

Smoking and Substance abuse

Done By:

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Objectives:

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Which of the following is associated with smoking?

A-Chronic bronchitis

B-Tongue cancer

C-Lung cancer

D-All of the above



Which one of the following is (not) a smoking quit aid?

- 1.Nicotine patch**
- 2.Nicotine gum**
- 3.Electronic cigarettes**
- 4.Nicotine free aids**



Which one of the following substances is most commonly abused in Saudi Arabia ?

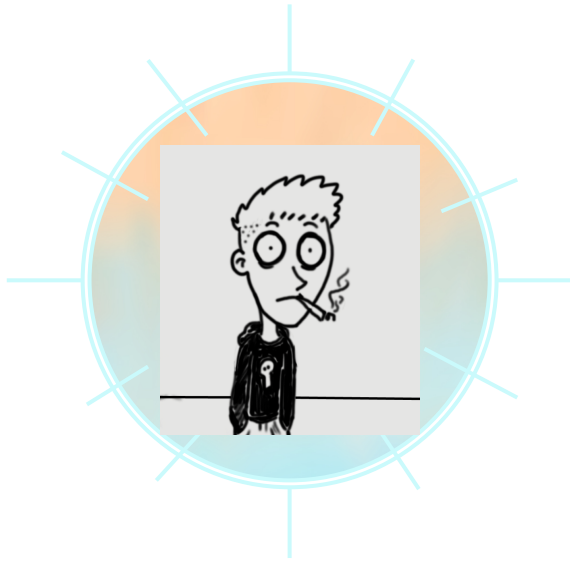
- A- Inhalants**
- B- Cocaine**
- C- Amphetamine**
- D- Heroin**

Mona Nafel AlQahtani



BE SMART DON'T START.





Tobacco is the only legal drug that kills many of its users when used exactly as intended by manufacturers.

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Epidemiology of smoking globally

- Tobacco kills more than **7 million** people each year. More than **6 million of those deaths** are the result of direct tobacco use while around **890 000** are the result of **non-smokers** being exposed to second-hand smoke.
- Around 80% of the 1.1 billion smokers worldwide live in low- and middle-income countries
- About **4.7 billion people** – 63% of the world's population – are covered by at least one comprehensive tobacco control measure, which has **quadrupled** since 2007 when only 1 billion people and 15% of the world's population were covered



Epidemiology of smoking in Saudi Arabia

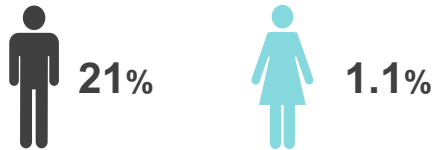
- According to WHO, Prevalence of smoking any tobacco product among persons aged ≥ 15 years at 2015
- 27.9% for male and 2.9% for female

		Prevalence of smoking any tobacco product among persons aged ≥ 15 years ¹		Prevalence of current tobacco use among adolescents aged 13-15 years ¹	
Country	Year	Male	Female	Male	Female
Saudi Arabia	2025	35.5 [18.4-54.0]	2.6 [0.7-5.3]		
	2020	31.4 [18.7-45.1]	2.7 [0.9-4.8]		
	2015	27.9 [19.5-37.0]	2.9 [1.3-4.5]		
	2012	26.3 [19.5-33.4]	3.0 [1.6-4.7]		
	2010	24.9 [18.8-31.4]	3.0 [1.7-4.5]	21.2	9.1
	2007			20.2	10.7
	2005	22.3 [18.0-27.6]	3.3 [2.2-4.6]		
	2000	20.2 [15.9-26.2]	3.5 [2.3-4.8]		



Epidemiology of smoking in Saudi Arabia

- There was study at 2013 performed between April and June 2013 showing the overall prevalence of current smoking was 12.2 % , (21.5 % for males vs. 1.1 % females).
- **Mean age** of smoking initiation was **19.1 years** (± 6.5 years) with 8.9 % of ever smokers starting before the age of 15 years.
- Daily shisha smoking was reported by 4.3 % of the population (7.3 % of men and 1.3 % of women).



