Substance Use Disorder:
Tobacco and Psychotropic Drugs
For CHO/SN



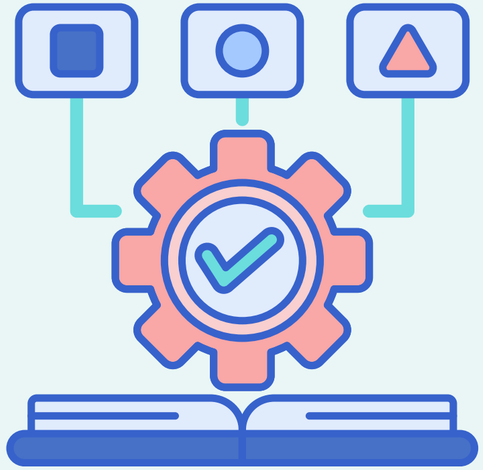



LEARNING OBJECTIVES

- To know about tobacco, its various forms, and potential risks.

- To have an understanding about psychotropic drugs, its side effects, features and risk factors.

- To understand the role of CHO in assessment of substance use disorders and its management.

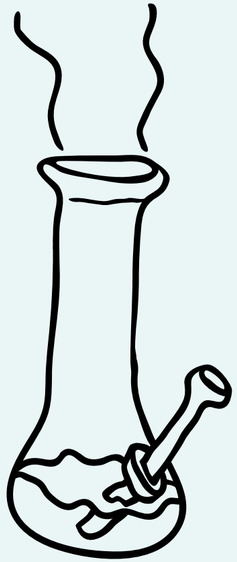


TOBACCO

- Most common substance of abuse in India
- 21% of the population uses some form of tobacco (National Mental Health Survey 2015)
- Smokeless/chewable tobacco use is more prevalent as compared to smoking in India. (Global Adult Tobacco Survey GATS2)
- Both forms are highly addictive.
- There is no safe level of exposure, tobacco kills half of its users. (WHO)

DIFFERENT FORMS OF TOBACCO

- **Smoking**: beedis, cigarettes, hookah, hookli, chhutta, dhumti, chillum, etc.
- **Smokeless:** betel quids, mishri, khaini, gutka, snuff, for chewing.
- **E-cigarettes:** known as Electronic nicotine delivery systems (ENDS)(Currently banned in India).



SMOKING

SMOKELESS


Butane
Lighter Fluid
Toluene
Industrial
Solvent
Nicotine
Insecticide
Acetic Acid
Vinegar
Methanol
Rocket Fuel
Hexamine
Barbecue
Lighter
Stearic Acid
Candle Wax
Ammonia
Toilet Cleaner
Benzene
Petrol Fumes
Carbon
Monoxide
Arsenic
Poison
Cadmium
Batteries
Acetone
Paint
Stripper/
Nail Varnish

RISK FROM TOBACCO

- Increased risk of respiratory infections
- Chronic obstructive pulmonary diseases including asthma and emphysema
- High blood pressure and diabetes mellitus
- Heart disease, stroke and vascular diseases
- Cancers of lung, bladder, breast, mouth, throat and oesophagus
- Miscarriage, premature labour and low birth weight babies

SYMPTOMS OF NICOTINE WITHDRAWAL

- Urge to smoke
- Irritability
- Restlessness
- Difficulty to concentrate
- Low mood
- Inability to carry out routine work

