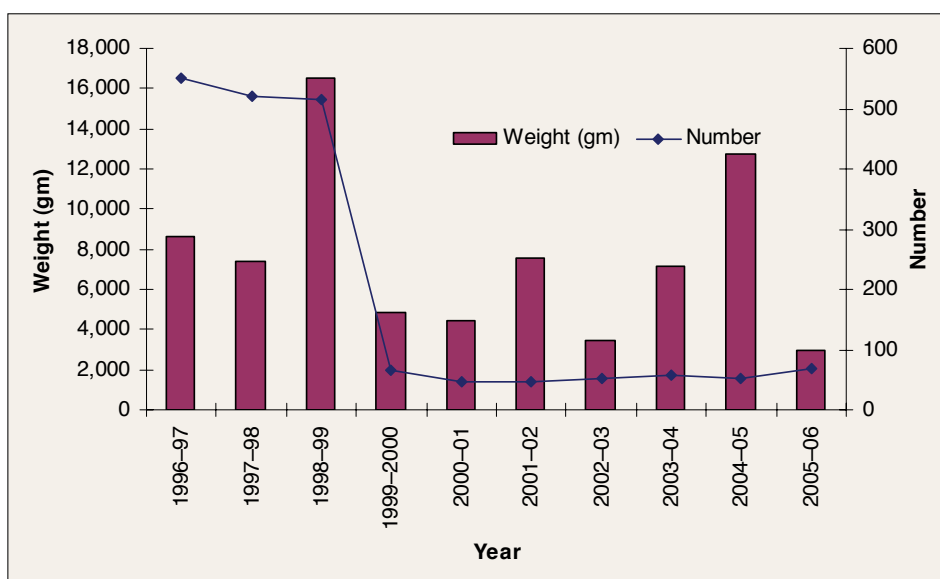
According to NDARC research of injecting drug users in 2005, 75 percent of respondents had used a hallucinogen at some stage in their life. Recent use, however, was considerably lower, with nine percent reporting use in the preceding six months. The main hallucinogen used was LSD followed by magic mushrooms (Stafford et al., 2006).

In a similar study of regular MDMA users in 2006, levels of use were higher, with 61 percent reporting lifetime use of LSD and 29 percent reporting recent use of LSD (NDARC, 2006).

### Arrests and seizures

In 2005–06, the weight of tryptamine seizures was at its lowest since 1996–97 (see Figure 27). It should be noted that there were a number of seizures of LSD in the jurisdictions during the reporting period, however, as LSD is typically sold in sheets of paper they are often not weighed, or the weight is not significant enough to impact on the total seizure weight. Nationally, there were 143 arrests for hallucinogens, an increase from 119 in 2004–05.

Figure 27: National tryptamine seizures, by weight and number, 1996-97 to 2005-06



## ANAESTHETICS

### Main forms

Certain forms of anaesthetics, originally produced for use in medical procedures, are taken for illicit purposes. These drugs include gamma-hydroxybutyrate (GHB) and ketamine hydrochloride (ketamine) and are traditionally associated with rave or nightclub environments.

### Gamma-hydroxybutyrate (GHB)

GHB is a depressant drug that affects the central nervous system. It is marketed as a strength enhancer, euphoriant and aphrodisiac. GHB was first manufactured around 1960 as a surgery anaesthetic, however, it has no accepted medical use today. GHB is chemically related to gamma-butyrolactone (GBL) and 1,4 butanediol (1,4-B) and can be synthesized from readily obtainable materials (O'Connell, Kaye and Plosay, 2000). GBL is a direct precursor to GHB and converts to GHB in the body when ingested. At least thirty street names<sup>8</sup> are attributed to GHB. It is commonly available in liquid, capsule or crystalline powder form and can be taken orally or injected (ADF, 2005).