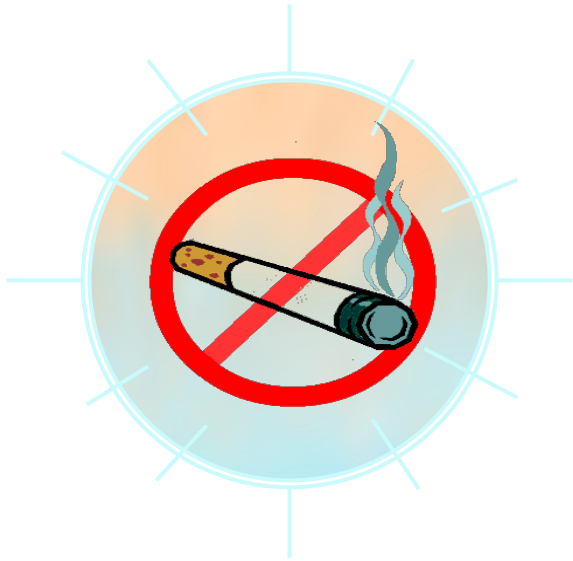
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Risks of smoking (Morbidity and Mortality)

- Tobacco kills up to half of its users.
- Cigarette smoking is the leading preventable cause of death.
- Smoking causes more deaths each year than the following causes combined:
 - Human immunodeficiency virus (HIV)
 - Illegal drug use
 - Alcohol use
 - Motor vehicle injuries
 - Firearm-related incidents





- **Smokers are more likely than nonsmokers to develop heart disease, stroke, and lung cancer.**
- **Estimates show smoking increases the risk: For coronary heart disease by 2 to 4 times.**
- **For stroke by 2 to 4 times.**
- **developing lung cancer by 25.**

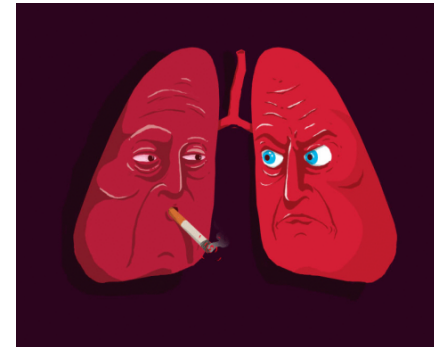
Smoking and Cardiovascular Disease

- Smoking damages **blood vessels** and can make them **thicken** and grow **narrower**. This makes your heart beat faster and your blood pressure go up. Clots can also form.
- *A stroke occurs when:*
 - A clot blocks the blood flow to part of your brain
 - A blood vessel in or around your brain bursts.
- Blockages caused by smoking can also reduce blood flow to your legs and skin.



Smoking and Respiratory Disease

- Smoking causes about 90% (or 9 out of 10) of all lung cancer deaths.
- Smoking causes about 80% (or 8 out of 10) of all deaths from chronic obstructive pulmonary disease (COPD).
- Smoking can cause lung disease by damaging your airways and the small air sacs (alveoli) found in your lungs.
- Lung diseases caused by smoking include COPD, which includes emphysema and chronic bronchitis.
- If you have asthma, tobacco smoke can trigger an attack or make an attack worse.



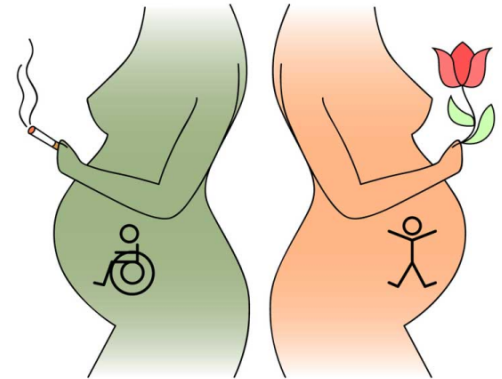
Smoking and Cancer

- **Smoking can cause cancer almost anywhere in your body:**
- **Bladder**
- **Blood (acute myeloid leukemia)**
- **Cervix**
- **Colon and rectum (colorectal)**
- **Esophagus**
- **Kidney and ureter**
- **Larynx**
- **Liver**
- **Oropharynx (includes parts of the throat, tongue, soft palate, and the tonsils)**
- **Pancreas**
- **Stomach**
- **Trachea, bronchus and lung**



Smoking and pregnancy

- **Smoking increases risks for: Preterm (early) delivery**
- **Stillbirth (death of the baby before birth)**
- **Low birth weight**
- **Sudden infant death syndrome (known as SIDS or crib death)**
- **Ectopic pregnancy**
- **Orofacial clefts in infants**