The effects of quitting smoking

Health improvements and time required

20 minutes
Heart rate, blood pressure drop

12 hours
Carbon monoxide level in blood drops to normal

1 year
Risk of coronary heart disease half of that of a smoker

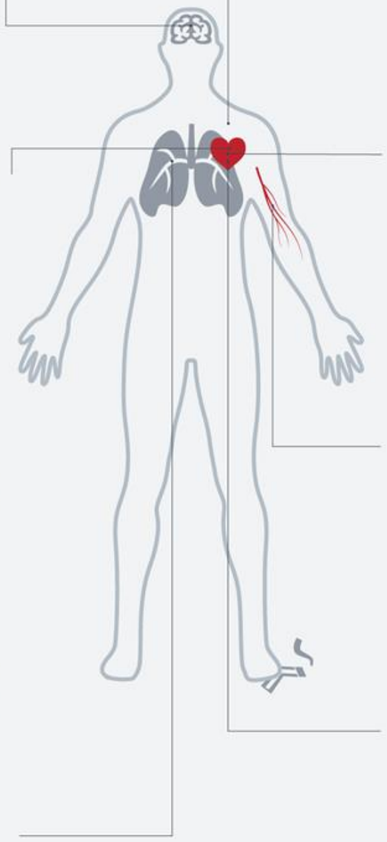
2-12 weeks
Circulation improves, lung function increases

1-9 months
Coughing and shortness of breath decrease

10 years
The risk of lung cancer is halved

15 years
Risk of coronary heart disease reduced to level of person who has never smoked

5-15 years
Risk of stroke reduced to that of non-smoker



CASE VIGNETTE

Mr. P is a 34yr old male works a teacher in government school , has been smoking for the last 15years. Smokes around 15 cigarettes/day. Since last few years finds it difficult to focus at work , takes frequent breaks to smoke. Also feels tired after minor physical activity. Has been warned by school authorities multiple times. Whenever he tries to quit experiences headache, irritability, restlessness and increased urge to smoke thus has lead to multiple failed attempts to quit smoking.

Questions:

•What is Mr.P suffering from ?

•How can you help him?

ASSESSMENTS

Fagerstrom Test for Nicotine Dependence (FTND)		
Question	**Answer**	**Pts**
How many cigarettes do you smoke daily? (This question addresses tolerance.)	≤ 10 11-20 20-30 > 30	0 1 2 3
How soon after awakening do you smoke? (This question addresses withdrawal.)	≤ 5 min 6-30 min 31-60 min > 60 min	3 2 1 0
Which cigarette would be the most difficult to give up? (This question addresses withdrawal.)	First in AM/ Any other	1 0
Is it hard to refrain from smoking where it is forbidden?	Yes/No	1/0
Do you smoke even though you are sick in bed all day?	Yes/No	1/0
Do you smoke more often in the first few hours of the day, compared to the rest of the day? (Addresses withdrawal)	Yes/No	1/0
Range is 0-10; FTND can assess past smoking with changes in wording.		

MANAGEMENT OF SUDS AT SHC-HWC

Pharmacological:

- Nicotine replacement therapy: Ex- Nicotine gums 2mg/4mg, Lozenges, pastilles, Nicotine patch

- Gums: 6-8 gums /day ‘Chew and park’ method, Patch – 7mg, 14mg, 21mg

- Other medications:

    - T.Bupropion - 150mg twice daily

    - Varenicline – start with 0.5mg and gradually increase upto to 1mg BD

Non-pharmacological Management:

- Counseling- Educate individuals about the harmful health effects.

Psychosocial management:

- Help individuals to overcome specific situations.
    - Counsel such peer groups against drinking/ smoking.
    - Combine anti-substance messages into your routine health care activities.
    - Organize public awareness programs (e.g. at schools).

STATE WHICH OF THE FOLLOWING IS A MYTH OR FACT

Statement	Myth/ Fact
1. There is no known safe limit for tobacco use.	
2. Tobacco damage the skin and cause a person to age rapidly.	
3. Tobacco make a person attractive and enhance sexual performance.	
4. Smokeless forms of tobacco are also harmful; they harm and erode into the oral tissues causing ulcers and may develop into oral cancer.	
5. Tobacco improve work performance.	
6. People who have been using tobacco for a long time, become dependent on it, so that they are unable to concentrate if they do not use.	

