

Medication Assisted Treatment for Alcohol and Substance Abuse Disorders to Reduce Recidivism

Percy Menzies, M.Pharm.*

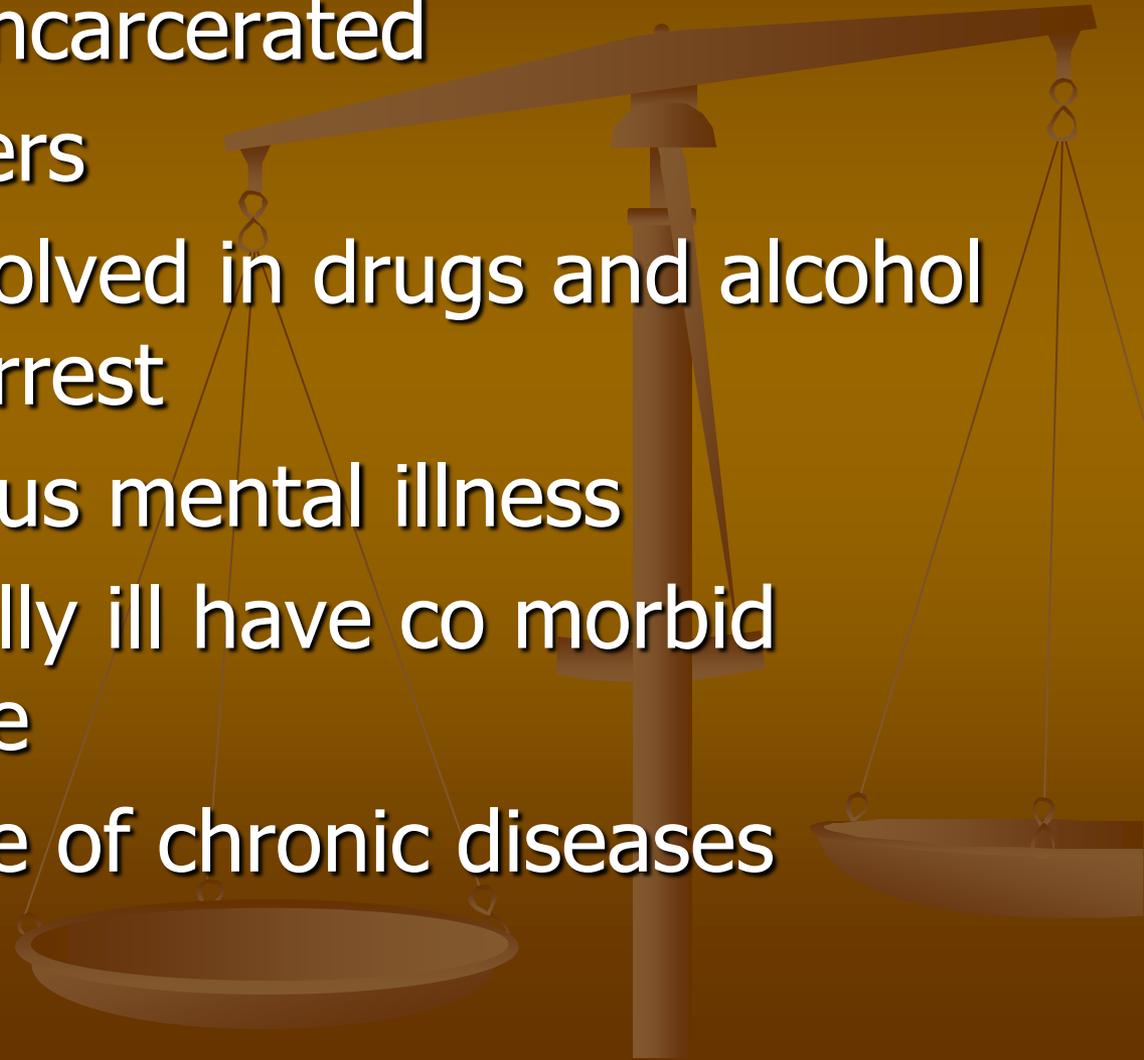
Missouri SAC Meeting

October 5, 2011

*Speaker for Alkermes

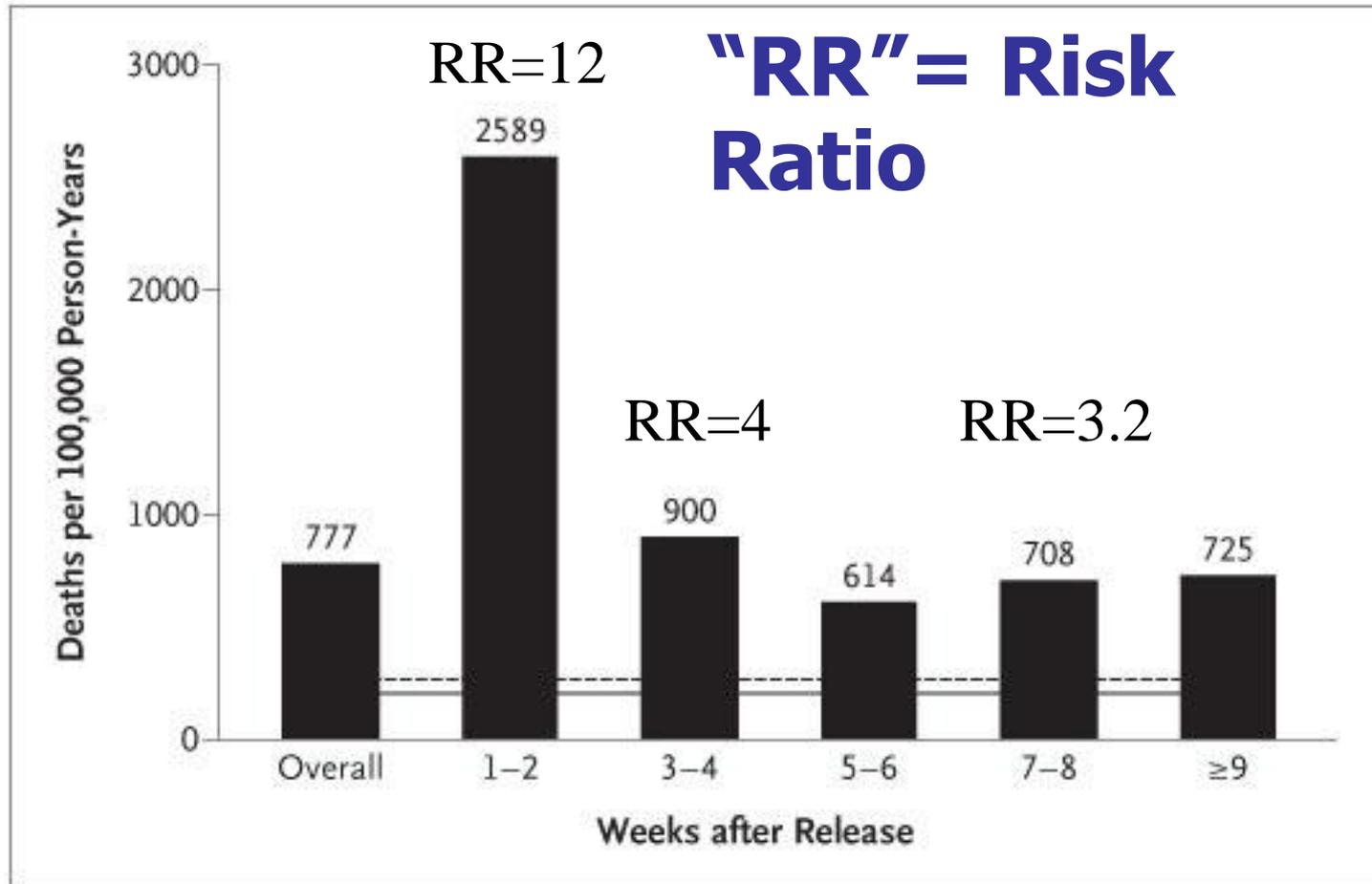
Basic Statistics

- 2.1 Million are incarcerated
- 50% are recyclers
- 60-80% are involved in drugs and alcohol at the time of arrest
- 16% have serious mental illness
- 60 -70% mentally ill have co morbid substance abuse
- Higher incidence of chronic diseases

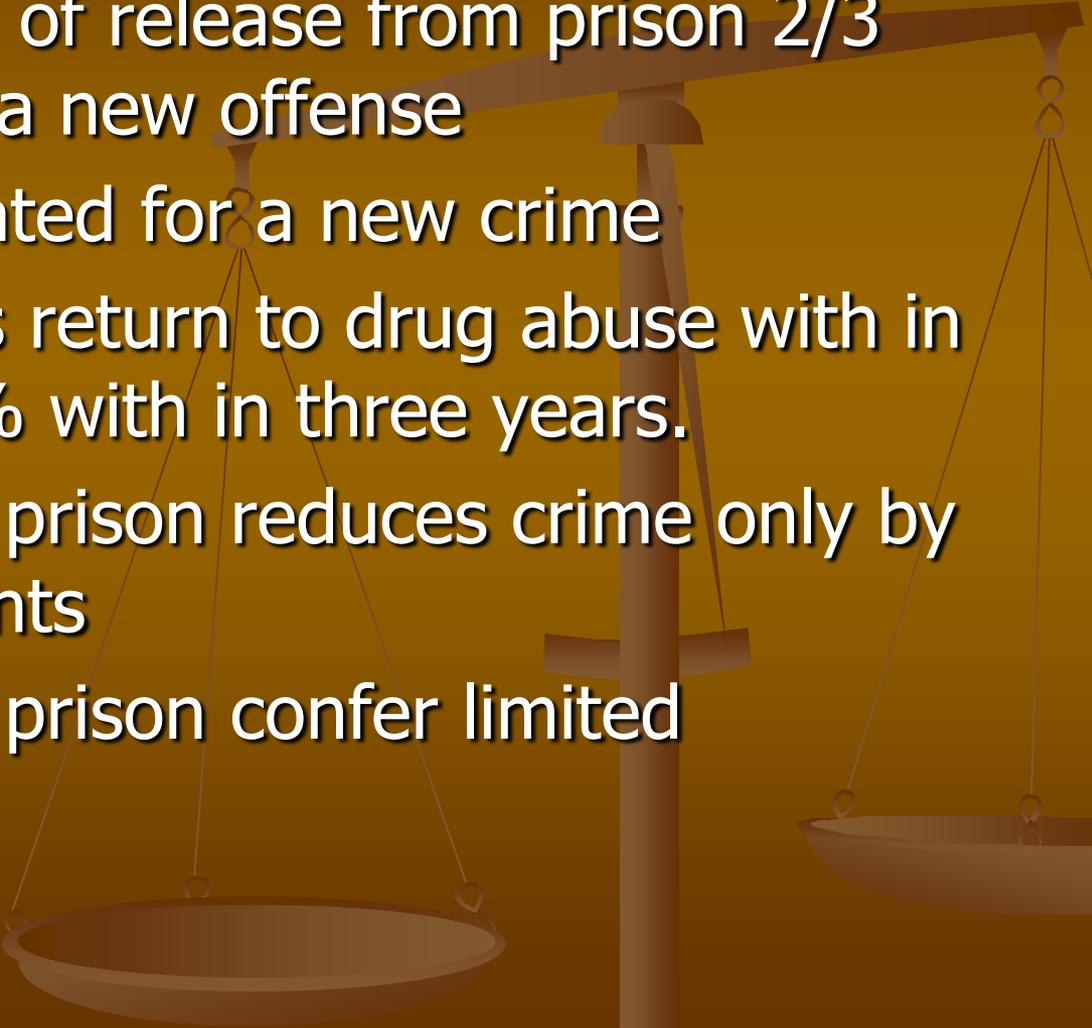


Higher rates of opiate Overdose

“Sentenced to death...*after release!*”

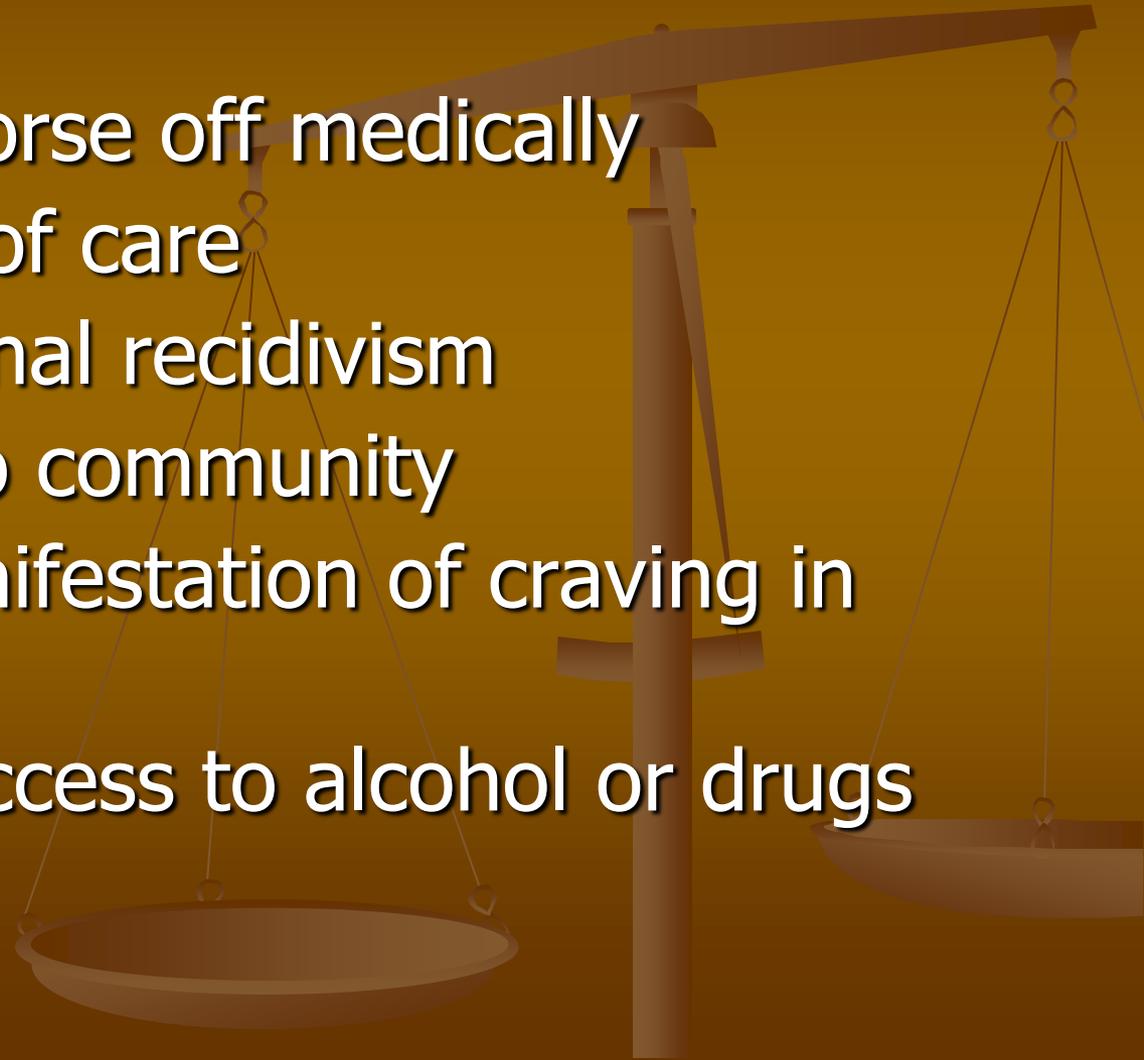


Basic Statistics [cont]

- Within three years of release from prison 2/3 are rearrested for a new offense
 - 1/2 are re-incarcerated for a new crime
 - 85% of drug users return to drug abuse within one year and 95 % within three years.
 - Drug treatment in prison reduces crime only by 10 percentage points
 - Drug treatment in prison confer limited advantages
- 

Why Treat Them?

- Recycled are worse off medically
- Increased cost of care
- Increased criminal recidivism
- Reintegration to community
- No obvious manifestation of craving in prison
- Generally, no access to alcohol or drugs