- **Smoking can affect bone health.**
 - Women past childbearing years who smoke have weaker bones than women who never smoked. They are also at greater risk for broken bones.
- **Smoking affects the health of your teeth and gums and can cause tooth loss.**
- **Smoking can increase your risk for cataracts and age-related macular degeneration (AMD).**
- **Smoking is a cause of type 2 diabetes mellitus and can make it harder to control . The risk of developing diabetes is 30–40% higher for active smokers than nonsmokers.**
- **Smoking causes general adverse effects on the body, including inflammation and decreased immune function.**
- **Smoking is a cause of rheumatoid arthritis**
- **Smoking can also affect men's sperm, which can reduce fertility**

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Effect of passive smoking on pregnancy and children.

- In **Saudi Arabia**, around **23.3 %** of the entire population, **32.3 %** of men and **13.5 %** of women, **were exposed to secondhand smoke** for at least one day during the past 7 days at home, work, or school.
- Secondhand smoke (also called **passive smoke** or environmental tobacco smoke) is the combination of smoke from a burning cigarette and smoke exhaled by a smoker.
- It contains more **harmful** substances (**tar, carbon monoxide, nicotine, and others**) than the smoke inhaled by the smoker.
- Increased chance of having a stillbirth, a low birth weight baby, a baby with birth defects, and other complications of pregnancy.
- Babies and children exposed to secondhand smoke may also develop asthma, allergies, more frequent lung and ear infections, and are at higher risk for sudden infant death syndrome (SIDS).



Secondhand Smoke and Children's Health

Infants have a higher risk of SIDS if they are exposed to secondhand smoke. Children have a higher risk of serious health problems, or problems may become worse. Children who breathe secondhand smoke can have more:

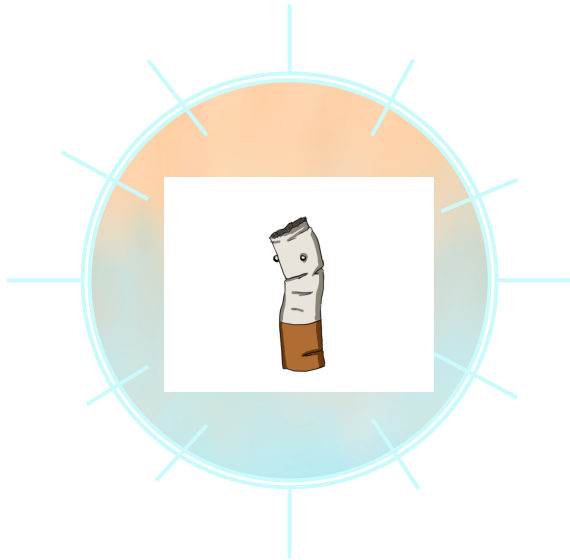
- Ear infections
- Coughs and colds
- Respiratory problems, such as bronchitis and pneumonia
- Tooth decay
- Children of smokers cough and wheeze more and have a harder time getting over colds. They miss many more school days too. Secondhand smoke can cause other symptoms including stuffy nose, headache, sore throat, eye irritation, and hoarseness.
- Children with asthma are especially sensitive to secondhand smoke. It may cause more asthma attacks and the attacks may be more severe, requiring trips to the hospital.



Why teens and kids start smoking?

- Peer influence
- Adult smoking
- Coping with stress
- Advertising
- Media





Sarah Almubrik

Describe the picture in “One
” word..



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Why we should help them ?

Quitting smoking improves a smoker's health immediately, but the most important health benefits are long term. A smoker who quits considerably reduces his or her risk for diseases like chronic obstructive pulmonary disease (COPD, which includes emphysema and chronic bronchitis), heart disease, lung cancer and many other cancers.² Life expectancy for current smokers is more than 10 years shorter on average than nonsmokers. - American lung association

Helping smokers quit not only saves lives—it also saves money. These savings come from lower healthcare costs, increased workplace productivity and averted premature deaths - American lung association

Smoking cessation aids

- **Nicotine Patch**
- **Nicotine Inhaler**
- **Nicotine Nasal Spray**
- **Nicotine Lozenges**
- **Nicotine Gum**
- **Other nicotine- free Quit aids**

What About the Electronic Cigarette as a Quit Aid?

