

# Arrivals hall



# Customs

Douane



**Fast, accurate, real-time Drugs Identification**

# NarTest NTX2000

# Drug Testing

**Forensic Pathways offers a new and powerful tool for the identification of drugs. Compact and simple in use, NarTest NTX2000 Drug Analyser provides fast analysis of bulk drug samples.**

Only a few minutes are required to recognize drugs such as cocaine, heroin, methamphetamine, marijuana or ecstasy. No more than 20mg is necessary for reliable and precise detection of illicit drug in concentration range from 5% to 100%.

One of the main problems confronting modern society is illegal drug use, its trafficking and sale. Illicit drug use directly affects and impacts on public health, organized crime, corruption and terrorism.

World Drug Report 2008 contains the following statements of Mr. Antonio Maria Costa – Executive Director of the United Nations Office on Drugs and Crime: **“drug control should be looked at in the larger context of crime prevention and the rule of law in order to cut links between drug trafficking, organized crime, corruption and terrorism...”**, **“Drug trafficking is undermining national security”**. **“Drug money is used as a lubricant for corruption, and a source of terrorist financing: in turn, corrupt officials and terrorists make drug production and trafficking easier.”**

## Drug Analysis Results the Day of the Arrest

NarTest NTX2000 is a compact analytical instrument which provides drug analysis detection of cocaine, heroin, marijuana, methamphetamine and ecstasy. NarTest NTX2000 utilises Special Fluorescence Signature (SFS) technology for on-site drug detection. Trained non-scientific personnel can provide conclusive analysis results of your street samples on the day of arrest.

### Key benefits

- Results in 5-15 minutes in any environment
- Costs 10 times less than drug testing lab
- Minimal training
- Easy and rapid update of drug database
- Hand held and portable, also works from car battery
- Widening list of detected narcotics and chemicals

### Features

- 99.6% accuracy
- Detection of six narcotics
- Two precursors for methamphetamine production
- Differentiation of Cocaine Hydrochloride and Cocaine Base in < 5 min
- Detection limit for controlled substances in street samples = 5
- Fully printable reports





## Marijuana is one of the most often used illegal drugs


Marijuana is a green, brown, or gray mixture of dried, shredded leaves, stems, seeds, and flowers of the hemp plant (*Cannabis sativa*). NarTest Drug Analyser NTX2000 detects marijuana sample in three minutes even if it is mixed with other dry plants.

Cannabis is a term that refers to marijuana and other drugs made from the same plant. Strong forms of cannabis include sinsemilla (sin-seh-me-yah), hashish ("hash" for short), and hash oil. All forms of cannabis are psychoactive drugs; they all contain THC (delta-9-tetrahydrocannabinol), the main active chemical in marijuana. Marijuana's effect on the user depends on the strength or potency of the THC it contains. According to the data of the World Drug Report 2008 issued by UNODC the THC level continues to increase and this fact is changing the cannabis market. For the year 2006, most ordinary marijuana contained, on average, 7 percent THC.

Marijuana is considered to be soft drug. But the results of using marijuana are rather serious. Short term effects of marijuana use include memory and learning problems, distorted perception. Research findings also show that regular use of marijuana may play a role in some kinds of cancer and in problems with the respiratory and immune systems.

The risk of using cocaine is also much greater for those who have tried marijuana than for those who have never tried it. Using marijuana puts children and teens in contact with people who are users and sellers of other drugs. Long-term marijuana use leads to addiction in some people – they cannot control their urges to seek out and use marijuana, even though it negatively affects their life. In addition, some frequent marijuana users develop "tolerance" to its effects. This means they need larger and larger amounts of marijuana to get the same desired effects as they used to get from smaller amounts.

UNODC estimates suggest that some 166 million people used cannabis in 2006, equivalent to 3.9% of the global population age 15 – 64. The prevalence rates are still highest in Oceania (14.5%), followed by North America (10.5%) and Africa (8.4%). Large increases in use have been reported from South America, West and Central Africa.



## Cocaine is a powerfully addictive stimulant that directly affects the brain

NarTest NTX2000 can not only detect the presence of cocaine in very complex mixtures of adulterants and diluents in street samples but also differentiate two forms of cocaine in several minutes.

