The effects of drug use

Deep down embedded within our very genetic code is there a primeval urge to experiment with drugs? We can observe this in both the animal and human kingdoms and it can be seen across the globe. In the outback of Australia, wallabies have been reported to intentionally get high off poppy plants. On the Caribbean island of St. Kitts, Vervet monkeys often attempt to steal the brightly coloured alcoholic cocktails of unsuspecting tourists. Previous generations of the enterprising monkeys got their alcoholic fix from consuming fermented sugar cane, discarded on the Caribbean plantations. We as a species have been taking drugs ever since we gained the ability to walk upright. Ceramic bowls and tubes used for ingesting drugs have been found dating back more than 2000 years. No wonder it was called the Stone Age. The one thing that differentiates us from our pre-historic counterparts is education. Now we *know* what we are doing to ourselves...

Before I delve into the specifics of how drugs can infiltrate and alter the function of the brain, I'll deal with the less obvious effects. Economically speaking, drugs pose an immeasurable problem to modern society. It is estimated that only one in six drug users worldwide receive the required treatment at a staggering global cost of approximately $35 billion annually. Treatment alone makes up this figure but we cannot forget the money that is spent combating drug use. The cost to law enforcement alone is nigh unfathomable. If a person is convicted of making, selling or even having possession of illegal drugs they may find it difficult to find a job and this effects their own personal financial situation. An individual who is a regular drug user may find it effects their ability to concentrate at their job. Poor performance at work may lead to them losing their job and in the long term, may even cause homelessness. Drugs have a large role to play in crime statistics. Many different types of offences stem from drug use. Use related crime refers to crimes being committed as a result of the effect that the drug has on a persons thought process and behaviour. Economic related crime can occur where a user may commit crimes in order to fuel a drug habit, e.g. theft and prostitution. Finally, system related crime involves the production, manufacture, transportation and sale of drugs.

Drugs can also have an effect on ones social situation. Many of the side effects of drug use can be linked to the deterioration in quality of a persons social standing. For example a depressed user may feel isolated from their family/friends and as time goes on and they see no other alternative, they may resort to suicide. Although this is an extreme scenario it is a very, very real one.

In a slightly tangential way drugs do not only have an effect on our life as we know it but also on our future. I am of course talking about teenagers. Simply put, they are the future of society. Although we may sometimes be difficult to deal with, we are among the vulnerable in society due to the fact that we are still developing both physically and mentally. A teen is far more likely to not only experiment with drug use but to become addicted because of this.

What exactly happens when a drug is inhaled, snorted, injected or released into the bloodstream via any other means? The first stop on the drug's journey will be the brain. This is dangerous territory from the get go as the brain is responsible for virtually all functions within the human body, from breathing to vision and even the pumping of the heart. Any number of the brains vital functions can be interrupted and stopped in a heartbeat, so to speak. This happens as plasma within the blood carries dissolved substances to the brain where they then have unlimited access to wreak havoc. Particles can mimic the function of neurotransmitters and interrupt the sending, receiving and processing of important information between neurons.

All this may bring about an air of doom and gloom but it is not as terrible as it may seem. If very lucky, a one off case of drug use may not have a profoundly negative effect on an individual, depending of course on the drug that was taken and the biology of the user. Alcohol for example is consumed by multitudes of people worldwide but unless taken into the category of excessive consumption or alcoholism, is not regarded to have overly detrimental effects on a persons life. However in the case of more serious drugs such as cocaine, heroin, amphetamine etc, “one off” is often not where consumption will end. Drug addiction is the true killer of drug use. When a user becomes addicted it means that they have begun to rely on drugs as if they were a crutch to give them support which they are not receiving in other aspects of their lives. When a drug is taken, serotonin and dopamine may be released, depending on the drug of course, which will give a feeling of pleasure and offers a brief escape from whatever a person may be going through. These drugs within the brain can also be released through natural means such has exercise. If a persons life is full of despair and misery and drugs are perceived to be the only avenue to release these chemicals into their brain, it is almost guaranteed that they will become hooked. It is important to say that if a user is happy and fulfilled in other aspects of their life then they are far less likely to become addicted. Over time excessive drug/alcohol use has very negative effects on the brain and body leading to many serious health issues such as kidney and liver damage, cardiovascular effects ranging from abnormal heart rate to full blown heart attacks and respiratory problems such as bronchitis, emphysema and lung cancer.

Society is as affected by drug abuse as the individual and the consequences flow outwards. As the issue is unlikely to simply vanish, we must all do what we can to minimise the harmful effects of drug misuse through education, enforcement and support for those who need it.

Bibliography:

Central Statistics Office.  *Crime - Recorded Crime Offences.*Available: http://www.cso.ie/multiquicktables/quickTables.aspx?id=cja01. Last accessed 17th Dec 2015.

Gateway Foundation.. *Effects of Drug Abuse and Addiction.*Available: http://recovergateway.org/substance-abuse-resources/drug-addiction-effects/. Last accessed 16th Dec 2015.

National Institute on Drug Abuse. *Drugs, Brains, and Behavior: The Science of Addiction.* Available: https://www.drugabuse.gov/publications/drugs-brains-behavior-science-addiction/drugs-brain. Last accessed 16th Dec 201.

National Institute on Drug Abuse. *Brain and Addiction.*Available: https://teens.drugabuse.gov/drug-facts/brain-and-addiction. Last accessed 4th Dec 2015.

Narconon.. *What Do Drugs Do to Your Nervous System?.*Available: http://www.narconon.org/drug-education/videos/what-drugs-do-nervous-system.html. Last accessed 4th Jan 2016.

European Monitoring Centre for Drugs and Drug Addiction. .*Country Overview(Ireland).* Available: www.emcdda.europa.eu/countries/ireland. Last accessed 12th Jan 2016.

Jason G Goldman. . *Do animals like drugs and alcohol?.*Available: http://www.bbc.com/future/story/20140528-do-animals-take-drugs. Last accessed 20th jan 2016.

Jonathan Wynne-Jones. . *Stone Age man took drugs, say scientists.*Available: http://www.telegraph.co.uk/news/newstopics/howaboutthat/3225729/Stone-Age-man-took-drugs-say-scientists.html. Last accessed 27 th Dec 2016.