Status Of Current Treatment

- In jails

Detoxification and dealing with withdrawal symptoms or no treatment at all

- In prisons –

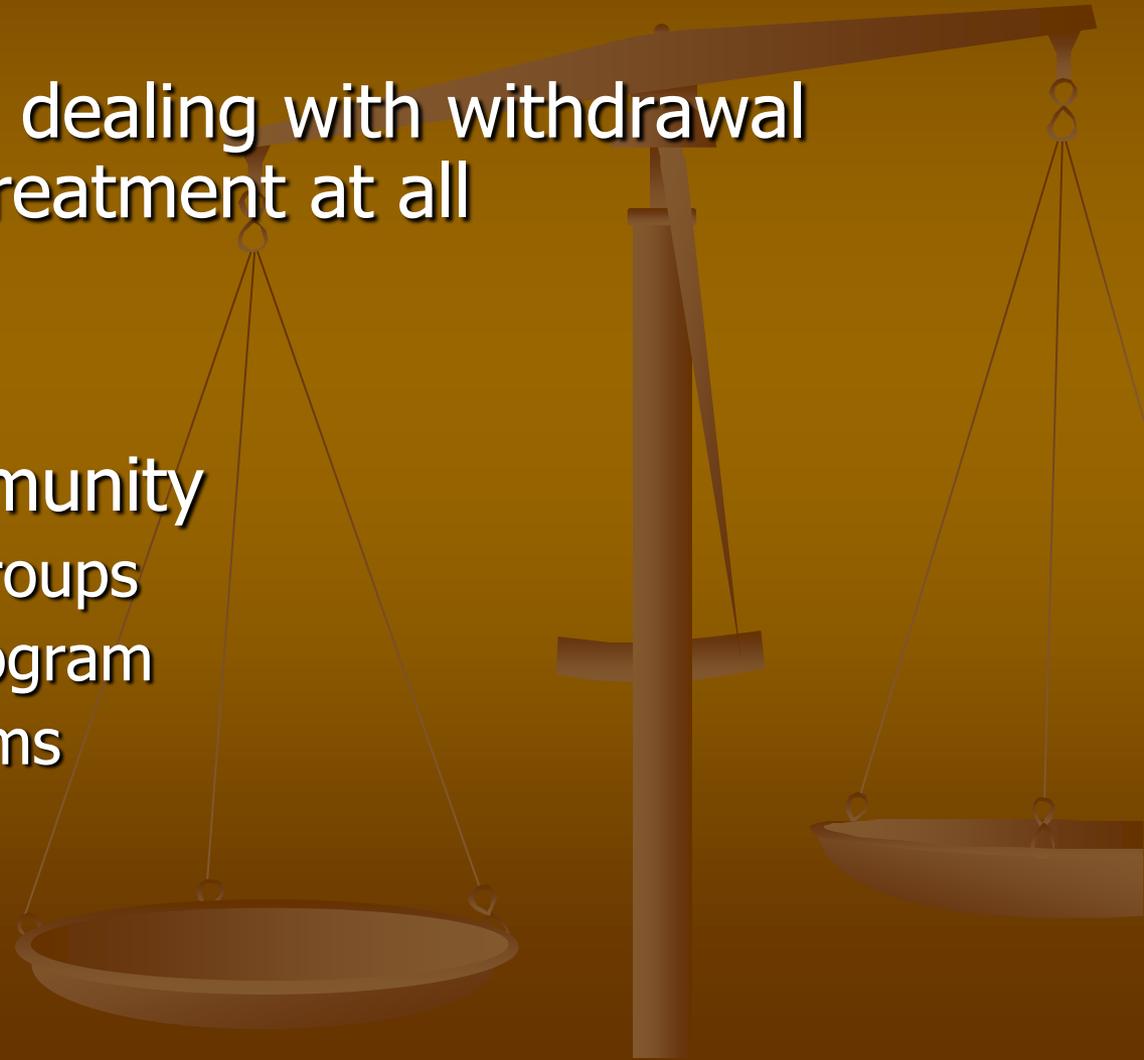
Therapeutic community

Substance abuse groups

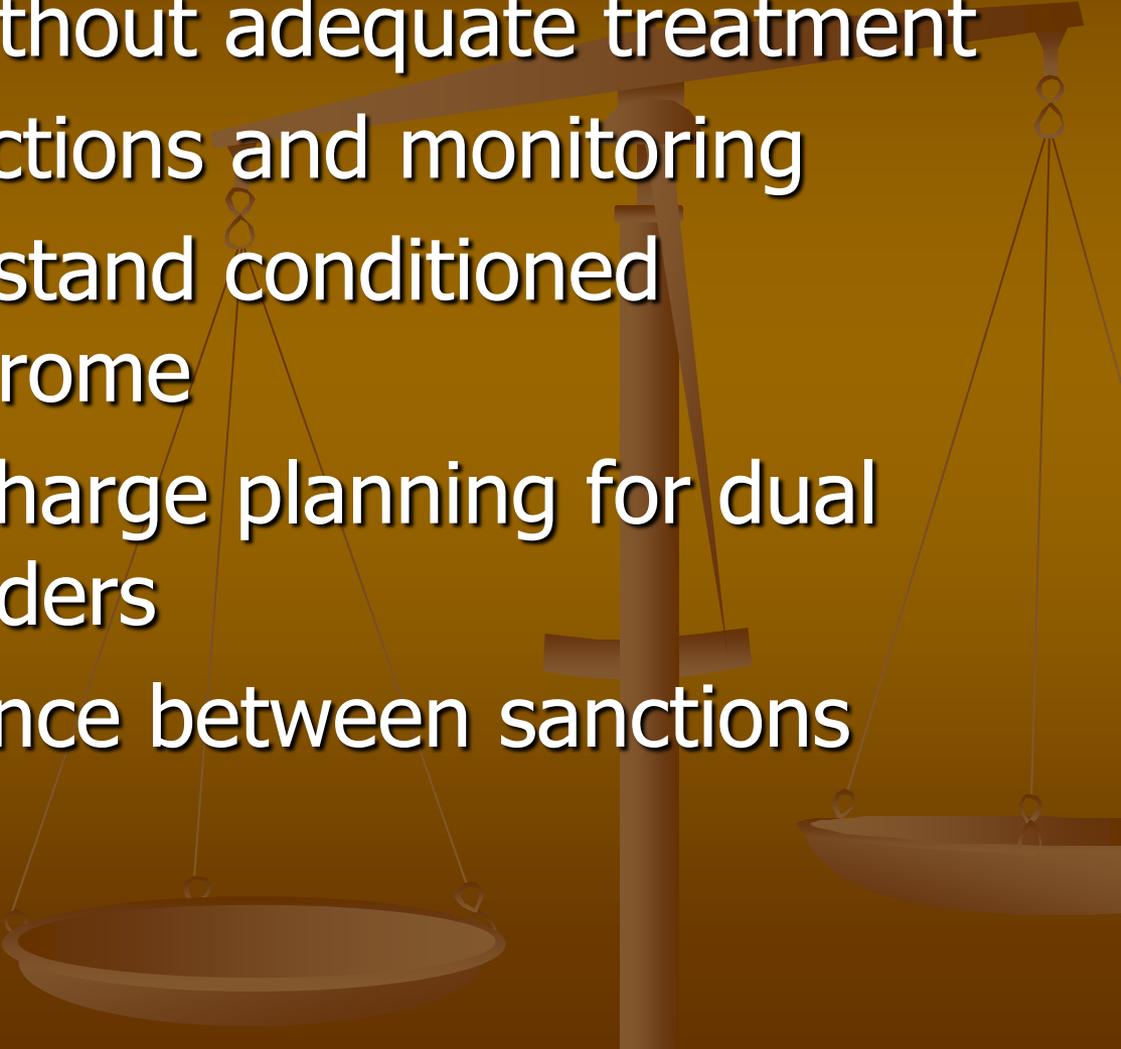
AA, NA, 12 step program

Educational programs

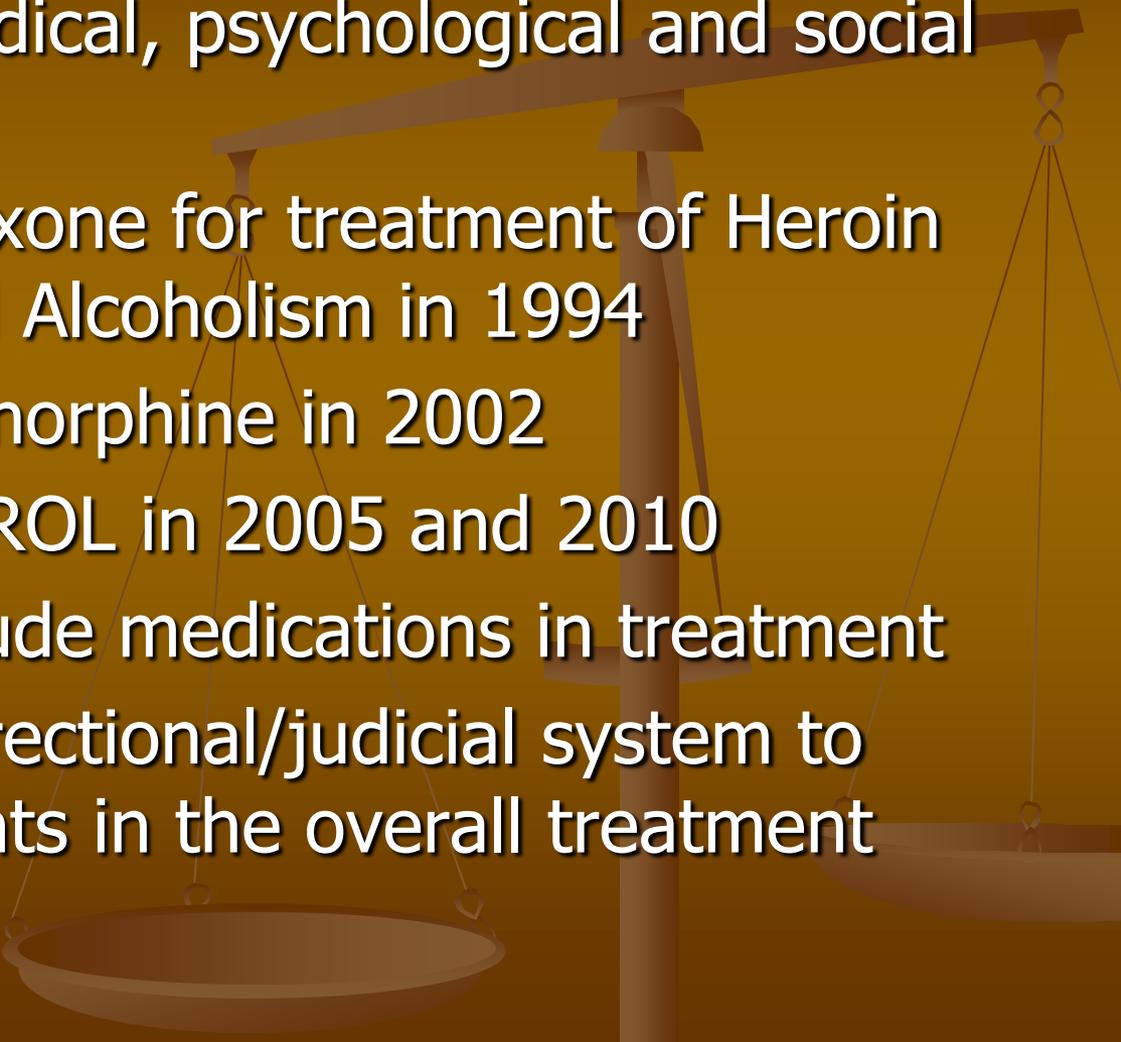
No medications



Present Treatment

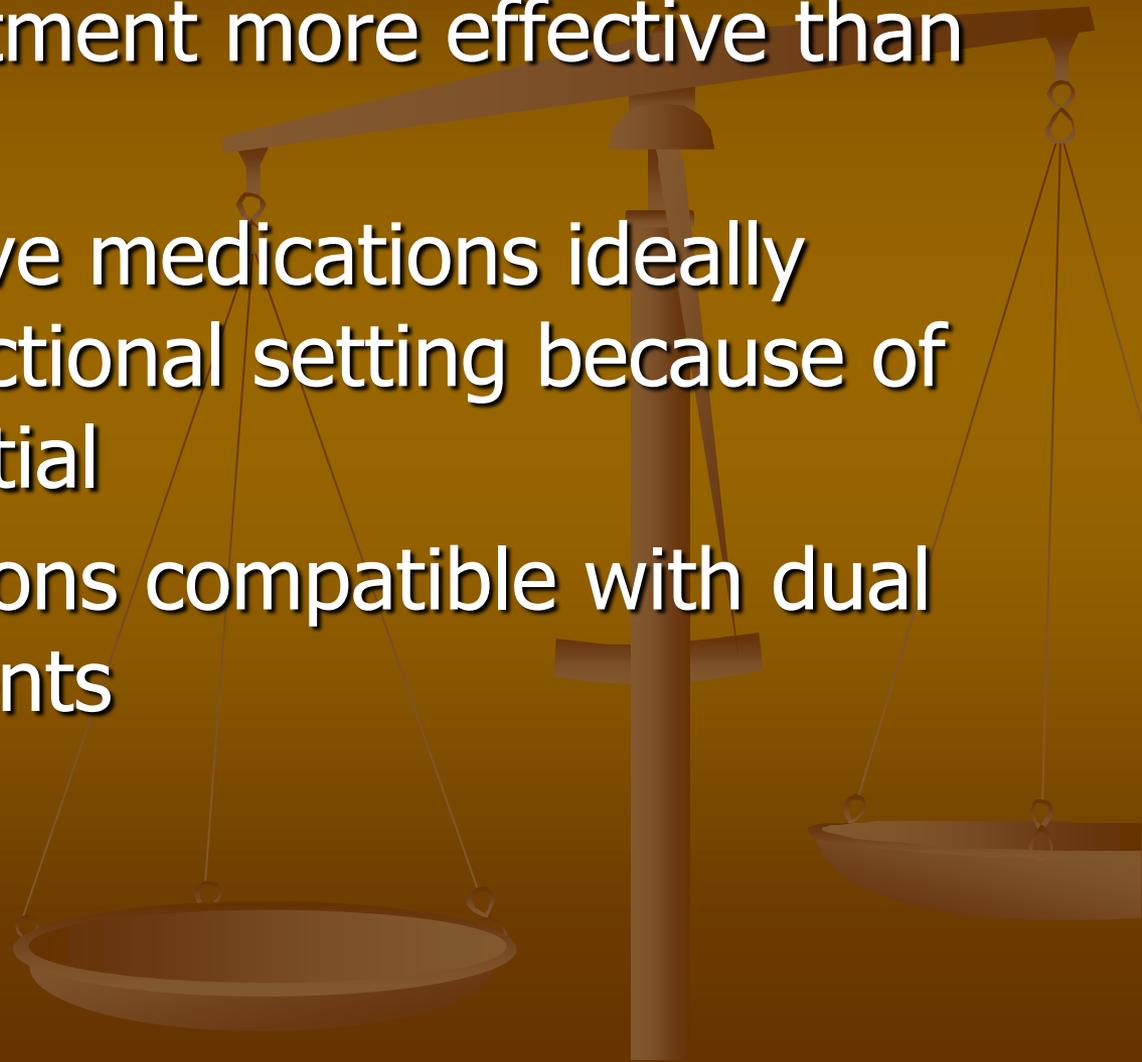
- Incarceration without adequate treatment
 - Reliance on sanctions and monitoring
 - Failure to understand conditioned abstinence syndrome
 - Inadequate discharge planning for dual diagnosed offenders
 - Absence of balance between sanctions and treatment
- 

Status of current treatment [contd]

- Trend towards Medical, psychological and social interventions
 - Approval of Naltrexone for treatment of Heroin abuse in 1984 and Alcoholism in 1994
 - Approval of Buprenorphine in 2002
 - Approval of VIVITROL in 2005 and 2010
 - Reluctance to include medications in treatment
 - Reluctance by correctional/judicial system to include these agents in the overall treatment
- 

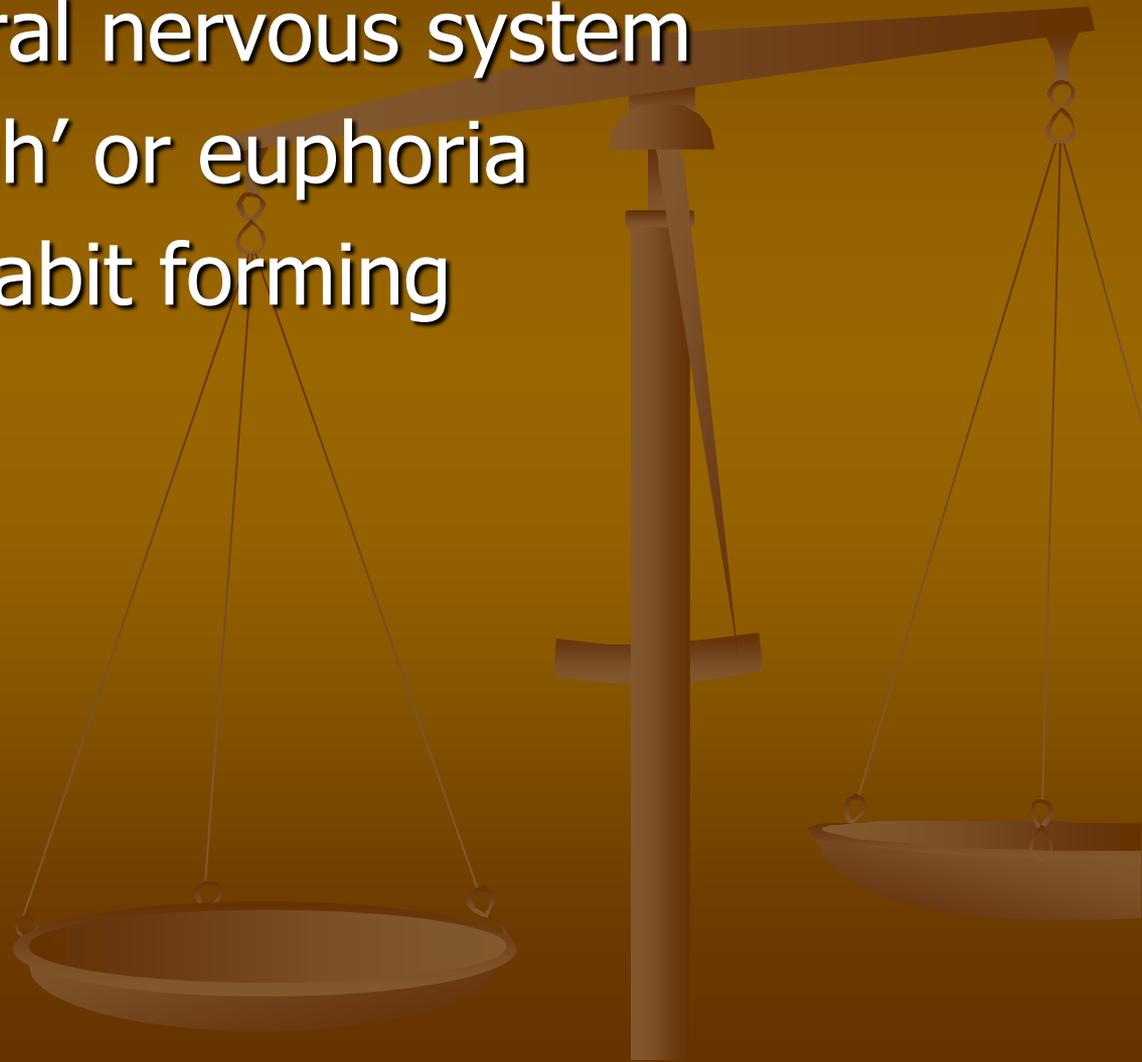
Why Medications?