Cocaine is a crystalline alkaloid powder produced from material found in the leaves of the *Erythroxylon* coca plant, which is indigenous to South America (DEA, 2006). Cocaine is the most powerful stimulant derived from a natural source (ONDCP, 2006). Historically, cocaine has been used in its pure chemical form, cocaine hydrochloride. Previously used in medicine as a local anaesthetic, cocaine is now widely used illicitly for its euphoric and stimulating effects.

While cocaine powder is most commonly inhaled into the nasal passages, it can also be injected, smoked or ingested. Cocaine gives practically immediate effect which lasts for about 20 – 40 minutes. As a result cocaine addiction is formed very fast. When cocaine is consumed with alcohol, it intensifies the euphoric effect, but increases the risk of sudden death.

'Crack' is a freebase, smokeable form of cocaine. Crack addiction is formed even faster because the next dose is necessary promptly so crack is considered to be ten times as dangerous as cocaine.

Cocaine use ranges from occasional use to repeated or compulsive use, with a variety of patterns between these extremes. Other than medical uses, there is no safe way to use cocaine. Any use can lead to absorption of toxic amounts of cocaine, leading to acute cardiovascular or cerebrovascular emergencies that could result in sudden death. Repeated cocaine use can produce addiction and other adverse health consequences.

NTX2000 provides detection of 5% of cocaine in suspected samples containing adulterants and diluents.



## Ecstasy toxicity is unpredictable

NarTest NTX2000 Drug Analyser recognizes ecstasy (MDMA) and differentiates it from related products like MDA in a few minutes. MDMA can be 'cut' or combined with other substances, such as methamphetamine, ephedrine and ketamine. Drugs sold and consumed as ecstasy may contain little or no MDMA. NTX2000 visualizes the drug content and makes it clear for trained eyes.

Ecstasy is an illegally manufactured drug that comes in tablet or capsule form. The appearance varies considerably ranging from brown, white or pink tablets to yellow, clear, red and black or red and yellow capsules. Some also have pictures, designs or logos on. The chemical name for ecstasy is 3,4 methylenedioxymethamphetamine or MDMA for short.

Ecstasy is called Club drug. Although ecstasy users may think this substance is harmless, researches have shown that club drugs can produce a range of unwanted effects, including hallucinations, paranoia, amnesia, and, in some cases, death. When used with alcohol, ecstasy can be even more harmful. Some club drugs work on the same brain mechanisms as alcohol and, therefore, can dangerously boost the effects of both substances. Also, there are great differences among individuals in how they react to this substance and no one can predict how he or she will react. Some people have been known to have extreme, even fatal, reactions the first time they use club drugs. Young people may use Ecstasy to improve their moods or get energy to keep dancing; however, chronic abuse of MDMA appears to damage the brain's ability to think and regulate emotion, memory, sleep, and pain. Ecstasy can also make an individual more vulnerable to risky sexual behavior, increasing the chance of contracting HIV or other sexually transmitted diseases.

Ecstasy is manufactured primarily in North America, Western Europe and Oceania, though there is some production in East and South-East Asia and the majority of precursors are trafficked out of South, East, and South-East Asia. Trafficking routes of precursors continue to develop in places that lack the enforcement and forensics infrastructure to detect precursor trafficking. These new routes have a wide geographical spread and include Africa and West Asia, South and Central America, often starting from East Asia, or South Asia.

UNODC estimates ecstasy users to number approximately 9 million worldwide with a network of suppliers.



## Heroin addiction can be formed just after the first injection

NarTest NTX2000 Drug Analyser can reliably detect heroin and morphine even in mixtures. The profiling of heroin origin is possible within the first few minutes of drug measurements. Nearly 200 samples of street heroin were analyzed with NarTest NTX2000 with zero false positive results.

Heroin is the most highly addictive drug. It is both the most abused and the most rapidly acting of the opiates. Heroin is highly addictive because it enters the brain so rapidly. It particularly affects those regions of the brain responsible for producing physical dependence. In case of heroin dose absence "crash" begins after 3 – 4 weeks of drug use.

Heroin remains the main problem drug in terms of treatment. Heroin poses special problems for those who inject it because of the risks of HIV, hepatitis B and C, and other diseases that can occur from sharing needles. These health problems can be passed on to sexual partners and newborns. In the most most severe cases the end result of heroin use is death.

