

GANDAKI BOARDING SCHOOL

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REPORT ON POSITIVE AND NEGATIVE EFFECTS OF DRUGS

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**ACKNOWLEDGEMEN****T**

I am highly indebted to the Department of Science(Chemistry) for providing me a platform to carry out research and to give this paper life in this form. I’d like to extend my heartfelt thanks to the Department of Science(Chemistry) for guiding me in writing this paper. I am grateful towards our chemistry teachers, Mr. Bharat poudel and Mr. Parmeshwor Sharma for guiding us in this regard. Also, I am thankful to all of my friends and teachers who assisted me in collecting articles and journals, proofreading, analysing the data and making a sense of them. I am indebted to everyone who has given me invaluable advice and constructive suggestions whilst preparing this paper. I am thankful to everyone who helped me in all my endeavours.

**I**

**EVALUATION**

The aforementioned students have successfully carried out studies on the topic ‘**Positive and negative effects of drugs**’ fulfilling all the provided criterias required. The department of science(Gandaki Boarding School) of Gandaki Boarding School acknowledges the report for the fulfilment of the requirements for the report based on secondary education level.

**II**

**ABBREVIATIONS**

DIC : Drug Information Centre

DDA : Department Of Drug Administration

MTH : Manipal Teaching Hospital

DPharm Doctor Of Pharmacy

BPharm : Bachelor Of Pharmacy

MPharm : Master Of Pharmacy

TUTH : Tribhuvan University Teaching Hospital

BPKIHS : B.P Koirala Institute Of Heart Science

COMS : College Of Medical Science

RECPHEC : Resources Center For Primary Health Care

PV : Pharmacovigilance

**III**

**ABSTRACT**

A drug is any chemical substance that causes a change in physiology and psychology of an organism when ingested. Drugs are often used to cure, halt, or prevent disease; ease symptoms; or help in the diagnosis of illnesses. Advances in medicines have enabled doctors to cure many diseases and save lives.Drugs are amazing substances when used as intended but are often misused. This

is often classified as drug abuse. Drug abuse may lead to social, physical, emotional, and job-related problems.

This report contains a brief introduction on drugs, their classification, types, effects of them in the body(both positive and negative) and field data of drugs management and abuse in Nepal.

Drugs are classified on the basis of four criteria: pharmacological effects; drug action; chemical structure; molecular targets. Based on these criteria classification is done. The report also exemplifies the most famous drugs of the given category and provides a brief introduction, uses and effects of them.

Research was done from trusted sources references to which are also provided.

Overall, the report highlights the importance of the proper handling of drugs and importance of professional guidelines bringing forth the beneficial as well as the devastating aspects of drugs based on different intake amounts and scenarios.

**IV**

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**GENERAL INTRODUCTIONS**

**INTRODUCTIONS**

A drug is any substance (except for food and water) which when taken into the body, changes the function either physically or psychologically.

The first modern pharmaceutical medicine was invented in 1804 by Friedrich Sertürner; a German scientist, however the foundation of modern medicine was laid by a Greek physician *Hippocrates* (450 BC).

**CHARACTERISTICS OF DRUGS**

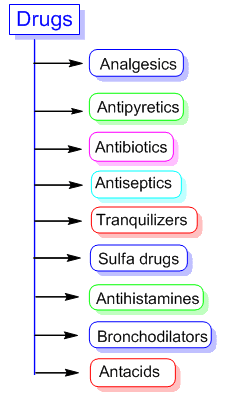
How do you know when a substance is a drug? Mentioned below are some characteristics of drugs which explains us the general characteristics of drugs

* Essential medicines are those that satisfy the priority health care needs of the population.
* Essential medicines are selected with due regard to disease prevalence and public health relevance, evidence of clinical efficacy and safety, and comparative costs and cost-effectiveness.
* Drug-like properties, such as solubility, permeability, metabolic stability and transporter effects are of critical importance for the success of drug candidates. They affect oral bioavailability, metabolism, clearance, toxicity, as well as in-vitro pharmacology.

**CLASSIFICATION OF DRUGS**

From a chemistry point of view, there is no difference between drugs and medicines. All drugs are medicines and all medicines are drugs. A medicine is a chemical substance which is used for the treatment of diseases, reducing different types of pains, has negligible toxicity and does not cause addiction. A drug is a chemical substance which also cures diseases but is habit forming, has serious side effects and causes addiction. Penicillin is an antibacterial agent whereas heroin is a pain killer. Penicillin is a medicine because it does not make the patient addicted while heroin is a drug because it is habit forming and has addictive properties.

