

## **Designer Drugs - To push yourself to the edge!**

**By Dr G Sreekumar Menon, Commissioner**

**THANK** God for life

Even though it brings much bitterness and strife

And all our faintest hopes be wrecked and lost

Even though there be more ill than good in life

We cling to life and reckon not the cost

Thank God for life !

**(UNKNOWN)**

The above lines might best express the thoughts of lakhs of Mumbaitees who escaped the horrendous blasts on 11th July 2006. For the hundreds of innocents who perished so unjustly we can do nothing but wait and watch for hath the Lord not said :

“Vengeance is mine, I will repay .....”

**Romans 12:19**

So what shall the living do in the meanwhile ? Some may turn to religion, some to alcohol and some to drugs to dissipate their sorrows and the sheer burden of living. The markets are overflowing with religious masters of all kinds, array of alcoholic drinks, and wonderful drugs that promise all kinds of illusory pleasures. The marvels of science and wonders of technology have helped create Designer Drugs, that can send anyone on a psychedelic trip for hours by just consuming sub-microgram levels.

Designer drugs are a class of drugs that are created by changing the molecular structure of an existing drug to create a new drug with similar pharmacological effects. Prepared by underground chemists, designer drugs can be injected, smoked, snorted and ingested. They are psychoactive drugs which are created to get around existing drug laws. The term “Designer Drugs” was first coined in the laboratory of Dr. Gary Henderson at the University of California at Davis. It was meant to refer to the skill of chemists in illicit laboratories who could create drugs designed to suit individual requirements. The aim was to produce chemical compounds that produce the “high” or euphoria associated with controlled substances like narcotics, depressants, stimulants and hallucinogens. But these compounds being chemically different could not be subject to laws governing controlled substances. By selling such chemical variants (analogs), chemists could make huge profits while steering clear from enforcement agencies.

By designing pharmacologically active, chemical related substances, referred to as analogs, which mimic the qualitative actions of the original compound, new synthetic drugs could be created which are more potent and selective in their action. Designer drugs have also been known as “research chemicals”, and by street names such as XTC, Ecstasy, Adam & Eve, Lover’s Speed, GHB, Special K, and Fantasy.

The first narcotic designer drug was alpha-methylfentanyl, which became popular as “China White” in the heroin market. The Fentanyls are a class of potent narcotic-analgesics synthesized by the Janssen Pharmaceutical Company of Belgium. Although the chemical structures of these drugs are quite different from the opiates and opioids, the derivatives are pharmacologically and toxicologically similar to the opium based narcotics such as morphine. Fentanyl, the parent drug, is used in clinical medicine as an intravenous analgesic-anesthetic. Fentanyl derivatives used in human and veterinary medicine are:

Fentanyl – approximately 100 times as potent as morphine.

Sufentanyl – approximately 2000 – 4000 times as potent as morphine.  
Alfentanyl - . approximately 20-30 times as potent as morphine.  
Lofentanyl – approximately 6000 times as potent as morphine.

The illicit analogs in the market are:

Alpha-methyl Fentanyl – approximately 200 times as potent as morphine.  
Benzyl Fentanyl – it has no narcotic effect.  
3-Methyl Fentanyl – approximately 3000 times as potent as morphine.

The euphoria or “rush” from the fentanyl is qualitatively similar to that of heroin. Although the fentanyl are chemically quite distinct from other narcotics, they are pharmacologically equivalent.

Hallucinogenic Amphetamines are analogues of the psychedelic drug Mescaline. This group contains more than a thousand different but related chemical substances. Popular drugs are Methylenedioxyamphetamine (MDA) – psychedelic speed and 3,4 Methylenedioxyamphetamine (MDMA) – Ecstasy. These analogues produce feelings of aesthetic delight, empathy, serenity, joy and self awareness. MDA is found in powder form and is sold as the Love Drug or Psychedelic Speed. MDMA is found in tablet, capsule and powder form. It is sold as ecstasy, XTC, and Adam. The popular way of taking it is through oral ingestion. The duration of a trip is approximately eight to twelve hours.

Gamma hydroxy butyrate (GHB) is classified as a depressant and a hypnotic type drug. It is an anesthetic(sleep inducer) without analgesic (pain relieving) properties and has been found naturally occurring in minute quantities in brain and other tissues in the human body.

Little, if any research has been done on the toxicology or pharmacology of most of these drugs. The safety of these chemicals is untested. It is impossible to determine psychoactivity or other pharmaceutical properties of these chemicals strictly from examining their structure. Many of the substances have common effects whilst structurally different and vice versa. Confusing nomenclature, similar names, and differing naming schemes all lead to hazardous mix-ups for end users.

These powerful drugs and their new modifications can upset the rhythm of even the most disciplined societies. If opium, heroin and cannabis could spell ruin for mighty armies then imagine what havoc can be wrought by designer drugs ? Can we forget the lessons of history? The Opium wars subdued the mighty Chinese army, the mesmerizing magic of drugs humbled the invincible Americans in Vietnam and hounded the powerful Russian army from Afghanistan. If elementary drugs can do wonders then Designer drugs can do miracles. Highly potent drugs like Rohypnol, Burundanga, and designer drugs can eradicate the menace posed by terrorism. If these drugs are inducted into counter terror operations there is going to be a dramatic effect. The zeal of terrorists cannot be extinguished by bullets but designer drugs can lure them into a fatal slumber and thereafter suck the lifeblood from their veins.