The electronic cigarette is a smoking alternative rather than a quit aid

Advices for the patients – withdrawal symptoms

Common withdrawal symptoms and ways to cope with them			
Symptom	Cause	Duration	Relief
Craving for cigarette	Body's craving for nicotine	Most intense during first week but can linger for months	Wait out the urge; distract yourself; take a brisk walk.
Irritability, impatience	Body's craving for nicotine	2 to 4 weeks	Exercise; take hot baths; use relaxation techniques; avoid caffeine.
Insomnia	Body's craving for nicotine temporarily reduces time spent in deep sleep	2 to 4 weeks	Avoid caffeine after 6 p.m.; use relaxation techniques; exercise.
Fatigue	Body adjusting to lack of stimulation from nicotine	2 to 4 weeks	Take naps; do not push yourself.
Lack of concentration	Body adjusting to lack of stimulation from nicotine	A few weeks	Reduce workload; avoid stress.
Hunger	Craving for cigarettes may be confused with hunger pangs	Up to several weeks	Drink water or low-calorie drinks; eat low-calorie snacks.
Coughing, dry throat, nasal drip	Body ridding itself of mucus in lungs and airways	Several weeks	Drink plenty of fluids; use cough drops.
Constipation, gas	Intestinal movement decreases with lack of nicotine	1 to 2 weeks	Drink plenty of fluids; add fiber to diet; exercise.

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Role of PHC physician "smoking cessation clinic"

The **5 A's** to Quit Tobacco

Ask _____
to quit at every visit.

Advice _____
to quit tobacco at every visit.

Assess _____
willingness to quit at every visit.

Assist _____
*quitting within 2 weeks with
pharmacotherapy or counseling.*

Arrange _____
*follow-up contact in 1st week
after quitting.*

The **5 R's** to the Patient Unwilling to Quit Tobacco

Relevance _____
*why quitting is important to them.
(second hand exposure, overall health, etc.)*

Risks _____
*negative consequences of
ongoing habit.*

Rewards _____
benefits of tobacco cessation.

Roadblocks _____
*identify impediments to quitting.
(withdrawal symptoms, fear, weight gain)*

Repetition _____
*repeat every time the patient
comes to the clinic.*

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Update of the smoking cessation medication in pharmacological management

- **Nicotine replacement therapy**
- **Non-Nicotine replacement therapy)**
- **Bupropion - Varenicline**

Special populations: what to consider....

- **Psychiatric comorbidity**
- **Pregnancy**
- **Adolescents**



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Nicotine Replacement Therapy (NRT) :

Nicotine Patches

The patch is worn on the skin and your body absorbs nicotine from it continuously.

The nicotine patch comes in three sizes and you can usually start with the strongest patch – either a 15 or 25 mg, 16 hour patch (for use during the day only); or a 21 mg, 24 hour patch (for use during the day and overnight).

Side effect:

Skin reactions (up to 50 percent), headaches, insomnia (decreased if patient removes patch at night)

Gum

Eating or drinking acidic foods or beverages within 30 minutes of use decreases effectiveness ;

Side effects :

Gastrointestinal distress; mouth or throat irritation

Lozenges

Eating or drinking acidic foods or beverages within 30 minutes of use decreases effectiveness ;

Side effects :

Nausea, heartburn, headache

Nicotine Replacement Therapy (NRT):(

Inhaler

Eating or drinking acidic foods or beverages within 30 minutes of use decreases effectiveness.

Side effect :

Mouth or throat irritation (40 percent), coughing (32 percent), rhinitis (23 percent)

Nasal Spray

Side effect:

Moderate to severe nasal irritation within the first two days (94 percent) that often continues throughout use



Other first- Line Medications

Bupropion(Zyban)

MOA: Increase norepinephrine and dopamine via unknown mechanism

-Can be combined with a nicotine replacement therapy for increased effectiveness.

Side effect :

Insomnia and dry mouth, mood or behavior changes, unusual thoughts or feelings .

Contraindicated in persons with a history of seizure disorder or an eating disorder

Varenicline

Mechanism of action : is a nicotinic ACh receptor partial agonist

•Used for smoking cessation

-Should not be combined with a nicotine replacement therapy

Side effect:) Headache, nausea (dose related), insomnia, abnormal dreams, flatulence

New studies showed increased risk of coronary events with varenicline.