**1**



Drugs may be classified on the basis of the following four criteria;

(a) *On the basis of pharmacological effect:* A number of drugs are available to cure a particular disease or ailment. Pharmacological effect is useful for doctors because it provides them the whole range of drugs for the treatment of a particular type of disease or ailment.

(b) *On the basis of drug action*: The classification is based on the action of a drug on a particular biochemical process. For example, the compound histamine causes inflammation and all energy in the body. All antihistamines inhibit the action of histamines.

C) *On the basis of chemical structure:* it has been found that in many cases, drugs having common structural features have similar pharmacological activity. Therefore, drugs have been classified on the basis of their chemical structure. For example, sulfonamides have common structural features and they are mostly antibacterial.

(D) *On the basis of molecular targets*: Drugs usually interact with the biomolecules such as carbohydrates, lipids, proteins and nucleic acids. These are also called target molecules or drug targets. Other targets are various enzymes and receptors present in the cell.

**2**

**ANALGESICS**

Analgesics, also called painkillers, are medications that relieve different types of pain — from headaches to injuries to arthritis. Anti-inflammatory analgesics reduce inflammation, and opioid analgesics change the way the brain perceives pain. Some analgesics can be bought over the counter, others require a prescription.

**What are analgesics used for?**   
  
Analgesics are used to relieve pain and inflammation. For example:   
  
• After surgery.   
  
• Due to injury, such as a fractured bone.   
  
• For aches and pains like menstrual cramps or muscle soreness.   
  
• For chronic painful conditions such as arthritis, cancer or back pain.

**Side Effects**

Side effects, theoretically accompanying analgesia and limiting opioid tolerability, are frequent in pharmacological pain control. The discussion of side effects is part of informed consent, but could favour the effects of nocebo.

Unknowingly, subjects were randomised double-blind to positive vs. control information about side effects contained in a research drug film. In order to test analgesia, sequences of mildly unpleasant heat stimuli administered before and during treatment with diclofenac and atropine were used. As a co-analgesic, Atropine was deceptively presented, but used to cause side effects. 65 percent of participants said during debriefing that they would like to get a constructive message in a therapeutic setting.

**3**

**ANTACIDS**

Antacids are a class of medicines that neutralise acid in the stomach. They contain ingredients such as aluminium, calcium, magnesium, or sodium bicarbonate which act as bases (alkalis) to counteract stomach acid and make its pH more neutral.Normal gastric acid pH is in the range 1.5-3.5.

Substances such assodium hydrogen carbonate or a mixture of aluminium and magnesium hydroxide are used as antacids. When we use an excess of hydrogen carbonate, the stomach gets alkaline which further induces the production of acids. Therefore, we use metal hydroxides which are insoluble, and they do not increase pH value above neutrality.

## What are antacids used for?

Antacids are used to relieve the symptoms of Gastroesophageal Reflux Disease (GERD also called acid reflux), heartburn or indigestion (also called dyspepsia ). By neutralising stomach acid, antacids relieve symptoms such as burning in the chest or throat area caused by acid, reflux, a bitter taste in the mouth, a persistent dry cough, pain when lying down, and regurgitation.

## Side Effects:

Antacids are very useful drugs, but they also accompany some side effects. The versions of antacids which contain magnesium may cause diarrhoea, whereas the ones which contain calcium or aluminium can cause constipation. In the long term, the use of antacids may even cause kidney stones. The versions which contain aluminium, if used for a long-term, may increase the risk of osteoporosis.

**4**

**ANTIBIOTICS**

Antibiotics are a common medication that doctors prescribe to fight bacteria. Antibiotics are powerful medicines that fight certain infections and can save lives when used properly. They either stop bacteria from reproducing or destroy them.

The first antibiotic was penicillin. Penicillin-based antibiotics, such as ampicillin, amoxicillin, and penicillin G, are still available to treat a variety of infections and have been around for a long time. Several types of modern antibiotics are available, and they are usually only available with a prescription in most countries.

**Uses:**

Antibiotics are ineffective against viruses. A doctor prescribes antibiotics for the treatment of a bacterial infection. It is not effective against viruses. Knowing whether an infection is bacterial or viral helps to effectively treat it. Viruses cause most upper respiratory tract infections (URTIs), such as the common cold and flu. Antibiotics do not work against these viruses.