- Integrated treatment more effective than single therapy
- Non psychoactive medications ideally suited for correctional setting because of no abuse potential
- Newer medications compatible with dual diagnosed patients



Psychoactive medications

- Act on the central nervous system
- Produces a 'high' or euphoria
- Addicting and habit forming
- Abuse potential
- Tolerance
- Street value



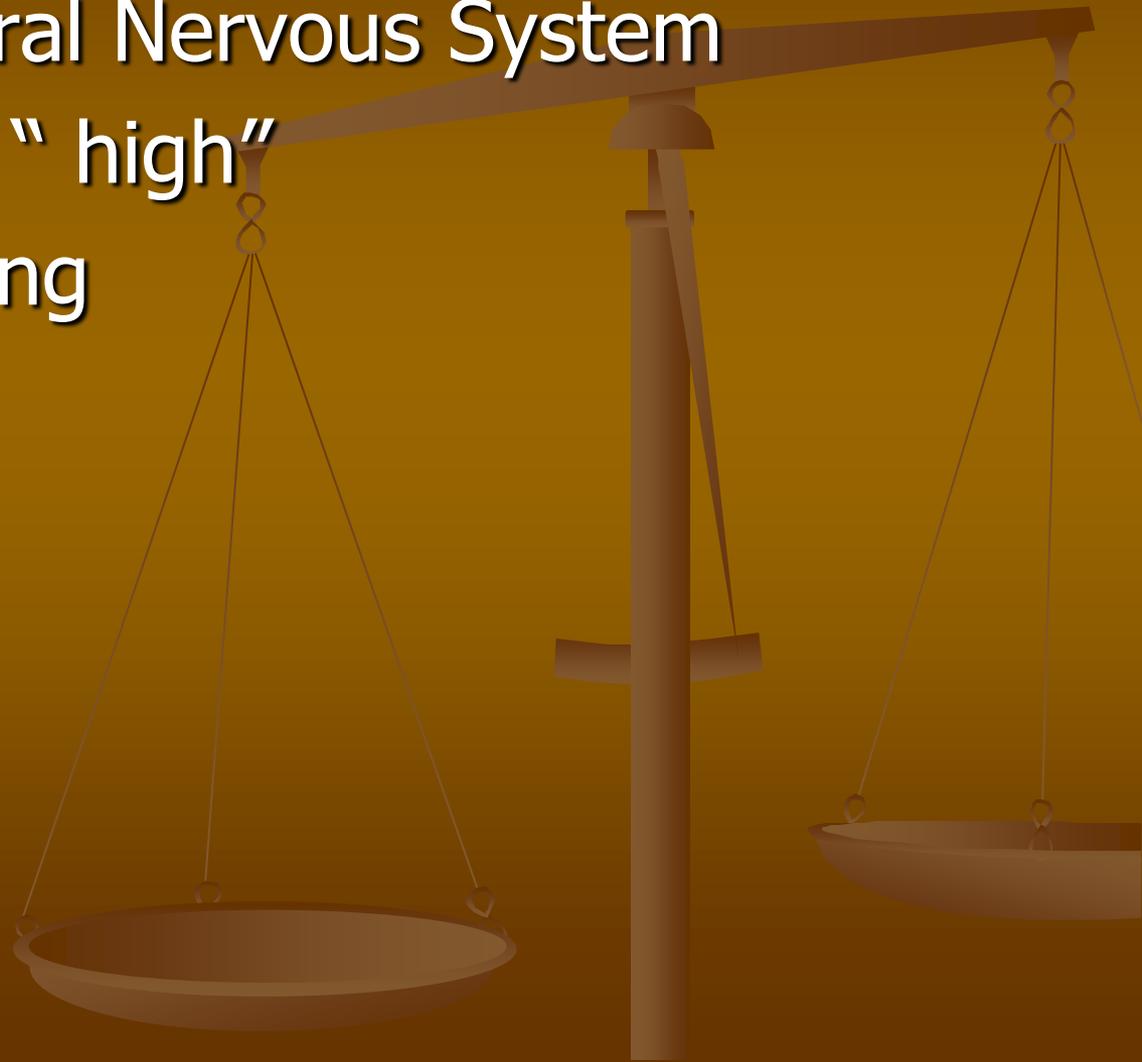
Psychoactive Medications

- Benzodiazepines
- Buprenorphine
- LAMM (not used any more)
- Methadone

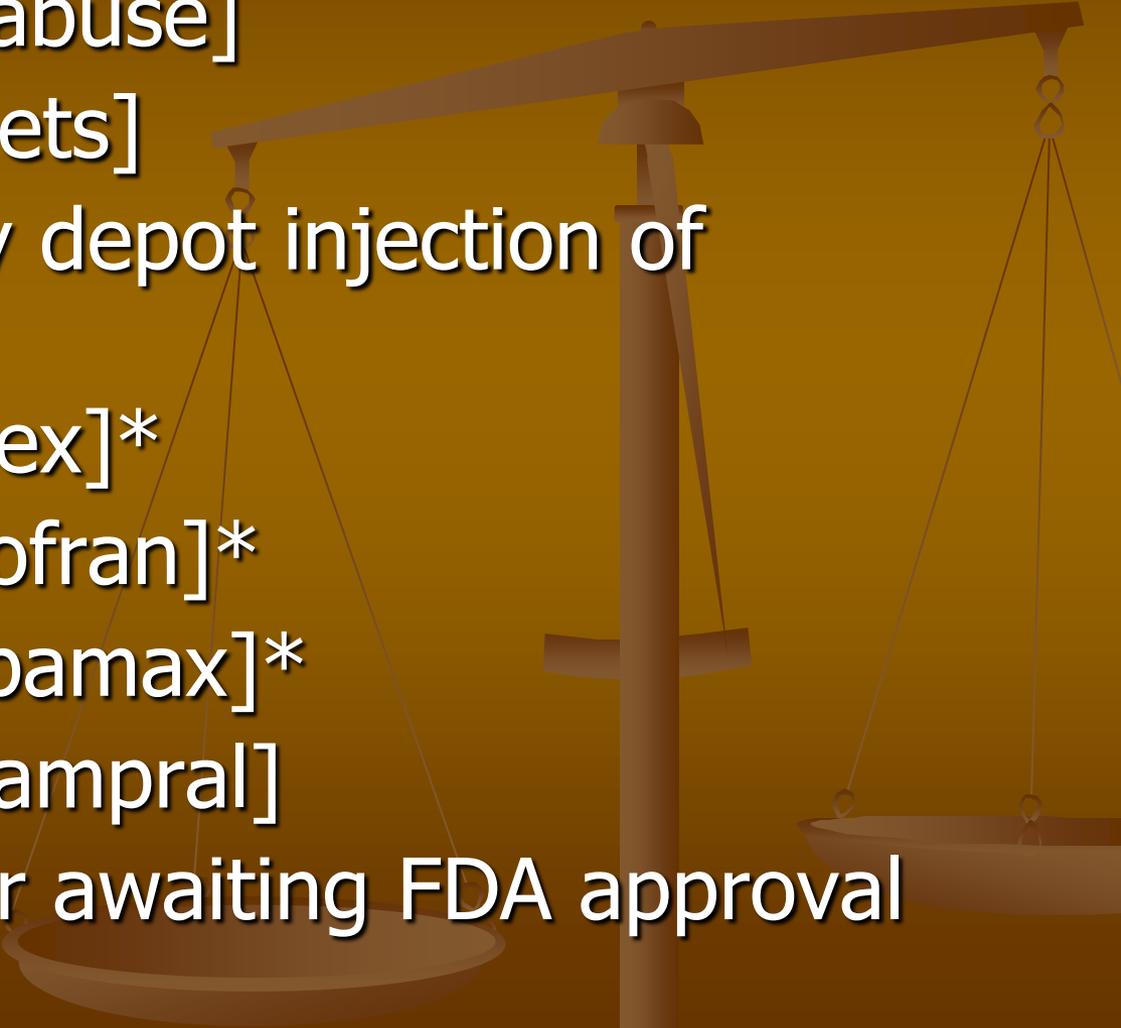


Non Psychoactive medications

- Act on the Central Nervous System
- Do not produce “ high”
- Non-habit forming
- Non-abusable
- Non-addicting
- Non-scheduled
- No street value



Non-Psychoactive Medications

- Disulfiram [Antabuse]
 - Naltrexone [tablets]
 - Vivitrol [monthly depot injection of naltrexone]
 - Nalmefene [Revex]*
 - Ondansetron [Zofran]*
 - Topiramate [Topamax]*
 - Acamprosate [Campral]
 - * Under study or awaiting FDA approval
- 

THE ARCC DIAMOND MODEL

Neurochemical

- *Anticraving Medications

Psychosocial

- *Behavior Modification
- *Therapy
- *Case Management

Drug and Alcohol
Use Disorder

External

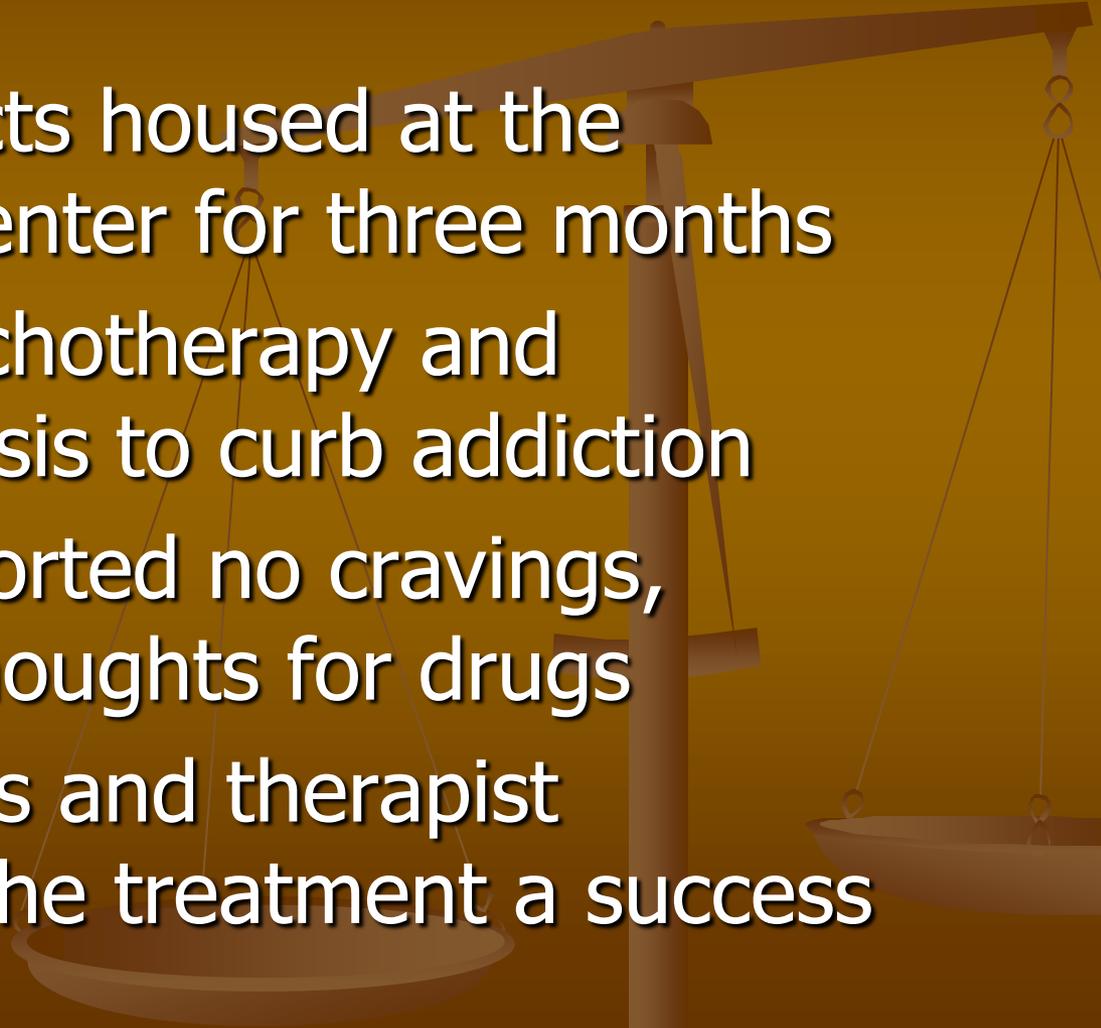
- *Home Electronic Monitoring
- *Random Testing
- *Home Breathalyzer
- *Ignition Lockout

Judicial

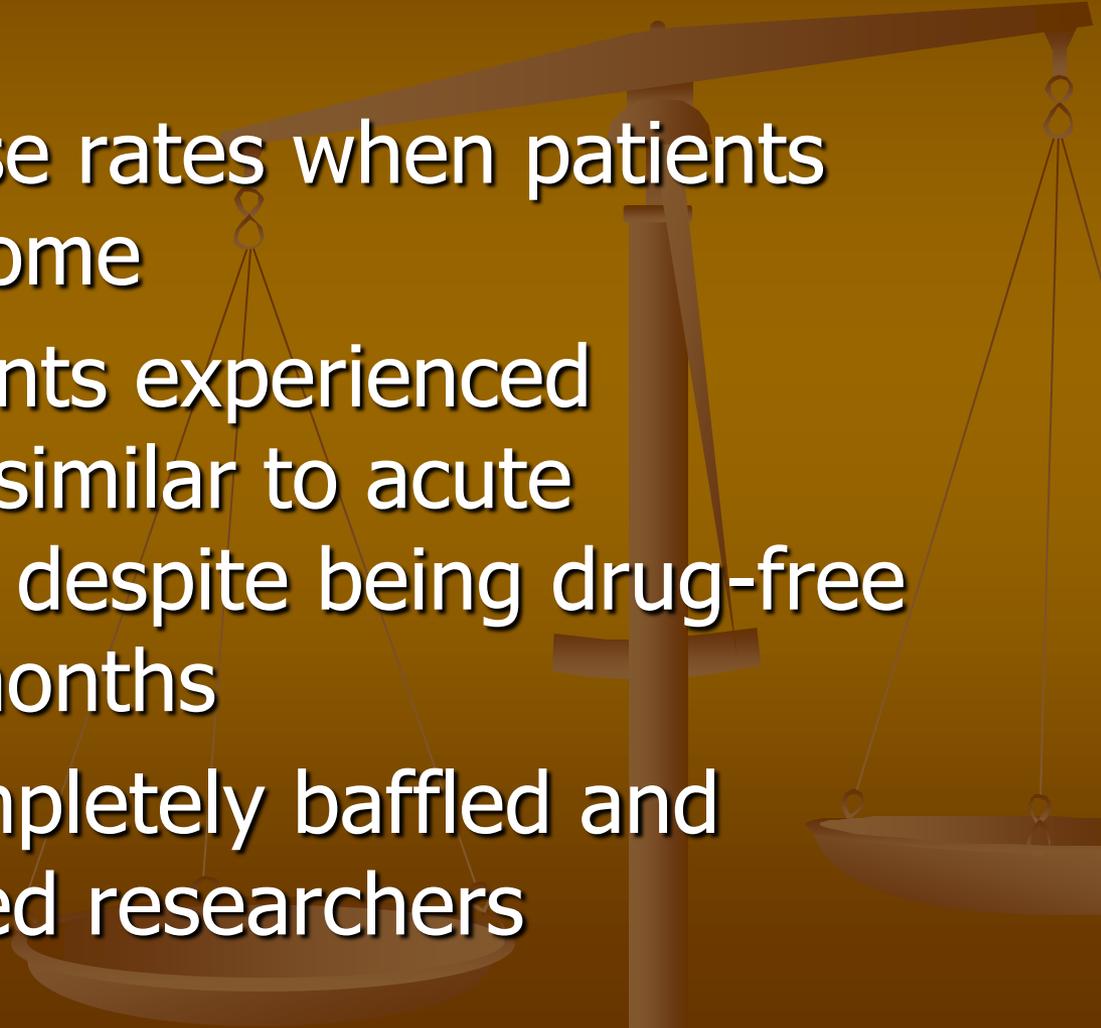
- *Court Supervision
- *Probation & Parole

COVERING ALL BASES FOR IMPROVED OUTCOMES

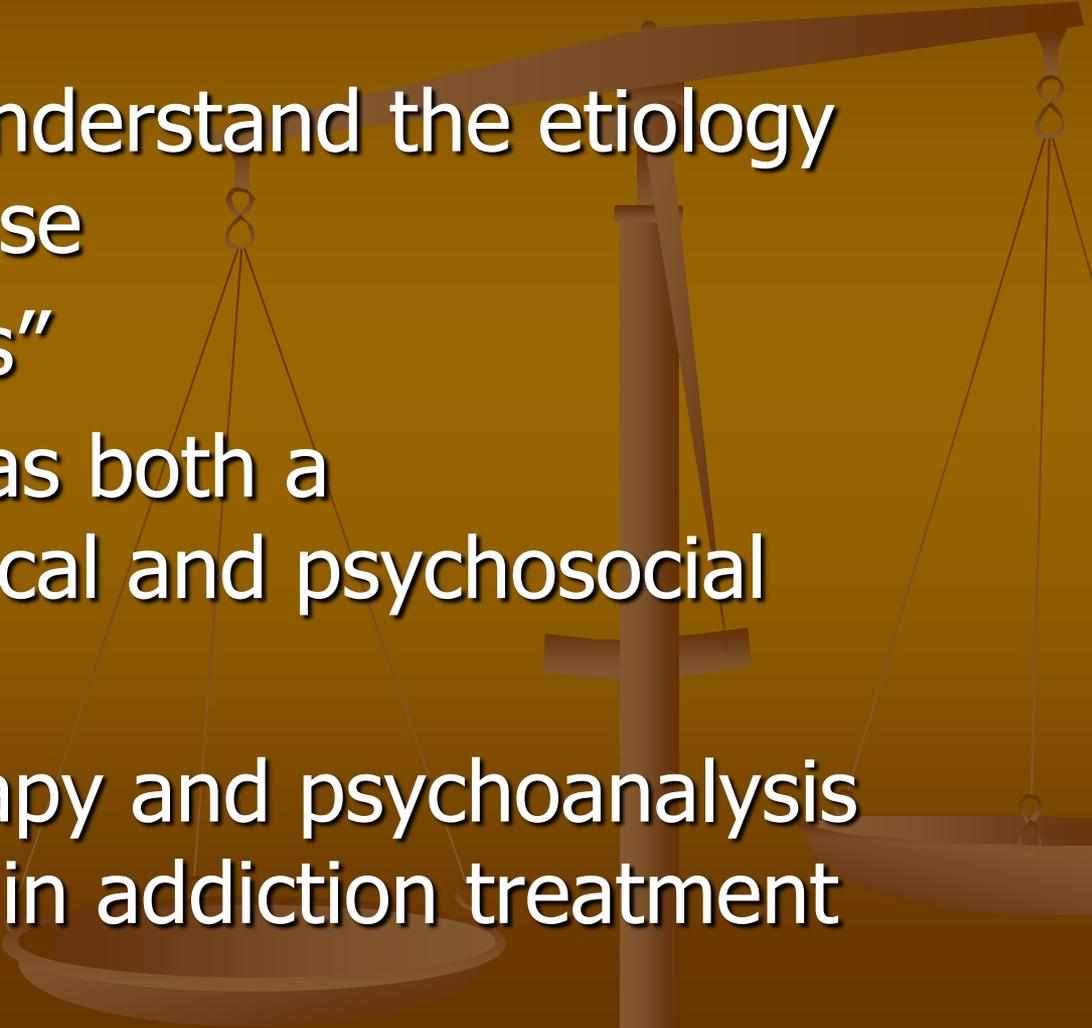
Lexington Addiction Treatment Experiment

- Heroin addicts housed at the treatment center for three months
 - Intense psychotherapy and psychoanalysis to curb addiction
 - Patients reported no cravings, desires or thoughts for drugs
 - Both patients and therapist considered the treatment a success
- 