Second-Line Medications

- **Nortriptyline**
- **Clonidine**

Have demonstrated effectiveness in clinical trials for smoking cessation and they may be used if first-line medications are contraindicated or ineffective.

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Factors lead to substance abuse

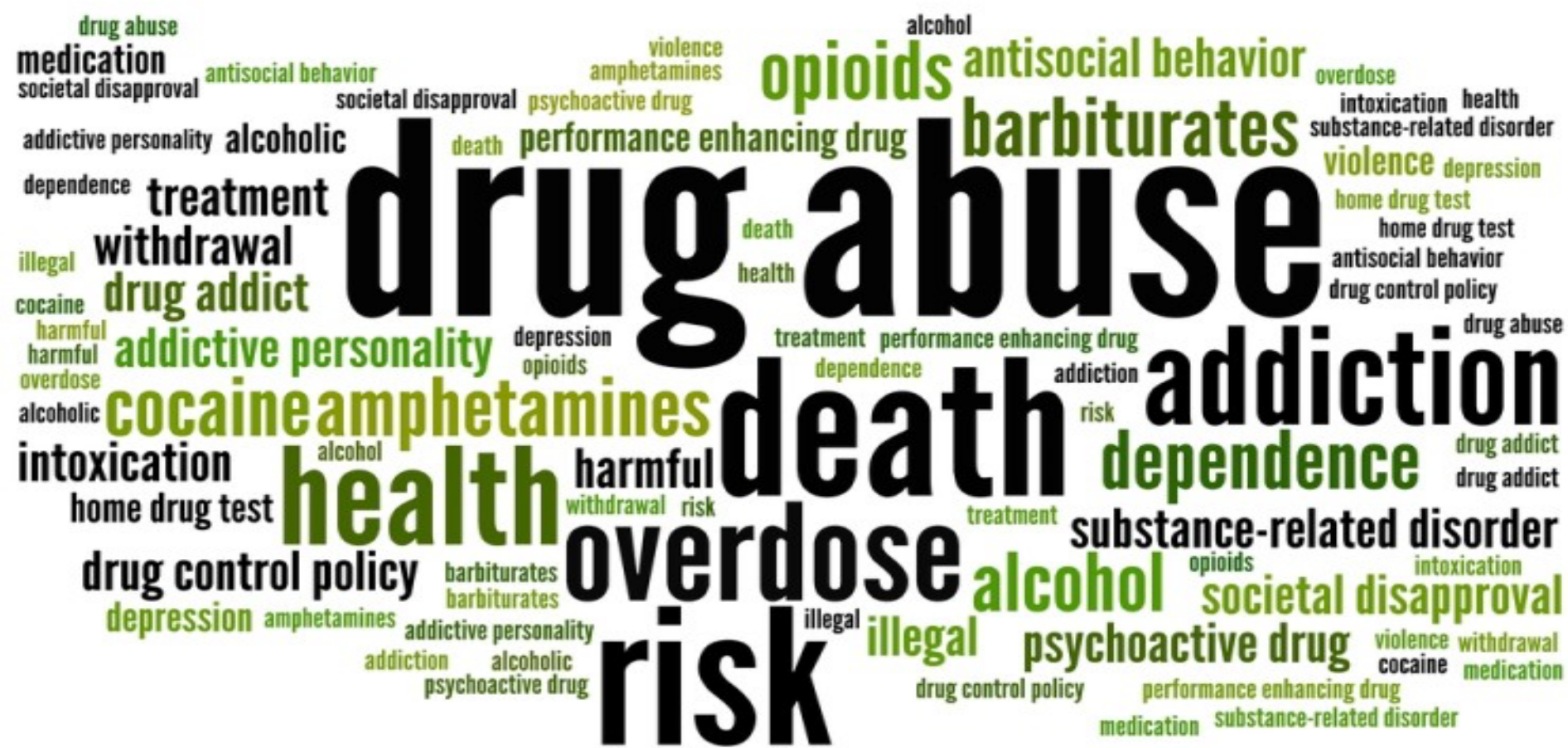
- **Peer pressure**. Peer pressure is a strong factor in starting to use and abuse drugs, particularly for young people.
- **Lack of family involvement**. Difficult family situations or lack of a bond with your parents or siblings may increase the risk of addiction, as can a lack of parental supervision.
- **Anxiety, depression and loneliness**. Using drugs can become a way of coping with these painful psychological feelings and can make these problems even worse.
- **Taking a highly addictive drug**. Some drugs, such as stimulants, cocaine or painkillers, may result in faster development of addiction than other drugs. However, taking drugs considered less addicting — so-called "light drugs" — can start you on a pathway of drug use and addiction.