**5**

**ANTIHISTAMINES**

When histamine, a chemical created by your immune system, overreacts to an allergen such as pollen and pet dander, it can cause symptoms such as coughing, sneezing and watery eyes. Antihistamines are medications that help with allergies, and also with stomach problems, cold, anxiety and more.

Antihistamines are a class of drugs commonly used to treat symptoms of allergies. These drugs help treat conditions caused by too much histamine, a chemical created by your body’s immune system.

### Classification

Antihistamines drugs can be classified into two types according to the H receptor-targeted: -

* H1: They are generally used to treat allergic reactions as well as mast cell-mediated disorders. This category can be further divided into two classes: first-generation H1 antihistamines, which have a central effect and are used as sedatives; and second-generation H1 antihistamine which have a lesser central effect and are used as antiallergic drugs.

**Examples**: Meclizine, Clemastine, Hydroxyzine, Loratadine, Cetirizine, azelastine etc.

* H2: They are used for gastric reflux disease as they help in reducing the production of stomach acid by reversibly blocking the H2 histamines receptors in the parietal cells of the gastric mucosa.

**Examples**: Ranitidine, Cimetidine, Famotidine, etc.

## Side Effects

Antihistamines are harmful in nature, some are comparatively more harmful than the others.

* The older groups known as the first generation of antihistamines are more harmful, for example, Benadryl and Chlor-Trimeton. They cause drowsiness particularly.
* On the other hand, the newer-generation of antihistamine is comparatively less harmful, for example, Allegra, Clarinex, and Zyrtec. Dry mouth is the main side effect of antihistamines and their use should be avoided as much as possible.

**6**

**ANTIPYRETICS**

An antipyretic is a substance that reduces fever. Antipyretics cause the hypothalamus to override a prostaglandin-induced increase in temperature. The body then works to lower the temperature, which results in a reduction in fever. Most antipyretic medications have other purposes.

In **1899**, the Bayer Company launched the modern era of antipyretic therapy with the introduction of aspirin as the world's first commercially available antipyretic drug.

The most common antipyretics are usually **ibuprofen and aspirin**, which are nonsteroidal anti-inflammatory drugs (NSAIDs) used primarily as analgesics (pain relievers), but which also have antipyretic properties; and paracetamol (acetaminophen), an analgesic with weak anti-inflammatory properties.

**Paracetamol**  
Paracetamol is a well-known antipyretic and analgesic compound available for many years for oral administration since intravenous infusion was hampered by water insolubility. Its pro-drug, namely, pro-paracetamol, was applied for intravenous infusion where an amount of 2g was equally potent to 1 g of paracetamol.

**Formula** : C8H9NO2   
**Melting point** : 169°C   
**Boiling point** : 420°C   
**Molar mass** : 151.165 g·mol−1  
**Soluble in**  : Water, Acetone, Alcohol

**7**

**ANTISEPTICS**

An antiseptic is a substance that stops or slows down the growth of microorganisms. They’re frequently used in hospitals and other medical settings to reduce the risk of infection during surgery and other procedures.

Different types of antiseptics are used in medical settings. These include hand rubs, hand washes, and skin preparations. Some are also available over the counter (OTC) for home use.

**How are antiseptics used?**

* Hand washing.
* Disinfecting mucous membranes.
* Cleaning skin before an operation.
* Treating skin infections.
* Treating throat and mouth infections.

**What are some types of antiseptic?**

* **Chlorhexidine and other biguanides.** These are used on open wounds and for bladder irrigation.
* **Antibacterial dye.** These help to treat wounds and burns.
* **Peroxide and permanganate.** These are often used in antiseptic mouthwashes and on open wounds.
* **Halogenated phenol derivative.** This is used in medical-grade soaps and cleaning solutions.

**8**

**SULFONAMIDES**

Sulfonamides (sulphonamides) are a group of man-made (synthetic) medicines that contain the sulfonamide chemical group. They may also be called sulfa drugs. Sulfonamide works by interfering with the synthesis of folic acid in bacteria, which is essential for nucleic acid formation and ultimately DNA and RNA. Sulfonamide antimicrobials may be combined with trimethoprim to make them bactericidal (kill bacteria), because trimethoprim acts on a different enzyme in the folic acid synthesis pathway.

