# Integrated Pharmacotherapy for alcohol and Substance Abuse Disorders to Reduce Recidivism

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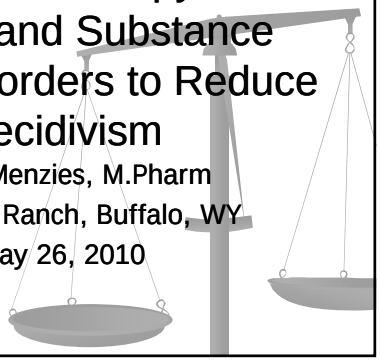
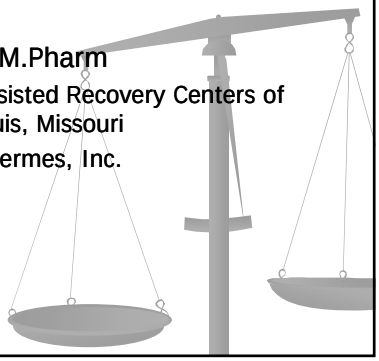
May 26, 2010



## Affiliations

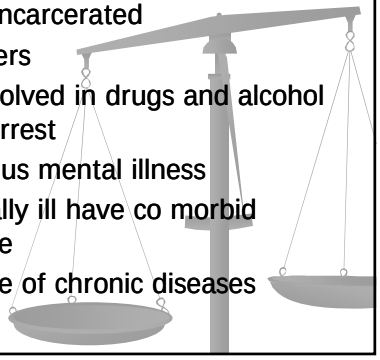
- Percy Menzies, M.Pharm
  - President of Assisted Recovery Centers of America, St.Louis, Missouri
  - Speaker for Alkermes, Inc.



## Basic Statistics

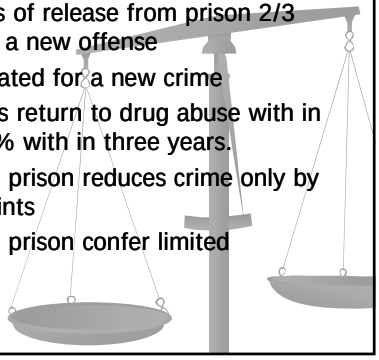
- 2.1 Million are incarcerated
- 50% are recyclers
- 60-80% are involved in drugs and alcohol at the time of arrest

  16% have serious mental illness
- 60 -70% mentally ill have co morbid substance abuse
- Higher incidence of chronic diseases



## Basic Statistics [cont]

- Within three years of release from prison 2/3 are rearrested for a new offense
- ½ are re-incarcerated for a new crime
- 85% of drug users return to drug abuse with in one year and 95 % with in three years.
- Drug treatment in prison reduces crime only by 10 percentage points
- Drug treatment in prison confer limited advantages

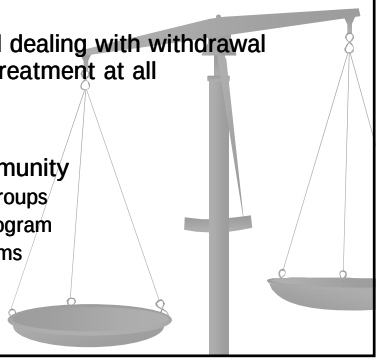


## Why Treat them?

- 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

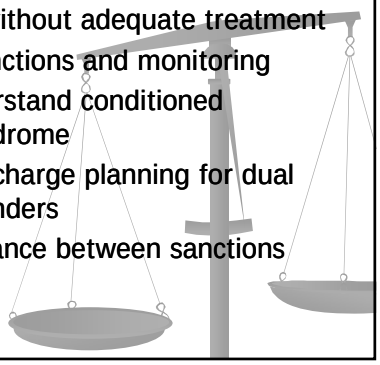
## Status Of Current Treatment

- 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



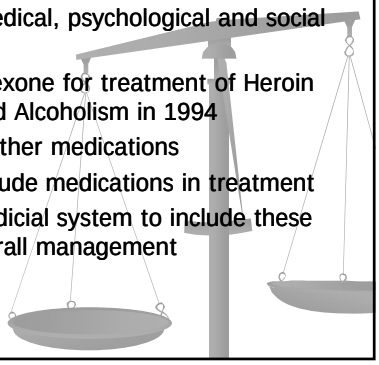
## Present Treatment

- 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



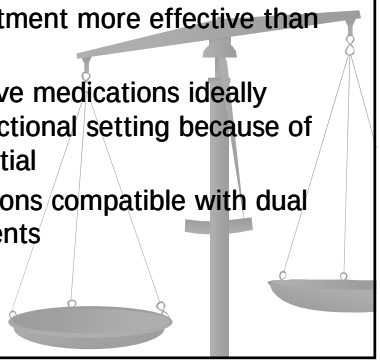
## Status of current treatment [contd]

