



PRIMARY HEALTHCARE TEAMWORK

## Smoking & Substance Abuse

### Objectives:

- ★ Describe the epidemiology of smoking in Saudi Arabia
- ★ Recognize the risks of smoking (morbidity and mortality)
- ★ Appreciate the effect of passive smoking on pregnancy, children, etc
- ★ Be able to help the smoker to quit with smoking cessation aids and overcoming nicotine withdrawal symptoms
- ★ Appreciate the role of PHC physician in "smoking cessation clinic"
- ★ Discuss the smoking cessation medication, nicotine preparation, varenicline, bupropion, etc

### Color index:

Original text **Important** Doctor's notes **Golden notes** Extra

# Introduction

## Fact About Smoking

- Tobacco kills up to half of its users.
- Tobacco kills more than 8 million people each year. More than 7 million of those are active smokers, the rest are passive smokers, not those who cessated.
- Active smoking is more harmful than passive smoking, because the amount of inhaled nicotine is more concentrated in active than passive.
- 1.2 million are second-hand smokers.
- Over 80% of the world's 1.3 billion tobacco users live in low- and middle-income countries.
- The number of smokers is most prevalent in India and China.
- **Third hand smoking:** is inhaling the remaining smoke in the place where active smokers were smoking.

## What Smoking Could Do

1. Addiction to nicotine, that's why they smoke, tobacco is the only source of nicotine.
2. Reduced lung function (Worse compared to pipe).
3. Reduced lung growth.
4. Early cardiovascular damage.
5. Smokers are **twice** as likely to get pneumonia compared to non-smokers.
6. Smoking can also affect men's sperm, which can reduce fertility and also increase risks for birth defects and miscarriage.
7. Preterm (Early) delivery.
8. Stillbirth (Death of the baby before birth) .
9. Low birth weight.
10. Sudden infant death syndrome (known as SIDS or crib death)
11. Ectopic pregnancy.
12. Orofacial clefts in infants.



# Epidemiology

## 2013 Epidemiology Of Tobacco Use In Saudi Arabia

**Table 1: Current tobacco use among Saudis** Findings from the Saudi Health Interview Survey

	Overall % (SE)	Men % (SE)	Women % (SE)
Current tobacco smokers	12.2 (0.4)	23.7 (0.8)	1.5 (0.2)
Daily tobacco smokers	11.4 (0.4)	21.5 (0.8)	1.1 (0.2)
Current daily cigarette smokers	11.4 (0.4)	21.5 (0.8)	1.1 (0.2)
Current daily shisha smokers	11.2 (0.4)	20.9 (0.8)	1.4 (0.2)
Former tobacco smokers	3.8 (0.2)	6.8 (0.4)	0.6 (0.2)
Current smokeless tobacco smokers	0.4 (0.1)	0.6 (0.1)	0.2 (0.1)
Current daily smokeless tobacco smokers	0.3 (0.1)	0.5 (0.1)	0.2 (0.1)
Current tobacco users	12.5 (0.4)	22.9 (0.8)	1.7 (0.2)
Smoked 16 or more cigarettes per day	42.3 (2.0)	44.0 (2.0)	9.4 (3.5)
Average number of cigarettes smoked per day	15.0 (0.9)	15.6 (0.9)	3.7 (1.1)
Started smoking before age 15	29.7 (2.8)	30.5 (3.0)	22.0 (9.0)
Started smoking before age 18	60.9 (2.2)	62.5 (2.3)	38.7 (8.5)
Average age of smoking initiation	18.7 (0.2)	19.0 (0.2)	21.6 (1.0)

Note: values presented are in percent, except for average number of cigarettes smoked and age at smoking initiation; SE = standard error.

## 2013 Epidemiology Of Second Hand Smoking In SA

**SECONHAND SMOKING**

	Overall % (SE)	Men % (SE)	Women % (SE)
Exposed to secondhand smoke at home	17.2 (0.6)	20.9 (0.9)	13.1 (0.7)
Average number of days exposed to secondhand smoke at home	5.1 (0.1)	4.8 (0.1)	5.5 (0.1)
Exposed to secondhand smoke at work	14.8 (0.6)	24.9 (1.0)	3.9 (0.4)
Average number of days exposed to secondhand smoke at work	2.2 (0.1)	2.6 (0.1)	1.4 (0.2)

Note: values presented are in percent, except for average number of days exposed to second hand smoke; SE = standard error.

## 2013 Smoking By Sex & Age In SA

**Table 3: Smoking by age group and sex**

Age	Overall % (SE)	Men % (SE)	Women % (SE)
15 - 24	8.6 (0.8)	16.1 (1.4)	0.8 (0.3)
25 - 34	16.2 (1.0)	30.5 (1.7)	1.2 (0.3)
35 - 44	14.6 (0.9)	30.6 (1.8)	1.3 (0.3)
45 - 54	14.4 (1.2)	26.5 (2.1)	2.9 (0.7)
55 - 64	15.6 (1.8)	24.7 (2.9)	4.2 (1.8)
65+	6.5 (1.3)	9.7 (2.0)	1.8 (0.8)
	12.2 (0.4)	22.7 (0.8)	1.5 (0.2)

Note: values presented are in percent; SE = standard error.

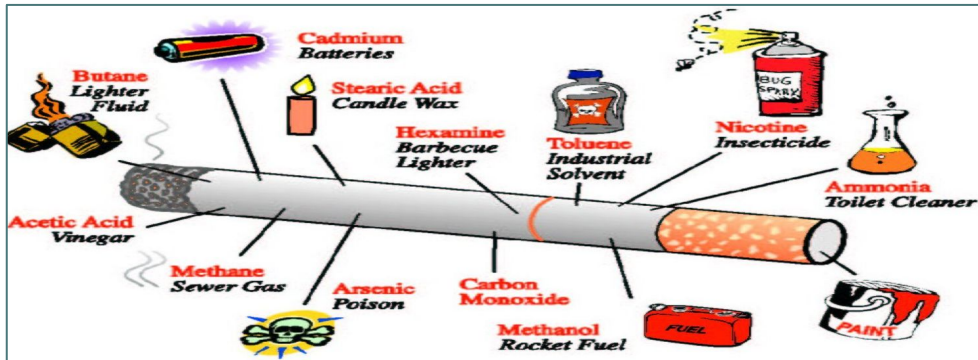
### Notes:

- A study in Albaha reveals that 50% of the male population are smokers.
- Smokeless tobacco users are the chewable tobacco, seems like Ghat, they cause oral cancer more than inhaled tobacco but inhaled tobacco is still more serious & more powerful.
- In recent time, tobacco companies have their focus the most on adolescents and women.
- Second hand smoking among females is usually caused because of their actively smoking husband.