Lexington Addiction Treatment Experiment

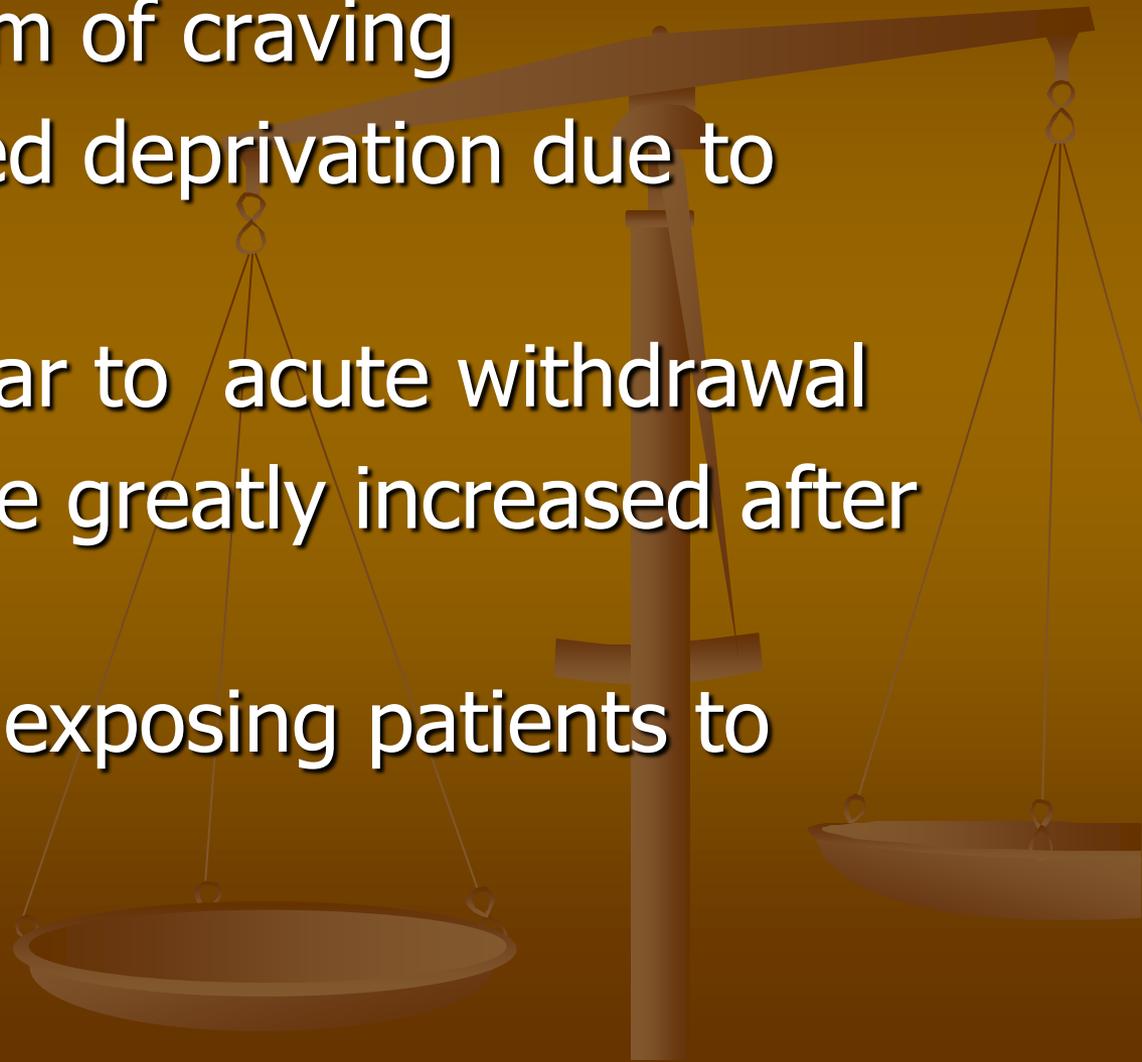
- High relapse rates when patients returned home
 - Many patients experienced symptoms similar to acute withdrawal despite being drug-free for three months
 - Failure completely baffled and disappointed researchers
- 

Why did the Experiment Fail?

- Failure to understand the etiology of the disease
 - “Sui Genaris”
 - Addiction has both a neurochemical and psychosocial component
 - Psychotherapy and psychoanalysis are failures in addiction treatment
- 

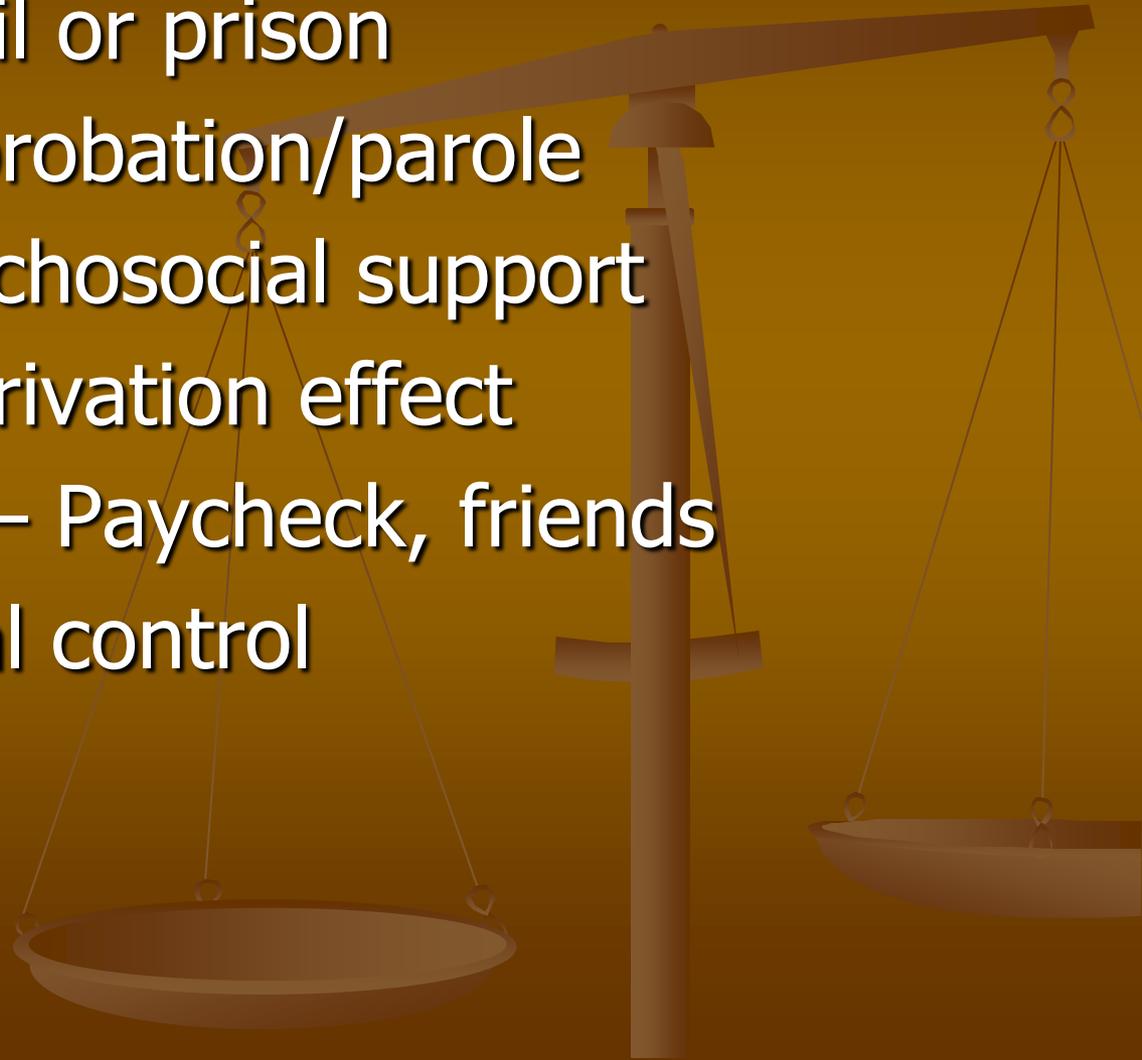
Wikler Model of Craving or Conditioned abstinence

- Most potent form of craving
- Caused by forced deprivation due to incarceration
- Symptoms similar to acute withdrawal
- Drug/alcohol use greatly increased after release
- Best treated by exposing patients to everyday cues



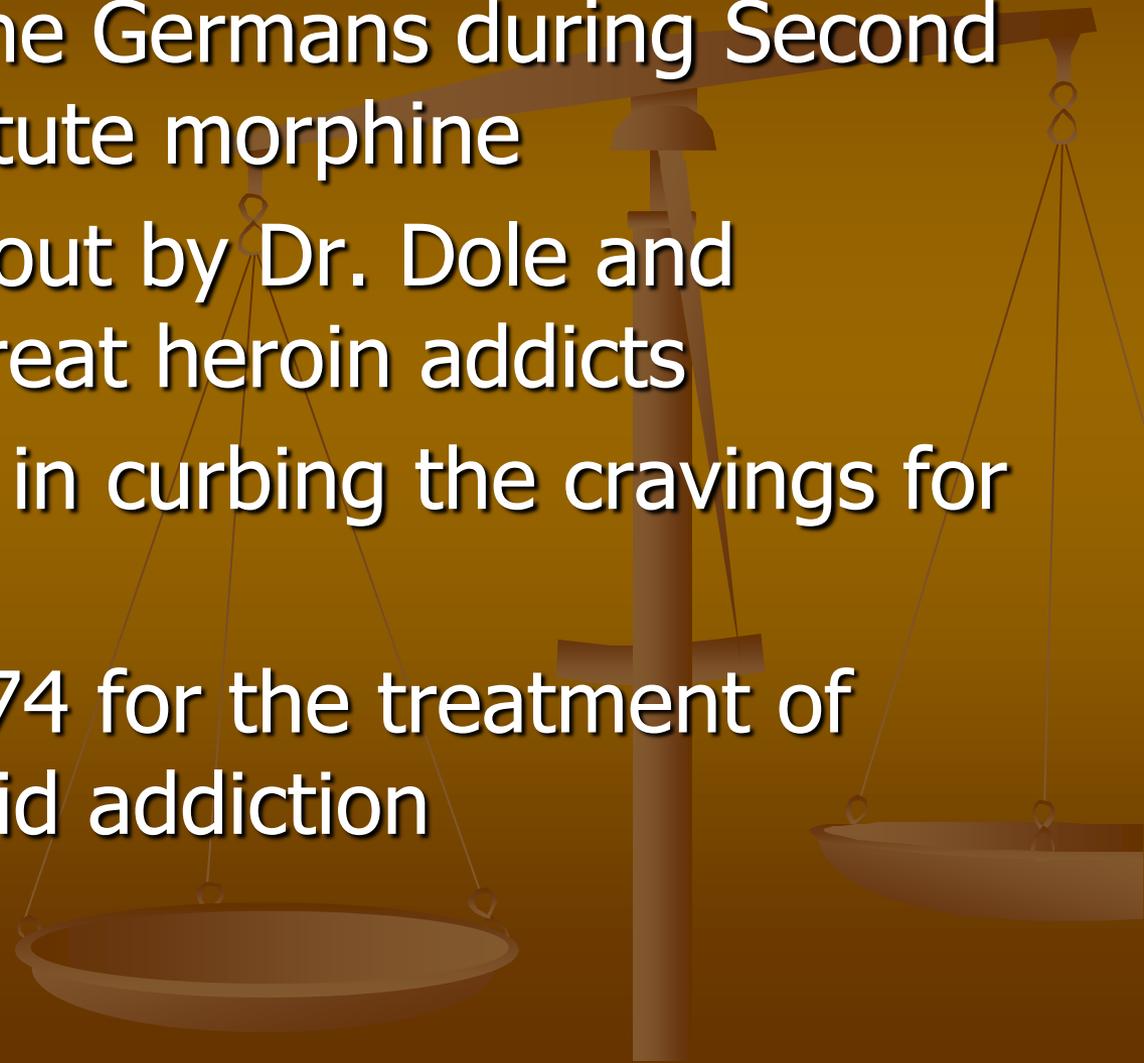
Factors Rekindling Craving

- Release from jail or prison
- Formal end of probation/parole
- Inadequate psychosocial support
- ETOH/drug deprivation effect
- Euphoric recall – Paycheck, friends
- Testing personal control

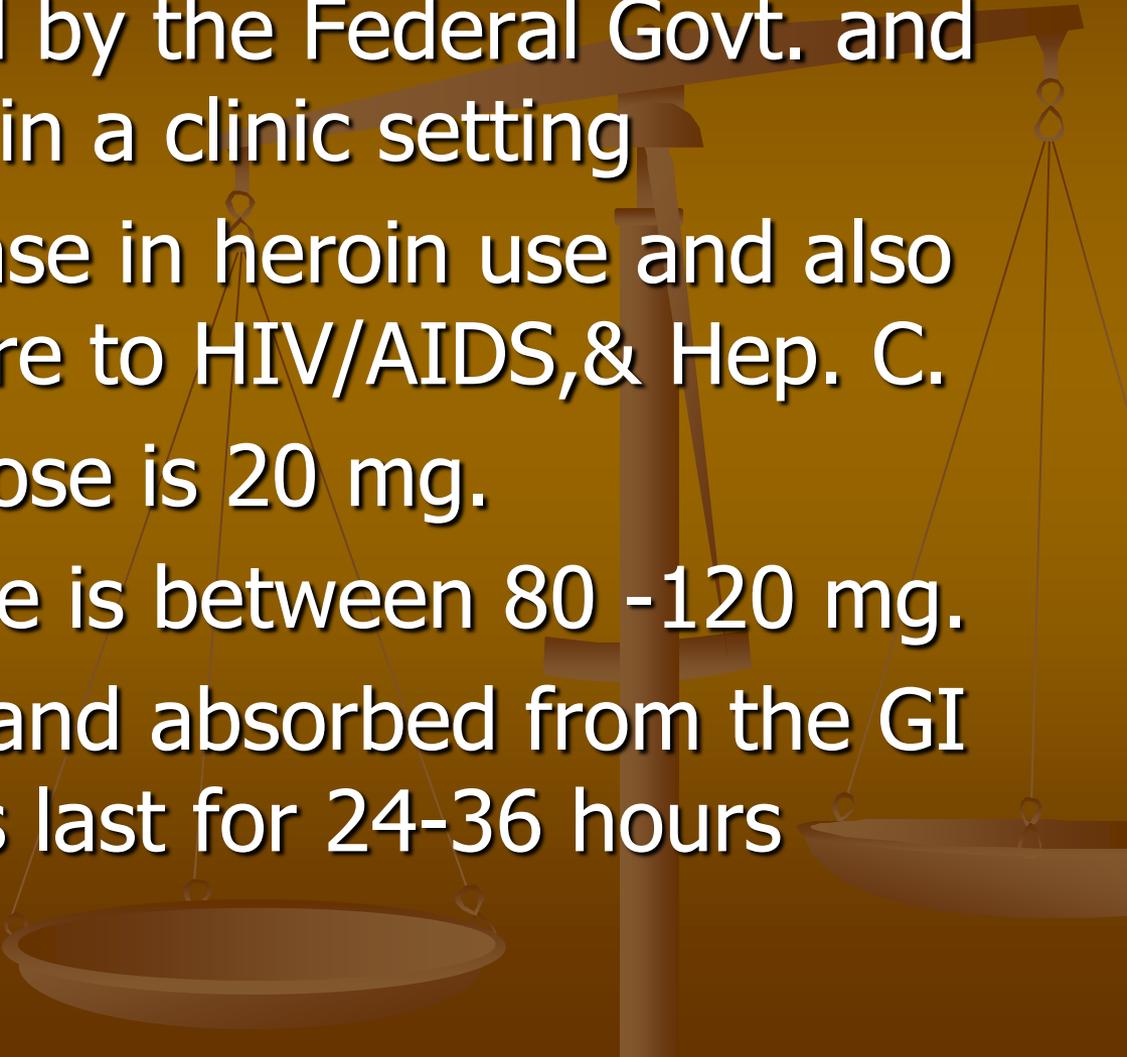


Methadone

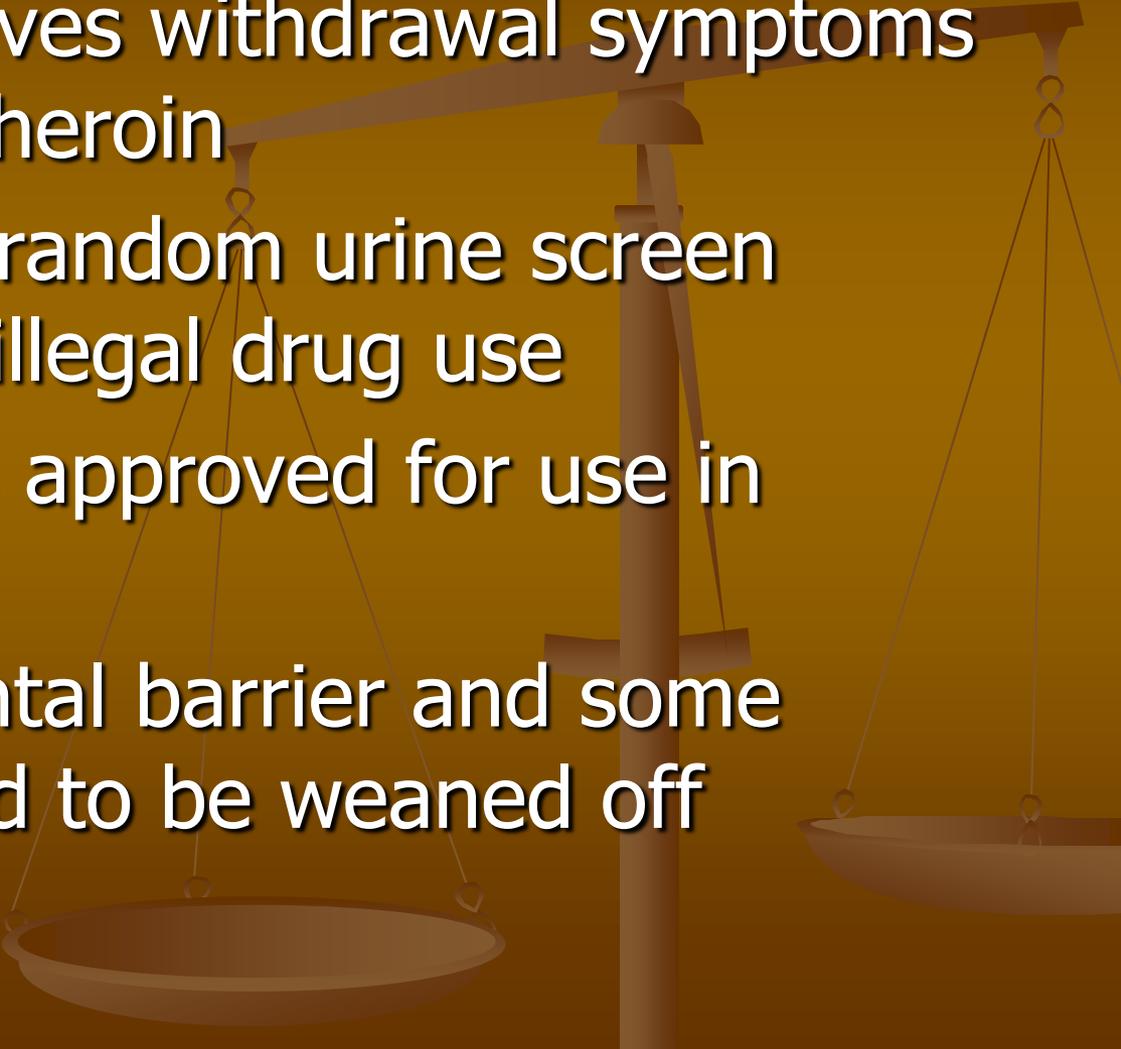
- Developed by the Germans during Second WW as a substitute morphine
- Studies carried out by Dr. Dole and Nyswander to treat heroin addicts
- Highly effective in curbing the cravings for heroin
- Approved in 1974 for the treatment of heroin and opioid addiction