- Trend towards Medical, psychological and social interventions
- Approval of Naltrexone for treatment of Heroin abuse in 1984 and Alcoholism in 1994
- Development of other medications
- Reluctance to include medications in treatment
- Acceptance by Judicial system to include these agents in the overall management

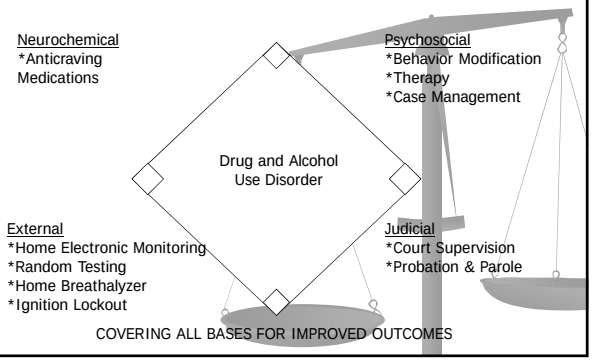


## Why Medications?

- 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



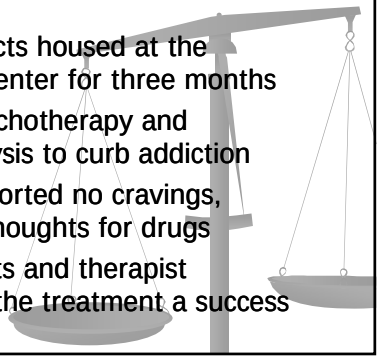
## THE ARCC DIAMOND MODEL




COVERING ALL BASES FOR IMPROVED OUTCOMES

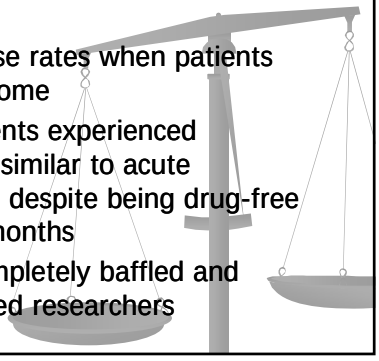
## Lexington Addiction Treatment Experiment

- 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



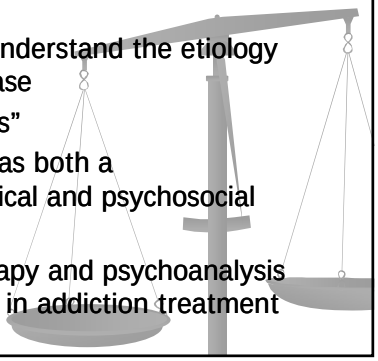
## Lexington Addiction Treatment Experiment

- 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



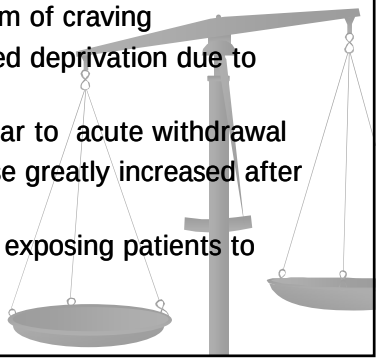
## Why did the Experiment Fail?

- 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



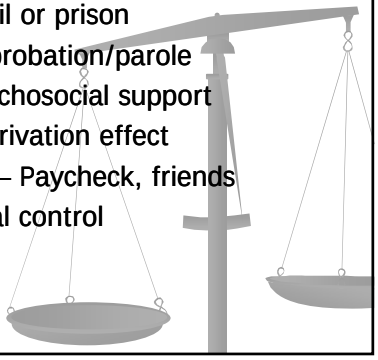
## Wikler Model of Craving or Conditioned abstinence