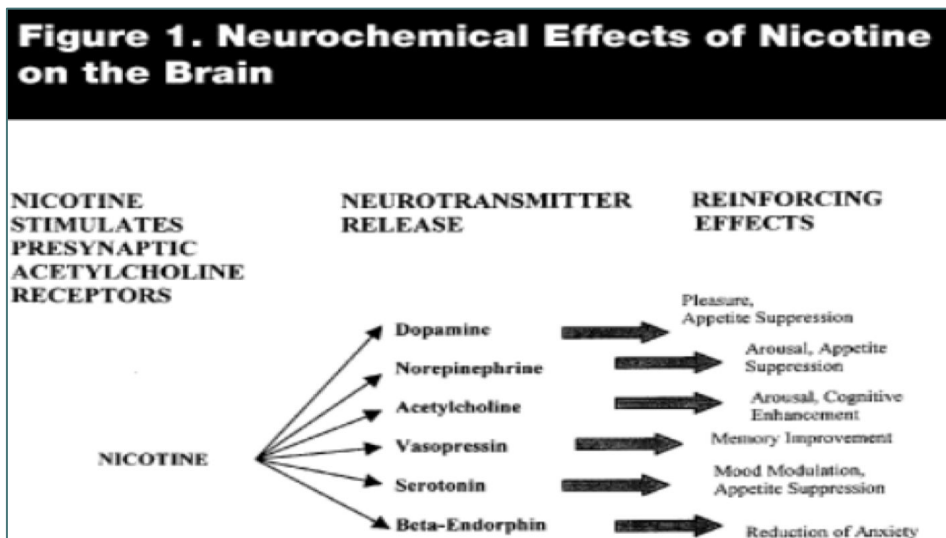
# Smoking Health Effect

## Health Effect Of Tobacco Use

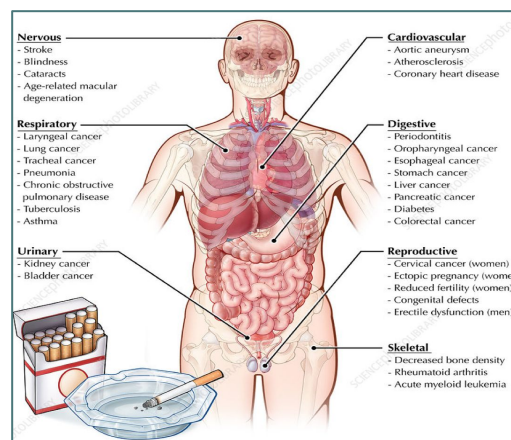
- Tobacco smoke is a toxic mix of more than 7,000 chemicals, Many are poisons. At least 70 are known to cause cancer in people or animals.



## Nicotine Cause Release Of These Neurotransmitters:



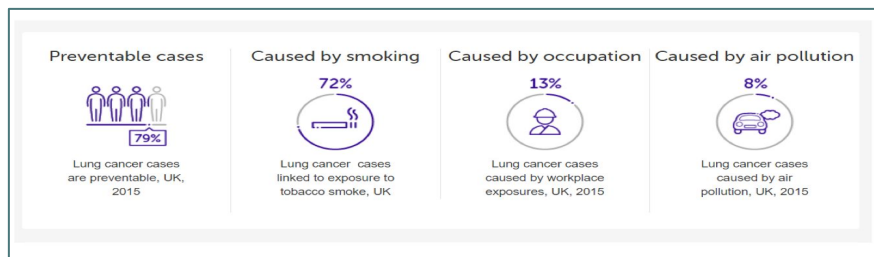
## Smoking Hazards



# Smoking Health Effect

## Fact About Lung Cancer

- **90% of male and 83% of female lung cancers are caused by smoking.**
- Cigarette smoking is linked to about **80% to 90%** of lung cancer deaths.
- About three people per minute worldwide.
- Tobacco use is the most important risk factor for cancer and is responsible for approximately 22% of cancer deaths.
- **People who smoke cigarettes are 15 to 30 times more likely to get lung cancer or die from lung cancer than people who do not smoke.**
- Cancer is a leading cause of death worldwide, accounting for an estimated 9.6 million deaths in 2018.
  - The most common cancers is: Lung (2.09 million cases) (21%).



## Chronic Obstructive Pulmonary Disease:

- Eight out of 10 cases (80%) of COPD are caused by smoking. Recent studies show that risks for COPD (**Chronic bronchitis and emphysema**) are increasing, especially in women.
- Women smokers in certain age groups are more than 38 times as likely to develop COPD.
  - **Why? They smoke more than men.**
- Evidence shows that:
  - Current smokers are four times more likely to develop COPD.
  - About half of cigarette smokers develop some sort of airflow obstruction and 10-20% develop clinically significant COPD.
  - Secondhand smoking is also a major independent risk factor for COPD.
    - Evidence published in 2009 found an association between childhood exposure to secondhand smoke and the development of emphysema in adulthood. The findings suggest that the lungs may not recover completely from the effects of early-life exposure to second-hand smoke, **especially in children, that's why smoking family members are advised to not smoke in front of their children so they do Not learn this behaviour and to protect them from major adverse health effects.**



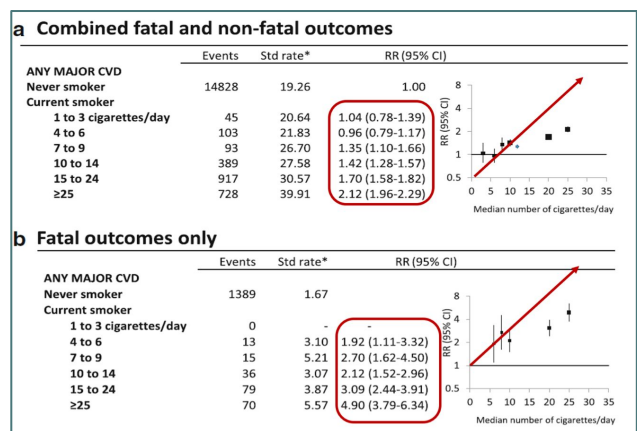
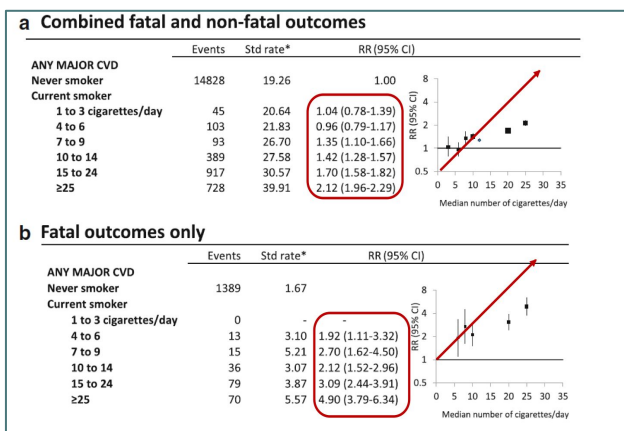
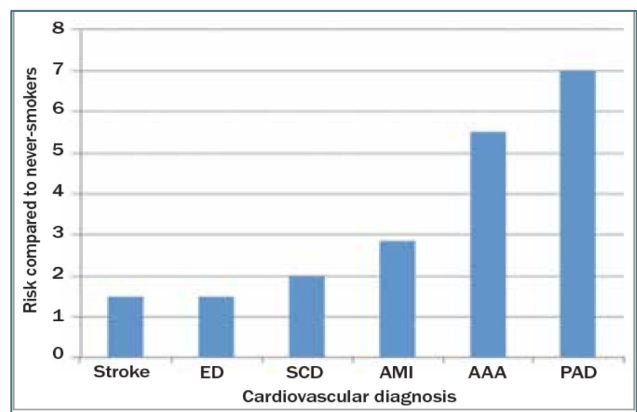
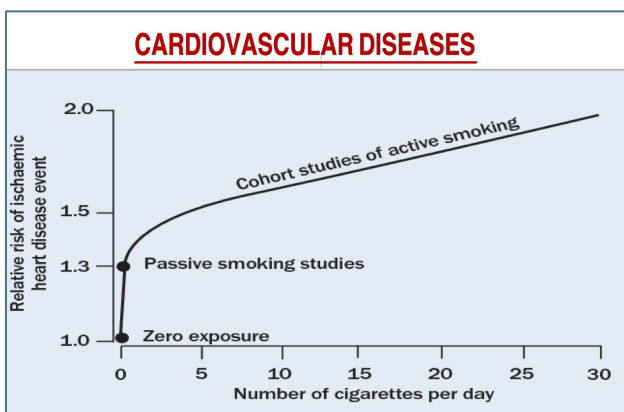
# Smoking Health Effect