### Ketamine

Ketamine hydrochloride, also known as 'K', 'Vitamin K' or 'Special K', produces psychedelic effects when taken (ADCA, 2003). Ketamine is a dissociative anaesthetic agent (Lankenau and Clatts, 2004) and is still occasionally used in medical practice as it does not depress breathing or circulation. In recent years, increasing clinical interest has been afforded to ketamine in the management of chronic pain (Edmonds, 1998) in patients who display poor responsiveness to opioids (Fitzgibbon and Viola, 2005).

<sup>8</sup> GHB is commonly referred to as 'fantasy', 'grievous bodily harm', 'G', 'GBH', 'liquid E', 'liquid ecstasy', 'liquid X', 'blue nitro' and 'Frankie G'.

Ketamine is found in liquid, crystalline and tablet form. It can be converted from liquid form to powder by heating and evaporation. Administration can be through snorting, combined with methylamphetamine, or injected intramuscularly. Ketamine is also known to have been sprayed on methylamphetamine tablets and falsely marketed as MDMA, which may account for the existence of ketamine in some seized clandestine ATS laboratories. As the manufacturing process is difficult and precursor chemicals are not readily sourced, the main source of ketamine is possibly through diversion from legitimate medical or veterinary means.

## INTERNATIONAL TRENDS

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Global seizures of GHB decreased substantially (85 percent) between 2004 and 2005 (UNODC, 2006). US drug evidence data from 2003–05 indicate that the availability of GHB, LSD and PCP is confined to few drug markets and limited to small quantities. Drug prevalence studies suggest that the use of GHB is very low and declining in the US. Although laboratory seizures in the US are minimal, it is possible that GHB production may be underrepresented as the conversion process from GBL does not require a laboratory and could therefore be overlooked (NDIC, 2006a). US national statistics have shown a decrease in GHB availability since 2000 (NDIC, 2006).

Similarly, the use of ketamine is reported to be decreasing in recent years but remains popular amongst young users in the US (NDIC, 2006a). In Hong Kong, ketamine has emerged as the most commonly used drug amongst young persons involved in the rave and dance cultures. Use and trafficking of ketamine in Macao has also increased, prompting new legislation for the illicit production and trafficking of 19 substances including ketamine and MDMA. In Malaysia, seizures of ketamine rose from one kilogram in 2000 to 82 kilograms in 2003 (Devaney, Reid and Baldwin, 2006) and it remains widely used in Peru (INCB, 2006). North American research suggests that ketamine injection is an emerging trend amongst injecting drug users (Lankenau and Clatts, 2004). Due to the large amounts of ketamine detected, diversion of this drug from the Asian region is likely to impact on the Australian market.

## DOMESTIC TRENDS

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### Australian border situation

Customs detected 29 shipments of GBL (gamma-butyrolactone), an immediate precursor to GHB. Twenty-six of these were in postal articles and three in air cargo. The detections included two air cargo consignments of 20 litres each of pure GBL from China, addressed to the same person and clearly intended for illicit use. They were intercepted in Sydney on 6 March 2006. Most other shipments contained small bottles, mislabelled as a metal cleaner, fuel injection cleaner, furniture cleaner or audio records cleaner. Parcels were sent from the US, the UK, Japan, China and Canada.

Customs believe that the Australian illicit supply of GHB and GBL is mainly diverted from local stocks legitimately imported for their licit uses as industrial solvents and cleaners. There were eight Customs detections of ketamine in 2005–06, all in parcel post, the biggest one containing 500 grams of suspected ketamine powder. This is an increase from three detections in 2004–05. Parcels were sent from Thailand, Germany, Canada, UK, US, France, Canada and India.

## DOMESTIC MARKET INDICATORS

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### Price

Law enforcement price data for ketamine or GHB is limited, however, user surveys conducted in 2006 reported that ketamine prices ranged from \$40 per gram in the Australian Capital Territory to \$300 per gram in South Australia. Caution should be exercised in interpreting these prices due to the small numbers of respondents providing this information (NDARC, 2006).