- 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

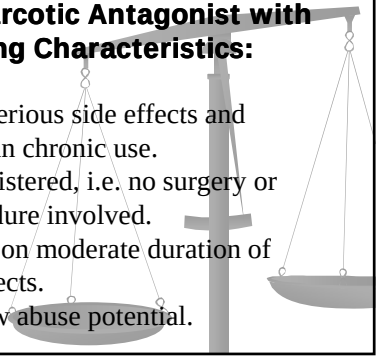
- Release from jail or prison
- Formal end of probation/parole
- Inadequate psychosocial support
- ETOH/drug deprivation effect
- Euphoric recall – Paycheck, friends
- Testing personal control



## Recommendations from the Lexington Experiment in 1971

**Develop a Narcotic Antagonist with the Following Characteristics:**

- Absence of serious side effects and toxicity even in chronic use.
- Easily administered, i.e. no surgery or painful procedure involved.
- Long-lasting on moderate duration of antagonist effects.
- Absent or low abuse potential.



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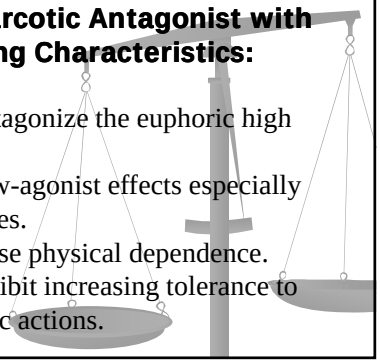
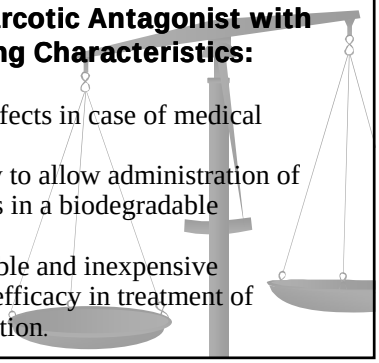


- Ability to antagonize the euphoric high of opiates.
- Absent or low-agonist effects especially unpleasant ones.
- Does not cause physical dependence.
- Does not exhibit increasing tolerance to its antagonistic actions.

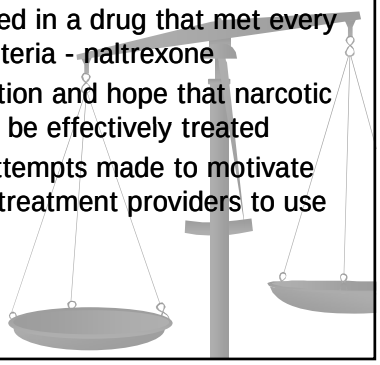
## Recommendations from the Lexington Experiment in 1971

**Develop a Narcotic Antagonist with the Following Characteristics:**



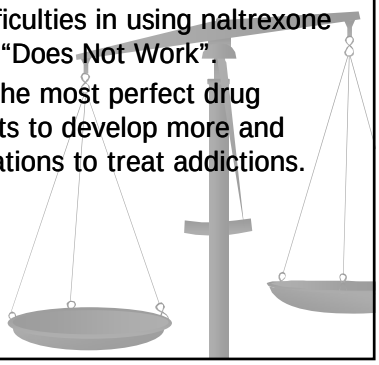
- Reversible effects in case of medical emergency.
- High potency to allow administration of small amounts in a biodegradable vehicle.
- Easily available and inexpensive
- Therapeutic efficacy in treatment of narcotic addiction.

## Results of the Mandate



- Search resulted in a drug that met every one of the criteria - naltrexone
- High expectation and hope that narcotic addiction can be effectively treated
- Little or no attempts made to motivate patients and treatment providers to use naltrexone

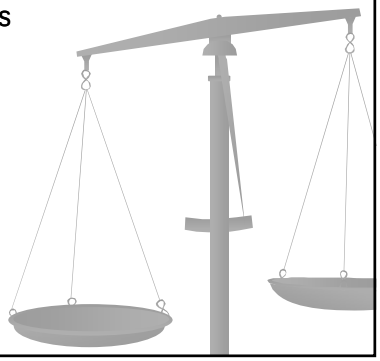
## Results of the Mandate



- Perceived difficulties in using naltrexone were labeled “Does Not Work”.
- Rejection of the most perfect drug stymied efforts to develop more and better medications to treat addictions.