ANSWERS

Statement	Myth/ Fact
1. There is no known safe limit for tobacco use.	**Fact**
2. Tobacco damage the skin and cause a person to age rapidly.	**Fact**
3. Tobacco make a person attractive and enhance sexual performance.	**Myth**
4. Smokeless forms of tobacco are also harmful; they harm and erode into the oral tissues causing ulcers and may develop into oral cancer.	**Fact**
5. Tobacco improve work performance.	**Myth**
6. People who have been using tobacco for a long time, become dependent on it, so that they are unable to concentrate if they do not use.	**Fact**

PSYCHOTROPIC DRUGS

These are substances that affect how the brain works and leads to changes in mood, feelings, thoughts, perception and behaviour.

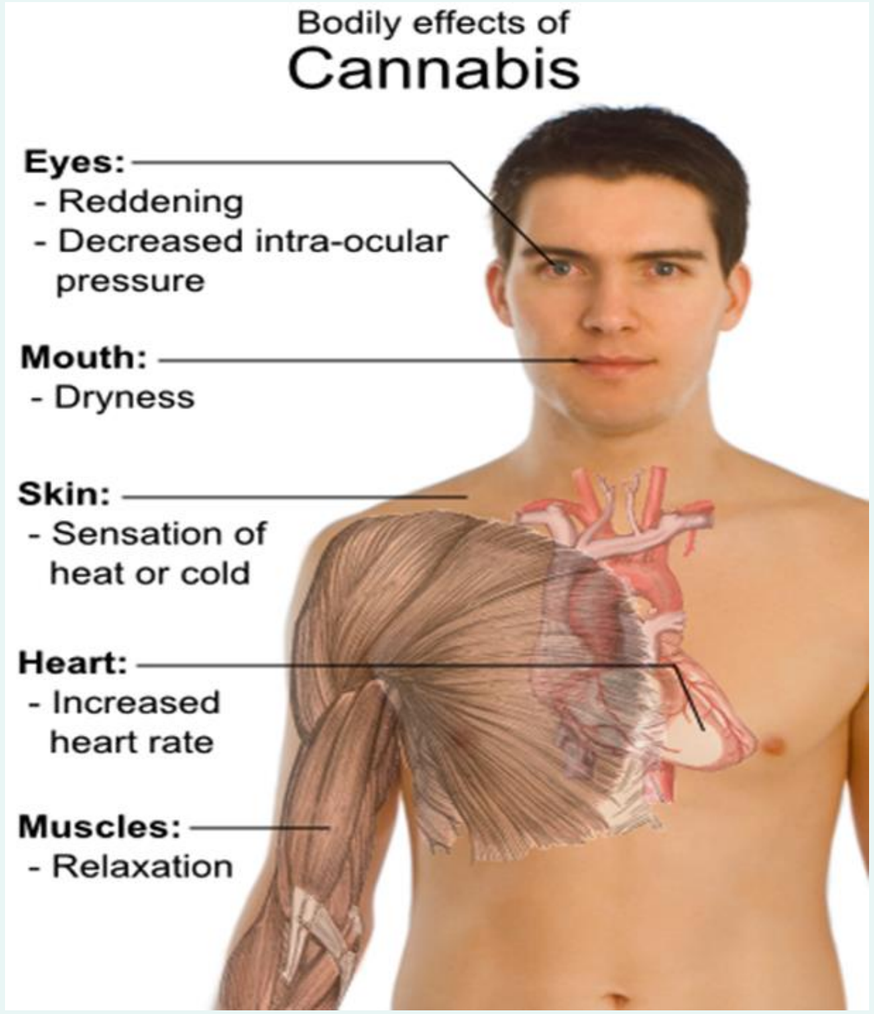
Examples: cannabis products, benzodiazepines, cocaine, LSD, opioid painkillers and inhalants.