## Asthma In Smoker

- Adult smokers are at higher risk (8 times) of developing asthma compared to adult non-smokers.
- The severity of asthma depends on the duration of smoking.
  - Greater: Among smokers of 20 pack a day for years. (One 20-pack of cigarettes a day for 20 years).
- An impaired response to treatment, because smoking interferes with the action of inhaled corticosteroids.
- Parental smoking is a cause of asthma in children and the prevalence of asthma increases with the number of smokers in the home.

## Smoking & Cardiovascular Diseases

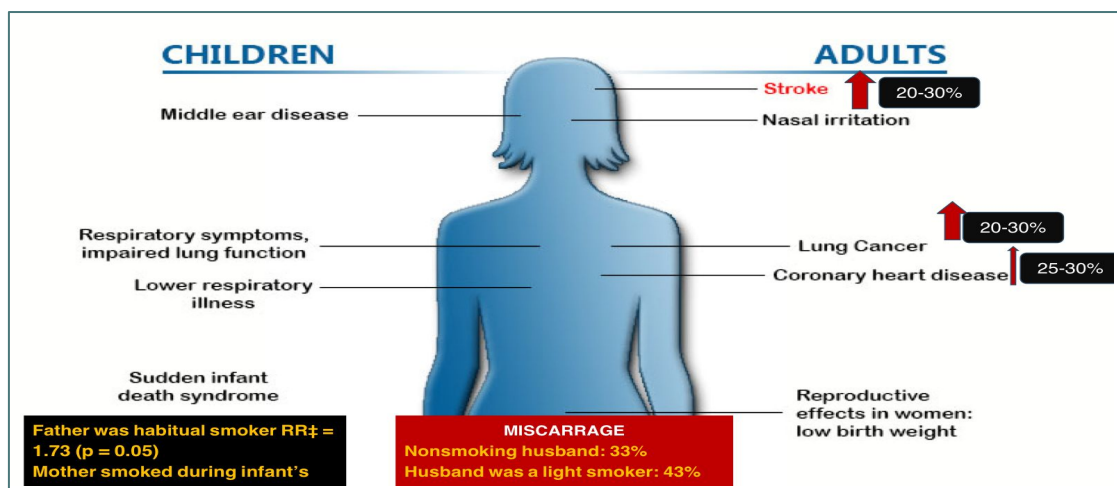
- Risk increases with number of cigarettes.
- Smoking increases significantly the risk of Peripheral artery disease.
- Passive smoking increase slightly the risk for ischemic heart disease.
- The risk of having stroke is 2 to 4 times higher in smokers than non-smokers.
- Smoking may cause Buerger's disease affecting distal part of extremities and may lead to amputation.
- Smoking leads to 70-80% increase of CVD risk & PVD occurs 7-8 times more.



# Passive Smoking

## Passive Smoking

- Increase risk of: **Stroke, Lung cancer, CAD, Miscarriage or Sudden infant death syndrome.**
- Which one is more dangerous passive or active smoking?
  - Active because of inhalation of all chemical and harmful products.
- 85-95% of the smoke from every cigarette ends up as Environmental tobacco smoking (ETS).
- ETS has 2 types of smoke: 85% sidestream (the smoke from the cigarette itself) and 15% mainstream (Deeply inhales it then exhale it) but may increase in some circumstances like if he exhaled directly into you.



## Shisha, Nargile & Moassel

- Can cause:
  - Cancers: **Oral, Lung, Esophagus or Stomach.**
  - Reduced lung function.
  - Decreased fertility.
- An hour-long hookah smoking session involves 200 puffs, while smoking an average cigarette involves 20 puffs.
- The amount of smoke inhaled during a typical hookah session is about 90,000 milliliters (ml), compared with 500–600 ml inhaled when smoking a cigarette.
- Using hookah was linked to an average of **six folds higher of lung cancer.**
  - It has more CO produced (Compared to cigarette smoking) with 20 times more affinity to combine to Hgb than O<sub>2</sub> which leads to more pressure and damage exerted to the heart.
- **May increase the risk of gastric cancer by threefold.**
- Odds ratio of association between hookah tobacco smoking and heart disease of 1.67 (95% CI=1.25, 2.24).
- More than 40 years of hookah smoking had **three times** more risk of having severe stenosis than non-smoking.
- **Cardiovascular disease** development such as IHD and heart failure has associated with heavy hookah smoking.

# Smoking Cessation

## E-Cigarettes:

- A liquid material containing synthetic addictive material (nicotine).
- There is substantial evidence that some chemicals present in e-cigarette aerosols (e.g., formaldehyde, acrolein) are capable of causing **DNA damage and mutagenesis and it is carcinogenic.**
- This supports the biological plausibility that long-term exposure to e-cigarette aerosols could increase risk of cancer and adverse reproductive outcomes. Whether or not the levels of exposure are high enough to contribute to human carcinogenesis remains to be determined.
- It is also dangerous because it may contain other harmful substance such as marijuana and can cause **vaping associated pulmonary injury** and might cause death.