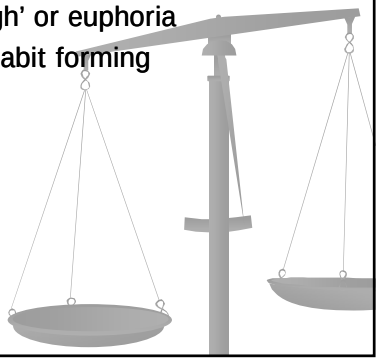
## Psychoactive Medications

- Benzodiazepines
- Buprenorphine
- LAMM
- Methadone



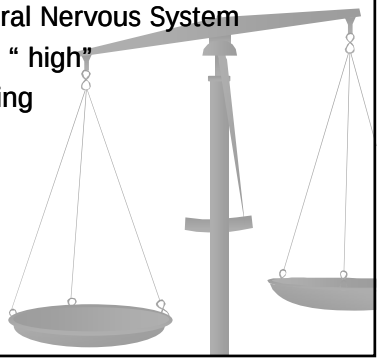
## Psychoactive medications

- Produces a 'high' or euphoria
- Addicting and habit forming
- Abuse potential
- Tolerance
- Street value



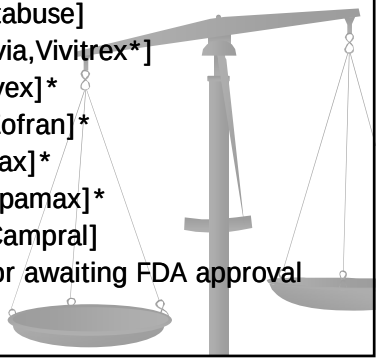
## Non Psychoactive medications

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



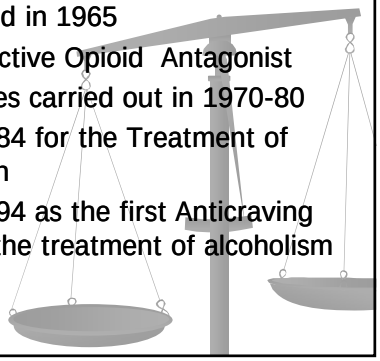
## Non-Psychoactive Medications

- Disulfirum [ Antabuse]
- Naltrexone [Revia,Vivitrex*]
- Nalmefene [Revex]*
- Ondansetron [Zofran]*
- Selegiline[Permax]*
- Topiramate [Topamax]*
- Acamprosate [Campral]
- * Under study or awaiting FDA approval



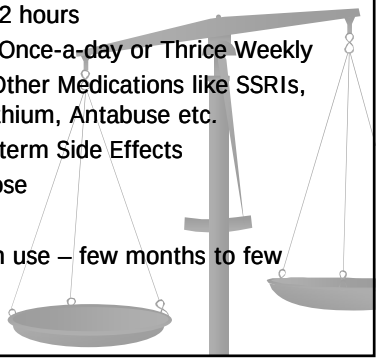
## A Brief History of Naltrexone

- First Synthesized in 1965
- First Orally Effective Opioid Antagonist
- Extensive studies carried out in 1970-80
- Approved in 1984 for the Treatment of Opioid Addiction
- Approved in 1994 as the first Anticraving Medication for the treatment of alcoholism



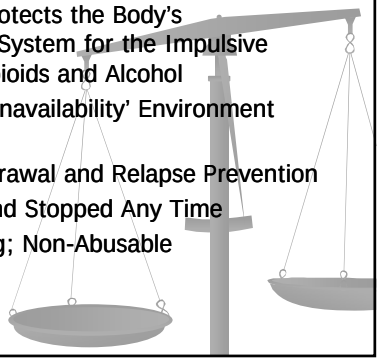
## Naltrexone – Toxicologist Dream Medication

- Long-acting 24-72 hours
- Flexible Dosing – Once-a-day or Thrice Weekly
- Compatible with Other Medications like SSRIs, Antipsychotics, Lithium, Antabuse etc.
- Virtually no Long-term Side Effects
- No Known Overdose
- NonPsychoactive
- Safe for long-term use – few months to few years



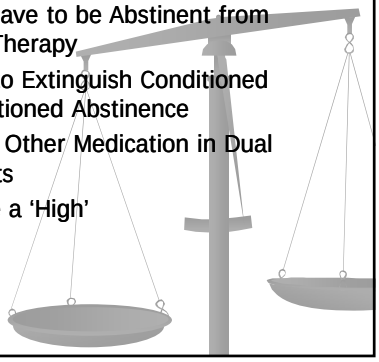
## Unique Pharmacology of Naltrexone

- Only Drug that Protects the Body's Reward/Pleasure System for the Impulsive Stimulation by Opioids and Alcohol
- Creates a 'Drug Unavailability' Environment within the Patient
- Effective in Withdrawal and Relapse Prevention
- Can be Started and Stopped Any Time
- Non-habit-forming; Non-Abusable



