

Physical and Psychological Impacts of Drug and Alcohol Use

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WELCOME



Signs and symptoms

- Name 3 symptoms of Liver problems
- Name 3 signs of Liver problems
- Name 3 organs damaged by Alcohol
- Why does Alcohol depress people?
- Why does Cocaine depress people?
- What is Cocaethylene?

Tests

- What is the MCV?
- What is the Gamma GT?
- Why is the WCC (White cell count) important?
- What are platelets?
- What does serum amylase measure?

The eyes

- Why do the whites of the eyes go yellow?
- What drugs effect the pupil size?
- In what condition do the eyes accommodate but not react to light?
- Why can pupils be of different sizes?
- What is nystagmus?

Alcohol & Drug related Harm



- *Physical*
- *Psychological/psychiatric*
- *Social*

Alcohol withdrawal syndrome



- **Cluster of symptoms occurring on absolute or relative withdrawal from alcohol.**
- **Onset usually within 6-24 hours and abates after 3-4 days.**
- **Tremor, sweating, vomiting**
- **May proceed to seizures, confusion, coma, and death.**

Alcohol related harm



- **Gastro-intestinal disorders**
- **Hepatic damage**
- **Acute/chronic pancreatitis**
- **Cardiovascular**
- **Haematological**
- **Psychiatric**
- **Malnutrition**
- **Endocrine**
- **Sexual**
- **Metabolic**
- **Cancer**
- **Foetal alcohol syndrome**
- **Neurological**

Clinical neurology related to Alcohol Dependence



- ***Intoxication***
- ***Pathological intoxication***
- ***Dementia***
- ***Cerebellar degeneration***
- ***Wernicke's encephalopathy***
- ***Korsakoff's synd***
- ***Epilepsy***
- ***Withdrawal synd***
- ***Delirium tremens***
- ***Amblyopia***
- ***Marchiafava Bignami synd***
- ***Central pontine myelinosis***
- ***Alcoholic hallucinosis***

Delirium tremens



- *Occurs in 5% withdrawals*
- *Onset 2-3rd day after last drink*
- *50% associated with infection*

Delirium tremens



- **Classical triad**
 - Confusion
 - Hallucination (usually visual, tactile)
 - Coarse, irregular tremor
- **Associated features**
 - Autonomic hyperactivity, tachycardia, hypertension, pyrexia, seizures, hypomagnesia, hypokalaemia
 - Fast EEG

Wernicke's encephalopathy



- **Rapid onset of delirium resulting from thiamine deficiency of any cause (e.g. chronic alcoholism, hyperemesis, pernicious anaemia, Ca stomach)**
- **Clinical features**
 - **Acute confusion (90%)**
 - **Horizontal nystagmus**
 - **Lateral rectus palsy (96%)**
 - **Peripheral neuropathy**
 - **Ataxia**

Wernicke's encephalopathy



- **Other features**
 - **Nausea and vomiting**
 - **Lethargy**
 - **Hypotension**
 - **Emotional lability**
 - **Anxiety**
 - **Insomnia**
 - **Signs of malnutrition (angular stomatitis, glossitis, dry skin)**

Korsakoff's syndrome



- ***Chronic impairment of short term memory recall in absence of widespread cognitive impairment***
- ***Aetiology***
 - ***Thiamine deficiency***
 - ***Tumours in hypothalamus***
 - ***Subarachnoid haemorrhage***
 - ***Infective (TB, syphilis)***
 - ***CO poisoning***

Korsakoff's syndrome



- **Clinical features**
 - **Chronic amnesic disorder with good preservation of other cognitive functions**
 - **Inability to form new memory (anterograde amnesia). Normal registration but severely impaired short term recall**
 - **Patchy retrograde amnesia**
 - **Confabulation**
 - **Peripheral neuropathy**
 - **Poor insight**
 - **Superficial, 'jolly' affect**

Korsakoff's syndrome



- **Pathology**
 - **Neuronal loss and gliosis in thalamus, mamillary bodies, fornices**
- **Treatment**
 - **Parenteral thiamine. Approximately 20% show some clinical improvement**

Withdrawal syndrome



- **Management**
 - **Monitor and correct hydration and electrolyte imbalance**
 - **Reassurance, well lit environment**
 - **Benzodiazepines required for severe withdrawals. (diazepam, chlordiazepoxide)**
 - **Parenteral thiamine**
 - **Prophylactic anticonvulsants if previous history of seizures**



"I hate needles!"