Factors lead to substance abuse

- People of any age, sex or economic status can become addicted to a drug. However, certain factors can affect the likelihood and speed of developing an addiction:
- **Family history of addiction**. Drug addiction is more common in some families and likely involves genetic predisposition. If you have a blood relative, such as a parent or sibling, with alcohol or drug problems, you're at greater risk of developing a drug addiction.
- **Being male**. Men are more likely to have problems with drugs than women are. However, progression of addictive disorders is known to be faster in females.
- **Having another mental health disorder**. If you have a mental health disorder such as depression, attention-deficit/hyperactivity disorder (ADHD) or post-traumatic stress disorder, you're more likely to become dependent on drugs.



Nouf aljomah



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Types of substance abuse:

- **Alcohol:**

Alcohol abuse can lead to physical, social, and psychological problems.

sometimes requiring hospitalization due to alcohol poisoning.

Long-term abuse can lead to liver and heart damage that can be irreversible.

Withdrawal from alcohol can be fatal because of a symptom called delirium tremens, which could trigger a stroke or heart failure.



- **Cocaine:**

This stimulant drug is one of the most popular (illegal) drugs on the market. While cocaine does have some medical uses (it is sometimes used for nasal surgery), it is mostly used recreationally either by snorting it up through the nose, smoking it or by injecting it into the veins. When abused over a period of time, cocaine can lead to hallucinations, paranoia, high blood pressure and heart attacks leading to death



- **Heroin:**

heroin falls under the category of Opiates. It can cause hallucinations, seizures and other health problems such as HIV/AIDS or tetanus.

- **Amphetamines:**

A category of drugs which act as stimulants

Amphetamines cause high blood pressure, loss of appetite, headaches, convulsions and heart failure



- **Prescription and Over-the-Counter (OTC) Medication:**

These can be just as dangerous and addictive as illegal drugs. You can abuse medicine if you:

- **Take medicine prescribed for someone else**
- **Take extra doses or use a drug other than the way it's supposed to be taken**
- **Take the drug for a non-medical reason**

What are the types of prescription drugs that are most often abused?

• Inhalants:

Mostly made up of everyday household items, Inhalant abuse can have devastating effects, both immediate and in the long run it can lead to:

- Loss of smell
- Brain damage
- Nosebleeds
- Weakness
- Euphoria
- Increased heart rate
- Loss of consciousness
- Hallucinations
- Slurred speech



- **What other types of substance abuse do you know?**



Most commonly abused substance in Saudi Arabia

- Amphetamine (4–70.7%,).
- Heroin (6.6–83.6%).
- Alcohol (9–70.3%).
- Cannabis (1–60%).