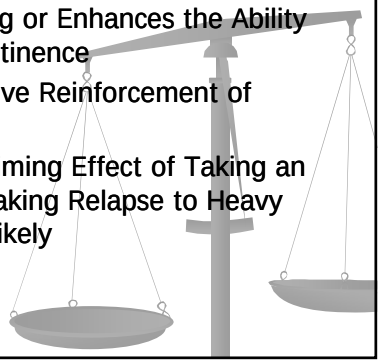
## Unique Pharmacology of Naltrexone

- Patients Do Not Have to be Abstinent from Alcohol to Begin Therapy
- Ideal Medication to Extinguish Conditioned Stimuli and Conditioned Abstinence
- Can be Used with Other Medication in Dual Diagnosed Patients
- Does Not Produce a 'High'



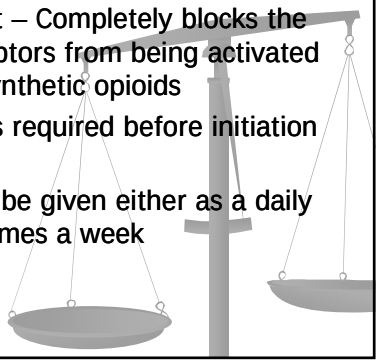
## Naltrexone's Effect on Alcohol

- 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



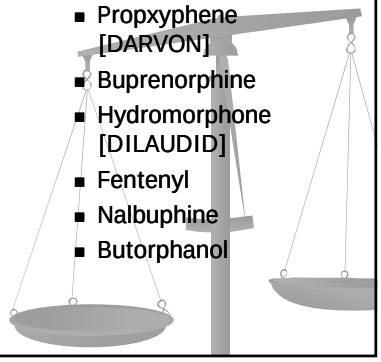
## Naltrexone's effect on Opioids

- Pure Antagonist – Completely blocks the endorphin receptors from being activated by natural or synthetic opioids
- Detoxification is required before initiation of naltrexone
- Naltrexone can be given either as a daily dose or three times a week



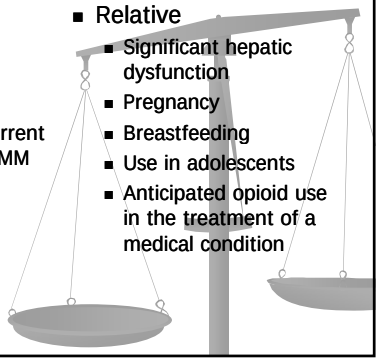
## Naltrxone is effective

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



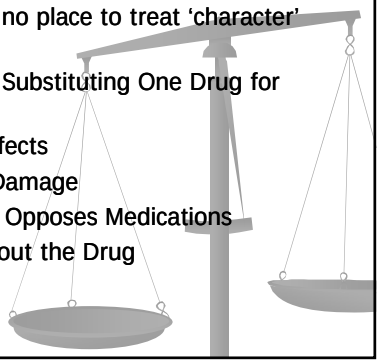
## Contraindications of use Naltrexone

- Absolute
  - Acute hepatitis
  - Liver failure
  - Chronic opioid dependence or current opioid use esp LAMM or Methadone
  - Active Opioid withdrawal
- Relative
  - Significant hepatic dysfunction
  - Pregnancy
  - Breastfeeding
  - Use in adolescents
  - Anticipated opioid use in the treatment of a medical condition



## Why Is Naltrexone Not Used?

- Medications have no place to treat 'character' diseases
- Do Not Believe in Substituting One Drug for Another
- Too Many Side Effects
- Can Cause Liver Damage
- The 'Ruling Party' Opposes Medications
- No Knowledge about the Drug