**Side effects**

* Lethargy
* Diarrhoea
* Anorexia
* Vomiting
* Photo-sensitivity
* Serious skin rashes

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**TRANQUILIZERS**

A tranquilizer refers to a drug that acts on the CNS and is used for the treatment of anxiety, fear, tension, agitation, and disturbances of the mind, specifically to reduce states of anxiety and tension.It also helps a person to sleep. A tranquilizer is often called depressants because they suppress the CNS and slow down the body.

Tranquilizers induce a well-being sense in a person, thereby releasing him from tension, anxiety, stress, or irritability. They are one of the important components of sleeping pills.

**Classification of Tranquilizers**

Tranquilizers are available in two variants which are,

1. **Minor Tranquilizers**
2. **Major Tranquilizers**

**Minor Tranquillizers** also referred to anxiolytics, used for sedation, and to treat anxiety. These drugs are called anti-anxiety medications these days.

Whereas, **Major Tranquillizers**, also known as neuroleptics or antipsychotics, were developed to treat the disorders, including schizophrenia.

These tranquillisers combat hallucinations and other delusions. Usually prescribed for long terms, the significant Tranquillisers include phenothiazines, butyrophenones, thioxanthenes, rauwolfia alkaloids, and clozapine.

* **Sedative**

Sedatives work on your central nervous system. They slow down brain activity and can help you feel more relaxed and calm.Common sedatives include barbiturates, benzodiazepines, gamma-hydroxybutyrate (GHB), opioids and sleep inducing drugs such as zolpidem (Ambien) and eszopiclone (Lunesta). Sedatives are central nervous system depressants and vary widely in their potency

**Hypnotic**

Hypnotics are medications used to induce, extend, or improve the quality of sleep,and to reduce wakefulness during sleep. The most commonly used hypnotics include benzodiazepine receptor agonists (BzRAs), antidepressants, antipsychotics, antihistamines, and melatonin (or melatonin receptor agonists).

Hypnotic drugs also called sleep aids, sleeping pills, or soporifics.

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**Narcotics**

The Narcotic Drug, that produces analgesia (pain relief), narcosis (state of stupor or sleep), and addiction (physical dependence on the drug). In some people narcotics also produce euphoria (a feeling of great elation).

When taken exactly as prescribed by a doctor, for short periods of time, for the relief of severe pain, and under strict monitoring, narcotic analgesics are considered acceptable to use. However, they may still be associated with some severe side effects, despite proper use.

Drowsiness, sleepiness, or dizziness is common with most narcotic analgesics. This can affect driving or a person's ability to operate machinery and perform other hazardous tasks. Some Narcotics include Opium, heroin, Pethidine, etc.

**Psychedelic**

Psychedelics (also known as hallucinogens) are a class of psychoactive substances that produce changes in perception, mood and cognitive processes.

Psychedelics affect all the senses, altering a person’s thinking, sense of time and emotions. They can also cause a person to hallucinate—seeing or hearing things that do not exist or are distorted.

Some commonly used psychedelics include:

* LSD (d-lysergic acid diethylamide)
* Psilocybin(4-phosphoryloxy-N,N-dimethyltryptamine)
* Peyote
* DMT (Dimethyltryptamine)
* Ayahuasca

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**POSITIVE AND NEGATIVE ASPECTS**

These days many diseases can be effectively alleviated or even cured by taking the appropriate medication. There are drugs available which for example lower blood pressure, reduce blood glucose or treat cancer. The medications you take play an important role in your overall health. However, all medications have side effects, warnings and drug interactions, so it's important to understand your treatments, expected results, and alternative medical options.

Since all drugs can cause side effects, physicians individually way up the expected benefits against the possible risks for every patient. Side effects can vary greatly; they range from minor symptoms such as nausea, headaches or skin rashes to more serious side effects like heart rhythm disorders or liver damage. In the worst cases, they can even be fatal. It is often impossible to predict whether side effects will occur or not. They can be caused, for example, by individual genetic factors. Interactions with other drugs or food stuff can also trigger side effects.

Some drugs can’t help but trigger side effects because of their chemical structure. The common allergy drug diphenhydramine (also known by the brand name Benadryl) is one. Though it eases allergy symptoms, it also blocks the chemical acetylcholine, and that leads to drowsiness and a host of other side effects, including dry mouth.