### Availability

According to an NDARC survey of regular MDMA users, conducted in 2006, only a small proportion reported ketamine use. Of those who responded, just over half considered ketamine to be 'easy' or 'very easy' to obtain, with the remainder considering it 'difficult' or 'very difficult' to obtain. Only a small proportion of respondents commented on the availability of GHB, which produced similar results (NDARC, 2006). Despite global trends of decreased use and seizures, the use of ketamine and GHB in association with MDMA use in dance party environments is believed to be increasing in Australia (ADCA, 2003).

## PHARMACEUTICALS

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Many pharmaceutical drugs, produced for legitimate medical use, are controlled through prescription and limited to pharmacist supply. The misuse of pharmaceuticals can result from self-medication, dependence, dealing with withdrawal symptoms, drug substitution, enhancement of other drugs or the unavailability of a drug of choice. Pharmaceuticals can be purchased for misuse through:

- stolen or forged prescriptions;
- falsely imitating symptoms;
- burglary of pharmaceutical establishments;
- 'doctor shopping';
- Internet purchases; and
- poor prescribing practices, such as prescribing a drug in larger quantities than what is required (DCPC, 2006).

Pharmaceuticals that are commonly misused fall into two categories—benzodiazepines and opiate-based pharmaceuticals.

### Benzodiazepines

Benzodiazepines, also called 'benzos', affect central nervous system activity by slowing down messages received by, and sent from, the brain. This affects physical, mental and emotional responses and produces an inhibitory or calming effect. Medically, benzodiazepines are classified as sedatives, hypnotics, or anxiolytics and can be prescribed to relieve anxiety or to reduce insomnia (ADF, 2003; Norman, Ellen and Burrows, 1998; TRANX, 2006).

Heroin users sometimes consume benzodiazepines to supplement their heroin use. Benzodiazepines are also used to induce sleep when ‘coming down’ from the effects of MDMA or amphetamine (ADF, 2003). According to the Drugs and Crime Prevention Committee (DCPC), benzodiazepine prescriptions in Australia generally decreased between 1999–2003. This is most likely attributable to the restriction of capsules on the Pharmaceutical Benefits Scheme in 2002. The main forms of benzodiazepine pharmaceuticals are outlined in Table 16.

**Table 16: Main forms of benzodiazepine-based pharmaceuticals**

Pharmaceutical type	Trade name	User names
Benzodiazepines		Benzos, minor tranquillisers, downers, sleepers
Bromazepam	Lexotan	
Clonazepam	Rivotril	
Diazepam	Valium, Ducene, Antenex, Propam	
Flunitrazepam	Rohypnol, Hypnodorm	Rohies, roofies
Nitrazepam	Mogadon, Alodorm, Dormican, Nitepam	Moggies
Oxazepam	Serepax, Murelax, Alepam, Benzotran	Sarahs, serries
Temazepam	Normison, Temaze, Euhypnos	Footballs, Normies

## INTERNATIONAL TRENDS

The misuse of pharmaceutical drugs, particularly those containing benzodiazepine, remained a concern in North America, Africa, Afghanistan, Argentina, Chile and Uruguay (INCB, 2006). Unregulated markets, inefficient government controls and the availability of pharmaceutical preparations via the Internet have contributed to the continued global consumption. The strongest increases in global seizures between 1994 and 2004 were benzodiazepines and barbiturates which had been diverted from the legitimate market. Seizures have increased by 21 percent on average every year (UNODC, 2006).

In Africa, the continued availability of illicitly manufactured and diverted pharmaceutical products containing narcotic drugs and psychotropic substances remained a concern. The low price and ready availability of benzodiazepines in Northern Africa has seen a rise in their popularity (INCB, 2006). According to drug use surveys conducted in Argentina, Chile and Uruguay, the use of benzodiazepines now ranks second after cannabis, with stimulant use levels in these countries being similar to that of cocaine. According to 2005 UNODC research on drug use in the East Asia and the Pacific regions, nimetazepam—a benzodiazepine previously unranked in previous studies—is now the most commonly used drug in Singapore and third most used in Brunei. Over half a million nimetazepam tablets were seized in Malaysia in 2005 (UNODC, 2006a). Nine fenetylline (captagon) seizures, equalling 1,430,231 tablets, between July and December 2005 were recorded in Turkey (UNODC, 2006b).