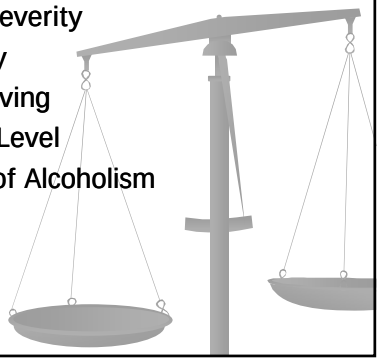


## Why is Naltrexone Not Used?

- No Personal Experience
- Too Expensive
- Poor Compliance
- Fear of Anhedonia

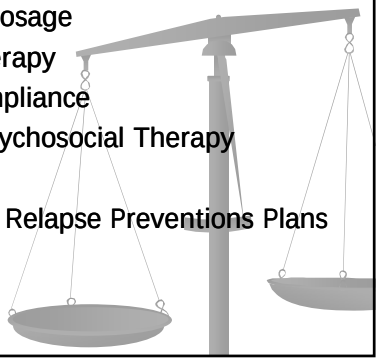
## Naltrexone Effective

- Regardless of Severity
- Previous History
- Intensity of Craving
- Low Education Level
- Family History of Alcoholism
- Poly Drug Use



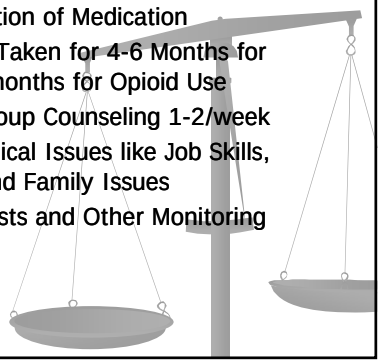
## Critical Success Factors

- 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
- 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

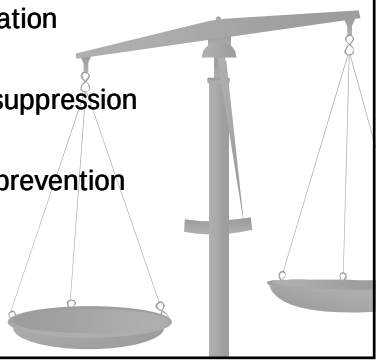


## Components of Treatment

Step 1 Detoxification

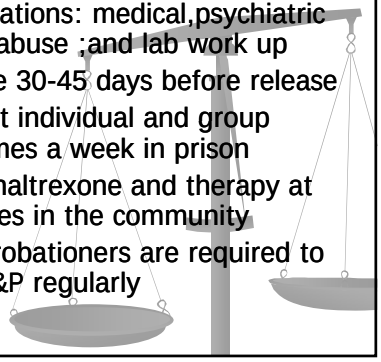
Step 2 Craving suppression

Step 3 Relapse prevention



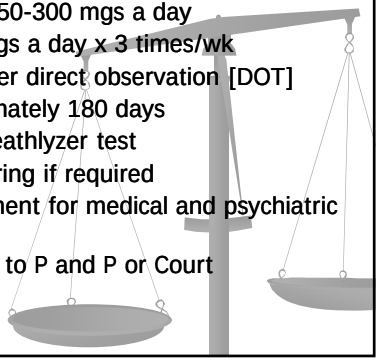
## Components of treatment

- Complete evaluations: medical,psychiatric and substance abuse ;and lab work up
- Start naltrexone 30-45 days before release
- Start concurrent individual and group therapy- 2-3 times a week in prison
- Continue both naltrexone and therapy at prearranged sites in the community
- Parolees and probationers are required to report to the P&P regularly



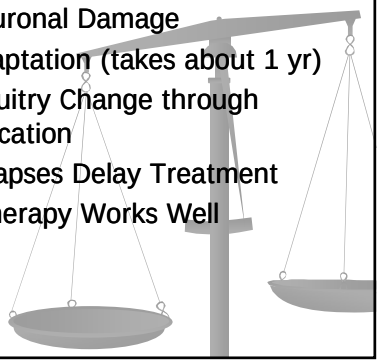
## Treatment Program [continued]

- 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/breathlyzer test
- Electronic monitoring if required
- Concurrent treatment for medical and psychiatric problems
- Periodic reporting to P and P or Court



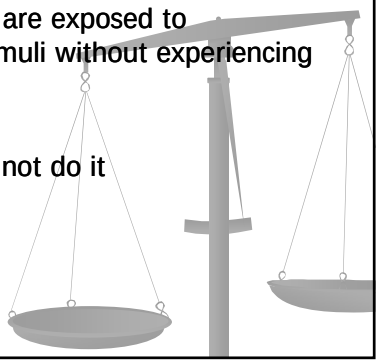
## Successful Relapse Prevention

- Healing the Neuronal Damage
- Neuronal Readaptation (takes about 1 yr)
- Synaptic Recircuitry 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
- 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.