

Drug Dependence & Abuse:

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Drug: any substance / product that is used for / intended to be used to modify or explore physiological systems or pathological states for the benefit of the recipient.

Substance Dependence: maladaptive pattern of substance use, leading to a cluster of behavioural, cognitive & physiological phenomena that develop after repeated intake.

→ strong desire to take the drug, difficulty in controlling its use.

Substance Abuse: persistent or sporadic excessive drug use, inconsistent with or unrelated to acceptable medical practice.

Substance Intoxication: unwanted physiological or psychological effects that cause maladaptive behaviour.

→ it must produce disturbances in the level of consciousness, cognition, perception, affect or behaviour that are clinically significant.

Physical / Physiological Dependence: alteration in neural systems which is manifested by tolerance & the appearance of withdrawal phenomena when a chemically administered drug is discontinued or displaced from its receptor.

Addiction: chronic disorder characterised by compulsive use of drugs (craving) resulting in physical, psychological & social harm, & continued use despite evidence of that harm.

Drug Habituation: a condition resulting from the repeated consumption of a drug, in which there is psychological / emotional dependency on the drug.

e.g: - caffeine
- nicotine

Frequently abused drugs:

- **Opiates:** Heroin, Morphine, Codeine, Pethidine, Methadone
- **Stimulants:** Cocaine, Methamphetamine, Methyl phenidate
- **Hallucinogens:** LSD, Marijuana, Mescaline, Psilocybin
- **Depressants:** Barbiturates, Chloral hydrate, Paraldehyde
- **Miscellaneous:** Propoxyphene, Pentazocine, Amitriptyline.

Designer Drugs: synthetic variations of well-known controlled drugs like fentanyl, phenyclidine, mescaline, etc. with similar pharmacological effects but different molecular structures.

e.g: analogs of

- fentanyl
- phenyclidine
- methamphetamine.
- meproidine
- amphetamine

Drug Dependence: Psychological dependence is a compulsive need for a drug in order to maintain a state of well-being, & it can occur in the absence of physical dependence.

Symptoms of Drug Dependency:

- **Routes of drug consumption:**
 - injection (i.v. / i.m. / s.c.)
 - sniffing into the nostrils
 - through rectum / vagina
 - inhalation
 - smoking
 - orally
- **Symptoms:**
 - loss of appetite & weight
 - reddening & puffiness of eyes, unclear vision
 - slurring of speech
 - acute anxiety, depression, mood changes, temper tantrums
 - depersonalisation & emotional detachment
 - clumsy movements
 - unsteady gait, tremors
 - loss of interest, lethargy
 - impaired memory & concentration

Withdrawal Symptoms: occurs if drug is abruptly withdrawn in a physically dependent person.

→ withdrawal symptoms are usually opposite to the effects of the drug itself.

- chilliness, sensation of cold
- yawning } 1st stage
- uneasiness
- rhinorrhoea
- laboured respiration, rapid
- goose skin
- gross tremors } 2nd stage
- lacrimation
- sleep (8-16 hours)
- dilated pupils
- previous symptoms are intensified upon awakening.
- tachypnoea } 3rd stage
- fever
- hypertension
- perspiration
- pain & cramps in the legs
- vomiting, diarrhoea

Treatment:

- 1] Person should be relocated to an institution
- 2] Constant supervision (prevent addict from obtaining secret supplies of the drug).
- 3] Detoxification ⇒ reduction in drug dosage over 1-3 weeks.
- 4] Administration of: — sedatives — benzodiazepine — hyoscine.
- 5] Diverting the mind by engaging him physically & mentally.
- 6] Psychotherapy
- 7] Improving general health
- 8] Symptomatic management.

Rehabilitation: continuous process of weaning away the victims of drug dependency.

→ requires strong family support & follow up to prevent relapse.

	Drug Addiction	Drug Habituation
Compulsion	Present.	Desire present. No compulsion.
Dose	Tendency to increase	No tendency to increase
Dependence	Psychological & physical	Some degree of psychological, but no physical dependence.
Withdrawal symptoms	Characteristic symptoms	None / mild.
Harm	Both to individual & to society.	If any, primarily to individual.

Body Packers (Surgical Mules) Syndrome: illegal drugs (cocaine, heroin, amphetamine, cannabis) are compressed into cylinders of about 25×12 mm size, heat-sealed in plastic film & wrapped again in multiple layers of latex & swallowed.

- One packet \approx 3-7g of narcotics.
- this is done for the purpose of smuggling.
- close to $1/2$ kg of drug can be concealed.
- On arrival at the destination, the courier takes a laxative → retrieves the packets → passes them to the 'pushers' → distribution of drug.
- packets may cause bowel obstruction secondary to torsion, intussusception or impaction.
- sometimes, packets become unsealed or burst in the small intestine → death of courier due to poisoning.