Pharmacies situated near the US–Mexican border are a primary source of illicitly obtained prescription drugs in the US. The number of prescriptions issued for controlled drugs increased by 154.3 percent between 1992 and 2002. This represented a threefold increase compared to the growth in non-prescription drugs during the same period (DCPC, 2006). Due to its proximity to Tijuana, which has 10 times the amount of pharmacies required to support its population, San Diego is identified as a major smuggling area for these drugs (NDIC 2006a).

## DOMESTIC TRENDS

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### Australian border situation

Customs detected 447 unauthorised importations of benzodiazepine-based sedatives and tranquillisers in 2005–06, an increase from 341 in 2004–05, and a decrease from 544 detections in 2003–04. Virtually all detections were in parcel post, with only six in air cargo parcels and 11 in the luggage of air passengers. Most parcels were sent from Argentina, India, Pakistan, the Philippines and Thailand. The highest quantities of tablets were from India, Argentina and Pakistan. Quantities detected varied from single tablets to 2,000 tablets per detection.

There were two detections of over 1,000 tablets—one from Sri Lanka and one from Peru—both of diazepam (valium). Additionally, there were 12 detections of over 300 tablets and 105 detections of 100 to 300 tablets. The benzodiazepine intercepted most often by Customs was, as in the previous year, diazepam, featuring in 195 detections, with five of them involving 500 to 2000 tablets. The 10 most frequent origins of benzodiazepines detected at the Australian border were: India, Argentina, Pakistan, the Philippines, Germany, Peru, Thailand, US, France and NZ. The top ten origin countries in terms of the number of benzodiazepine tablets detected were India, the Philippines, Argentina, Peru, Pakistan, Germany, Sri Lanka, Thailand, South Africa, and the US.

## OPIATES

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‘Opioid’ refers to any drug with an opium—like action, while ‘opiate’ refers specifically to drugs derived from the opium poppy (Campbell, 2001). The main forms of pharmaceutical opiates and opioids are outlined in Table 17.

Table 17: Main forms and effects of commonly used pharmaceutical opiates and opioids

Pharmaceutical Type	Trade Name	User Names	Comments
Morphine	MS Contin, Anamorph, Kapanol, Morphalgin	M, Monkey, Morph, Miss Emma, Dreamer, Hard Stuff	Main component of opium, powerful narcotic analgesic
Codeine	Panadine Forte, Codral Forte, Dymadon Forte, Codalgin Forte, Mersyndol Forte		An extract of opium which is not as strong as morphine
Pethidine		Peth	Synthetic narcotic analgesic, similar to morphine but shorter lasting
Methadone (or physeptone—tablet form)		Meth, done, metho	Synthetic Narcotic analgesic, used in treatment for opioid dependence, predominantly provided in syrup form to patients
Buprenorphine	Subutex, Temgesic	Beup, Mud	Buprenorphine is used to treat withdrawal from heroin; employed in maintenance treatment to block the effects of other opioids (with duration of 24 to 48 hours)

## INTERNATIONAL TRENDS

Global seizure data of opiates<sup>9</sup> (including heroin, morphine and opium) increased in 2005, especially in the South East region of Europe (UNODC, 2006). According to the International Narcotics Control Strategy Report, the trafficking of licit medical opiates from Romania and Moldova increased. The price of these mass-use substances is lower than heroin and cocaine, with criminal groups increasingly taking advantage of this niche (BINLEA, 2006). The diversion of heroin withdrawal therapy drugs, such as Subutex, has also been reported in the US and countries where buprenorphine is common in opiate addiction therapy (NDIC, 2004). Subutex tablets contain buprenorphine hydrochloride. Suboxone is also indicated for the treatment of opioid dependence and contains buprenorphine hydrochloride and naloxone hydrochloride dihydrate. The injection of Suboxone and Subutex can cause death from overdose if injected with tranquilizers.