Methadone

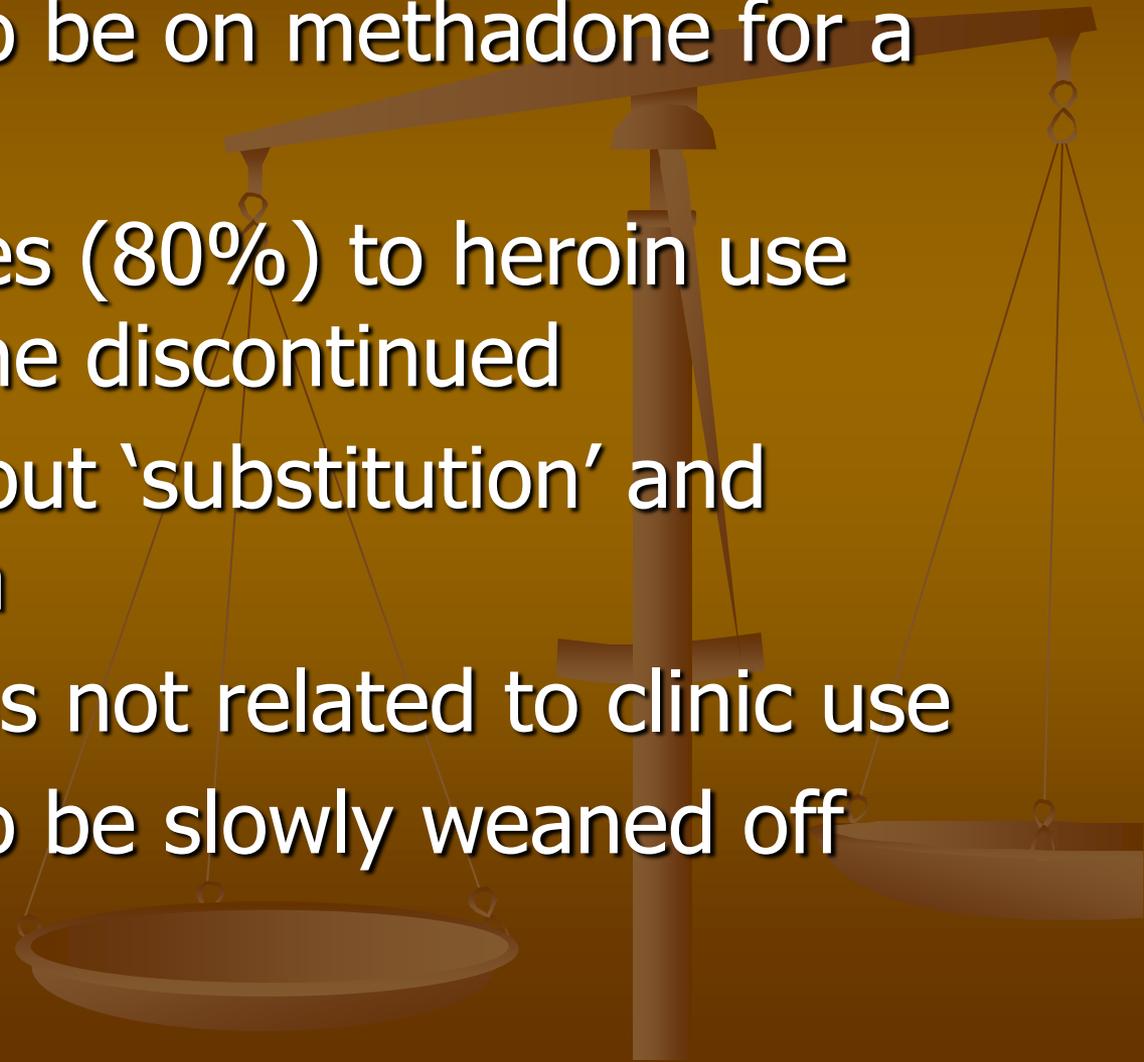
- Highly regulated by the Federal Govt. and has to be given in a clinic setting
 - Dramatic decrease in heroin use and also reduced exposure to HIV/AIDS, & Hep. C.
 - Usual starting dose is 20 mg.
 - Therapeutic dose is between 80 -120 mg.
 - Orally effective and absorbed from the GI tract and effects last for 24-36 hours
- 

Methadone

- Methadone relieves withdrawal symptoms and craving for heroin
 - Counseling and random urine screen reduce rates of illegal drug use
 - Only medication approved for use in pregnancy
 - Cross the placental barrier and some babies may need to be weaned off
- 

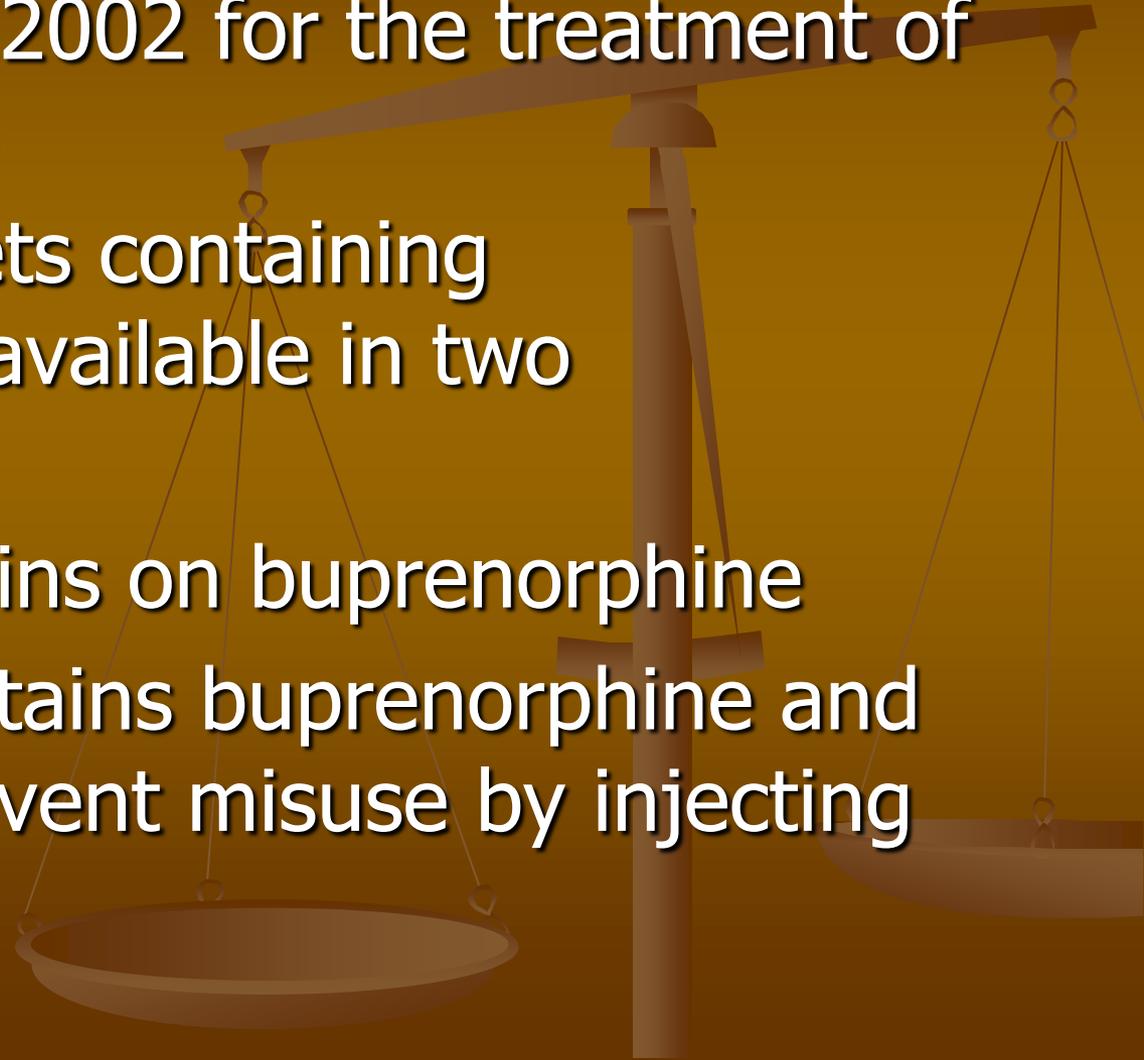
Methadone

- Patients need to be on methadone for a long time.
- High failure rates (80%) to heroin use when methadone discontinued
- Controversy about 'substitution' and needless stigma
- Overdose deaths not related to clinic use
- Patients need to be slowly weaned off

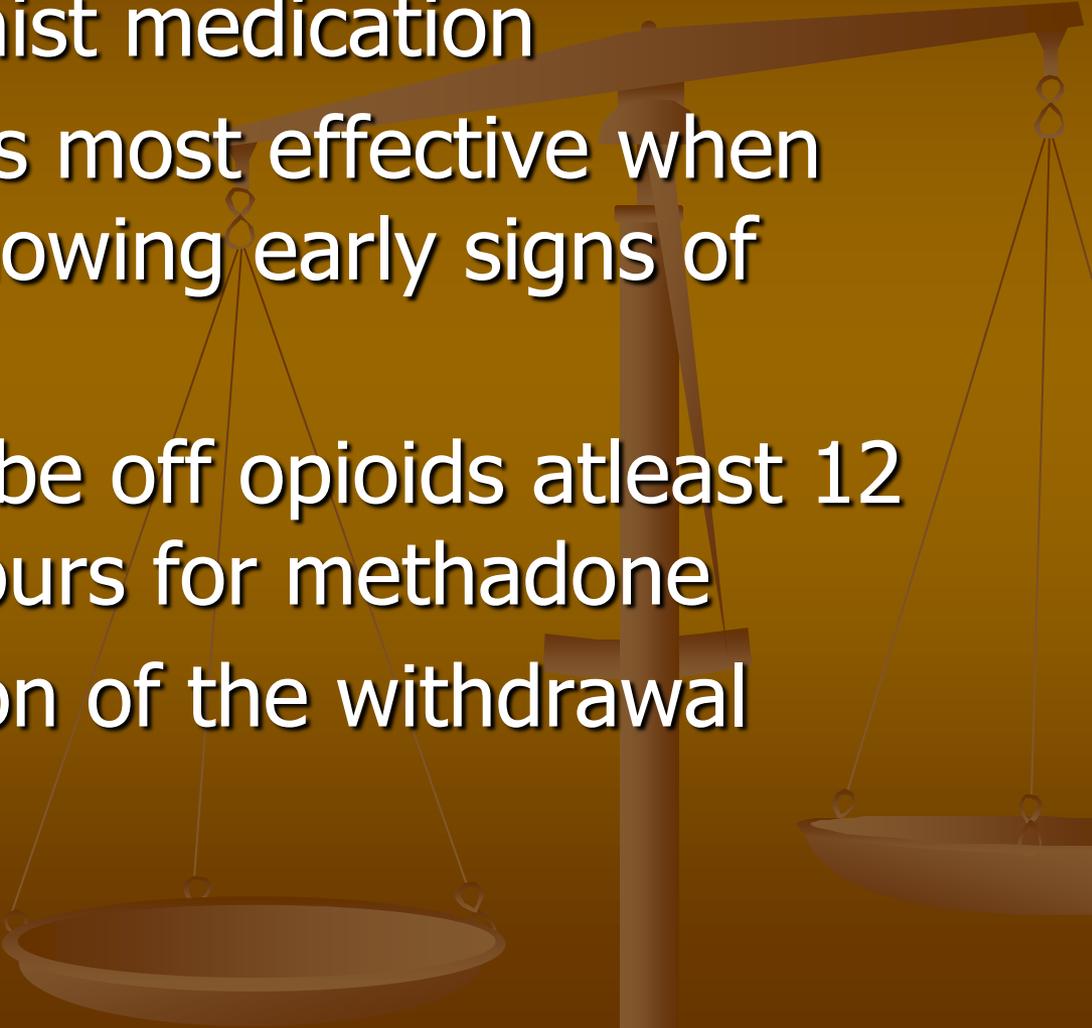


Buprenorphine

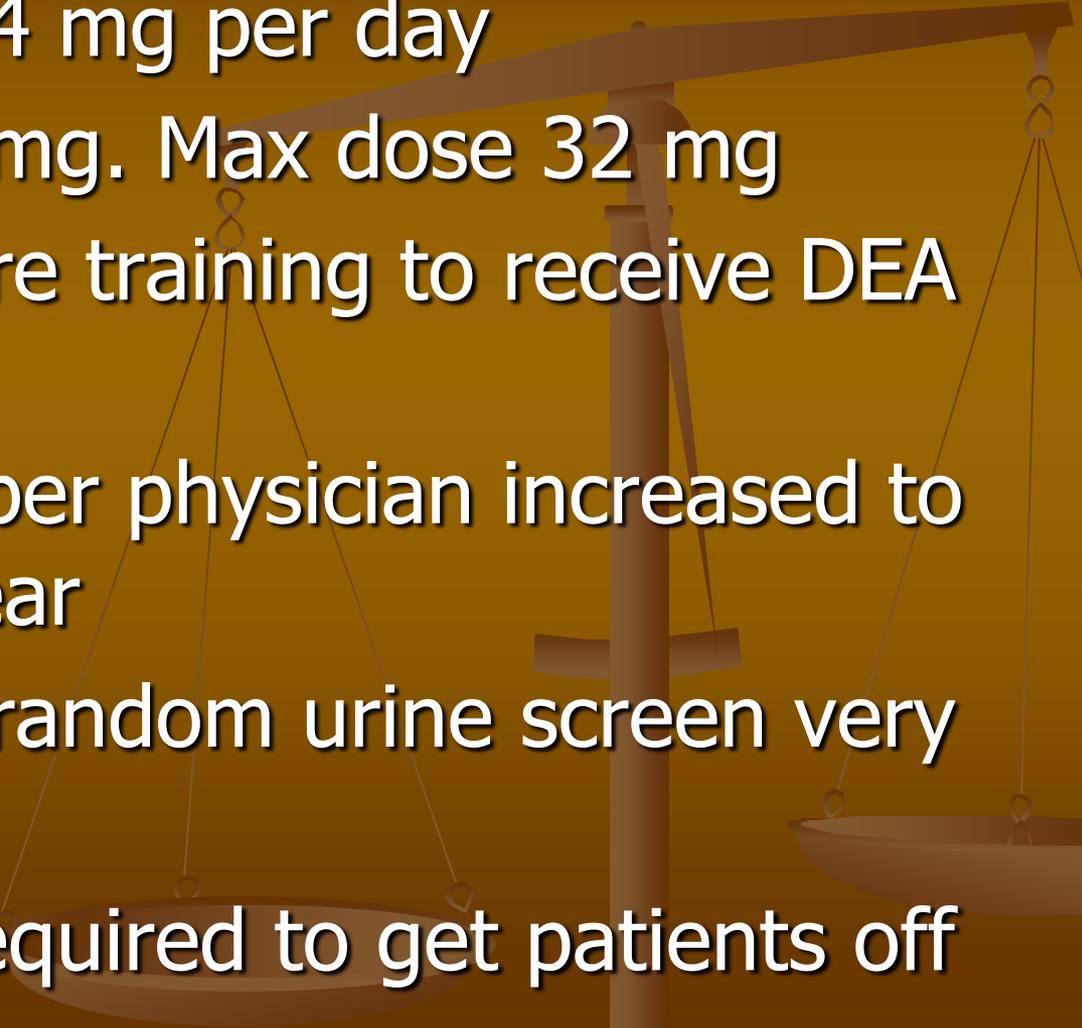
- Approved by FDA in 2002 for the treatment of opioid addiction
- Sublingual tablets containing buprenorphine available in two formulations
- SUBUTEX contains only buprenorphine
- SUBOXONE contains buprenorphine and naloxone to prevent misuse by injecting the medication