Heroin is processed from morphine, a naturally occurring substance extracted from the seed pod of certain varieties of poppy plants. It is typically sold as a white or brownish powder or as the black sticky substance known on the streets as "black tar heroin." Although purer heroin is becoming more common, most street heroin is "cut" with other drugs or with substances such as sugar, starch, powdered milk, or quinine. Street heroin can also be cut with strychnine or other poisons. Because heroin abusers do not know the actual strength of the drug or its true contents, they are at risk of overdose or death.

According to the data of UNODC the opium/heroin market continued to expand on the strength of cultivation increases in Afghanistan which pushed up the area under illicit opium poppy cultivation worldwide by 17%. The area under opium poppy cultivation in Afghanistan rose by 17% to 193,000 ha. This was the largest figure ever recorded in Afghanistan. Cultivation also increased in South-East Asia, where it went up after six consecutive years of decline.

While demand has been relatively stable at the global level, the countries surrounding Afghanistan continue to experience increasing levels of use. Increases were also recorded for most countries of East and Southern Africa. Consumer markets in Western and Central Europe seem to be largely stable. Opiate use also remains stable in North America. The total number of opiate users at the global level is now estimated at around 16.5 million people.



## Methamphetamine is an addictive stimulant

NarTest NTX2000 Drug Analyser provides analysis of synthetic drugs and their precursors in single measurement procedure. At present such differentiation is accessible only for expensive and complicated laboratory techniques like GS-MS. NarTest NTX2000 does it on any site in less than ten minutes using the same single sample.

The methamphetamine relates to the so called group of amphetamine-type stimulants - ATS. Methamphetamine has a high potential for abuse and addiction. Methamphetamine is made illegally with relatively inexpensive over-the-counter ingredients. Many of the ingredients that are used to produce methamphetamine, such as drain cleaner, battery acid, and antifreeze, are extremely dangerous.

Short-term effects can include increased respiration, hyperthermia, irritability, tremors, convulsions, aggressiveness, high blood pressure, arrhythmias, chest pain, shortness of breath. Hyperthermia and convulsions can result in death. Single doses of methamphetamine have also been shown to cause damage to nerve terminals. Long-term effects can include addiction, stroke, violent behavior, anxiety, confusion, paranoia, auditory hallucinations, mood disturbances, and delusions. Long-term use can also cause damage to dopamine neurons that persists long after the drug use has been discontinued. Strong nervous exhaustion and quick increase in tolerance is the result of methamphetamine use.

According to the estimation of UNODC amphetamine-type stimulants manufactured worldwide ranged between 330mt to 770mt in 2006 and methamphetamine accounted for 68% of the amphetamine group.

Methamphetamine is mostly manufactured throughout East and South-East Asia, North America and Oceania because of high demand and precursors availability.

According to the data of World Drug Report 2008 issued by Office on Drugs and Crime (United Nations) trafficking in amphetamine-type stimulant, end-products remains primarily an intra-regional affair, although there is evidence of increasing inter-regional trafficking. Precursor trafficking is predominantly inter-regional and the majority of precursors are trafficked out of South, East and South-East Asia. Nearly 14 million of the world's amphetamine users are considered to be in Asia and most of them are methamphetamine users in East and South-East Asia.



Forensic Pathways is committed to helping relevant agencies at every level of government to stop trafficking, and the use and sale of illegal drugs.

We provide affordable, state-of-the-art, easy-to-use drug detection technology, delivering fast and scientifically-proven results that meet established forensic standards.

#### **Forensic Pathways products included in sales package:**

- NarTest NTX2000 Drug Analyser software and hardware
- 75 sealable test tubes
- 50 disposable cells
- Computer and balance available

#### **Instrument specifications:**

*Voltage:* 110-120 V/60Hz, US Standard  
220-240V/50Hz, European

*Power consumption:* 12VA or from a car battery using an adapter

*Dimensions:* 6.3" (H) x 9.8" (L) x 11.8" (W) US Standard,  
16 (H) x 25 (L) x 30cm (W) European

*Weight:* 12.125lbs, 5.5kg