

## TOPIC 9 – DRUG ADDICTION AND THE BRAIN’S REWARD CIRCUITS

### 9.1. CLASSIFICATION OF PSYCHOACTIVE DRUGS

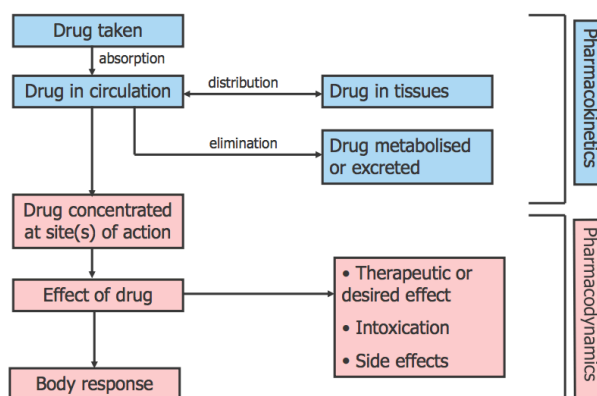
- **Psychoactive drug** = a drug that influences subjective experience and behaviour by acting on the nervous system.
- **Depressants** = decrease neural activity.
- **Stimulants** = increase neural activity.
- **Hallucinogens** = altering effect on perception.

Depressants	Stimulants	Hallucinogens
<i>Sedative/hypnotic:</i>	• Amphetamines;	• LSD;
• Alcohol;	• Ecstasy (MDMA)*;	• Ecstasy (MDMA)*;
• Benzodiazepines;	• Cocaine;	• PCP;
• Barbiturates;	• Nicotine;	• Magic mushrooms;
• Cannabis*;	• Caffeine	• Cannabis*;
• GHB.	• Mephedrone;	• Spice;
<i>Narcotics:</i>	• Khat;	• Bath salts;
• Heroin;	• Methylphenidate;	• Ayahuasca.
• Morphine.	• Modafinil;	
<i>Organic solvents:</i>	• Armodafinil.	
• Glue;		
• Petrol.		

- NOTE: In small amounts, alcohol can have a stimulant effect.
- Legality/scheduling does not equal harm/risk of drug.

### 9.2. PSYCHOPHARMACOLOGY

- How a drug works can be described according to two key processes:
  - **Pharmacokinetics** = what the body does to the drug.
  - **Pharmacodynamics** = what the drug does to the body.



#### 9.2.1. PHARMACOKINETICS

- Process:
  - 1) Administration;
  - 2) Absorption;
  - 3) Distribution;
  - 4) Metabolism and Excretion.

##### 9.2.1.1. ADMINISTRATION