Unfortunately, side effects can never be completely ruled out. Fortunately, serious side effects tend to be quite uncommon in most patients. In other words, more people benefit from drugs than suffer from serious side effects. In any case, patients should be aware of the benefits and potential risks before taking a drug. So, you should always read the information leaflet to find out about possible side effects and ask your doctor or pharmacist whenever needed. When talking to a doctor you shouldn’t forget to mention any other medicines you might be taking. You should also consider whether other diseases have occurred in your family's history and firmly take drugs that have been prescribed for you personally.

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**HABIT FORMING AND CONTROL**

Drug addiction, also called substance use disorder, is a disease that affects a person's brain and behaviour and leads to an inability to control the use of a legal or illegal drug or medication. Substances such as alcohol, marijuana and nicotine also are considered drugs. When you're addicted, you may continue using the drug despite the harm it causes.

Drug addiction can start with experimental use of a recreational drug in social situations, and, for some people, the drug use becomes more frequent. For others, particularly with opioids, drug addiction begins with exposure to prescribed medications, or receiving medications from a friend or relative who has been prescribed the medication.

As time passes, you may need larger doses of the drug to get high. Soon you may need the drug just to feel good. As your drug use increases, you may find that it's increasingly difficult to go without the drug. Attempts to stop drug use may cause intense cravings and make you feel physically ill (withdrawal symptoms).

You may need help from your doctor, family, friends, support groups or an organised treatment program to overcome your drug addiction and stay drug-free.

## Symptoms

Drug addiction symptoms or behaviours include, among others:Having intense urges for the drug that block out any other thoughts

* Taking larger amounts of the drug over a longer period of time than you intended
* Making certain that you maintain a supply of the drug
* Spending money on the drug, even though you can't afford it
* Not meeting obligations and work responsibilities, or cutting back on social or recreational activities because of drug use
* Continuing to use the drug, even though you know it's causing problems in your life or causing you physical or psychological harm
* Doing things to get the drug that you normally wouldn't do, such as stealing
* Spending a good deal of time getting the drug, using the drug or recovering from the effects of the drug

**13**

The best way to prevent an addiction to a drug is not to take the drug at all. If your doctor prescribes a drug with the potential for addiction, use care when taking the drug and follow the instructions provided by your doctor.

Doctors should prescribe these medications at safe doses and amounts and monitor their use so that you're not given too great a dose or for too long a time. If you feel you need to take more than the prescribed dose of a medication, talk to your doctor.

### Preventing drug misuse in children and teenagers

Take these steps to help prevent drug misuse in your children and teenagers:

* **Communicate**: Talk to your children about the risks of drug use and misuse.
* **Listen**: Be a good listener when your children talk about peer pressure, and be supportive of their efforts to resist it.
* **Set a good example**: Don't misuse alcohol or addictive drugs. Children of parents who misuse drugs are at greater risk of drug addiction.
* **Strengthen the bond**: Work on your relationship with your children. A strong, stable bond between you and your child will reduce your child's risk of using or misusing drugs.

### Preventing a relapse

Once you've been addicted to a drug, you're at high risk of falling back into a pattern of addiction. If you do start using the drug, it's likely you'll lose control over its use again even if you've had treatment and you haven't used the drug for some time.

* **Stick with your treatment plan**: Monitor your cravings. It may seem like you've recovered and you don't need to keep taking steps to stay drug-free. But your chances of staying drug-free will be much higher if you continue seeing your therapist or counsellor, going to support group meetings and taking prescribed medication.
* **Avoid high-risk situations**: Don't go back to the neighbourhood where you used to get your drugs. And stay away from your old drug crowd.
* **Get help immediately if you use the drug again**: If you start using the drug again, talk to your doctor, your mental health professional or someone else who can help you right away.

**14**

**FIELD ANALYSIS**

In a developing country like Nepal, accessing unbiased and recent information on medications and therapies is difficult and is still a major limitation. With the closing of certain DICs in Nepal, the smooth functioning of the DICs in Nepal has still not been attained.

The DICs established throughout the country were approached to know the current scenario of the centres. The information was obtained from the authorised personnel of each centre either through telephone or in-person meetings.

The DICs in organisations/hospitals which are fully or partially functioning. DDA, the national drug regulatory authority of Nepal has a provision for the provision of drug information and publication of a drug bulletin as the major departmental activity. In MTH, the DIC is actively involved in the training of Pharmacy students (DPharm, BPharm, and MPharm). However, Drug Bulletin has not been published in the last few years. The DIC of The Institute of Medicine (TUTH), in addition to publishing a bulletin, also handles the pharmacovigilance program, communicates with the international narcotics board and monitors advertisements.