## Smoking Cessation

- Helping people to quit has more impact when efforts are combined with other tobacco control strategies, **good advice in counselling can contribute with 5-10% effect in smoking cessation, and it is higher if it involves other methods like intensive behavioural support.**

## 5 A's Of Smoking Cessation

Ask	What do you smoke? How much do you smoke? How long have you smoked?
Advise	Discuss harmful effects and urge patient to quit
Assess	Willingness to quit (If he has willingness then you can help him)
Assist	Help create best plan for quitting
Arrange	Follow up If quitting, within 1 week of quitting date

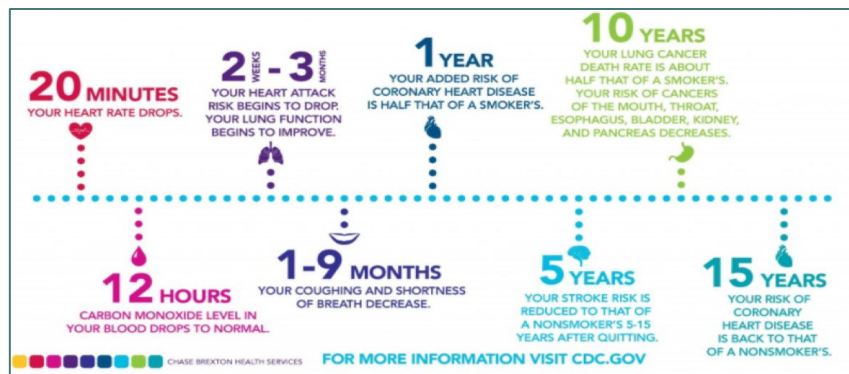




# Smoking Cessation

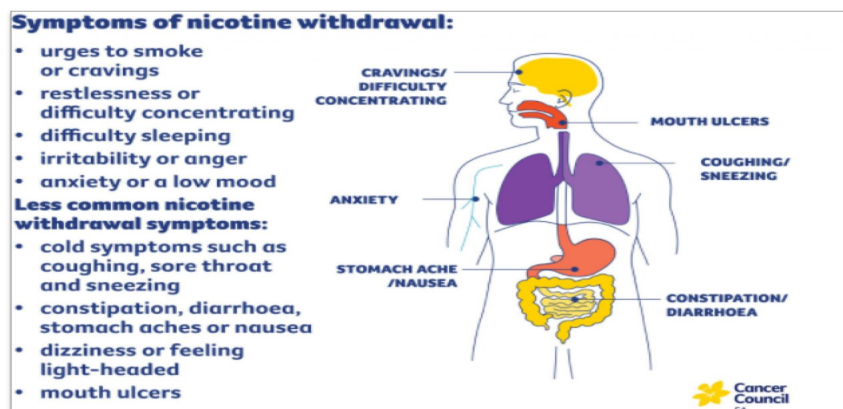
## 2- Advise

1. What do you smoke?, How much do you smoke?, How long have you smoked?
2. Set a quit date within **30** days.
3. Review past quit attempts.
4. Discuss potential triggers and coping strategies.
5. You have to mention harmful effects of smoking, benefits of quitting and discuss the withdrawal symptoms after and see him after 1 week of cessation.



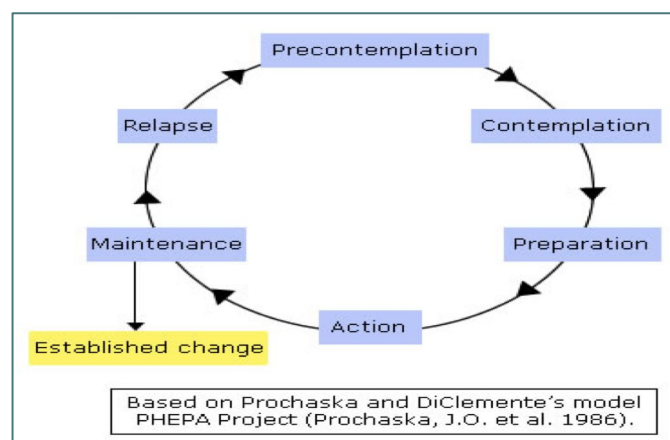
## Nicotine Withdrawal:

- In 4 weeks the symptoms begin to disappear.



## 3- Assess

- Willingness to quit?



# Smoking Cessation

## 4- Assist

- Help create best plan for quitting.

## 5- Arrange

- Regular follow up is very important in managing smoking.



## Intervention

### • Non Pharmacological

1. Counselling
2. Cognitive behavioural approach needs advanced training.
3. Motivational interviewing has lots of open ended questions.
4. Or smoker stops by himself (cold turkey).

### • Pharmacological

1. NRT (Nicotine replacement therapy)
2. Non NRT
  - The combination of non nRT is more effective. They are 2nd line.



## Relative Risk For Effectiveness Of Pharmacological Tx

### • Nicotine replacement therapy:

- Spray 2.02.
- Inhaler 1.9.
- Patches 1.64.
- Tab/ lozenges 1.52.
- Gum 1.49.
- For any 1.55

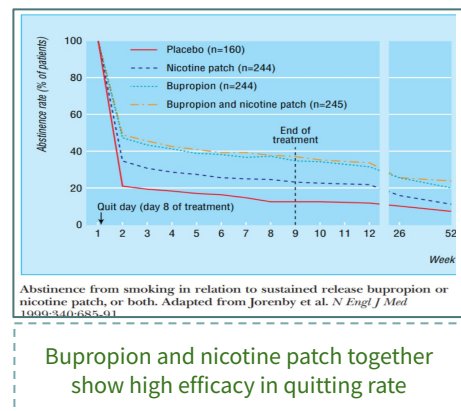
### • Non Nicotine replacement therapy:

- Varenicline 2.27.
- Bupropion 2.0.
- Nortriptyline 2.03.
- Clonidine 1.63.

BEHAVIOURAL INTERVENTIONS	Population-level approaches	Brief advice
		Quit lines
		mTobacco cessation
	Individual specialist approaches	Intensive behavioural support
PHARMACOLOGICAL INTERVENTIONS		Cessation clinics
	Nicotine replacement therapies (NRTs)	
	Non-nicotine pharmacotherapies	

Table 1: Nicotine replacement therapy formulations (11,14,24)

Nicotine products	Available doses	Cautions/Warnings	Uses	Adverse events	Availability
Transdermal patches	5 mg, 10 mg, 15 mg doses worn over 16 hours 7 mg, 14 mg, 21 mg doses worn over 24 hours	For smokers with insomnia and other sleep-related adverse events, the patches should be removed before bedtime.	One daily on clean, unbroken skin, remove before bed (16 h patch) or next morning (24 h); new patch, fresh site	Local skin reaction Insomnia	US FDA (OTC), MHRA (OTC)
Chewing gum	2 mg and 4 mg doses	Temporomandibular joint disease Caution with dentures Do not eat or drink 15 min before or after use	Chew gum until taste is strong, then rest gum between gum and cheek; chew again when taste has faded. Try not to swallow excessively.	Mouth soreness, Hiccups, Dyspepsia and Jaw ache	US FDA (OTC), MHRA (OTC)
Sublingual tablet	2 mg dose	Nicotine dependence, insomnia	Rest under tongue until dissolved	Mouth soreness	MHRA (Rx)
Lozenge	1mg, 2 mg and 4 mg doses	Do not eat or drink 15 minutes before or during use One lozenge at a time Limit 20 in 24 hours	Allow to dissolve in mouth (about 20–30 minutes), moving from side-to-side from time-to-time. Try not to swallow excessively. Do not chew or swallow whole	Nausea/Heartburn	US FDA (OTC), MHRA (OTC)
Nicotine inhalation cartridge plus mouthpiece	Cartridge containing 10mg	May irritate mouth/throat at first	Spray into the mouth, avoiding the lips. Do not inhale while spraying. Use when cigarettes would usually be smoked or if cravings emerge. Do not swallow for a few seconds after spraying	Local irritation of mouth and throat	US FDA (Rx), MHRA (Rx)