CANNABIS

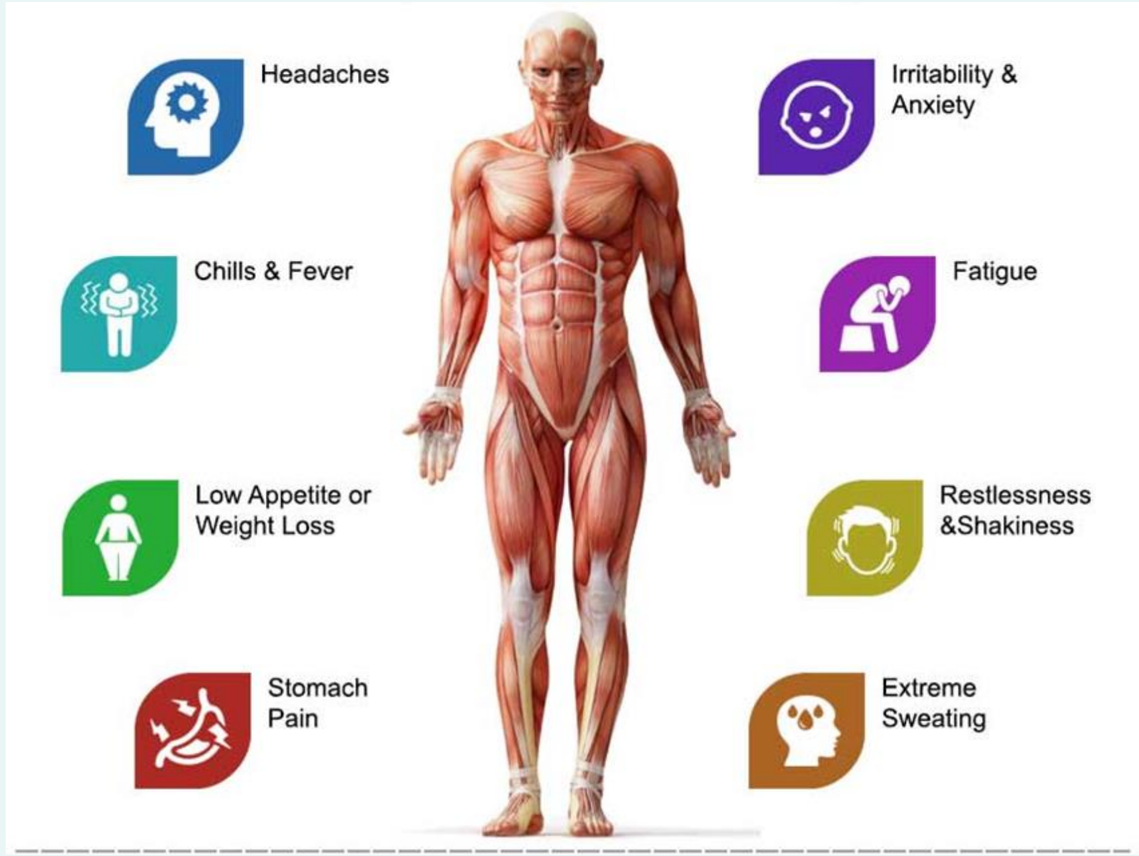
Most common illicit drug of abuse worldwide as well as in India.

- Ganja/marijuana – Flower (Smokes as joint, chillum, bong)
- Bhang – Leaves (drink)
- Hashish/Charas – Resin (Smoked or orally consumed)

CANNABIS INTOXICATION



CANNABIS WITHDRAWAL



SERIOUS SIDE EFFECTS

- Increased blood pressure and heart rate
- Decreased coordination and muscle control
- Anxiety and paranoid thinking
- Impaired judgement
- Hallucinations
- Delirium
- Psychotic and violent behaviour

MANAGEMENT

•Patient under intoxication – Oral or parenteral Benzodiazepines , antipsychotics for managing agitation

•Patients in withdrawal – Oral Benzodiazepines , conservative management

•No FDA approved anticraving agents for cannabis use , some off-label drugs used are – Baclofen, N-Acetlycysteine