Buprenorphine

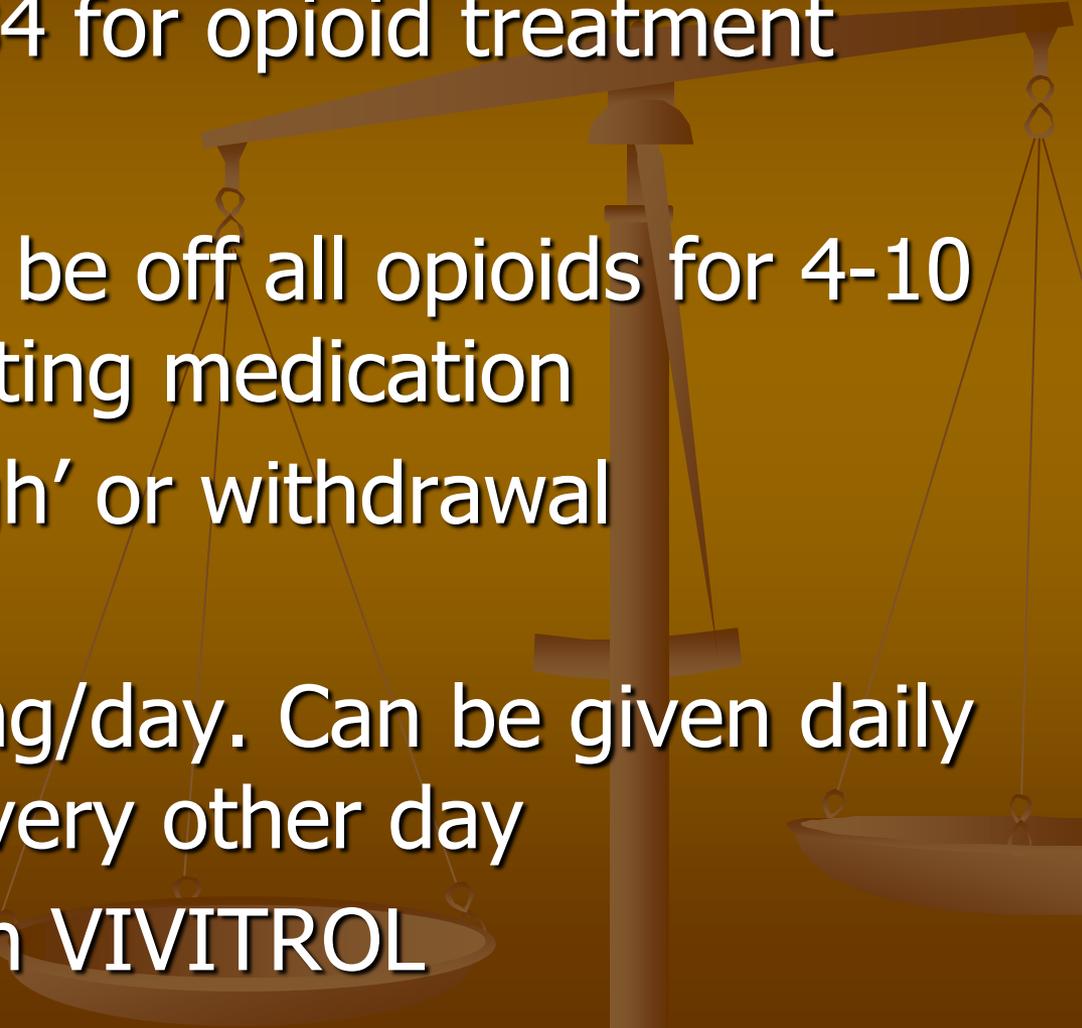
- Agonist/antagonist medication
 - Buprenorphine is most effective when patients start showing early signs of withdrawal.
 - Patients should be off opioids at least 12 hours and 24 hours for methadone
 - Rapid attenuation of the withdrawal symptoms
- 

Buprenorphine

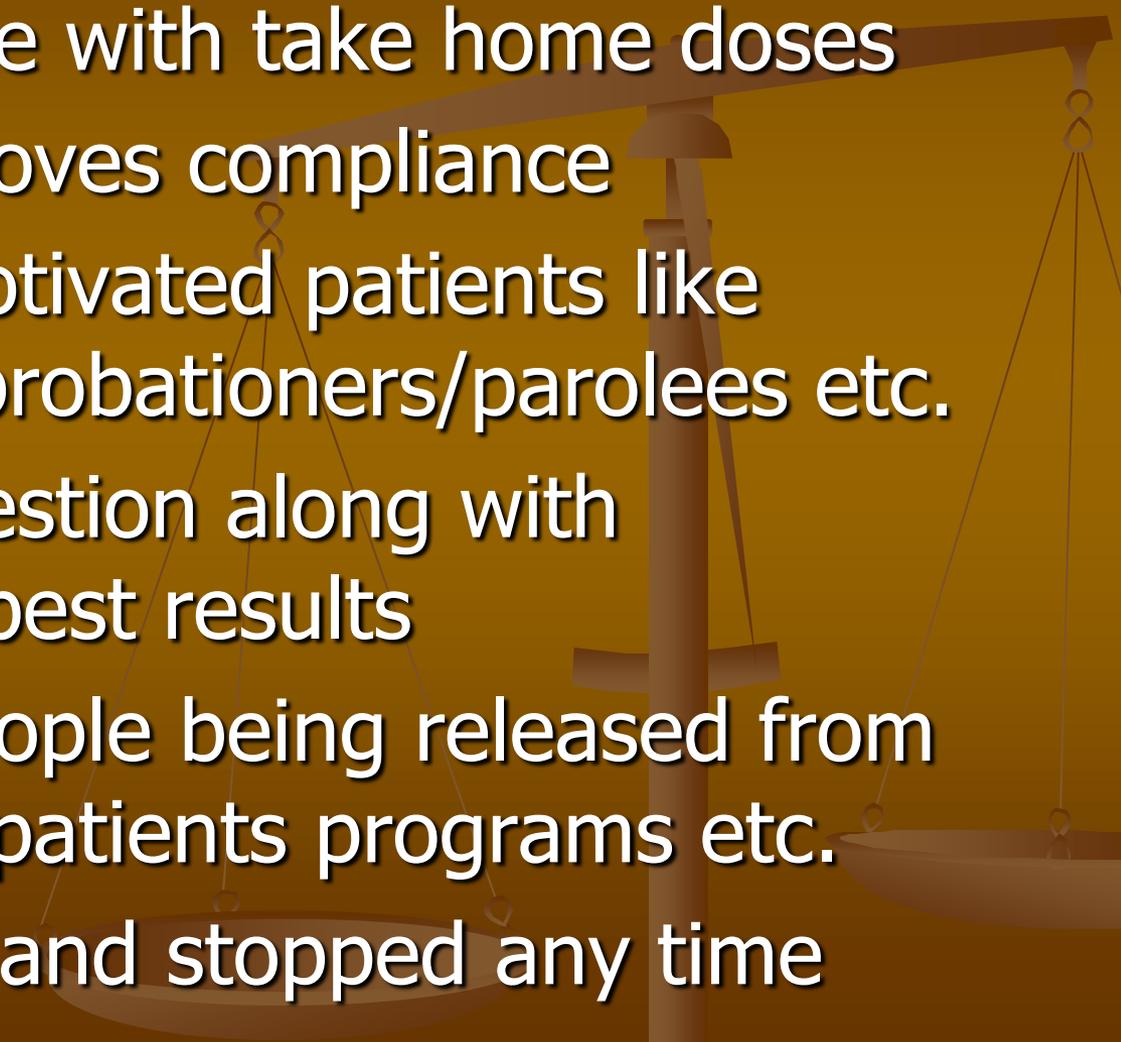


- Starting dose 2-4 mg per day
- Increase to 4-8 mg. Max dose 32 mg
- Physicians require training to receive DEA exemption.
- 30 patient limit per physician increased to 100 after one year
- Counseling and random urine screen very helpful
- Dose tapering required to get patients off

Naltrexone (Opioid Indication)

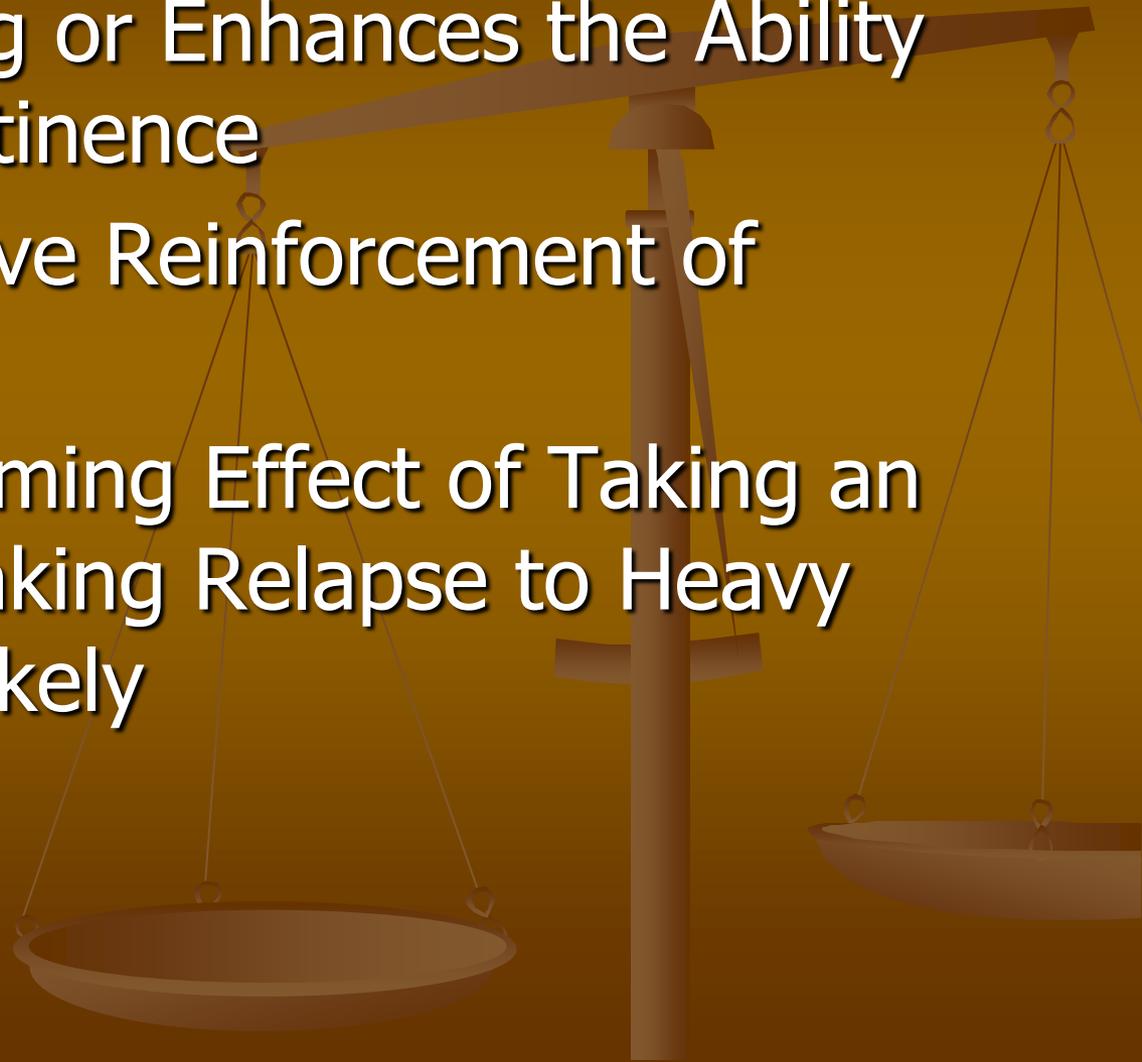
- Approved in 1984 for opioid treatment
 - Pure antagonist
 - Patients have to be off all opioids for 4-10 days before starting medication
 - Produces no 'high' or withdrawal symptoms
 - Usual dose 50 mg/day. Can be given daily or two tablets every other day
 - Monthly injection VIVITROL
- 

Naltrexone (Opioid Indication)

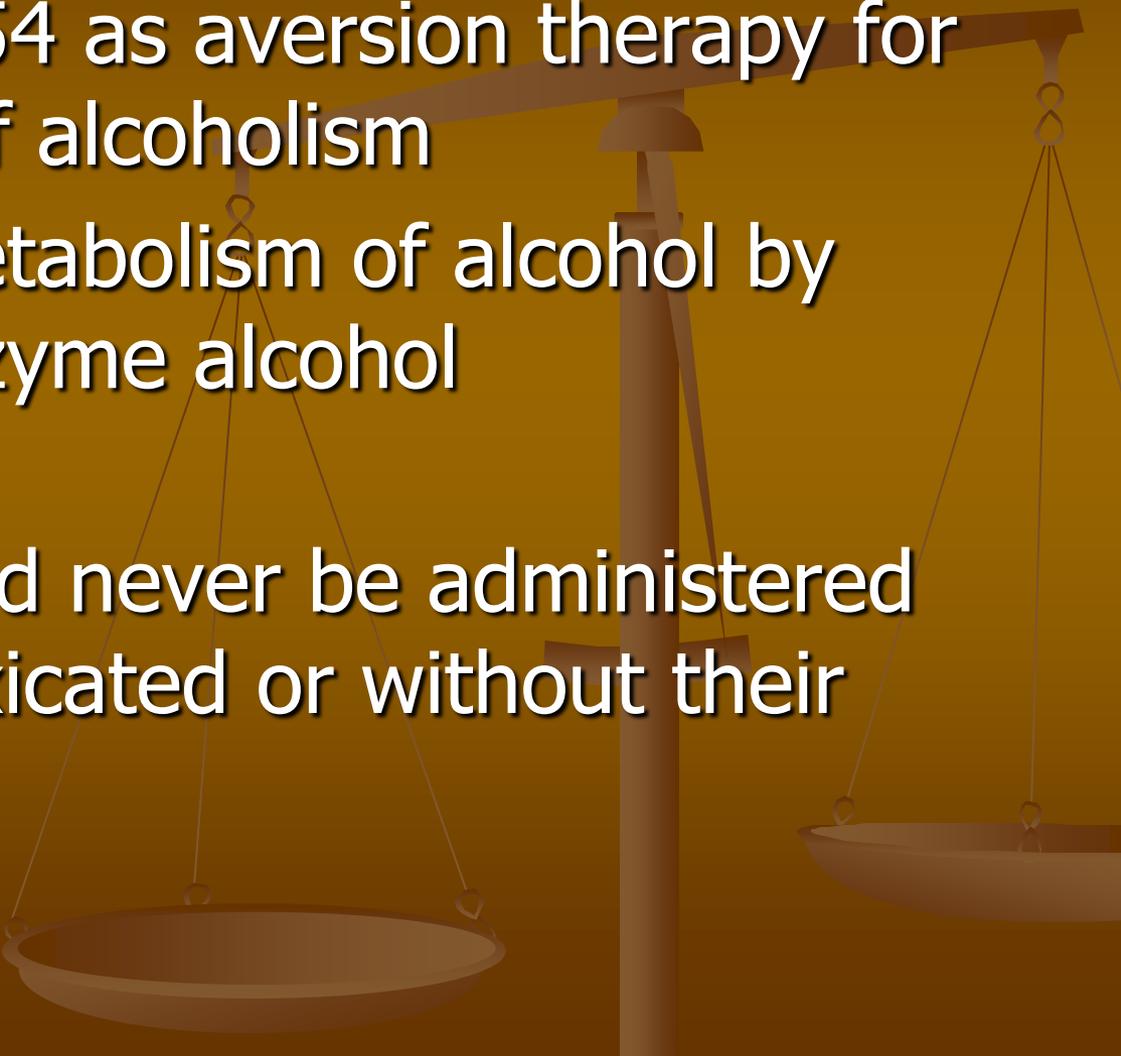
- Poor compliance with take home doses
 - VIVITROL improves compliance
 - Effective for motivated patients like professionals, probationers/parolees etc.
 - Supervised ingestion along with counseling for best results
 - Effective for people being released from jails/prisons, inpatients programs etc.
 - Can be started and stopped any time
- 

Naltrexone's Effect on Alcohol

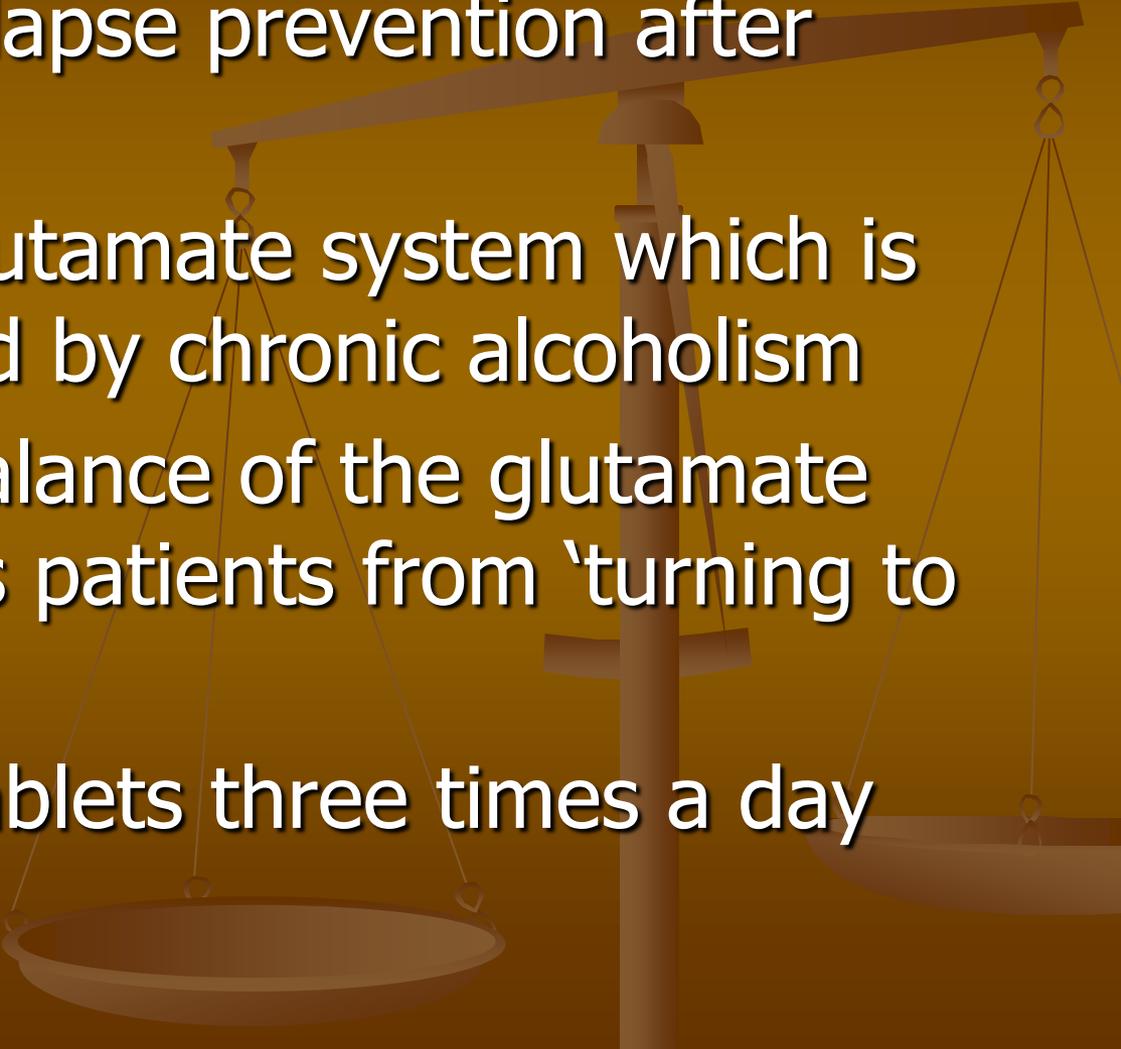
- Reduces Craving or Enhances the Ability to Maintain Abstinence
- Alters the Positive Reinforcement of Drinking
- Reduces the Priming Effect of Taking an Initial Drink, making Relapse to Heavy Drinking Less Likely



Disulfiram (ANTABUSE)