# Smoking Cessation

## Pharmacological Treatment Side Effect

Medicine	Over-the-counter or prescription	Common Side Effects
Nicotine gum	OTC	<ul style="list-style-type: none"> <li>Irritation in mouth</li> <li>Sore jaw</li> <li>Hiccups</li> <li>Stomach discomfort</li> </ul>
Nicotine inhaler	Prescription	<ul style="list-style-type: none"> <li>Irritation in the mouth and throat</li> <li>Mild coughing</li> <li>Stomach discomfort</li> </ul>
Nicotine lozenge	OTC	<ul style="list-style-type: none"> <li>Irritation in the mouth and throat</li> <li>Sore throat</li> <li>Stomach discomfort</li> </ul>
<b>Bupropion SR</b> (Sustained release pill)	Prescription	<ul style="list-style-type: none"> <li>Dry mouth</li> <li>Trouble sleeping (Take in early morning or early afternoon to avoid sleep problems)</li> <li>If you have history of seizure or eating disorders talk with your doctor before taking this drug</li> </ul>
<b>Varenicline (pill)</b>	Prescription	<ul style="list-style-type: none"> <li>Trouble sleeping</li> <li>Nausea</li> <li>If you have a history of psychiatric problems. talk with with your doctor before taking this drug</li> </ul>

## Varenicline Vs Bupropion

- Quit rates at 1 year were greater with Varenicline (23%) than with Bupropion (15%) or placebo (10%)
- Most common adverse effect is **nausea**
- It competes with nicotinic receptors to relieve withdrawal symptoms and gives mild nicotinic effect.

VARENICLINE (CHANTIX) FOR SMOKING CESSATION	
Benefits	Harms
1 in 11 stopped smoking	1 in 5 had nausea 1 in 15 had abnormal dreams 1 in 23 had insomnia 1 in 50 had headache 1 in 143 had serious adverse events (infections, cancers, injuries)

## E-Cig Is Not An Established Method For Quitting Smoking

Nicotine metered nasal spray	0.5mg dose/spray	Not for patients with asthma May cause dependence	Take shallow puffs approximately every 2 seconds or alternatively take four puffs every minute. Continue for up to 30 minutes.	Nasal irritation	US FDA (Rx) MHRA (Rx)
Electronic cigarette	-	May cause dependence	E-Cigarette vapor is drawn very slowly in to mouth, then held there for a second or two. Then, it can be <del>inhalated</del> exhaled. The vapor is then expelled through the mouth or nose. One daily on clean, unbroken skin; remove before bed	Mouth and airway irritation, chest pain, and palpitation (27)	Until now, it is not approved by any agency
High dose nicotine patches (28)	≥42 mg daily	Irritation at the patch application site. Sleep disturbances		Headache, cardiovascular events, asthenia, dyspepsia, myalgia, and vomiting	Until now, it is not approved by any agency
Combined Patch + acute forms (nicotine gum, spray, lozenge, & inhaler) (29, 30)	transdermal nicotine doses of 7, 14, and 21 mg + dosage of any one acute form	Nicotine dependence, insomnia	Both patch and acute nicotine forms should be used parallel.	Mouth and airway irritation, Nausea and vomiting	US FDA

\*US FDA: U S Food and Drug Administration; MHRA: Medicines and Healthcare products Regulatory  
Rx: Prescription; OTC: Over the counter

# Substance Abuse

## Factors Leading To Substance Abuse:

1. **Individual factors :**
  - **Vulnerable personality:** impulsive, isolated or avoidant persons.
  - **Vulnerable occupation:** senior businessmen, doctors (easy access to medications especially in psychiatry), truck drivers.
  - **Emotional problems:** anxiety, chronic insomnia, depression.
2. **Familial Factors :**
  - Childhood abuse.
  - Familial substance abuse.
  - Poor parental marital status.
  - Poor child-parent relationship.
3. **Social factors:**
  - Low socioeconomic status.
  - Lack of confiding relationships. (friends or family).
  - Bullying.
  - Peer pressure.



## Common Types Of Substance Abuse:

**Narcotics:** Even served as opioids and originally derived from substance opiates and its common includes morphine and heroin.

**Cocaine:** Cocaine is a strong stimulant mostly used as a recreational drug. it is commonly snorted inhaled, or injected into the veins.

**Hallucinogens:** Produces sensory hallucinations involving any of the 5 body senses. Common types of hallucinogens includes **LCD, PCP** and peyote.

**Amphetamines:** Boosts alertness and increases activity of the central nervous system, the most sued form of stimulants are amphetamines.

**Inhalants:** Drugs that are to be inhaled and are available either as a **Gas or solvent**. Most common inhalant products like nail polish and gasoline.

**Cannabis:** Marijuana use has been legalized in certain states by prescription because of its **psychoactive** effects.

Alcohol.

# Substance Abuse

## Approach To Substance Abuse:

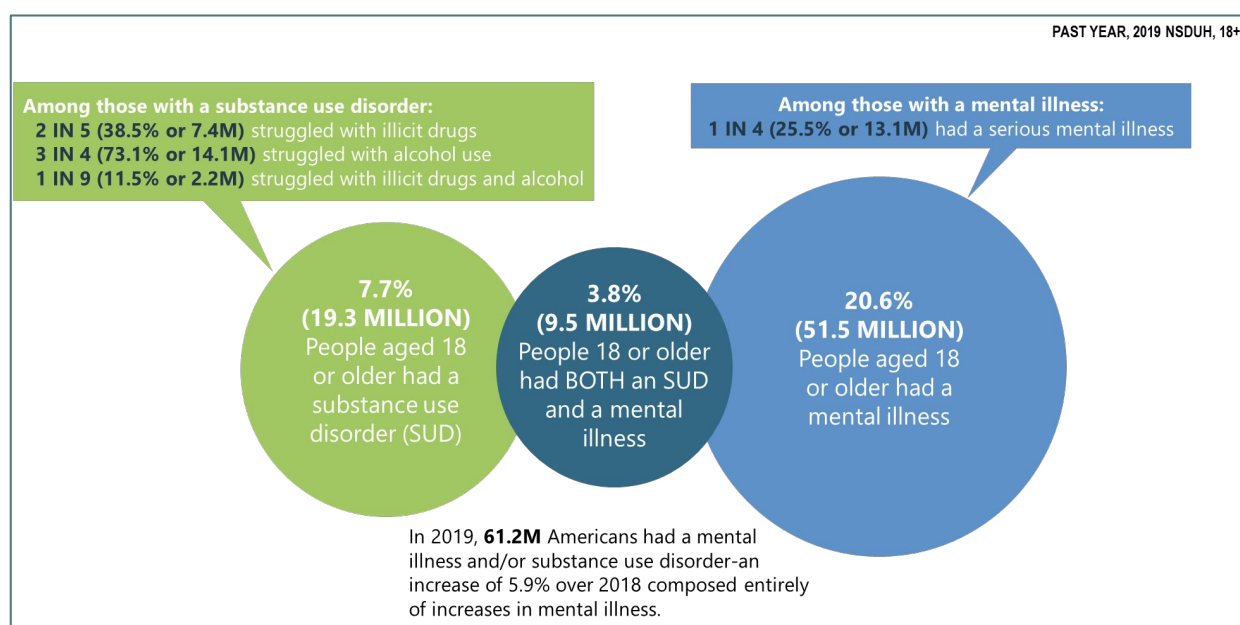
- **First step is identification!**
  - **We ask screening questions:**
    - Have you ever used any illegal substances before?
    - We ask about the quantity, frequency and time of last use?
  - Another example is the **CAGE** questionnaire to screen for alcohol abuse:
    - Have ever felt the need to **Cut** down on your drinking?
    - Have you ever been **annoyed** by people criticism of your drinking?
    - Do you ever feel **guilty** or bad about your drinking?
    - Have you ever had to drink first thing in the morning, as an **Eye opener**?