OPIOIDS

- Natural – Morphine , codeine , thebaine
- Semi synthetic – Heroin, oxycodone, hydroxycodon, hydromorphone
- Synthetic – Tramadol , tapentadol , pentazocine, fentanyl

All drugs act on opioid receptors (Mu, Kappa, delta)

- Causes euphoria and other symptoms of opioid intoxication
- Modes of use – Oral , injectable, smoked, chasing etc

Opioid Intoxication

- Miosis
- Cold clammy skin
- Euphoria
- Decreased secretions
- Breathing difficulty
- Unresponsive in cases of overdose

Withdrawal

- Pain and aches
- Sweating
- Increased heart rate
- Insomnia
- Dilated pupils
- Runny nose
- Diarrhea
- Gooseflesh skin

MANAGEMENT

•Triad of opioid overdose – Pin point pupils, respiratory depression, coma

•Managed with Injection Naloxone i.v/s.c

•Opioid withdrawal – Assessment – Clinical opiate withdrawal scale(COWS)

•Managed conservatively with analgesics, antimotility drugs, benzodiazepines, clonidine etc

•In centres where OST is available – T.Buprenorphine or Methadone

OTHER PSYCHOTROPIC DRUGS OF ABUSE

Benzodiazepine

•Prescription drugs like Alprazolam, nitrozepam, clonazepam, zolpidem

•Causes euphoria, sedation , slurring of speech, gait disturbances and other symptoms similar to alcohol intoxication.

•Tolerance gradually builds up and patient can tolerate take higher doses.

•Abrupt reduction or stopping benzodiazepines can cause mild to severe withdrawal symptoms which are similar to symptoms of alcohol withdrawal.

•Serious withdrawal symptoms include seizures or delirium

•Management includes switching to a longer-acting benzodiazepine like Diazepam(dose equivalents) and gradually tapering the dose over several days, weeks, or even months.

•Pregabalin can be used as an anti-craving agent.

**Preventing acute severe withdrawal symptoms like seizures or delirium should be the priority.*

OTHER CLINICAL FEATURES INDICATING SUDS

- Loss of interest in sports, daily routine, appetite and body weight
- Unsteady gait, clumsy movements, tremors
- Reddening and puffiness of eyes, unclear vision, Slurring of speech
- Fresh, numerous injection marks on body and blood stains on clothes
- Nausea, vomiting and body pain
- Drowsiness or sleeplessness, lethargy and passivity
- Acute anxiety, depression, profuse sweating
- Changing mood, temper, tantrums
- Emotional detachment
- Impaired memory and concentration
- Presence of needles, syringes and strange packets at home

RISK FACTORS FOR SUBSTANCE USE DISORDER

- **Family factors:** Sexual or physical abuse, parental or sibling substance abuse etc.
- **School factors:** Lack of involvement in school activities, poor school climate.
- **Community factors:** Poor community bonding, disorganized neighbourhoods, crime, drug use, poverty etc.
- **Peer factors:** Bonding to peer group that engages in substance use or other antisocial behaviours.

ROLE OF CHO IN ASSESSMENT OF SUBSTANCE USE DISORDERS

•Assessed by the symptoms exhibited by the patient.

•CHO can assess whether any person using a substance (alcohol, tobacco or other substances) has developed dependence.

•This can indicate the priority for referring the person for deaddiction services.

IDENTIFYING DEPENDENCE

Dependence on any substance can be assessed when at least 3 of the following symptoms are present together in the past year

•Strong desire to use (craving)

•Unable to reduce the amount used

•Withdrawal symptoms when they don’t use or use less than usual amount (e.g. hands shaking, feeling irritable, not able to sleep)

•Needing more quantities of the substance for desired effect

•Neglecting responsibilities

•Continuing to use although aware of the negative effects.

EVALUATION

1. What are the different forms of tobacco?

2. Examples of psychotropic drugs?

3. Name a few risk factors for substance use disorder?

4. What are the routes of administration of psychotropic drugs?

Thank You