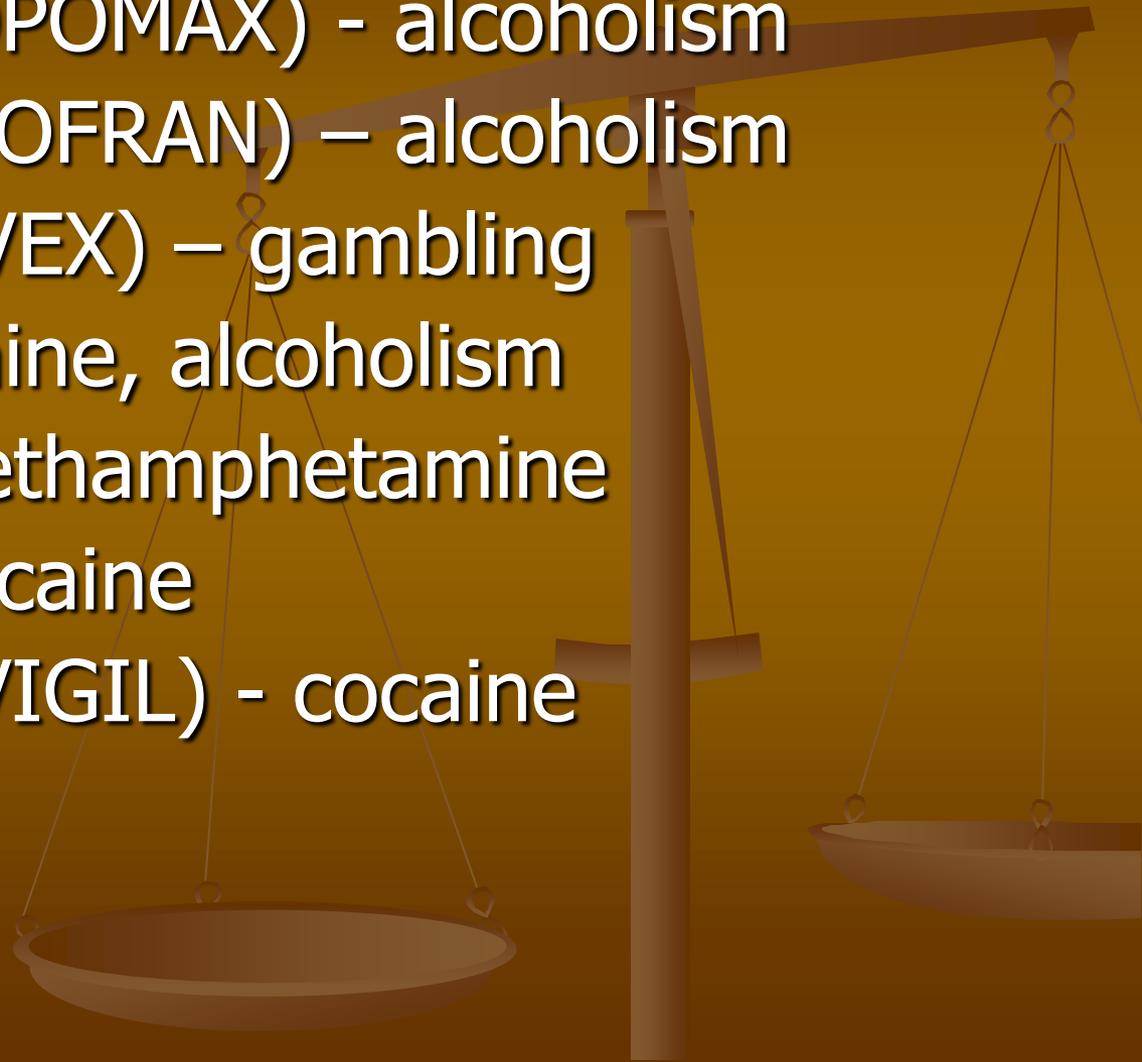
- Approved in 1954 as aversion therapy for the treatment of alcoholism
 - Prevents the metabolism of alcohol by blocking the enzyme alcohol dehydrogenase
 - Disulfiram should never be administered to patients intoxicated or without their knowledge
- 

Acamprosate (CAMPRAL)

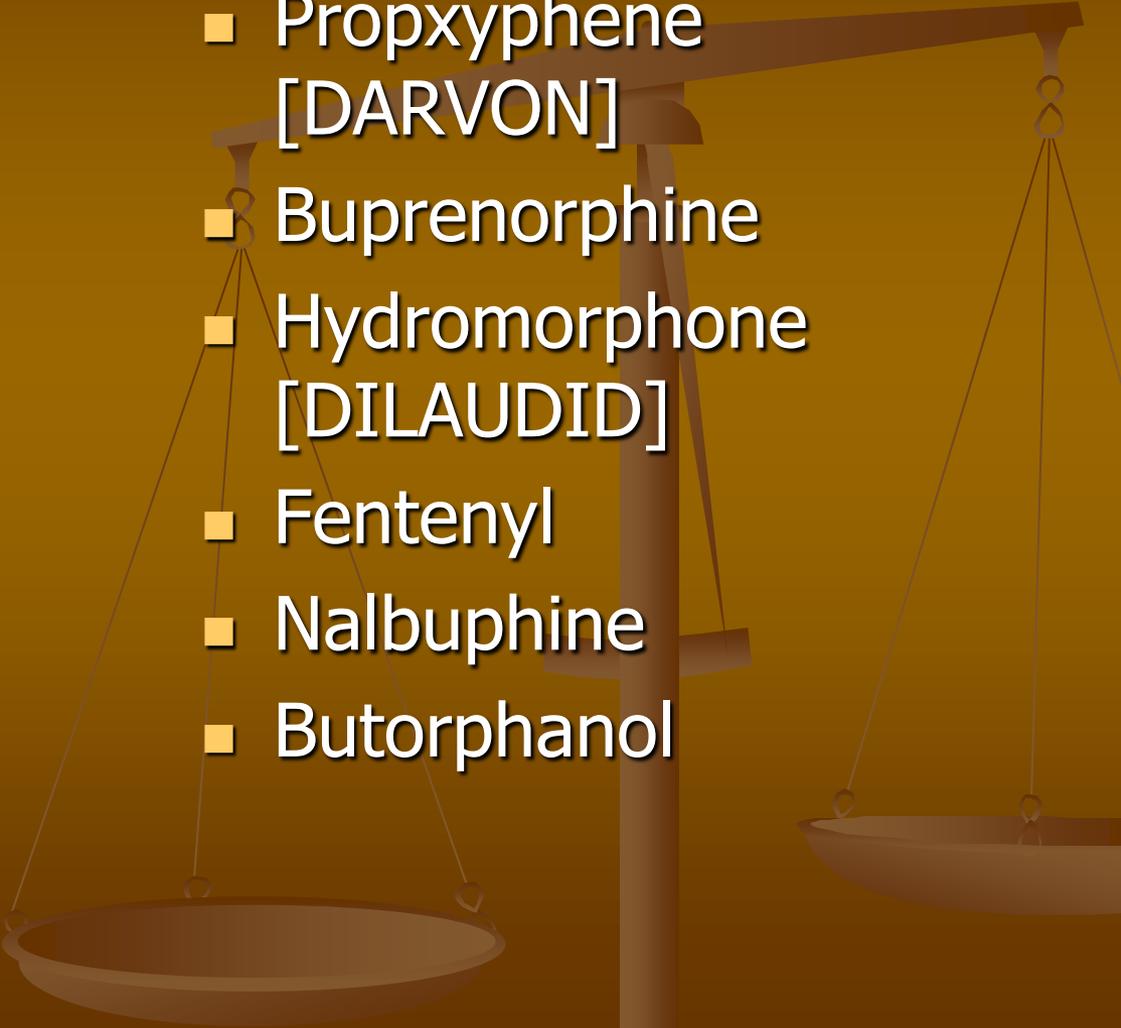
- Approved for relapse prevention after detoxification
 - Stabilizes the glutamate system which is strongly effected by chronic alcoholism
 - Restoring the balance of the glutamate system prevents patients from 'turning to the bottle'
 - Usual dose: 2 tablets three times a day
- 

Newer Medications for Addictive Disorders

- Topiramate (TOPOMAX) - alcoholism
- Ondansetron (ZOFRAN) – alcoholism
- Nalmefene (REVEX) – gambling
- Baclofen - cocaine, alcoholism
- Bupropion - methamphetamine
- Amantidine - cocaine
- Modafinil (PROVIGIL) - cocaine

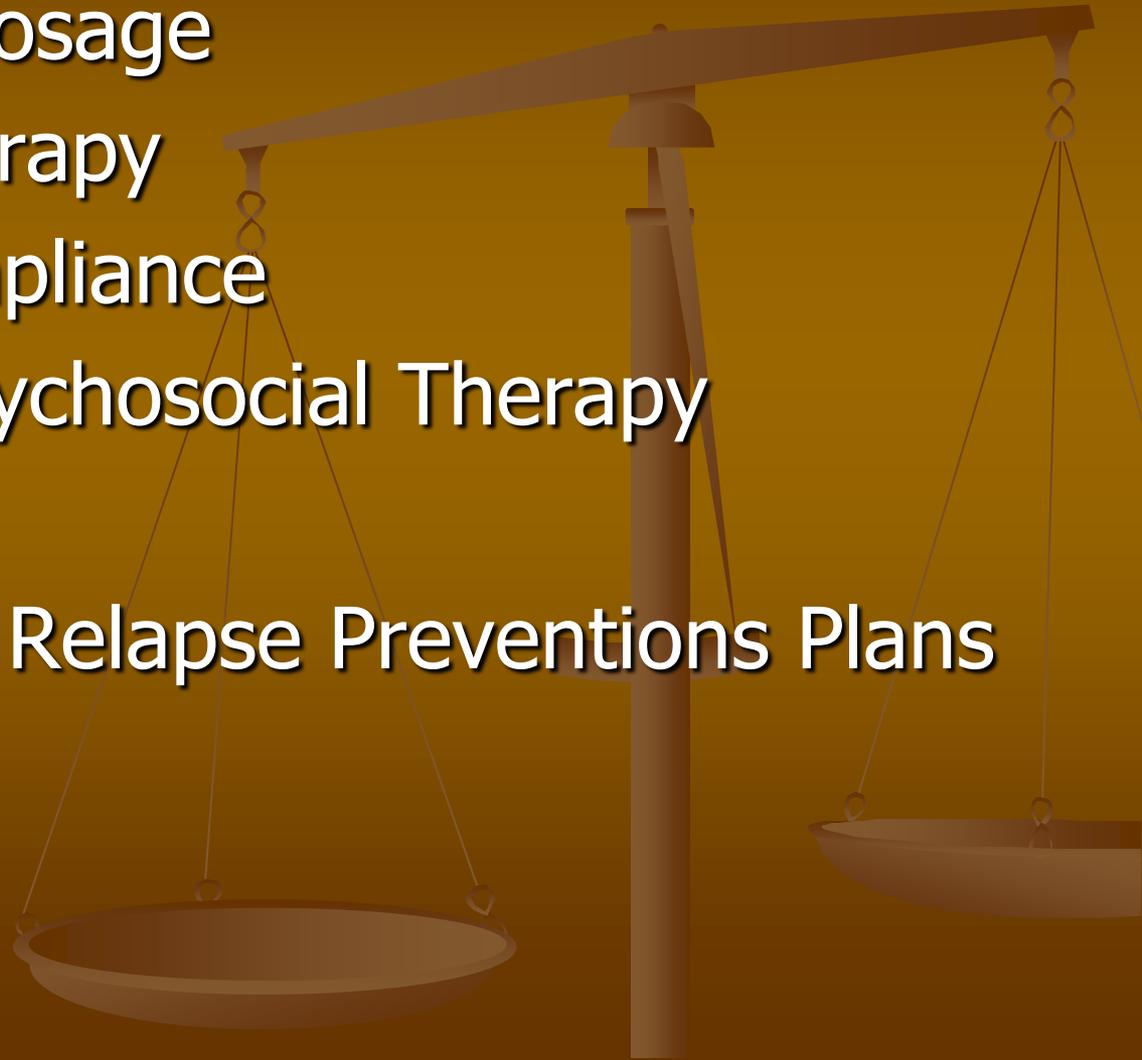


Naltrxone, Methadone, Buprenorphine effective against

- Morphine
 - Codeine
 - Methadone
 - Hydrocodone
[VICODIN]
 - Oxycodone
[OXYCONTIN]
 - Heroin
 - Demerol
 - Propoxyphene
[DARVON]
 - Buprenorphine
 - Hydromorphone
[DILAUDID]
 - Fentanyl
 - Nalbuphine
 - Butorphanol
- 

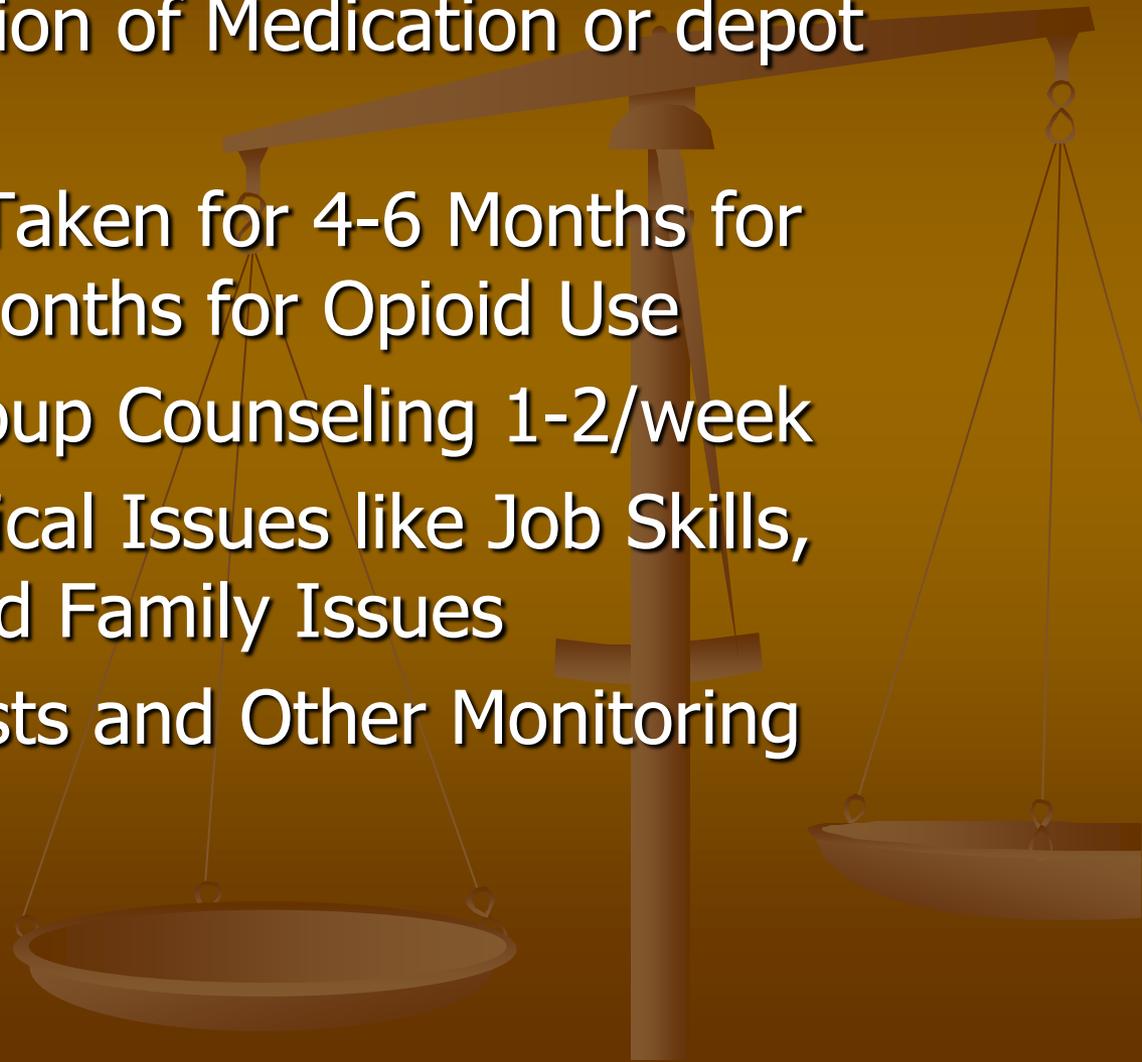
Critical Success Factors

- Optimal Drug Dosage
- Duration of Therapy
- Medication Compliance
- Concomitant Psychosocial Therapy
- Life Skills
- Post Treatment Relapse Preventions Plans



Critical Success Factors

- Supervised Ingestion of Medication or depot preparations.
- Medication to be Taken for 4-6 Months for Alcohol Use; 12 months for Opioid Use
- Individual and Group Counseling 1-2/week
- Address Non-medical Issues like Job Skills, Housing, Legal and Family Issues
- Random Urine Tests and Other Monitoring