As mentioned in the *Heroin* chapter, the emergence of fentanyl-laced heroin (and to a lesser extent, fentanyl-laced cocaine) was responsible for a large spike in fatal and non-fatal overdoses in some parts of the US during 2006. Fentanyl is a strong synthetic opiate analgesic, estimated to be 30–50 times stronger than heroin (DEA, 2006) and 200 times that of morphine (Reeves and Ginifer, 2002). Fentanyl was registered in Australia in 2002 for the management of pain in cancer patients who were tolerant to opioid therapies, but due to its limited access, has been misused mostly by medical and paramedical personnel (Reeves and Ginifer, 2002). The US trend of fentanyl-laced heroin has not been detected in Australia.

<sup>9</sup> The availability and use of opiates internationally is difficult to quantify as the terms *opiates* and *opioids* are not interpreted with consistency.

## DOMESTIC TRENDS

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### Australian border situation

There were 46 detections of pharmaceutical opiates, an increase from 18 detections in this group in 2004–05, and 31 detections in 2003–04. Twenty-five detections involved morphine, three contained methadone, three buprenorphine, 11 codeine, and four dihydrocodeine. Detections were mostly in parcel post, with some pharmaceutical opiates also found on air passengers.

One postal detection involved 1,170 morphine tablets sent from Thailand. Four postal detections from India, NZ, Thailand and the UK contained 114 to 360 morphine tablets each. Larger detections of other pharmaceutical opiates included one of 200 tablets of buprenorphine from the UK, and one of 1,300 tablets of codeine from South Africa. Other parcels were sent from China, Thailand, the UK, the US, India, the Philippines, Germany, NZ, Hong Kong and South Africa.

There was one large detection of 2,500 tablets of dihydrocodeine (30 milligrams each) on an air passenger from the US claiming the drug to be a patient's three months' supply. The quantity actually exceeded the maximum recommended dosage of dihydrocodeine over three months by more than threefold, and was an equivalent of 60 to 120 lethal doses of the drug.

## DOMESTIC MARKET INDICATORS

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### Price

Law enforcement price data for illicit pharmaceuticals is limited, however, opiate based pharmaceuticals can be sold illicitly for between \$5 to \$50, depending on the amount of opiates contained in them.

### Availability

Historically, the illicit use of buprenorphine increased concurrently with the decrease in heroin availability in 2000–01. Prescriptions for buprenorphine continued to increase significantly between 1998 and 2002, corresponding with a decrease in the use of methadone drug treatments (DCPC, 2006).

NDARC research of injecting drug users indicated that almost two-thirds of participants reported recent use of benzodiazepines in 2005, with legally obtained benzodiazepines being the most used. The rates of licit benzodiazepine usage was high in all jurisdictions, however, public health measures, including the restriction in prescriptions and removal of gel capsule preparations, have contributed to a decrease in use in some states. In addition, almost half of the sample reported recent use of morphine, with the majority of those obtaining it through illicit diversion (Stafford, Degenhardt, Black, Bruno, Buckingham, Fetherston, Jenkinson, Kinner & Newman, 2006). According to a 2006 study of regular MDMA users, 48 percent of respondents had used benzodiazepines at some stage in their lifetime (NDARC, 2006).

According to the AIC's *DUMA Project*, the proportion of police detainees who used opiates (other than heroin) increased from 10 percent in 2000 to 27 percent in 2005 (Mouzos, Smith and Hind, 2006). This opiate use was likely to have been codeine, however, it is not possible to determine whether use was licit or through diversion.

## NATIONAL IMPACT

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The use of AAS in Australia appears to be confined to small scale trafficking and personal use. This trend is not likely to alter significantly, but may decline marginally given recent international seizures and the cessation of major steroid producing companies. While seizures of tryptamines are declining, it is important to note that there were several sizeable LSD seizures during the reporting period, indicating that there remains a market in Australia for LSD. The diversion of pharmaceutical drugs in Australia and many other countries has been identified as a lucrative market by some criminal groups. In Australia benzodiazepines are widely used and the uptake of pharmaceutical drugs may be influenced by the fluctuating availability and price of heroin and other drugs.

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