A study in Nepal has shown about 40% of the queries in DIC were regarding ADRs reflecting the importance of DIC in resolving such issues. Also, the role of pharmacists has been identified well in spontaneous ADR reporting, dissemination of medicine information for optimization of drug therapy and better health management of the patients.

The DICs at B.P. Koirala Institute of Health Science (BPKIHS), KIST Teaching Hospital, College of Medical Sciences (COMS), and Resource for Primary Health Care (RECPHEC) are not fully functional. In a few other health institutions in Nepal, medicine information providing centres along with Pharmacovigilance (PV) centres are in the planning phase designated to work under the Department of Pharmacology or Department of Pharmacy.

Most drugs affect the brain's "reward circuit," causing euphoria as well as flooding it with the chemical messenger dopamine. A properly functioning reward system motivates a person to repeat behaviours needed to thrive, such as eating and spending time with loved ones. Surges of dopamine in the reward circuit cause the reinforcement of pleasurable but unhealthy behaviours like taking drugs, leading people to repeat the behaviour again and again.

As a person continues to use drugs, the brain adapts by reducing the ability of cells in the reward circuit to respond to it. This reduces the high that the person feels compared to the high they felt when first taking the drug—an effect known as tolerance. They might take more of the drug to try and achieve the same high. These brain adaptations often lead to the person becoming less and less able to derive pleasure from other things they once enjoyed, like food, sex, or social activities.

Long-term use also causes changes in other brain chemical systems and circuits as well, affecting functions that include:

• learning

• judgement

• decision-making

• stress

• memory

Despite being aware of these harmful outcomes, many people who use drugs continue to take them, which is the nature of addiction.

• Drug addiction is a chronic disease characterised by drug seeking and use that is compulsive, or difficult to control, despite harmful consequences.

**15**

• Brain changes that occur over time with drug use challenge an addicted person’s self-control and interfere with their ability to resist intense urges to take drugs. This is why drug addiction is also a relapsing disease.

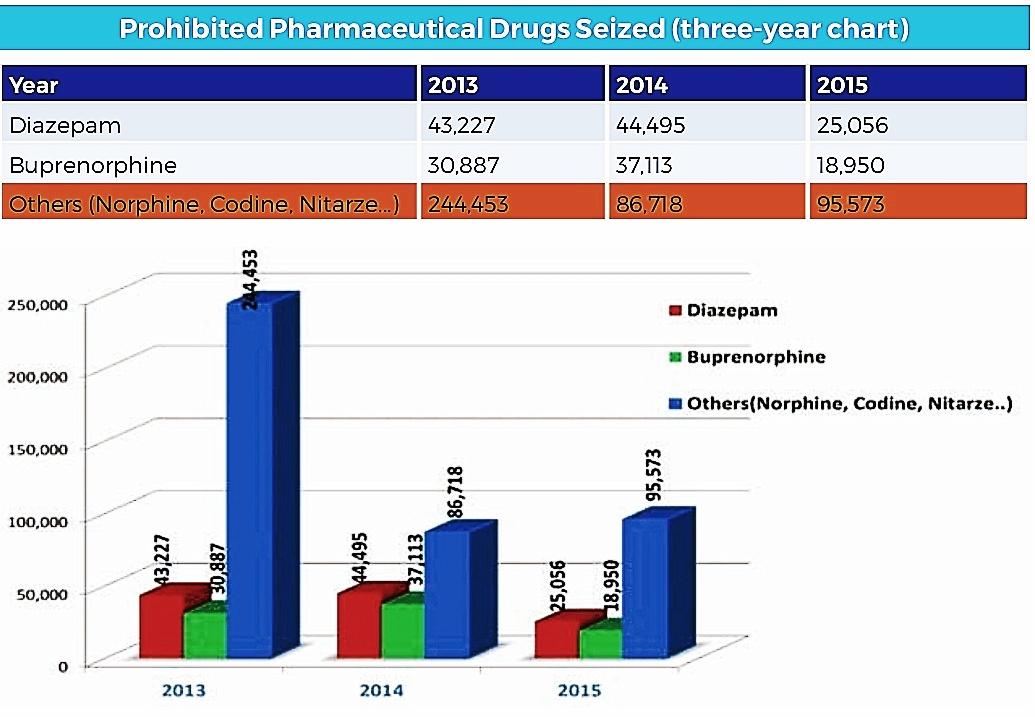
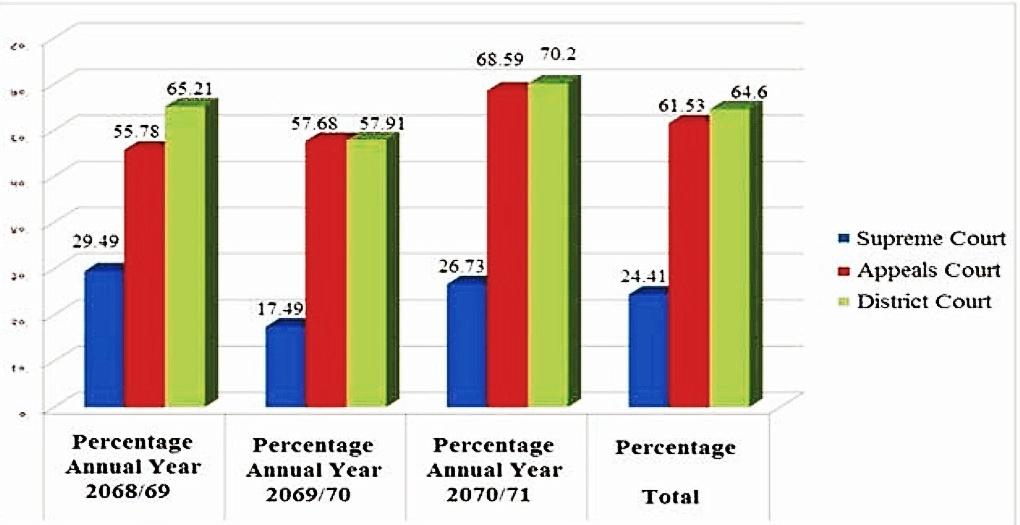
• Relapse is the return to drug use after an attempt to stop. Relapse indicates the need for more or different treatment.