## Specific Interventions:

- **For alcohol abuse:**
  - Detoxification.
  - Disulfiram (Antabuse).
  - Psychotherapy.
- **For Opioid dependence:**
  - **Naloxone** for acute intoxication.
  - **Methadone** for long term treatment.
  - All of these must be combined with Psychotherapy.
- **Stimulant dependence (ex: Cocaine):**
  - Currently, there is no available pharmacological therapy that can be used.
  - **Psychotherapy** is the mainstay for these patients.



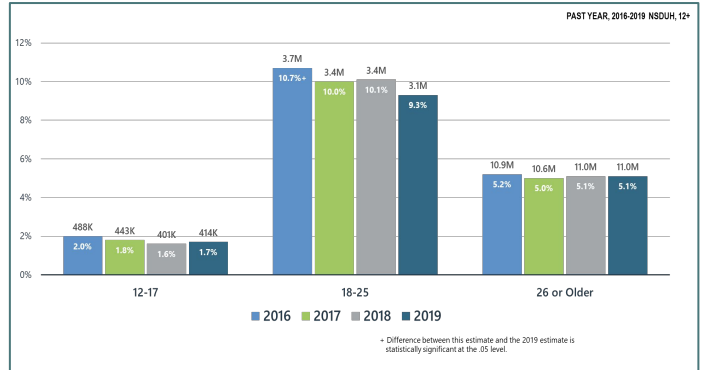
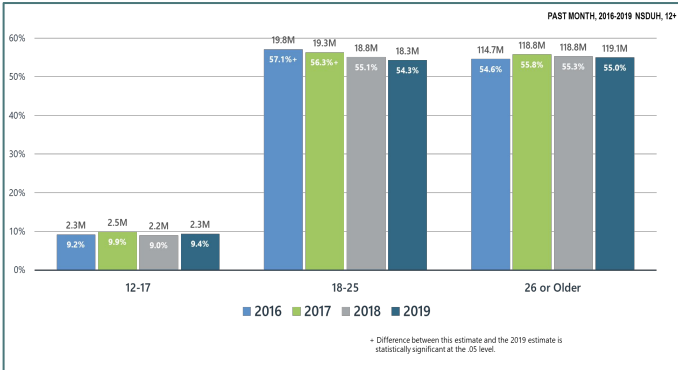
## Mental Illness and Substance Use Disorders in America



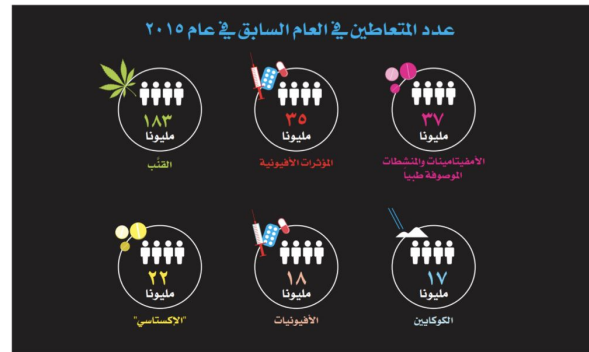
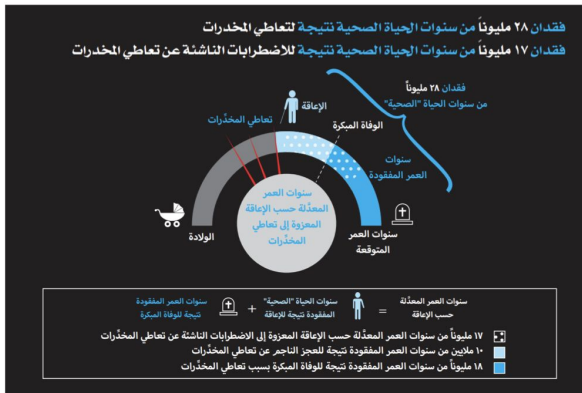


# Substance Abuse

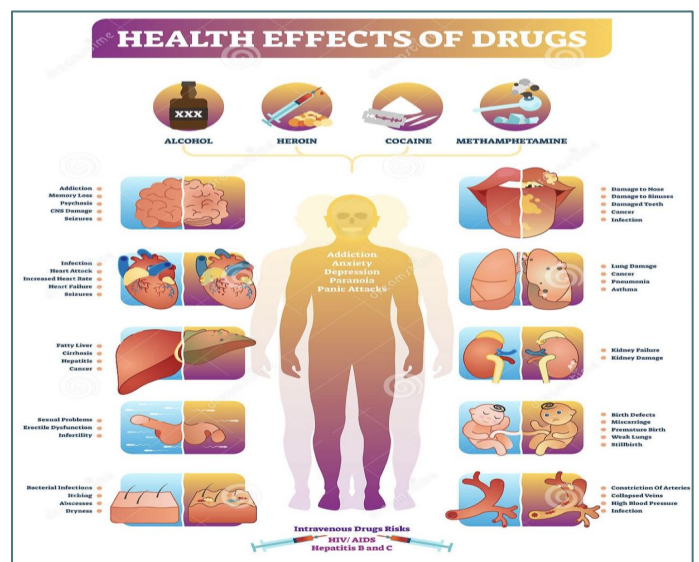
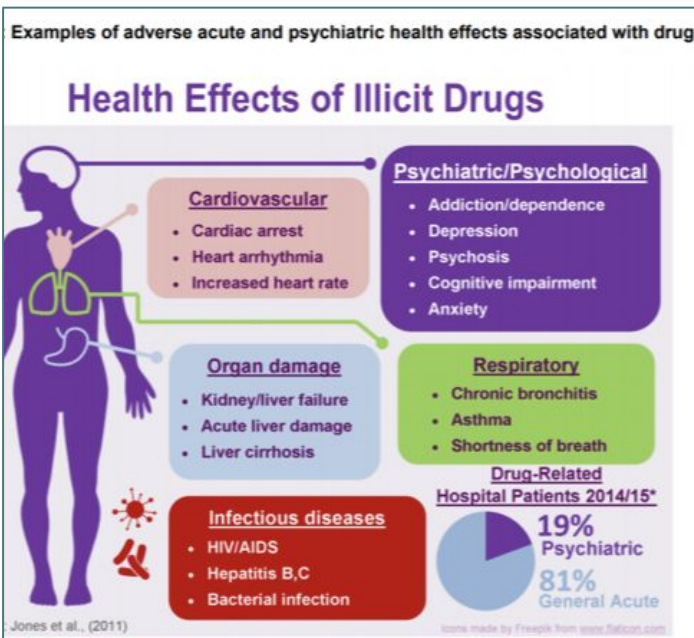
## Mental Illness and Substance Use Disorders in America