OPIATE DEPENDENCE



- **ABSTINENCE SYNDROME:** dilated pupils, goose flesh, shivering, sneezing, yawning.
- **Feeling very SICK:** “clucking”
- **Restless urge to score quickly**
- **Diarrhoea, nausea**
- **Needle Marks**

OPIATE DEPENDENCE



- **Problems associated with IV use:
Abscesses, septicemia, endocarditis**
- **HIV**
- **Hepatitis B and C**
- **Sharing works**
- **Criminal Activity to fund habit**
- **Prostitution**
- **Hidden Harm: children, dependents**

COCAINE



USA: > 20% of new-born babies positive for Cocaine from 1995

Cocaine

- Dependence may occur after years of use
- There may be no warning signs
- There may have been no problems
- Use may appear intermittent
- Beware long weekend binges
- Watch for mid week problems

Cocaine related admissions to A&E

? Chest pain

? Altered mental state

? Anxiety

? Syncope

? Suicide

? Headache

? Short of breath

? Seizures

? Palpitations

? Psychosis

? Dizziness

? Confusion

Cocaethylene

(Rafla&Epstein 1979)



- **Alcohol + Cocaine.**
- **Produced in the liver by a process of esterification.**
- **Elaborated in the 1990's.**
- **Renders cocaine more cardiotoxic.**
- **Significantly increases hepatotoxicity.**
- **More active than cocaine alone.**

Repeated experimentation & Psychological Dependence



Reward effects --> keep thinking about the effects and how best to obtain supplies --> life becomes centred on the drug experience --> PSYCHOLOGICAL DEPENDENCE.

Anna Rosa Childress

Physical dependence



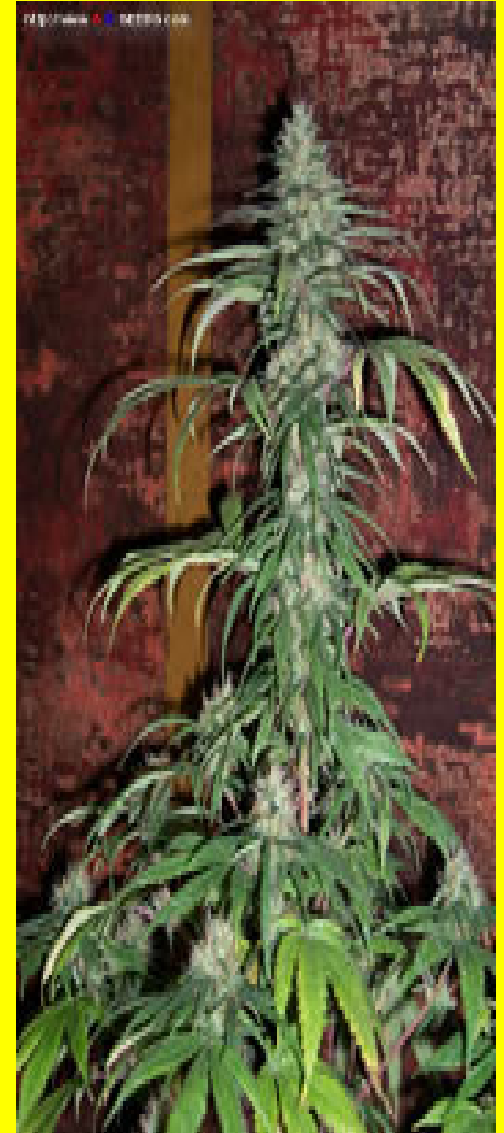
Caused by

- knowledge that more Cocaine will suppress the withdrawal symptoms which leads to more use.
- Unpleasant feelings will trigger the memory of pleasant rewarding effects associated with Cocaine and lead to use.
- The desire to improve on a good feeling will suggest use.

Cannabis

long term effects

- Anxiety, may be marked
- and unpleasant
- Nausea
- Memory loss
- Concentration disruption
- Paranoia, may be marked
- Lethargy, disinterest
- Amotivational syndrome
- Psychosis



Risks to Teenagers

- UK > Holland where it's the parents who smoke
- Rastafarian complaint that simple weed is no longer available, only Skunk!
- Teen users on increase
- New users aged 9 to 12 (Maudsley)
- Genetic variants determine mental health

Cannabis and psychosis

Odds ratio of developing a psychotic illness

- Using by 15: X 4.5
- Using by 18: X 1.65
- Risk of psychosis by 26
- Taking Cannabis increases risk of Schizophrenia
- No cannabis would abolish 10% of psychosis

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"Gonorrhoea, syphilis, chlamydia, herpes,
HIV positive, genital warts..."

Commissioners

- Expect dual and multiple diagnoses
- Plan for BBV treatment locally
- Facilitate movement between tiers 2 3 and 4
- One stop shops may not always be the answer
- Support specific local expertise