Components of Treatment

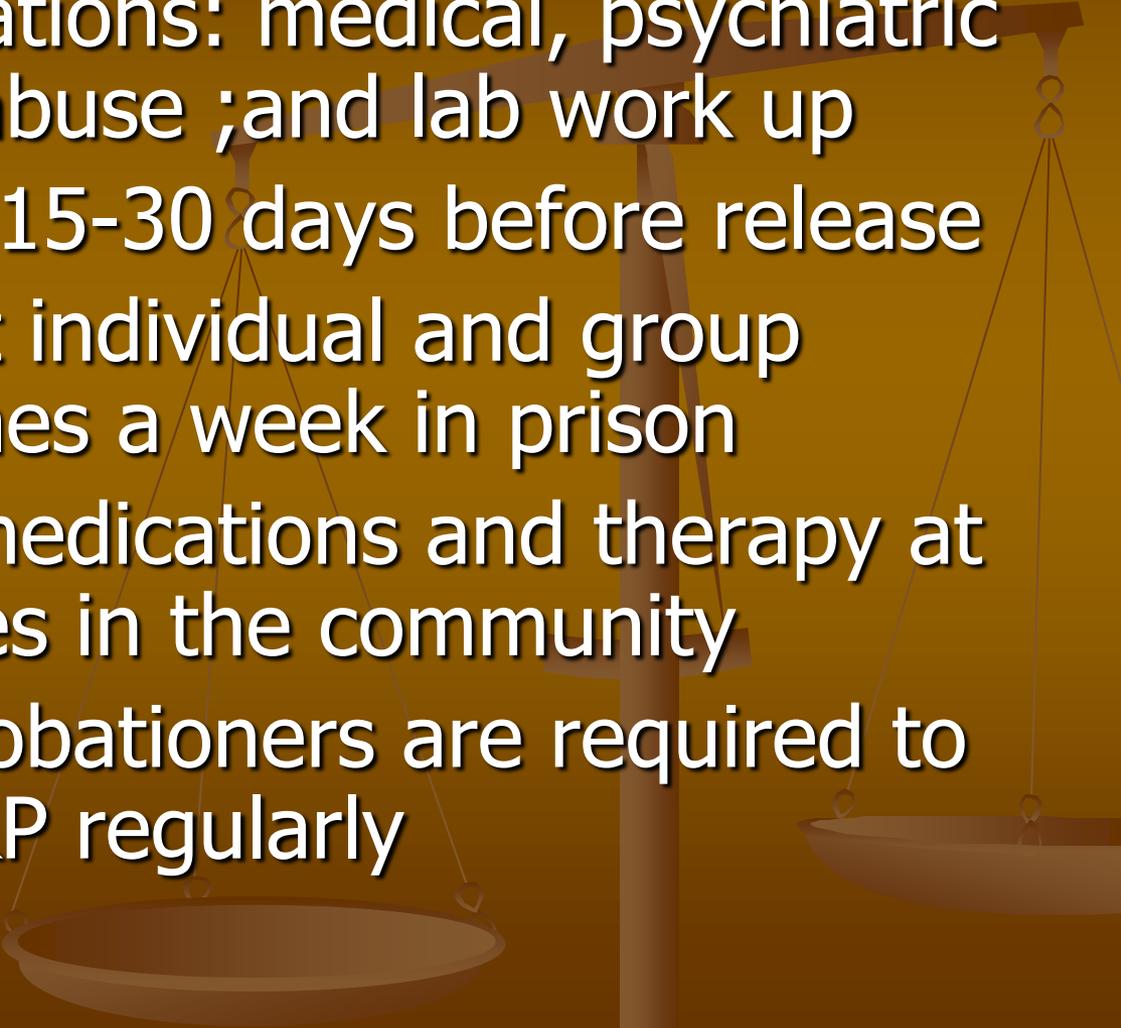
Step 1 Detoxification

Step 2 Craving suppression

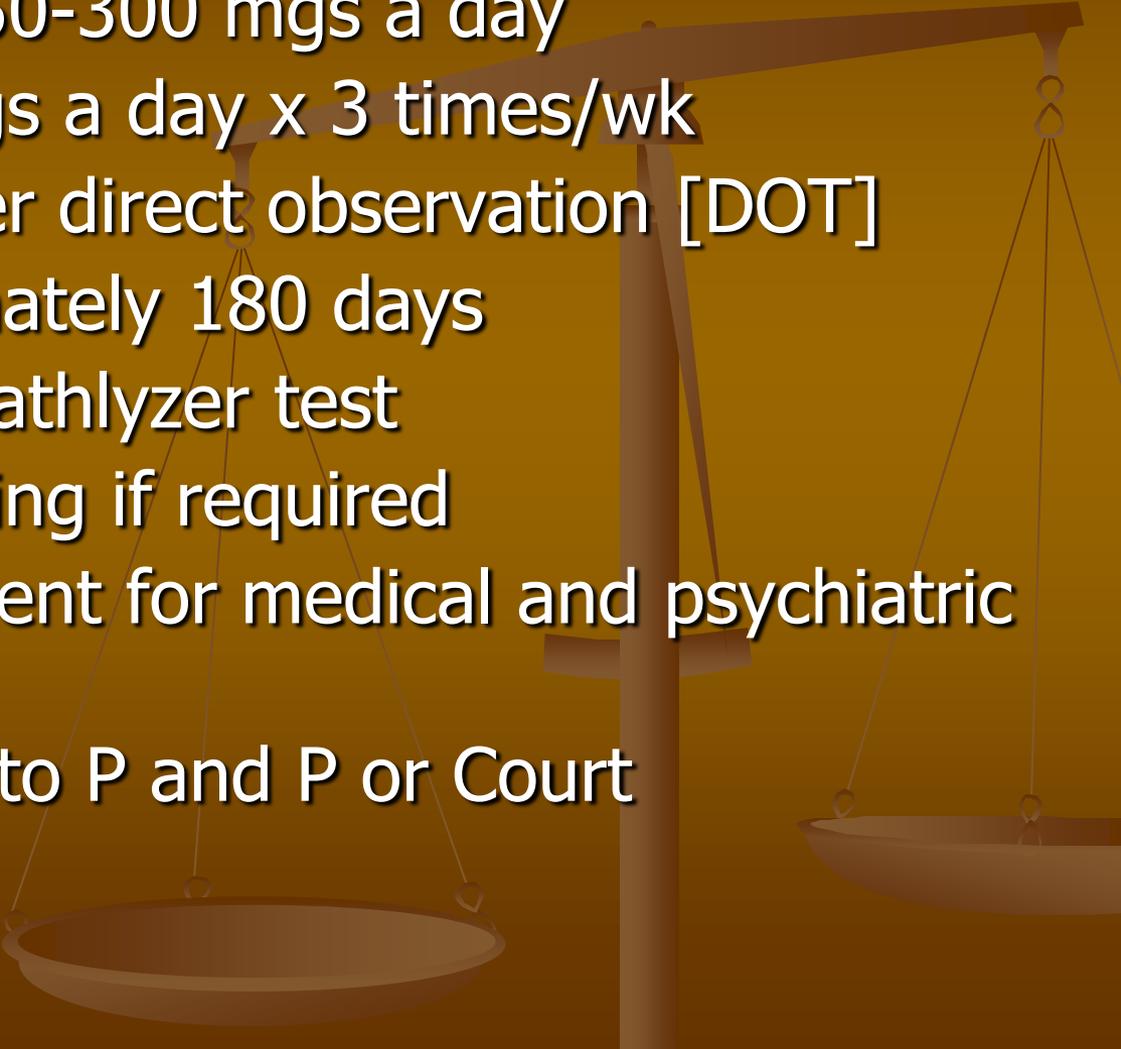
Step 3 Relapse prevention



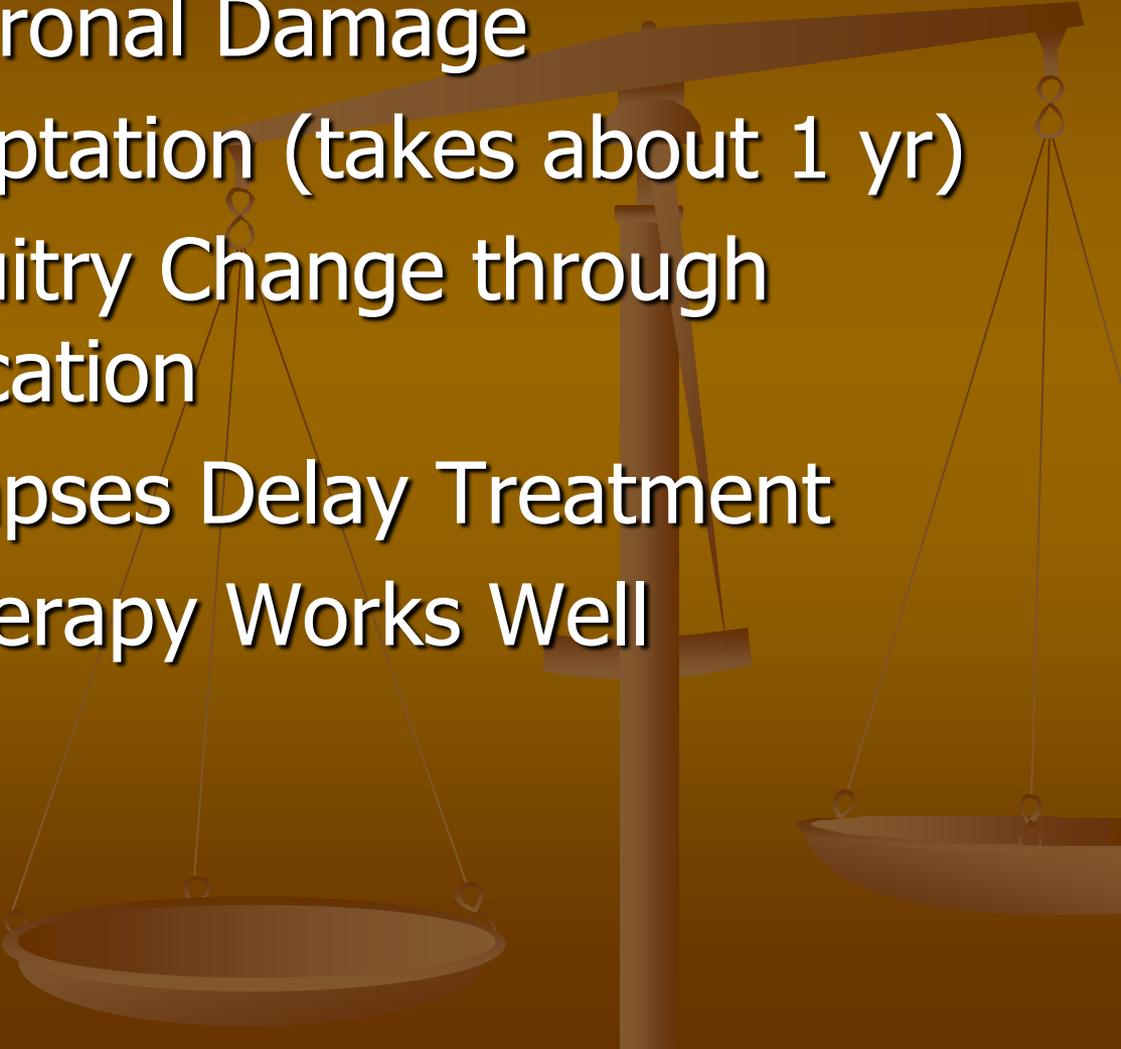
Components of treatment

- Complete evaluations: medical, psychiatric and substance abuse ;and lab work up
 - Start treatment 15-30 days before release
 - Start concurrent individual and group therapy- 2-3 times a week in prison
 - Continue both medications and therapy at prearranged sites in the community
 - Parolees and probationers are required to report to the P&P regularly
- 

Treatment Program [continued]

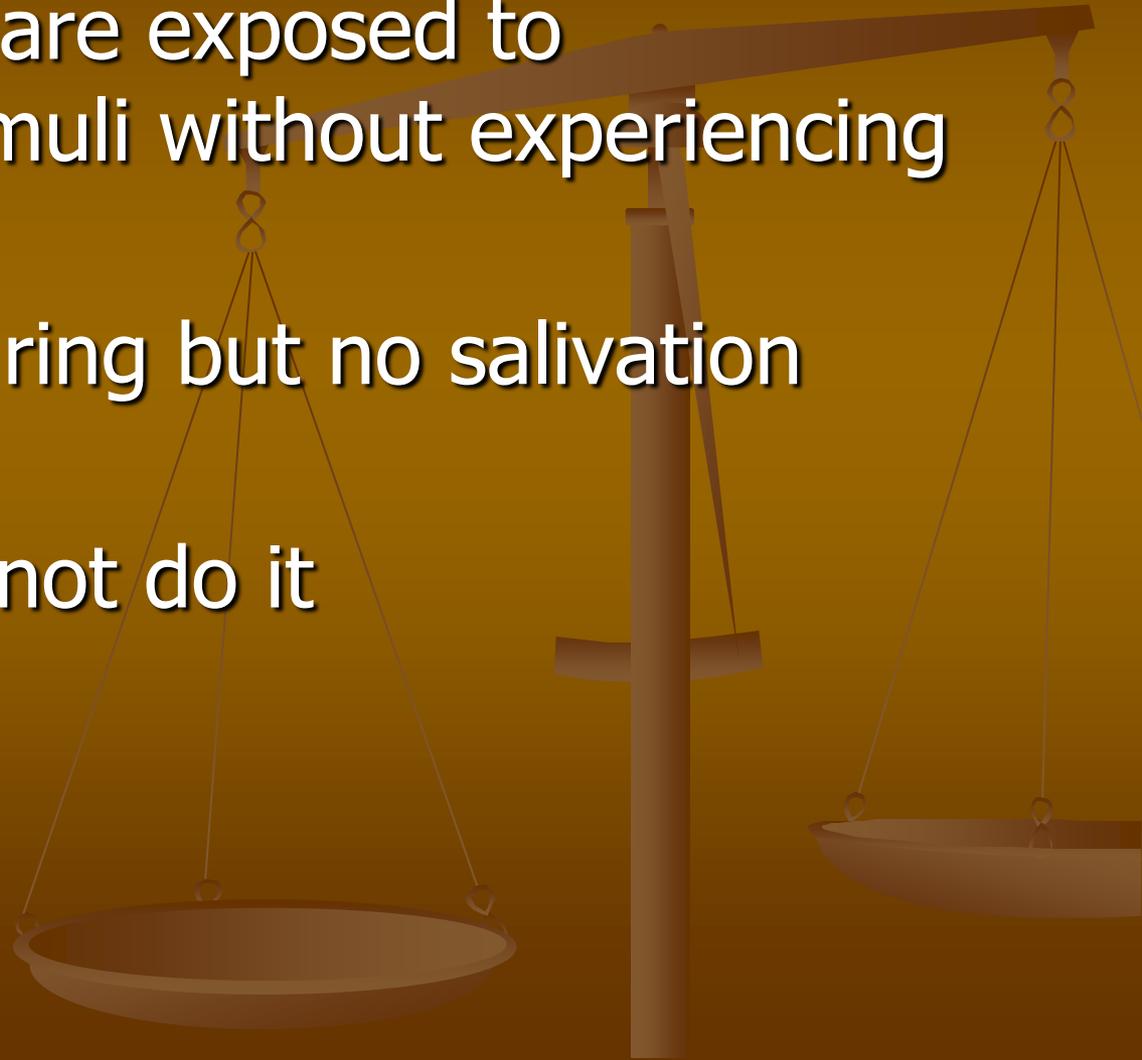
- Dose range from 50-300 mgs a day
 - Usually 50-150 mgs a day x 3 times/wk
 - Administered under direct observation [DOT]
 - Duration approximately 180 days
 - Random urine/breathalyzer test
 - Electronic monitoring if required
 - Concurrent treatment for medical and psychiatric problems
 - Periodic reporting to P and P or Court
- 

Successful Relapse Prevention

- Healing the Neuronal Damage
 - Neuronal Readaptation (takes about 1 yr)
 - Synaptic Recircuity Change through Behavior Modification
 - Lapses and Relapses Delay Treatment
 - Combination Therapy Works Well
- 

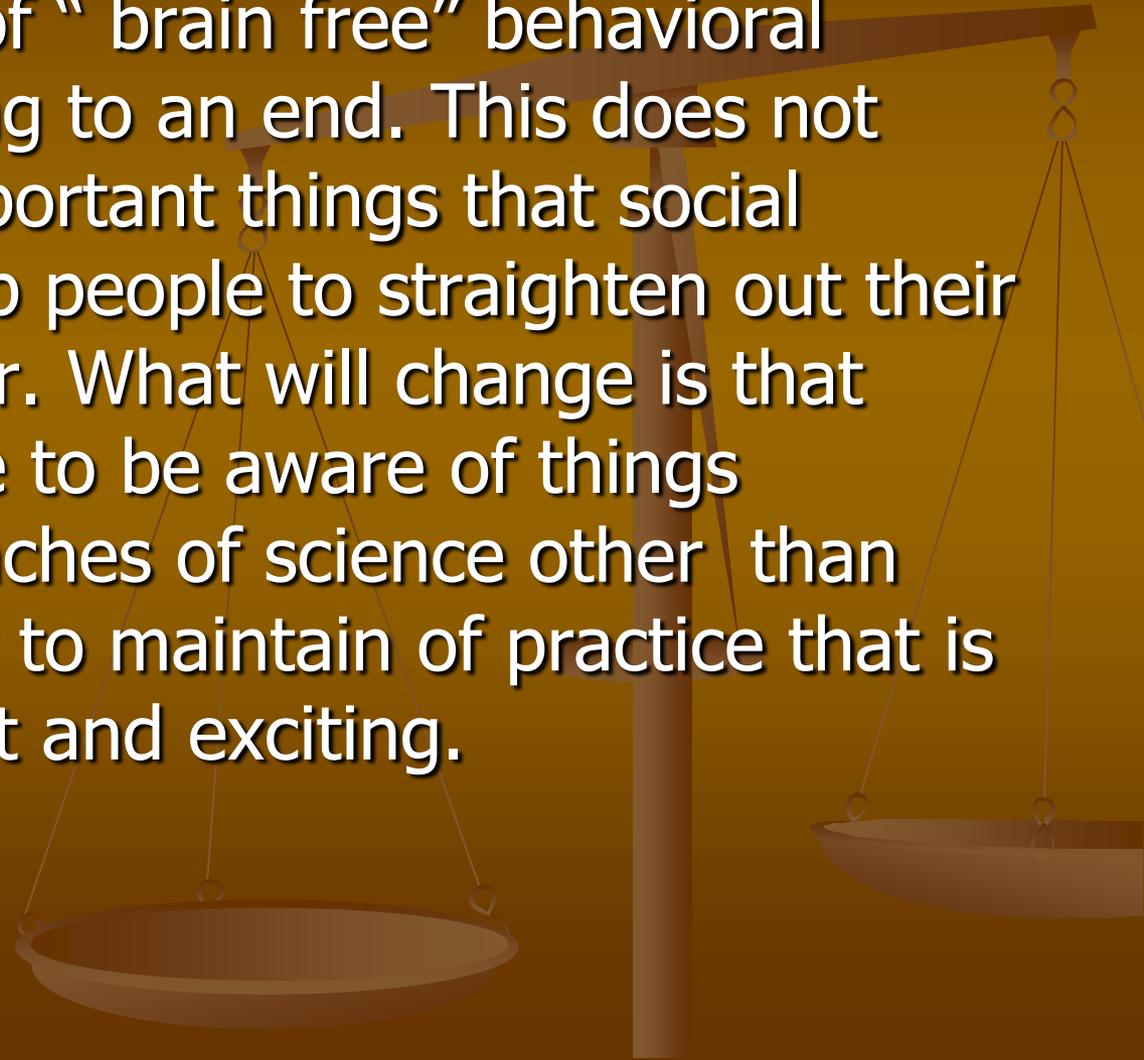
When is successful relapse prevention achieved

- When patients are exposed to conditioning stimuli without experiencing reinforcement
- The bell should ring but no salivation should occur.
- Time alone will not do it



Quote from Enoch Gordis, Past Executive Director of NIAAA

- I believe the era of “ brain free” behavioral approach is coming to an end. This does not mean that the important things that social workers do to help people to straighten out their lives will disappear. What will change is that clinicians will have to be aware of things happening in branches of science other than their own in order to maintain of practice that is rational, intelligent and exciting.



Useful Website

- National Institute on Alcohol Abuse and Alcoholism
 - National Institute of Drug Abuse
 - Join Together Online: www.jointogether.org
 - Ensuring Solutions to Alcohol Problems – www.ensuringsolutions.org
 - National Council of Alcoholism and Drug Dependence – www.ncadd.org
 - National Drug Court Institute www.ndci.org
- 