## Mental Illness and Substance Use Disorders in SA



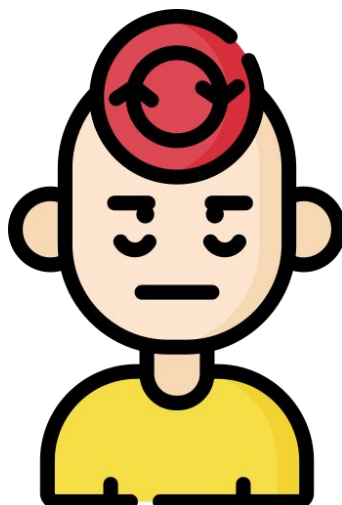
## Health Effect Of Illicit Drugs:



# Substance Abuse Disorder

## Substance Abuse Disorder: **Dependence, Compulsiveness Use & Tolerance.**

- **Defining Substance Abuse and Substance Use Disorders:** The Substance Abuse and Mental Health Services Administration defines substance use disorders (SUDs) as occurring when:
  - The recurrent use of alcohol and/or drugs causes clinically significant impairment, including health problems, disability, and failure to meet major responsibilities at work, school, or home.
- SUDs describes both the use of illicit, or illegal, substances and the misuse of legal substances like alcohol, nicotine, or prescription drugs, The American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5). Outlines eleven symptoms of SUDs:
  1. Having a persistent wish to stop using the substance and/or continuously trying to reduce or control substance use.
  2. Continuing to use the substance despite knowing that a physical or psychological health issue was likely caused or worsened by the substance.
  3. Using the substance in larger amounts or over a long time period than originally intended.
  4. Exhibiting withdrawal symptoms when not using the substance.
  5. Spending a significant amount of time trying to obtain the substance, use it.
  6. Stopping or decreasing social, work-related, or recreational activities due to substance use.
  7. Building up a tolerance, where a larger amount of the substance is needed to experience an effect.
  8. Having a strong urge to use the substance.
  9. Continuing to use even when it causes an inability to fulfill work, school, or home-related responsibilities.
  10. Continuing to use the substance even when it causes interpersonal problems of maxes them worse.
  11. Continuing to use the substance even in situations that are risky or physically dangerous.



# Marijuana & Heroin

## Marijuana:

- The drug is a depressant that impairs short-term memory, learning, focus and coordination. While marijuana is thought of as less-harmful substance than many other popular illicit drugs. You can still get addicted to it.
- Street names: Ganja, Hashish or Bhang.
- People who begin using marijuana before they are 18 years old are between four and seven times more likely to suffer from marijuana use disorder than those who don't.
- **Side effects:**
  - Most common:
    - Dizziness, Dry mouth, Drowsiness, sleepiness and lowers concentration (difficulty keeping track of time, impaired memory).
  - Common:
    - Euphoria, Blurred vision, Red eye and Headache.
  - Rare:
    - Anxiety, ataxia and tachycardia.
  - Others:
    - Decreased inhibitions, paranoia, hallucinations.
- **Complication:**
  - Lung, throat, mouth and tongue cancer.
  - Schizophrenia.
  - Asthma, chronic bronchitis.
  - Decreased testosterone levels in men.
  - Increased testosterone levels in women.
  - Increased risk of infertility/Difficulty having children.



## Heroin:

- Heroin is a schedule I controlled substance that is one of the most dangerous and deadly common illegal drugs. While the drug is smoked, injected or snorted, its potent opioid properties suppress the central nervous system regardless of how the drug is taken.
- **People who are under the influence of heroin often exhibit:**
  - Euphoria.
  - Drowsiness.
  - Impaired coordination.
  - Sedation.
  - Slowed breathing.



## Cocaine:

- Cocaine is a Schedule II controlled substance that is considered to have a high potential for abuse and dependence. People typically snort or inject the drug but some people smoke or freebase the drug as well.
- As a rather potent stimulant, cocaine excites the central nervous system, therefore increasing:
  - Heart rate.
  - Blood pressure.
  - Temperature energy.
  - Alertness and more.
- This dangerous, popular illegal drug is commonly used in nightclubs, at parties and social events, or to help people stay awake or boost their focus. Furthermore, polydrug use is fairly common with cocaine—exacerbating the risk for devastating and fatal health complications.
- **Cocaine also reduces appetite and in high doses triggers terrifying side effects, such as:**
  - Increase agitation
  - Disinhibition
  - Change in concentration & focus
  - Common cold like symptoms
  - Increase movement
  - Panic
  - Paranoia
  - Psychosis
  - Hallucinations
  - Reduced pain perception
  - Paranoia or erratic behaviour
  - If injected can cause vein collapse
  - Increased heart rate, blood pressure, breathing rate and body temperature
  - Anxiety
  - Violent behaviours
- **Complications of cocaine abuse:**
  - Hepatitis or HIV.
  - Heart attack.
  - Brain damage.
  - Organ failure.
  - Opioid use disorder.
  - Strokes.
  - Respiratory failure.
  - Brain seizures.
  - Weakened ability to combat infection.
  - Losing touch with reality.
  - Miscarriages when pregnant.
  - Damage to nasal passage and nose when snorted.



# Morphin & Opioid

## Morphin & Opioid:

- **Morphine:**
  - Analgesic & narcotic drug act on CNS, isolate from crude opium
  - Street name: Smack, Dragon, H, Dope.
  - **Side effects of morphine:**
    - Myosis
    - Out of it (sedation)
    - Respiratory depression
    - Pneumonia (aspiration)
    - Hypotension
    - Infrequency (constipation, urinary retention)
    - Nausea
    - Emesis
- **Opioids:**
  - Are synthetic and semisynthetic compounds, used as analgesic, suppress diarrhea and cough
  - Street names: Dope, Painkillers, Oxy
  - **Side effects of opioids:**
    - **Common:**
      - Constipation
      - Dry Mouth
      - Sedation
      - Sweats
    - **Less common:**
      - Delirium
      - Seizure
      - Urinary Retention
      - Hallucination





# Depressants Vs Stimulants

## Depressants Vs Stimulants

- Depressant is a substance that reduce the normal body activity ,function or an instinctive desire such as appetite for food. it is also known as (downers)
  - **Classification of Depressants:**
    - Alcohol barbiturates.
    - Cannabis.
    - Opioids.
    - Benzodiazepines.
  - **Effect of Depressants:**
    - Highly addictive.
    - Produce sedation.
    - Dizziness.
    - Hypnosis,anxiety.
    - Permanently damages the developing fetus.
  