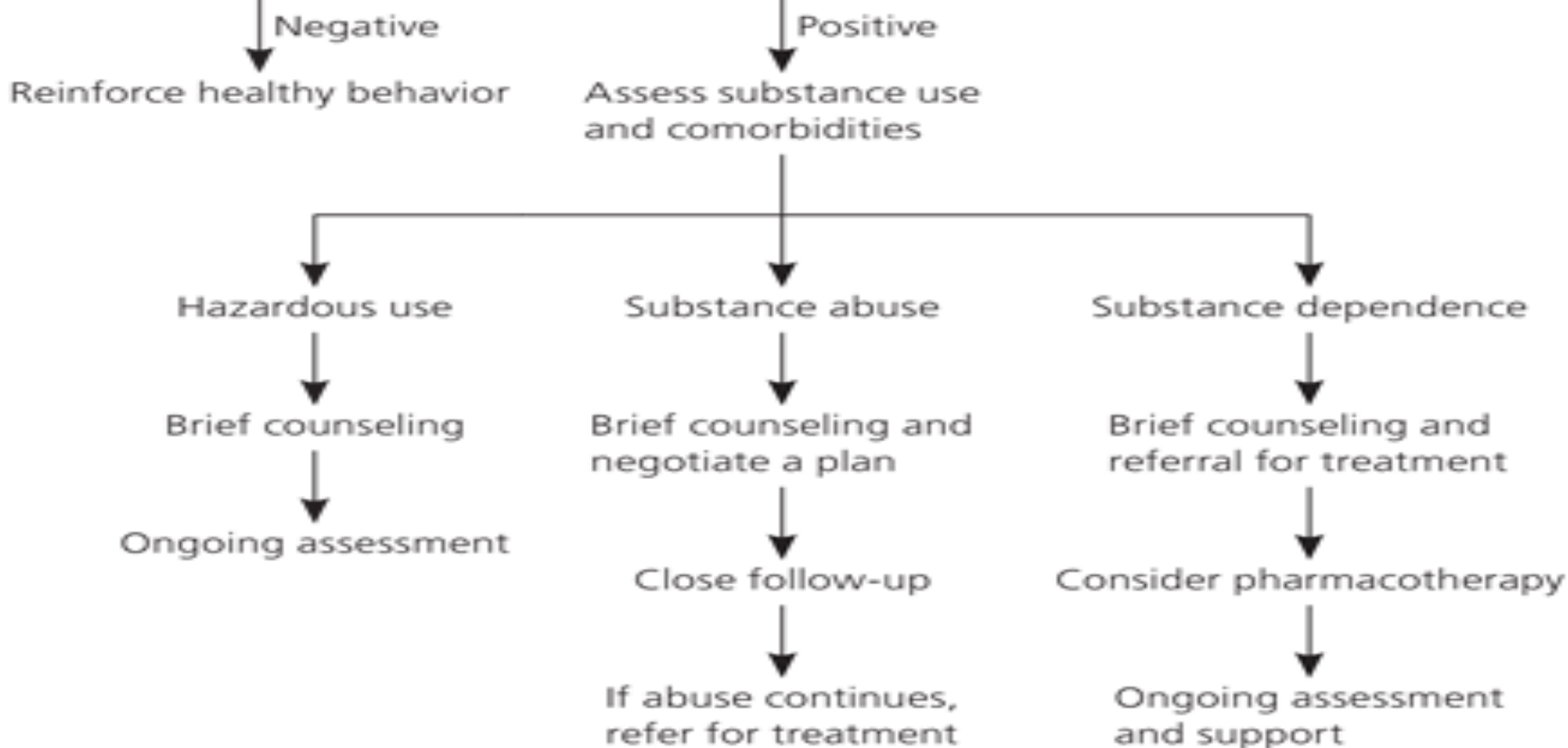


HELP

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Substance misuse screening



• Screening

- **The U.S. Preventive Services Task Force recommends screening all patients for alcohol misuse, but has determined that there is currently insufficient evidence to recommend screening for other substance use disorders. Despite the lack of evidence that screening for substance use disorders improves outcomes, universal screening may be justified based on the high prevalence and morbidity of substance use and proven effectiveness of treatment.**

Single-question screen

“How many times in the past year have you used an illegal drug or used a prescription medication for nonmedical reasons?”



Drug Abuse Screening Test:

- **1. Have you used drugs other than those required for medical reasons?**
- **2. Do you use more than one drug at a time?**
- **3. Are you always able to stop using drugs when you want to?**
- **4. Have you ever had blackouts or flashbacks as a result of drug use?**
- **5. Do you ever feel bad or guilty about your drug use?**
- **6. Does your spouse (or parents) ever complain about your involvement with drugs?**
- **7. Have you neglected your family because of your use of drugs?**
- **8. Have you engaged in illegal activities to obtain drugs?**
- **9. Have you ever experienced withdrawal symptoms (felt sick) when you stopped taking drugs?**
- **10. Have you had medical problems as a result of your drug use (e.g., memory loss, hepatitis, convulsions, bleeding)?**

Management:

The treatment system for substance use disorders is comprised of multiple service components, including the following:

- Individual and group counseling
- Inpatient and residential treatment
- Intensive outpatient treatment
- Partial hospital programs
- Case or care management
- Medication
- Recovery support services
- 12-Step fellowship
- Peer supports



Medications

- **Alcohol:**

Acamprosate

- **Opioids:**

Naltrexone

Opioid agonist therapies with methadone or buprenorphine reduce the stress of opioid withdrawal and reduce craving

- **Tobacco:**

Nicotine replacement medications



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