• Most drugs affect the brain's reward circuit by flooding it with the chemical messenger dopamine. Surges of dopamine in the reward circuit cause the reinforcement of pleasurable but unhealthy activities, leading people to repeat the behaviour again and again.

• Over time, the brain adjusts to the excess dopamine, which reduces the high that the person feels compared to the high they felt when first taking the drug—an effect known as tolerance. They might take more of the drug, trying to achieve the same dopamine high.

• No single factor can predict whether a person will become addicted to drugs. A combination of genetic, environmental, and developmental factors influence risk for addiction. The more risk factors a person has, the greater the chance that taking drugs can lead to addiction.

• More good news is that drug use and addiction are preventable. Teachers, parents, and health care providers have crucial roles in educating young people and preventing drug use and addiction.

**16**

**RECOMMENDATIONS**

There are no drugs with zero side effects on the human body. Drugs show different effects on our

Body depending on the types of drugs and the person who is taking them.So,the medical experts

must have enough knowledge of different effects that can be caused by consumption of various

drugs.Yet there are some drugs that we are consuming in spite of their harsh consequences.

Prescription from unqualified doctors or pharmacologists has increased negative consequences

in the general public. Also, food adulteration by the use of many nootropic and recreational drugs

has increased health risks people.Dueto lack of knowledge of different potential side effects

Different kinds of drugs, they are being prescribed and consumed that poses severe health threats on

human body.

In order to insure proper use of drugs to cure diseases with minimal side effects to the consumer,

proper research should be done in this sector. Some drugs like marijuana which can really have

positive impacts on human body by consumption in right quantity and frequency should be

legalised by the government, to make their research easier. Some drugs, in spite of having positive

healthimpactsarenot beingableto mobilise due to restrictions from government.Wearenotable

to distinguish the positive and negative impacts of most of the drugs due to lack of appropriate

Research.

In a nutshell, we are still not able to fully understand the positive and negative effects created by

consumption of many drugs. So, proper research must be done for effective use of drugs with minimal side effects. Doctors and other medical experts must prescribe only required medicines and should not prescribe any haphazard medication for different diseases. Government must play a crucial role to regulate the trade of drugs. And the most important thing is that the general public must have proper ethics while using drugs and should be away from drug abuse. Also, people should be persuaded from self poisoning and attempting suicides.

**17**

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