- Stimulant are drugs that stimulates the brain and the central nervous system increase the state of mental alertness and decrease appetite.
  - **Classification of stimulants:**
    - Amphetamine
    - Cocaine
    - Nicotine
  - **Effect of Stimulants:**
    - Wakefulness
    - Alertness
    - Increased energy
    - Restlessness
    - Euphoria
    - Confusion
    - Reduced appetite,increased talkativeness
    - Increased breathing and heart rate
    - Elevated blood pressure



# Substance Abuse

## Others:

### Hallucinogens:

- Sleepiness or insomnia
- Lack of coordination
- Incoherent speech
- Reduced pain perception
- Tremors and convulsions
- Violent behavior
- Flashbacks
- Increased heart rate and blood pressure
- Depression, anxiety, paranoia and confusion

### Methamphetamine:

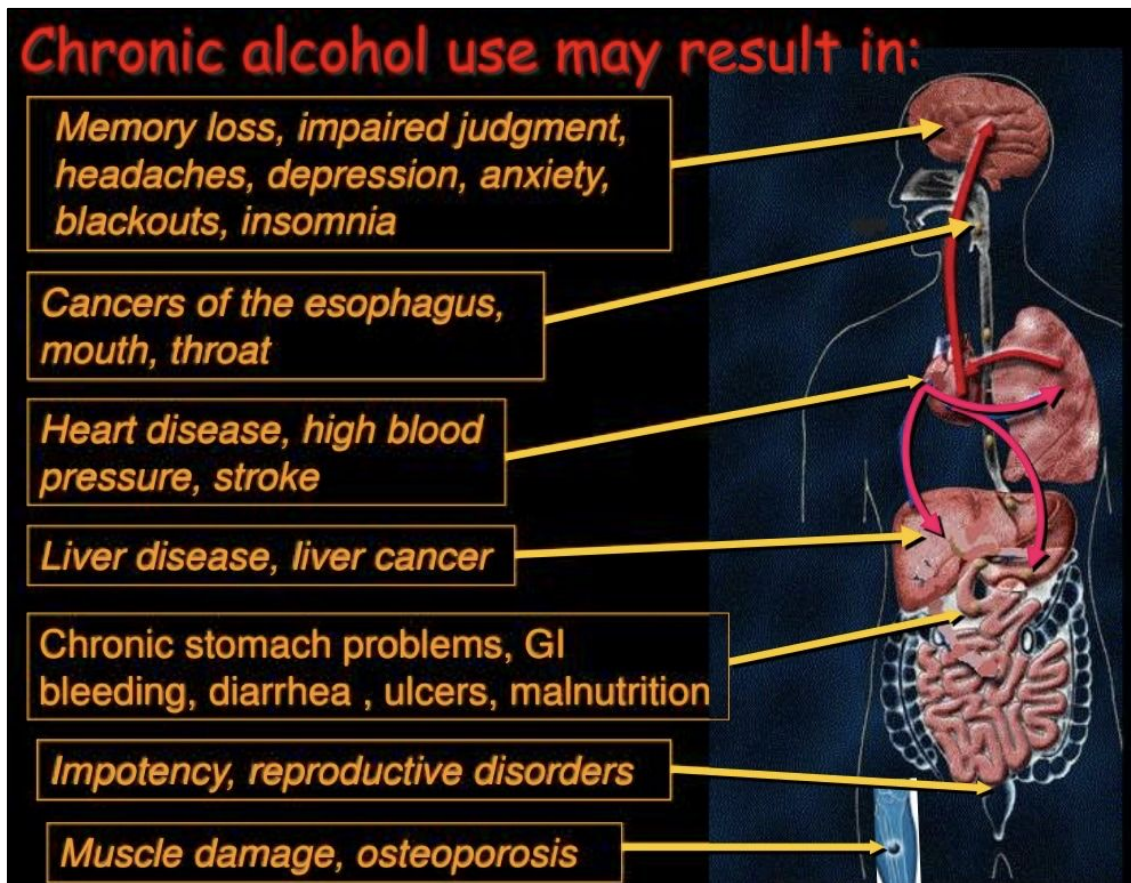
- Insomnia
- Irritability and confusion
- Anxiety and paranoia
- Violent behaviour
- Respiratory issues
- Increased heart rate and blood pressure
- Extreme decreased appetite (anorexia)
- Strokes
- HIV or AIDS from needles
- Damage to blood vessels in the brain
- Cardiovascular problems
- Hypothermia, tremors and convulsions

### Ecstasy:

- Sounds and colors seems intense
- Confusion
- Anxiety, paranoia and psychosis
- Overeating and dehydration
- Fluid retention in the body
- Memory loss, depression and anxiety
- Brain damage
- Damage to nerve endings
- Kidney failure
- Hemorrhaging
- Psychosis



## Alcohol Effect:



## Warning Signs Of Commonly Used Recreational Drugs:

- 1. Marijuana:** Glassy, red eyes, loud talking, inappropriate laughter followed by sleepiness; loss of interest, motivation, weight gain or loss.
- 2. Stimulants (including amphetamines, cocaine, crystal meth):** Dilated pupils, hyperactivity, euphoria, irritability anxiety, excessive talking followed by depression or excessive sleeping at odd times, may go long periods of time without eating or sleeping, weight loss, dry mouth and nose.
- 3. Inhalants (glues, aerosols and vapors):** Watery eyes, impaired vision, memory and thought, secretions from the nose or rashes around the nose and mouth, headaches and nausea, appearances of intoxication, drowsiness, poor muscle control, changes in appetite, anxiety, irritability, lots of cans/aerosols in the trash.
- 4. Hallucinogens (LSD, PCP):** Dilated pupils, bizarre and irrational behaviour including paranoia, aggression, hallucinations, mood swings, detachment from people, absorption with self or other objects, slurred speech, confusion.
- 5. Heroin:** Contracted pupils, no response of pupils to light, needle marks, sleeping at unusual times, sweating, vomiting, coughing, sniffing, twitching, loss of appetite

# Lecture Quiz

**Q1: A female smoker for 25 years who developed seizures and decided to stop smoking, what is the best treatment for her?**

- A- NRT
- B- Bupropion
- C- SSRI
- D- Buspirone

**Q2: you are counseling a 50-year-old man who has been smoking for 20 years. He has decided to quit smoking. You think to start a nicotine withdrawal program such as a patch or varenicline (Chantix) to assist in smoking cessation. In which of the following situations would he be the best candidate to benefit from withdrawal program?**

- A- He clearly has a psychological but not a physiological addiction
- B- He has his first cigarette before breakfast
- C- He smokes approximately a half-pack daily
- D- He smokes usually at work, but seldom on weekend

**Q3: A 22 year old male with a history of depressive disorder came to your smoking cessation clinic asking for your advice to stop smoking. Which of the following is the best for him?**

- A- Bupropion
- B- Nicotine Patch
- C- Nicotinic Nasal spray
- D- SSRI

**Q4: 23 y/o female what's to stop smoking but she has difficulty because of severe craving. Which one of the following is best to give the fastest relief of nicotine craving?**

- A- Nicotine Gum
- B- Nicotine Lozenges
- C- Nicotine Patches
- D- Nicotine Spray

# THANKS!!

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*Send us your feedback:  
We are all ears!*