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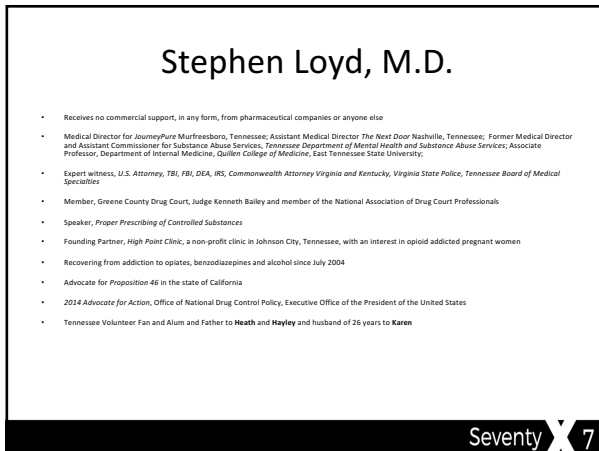
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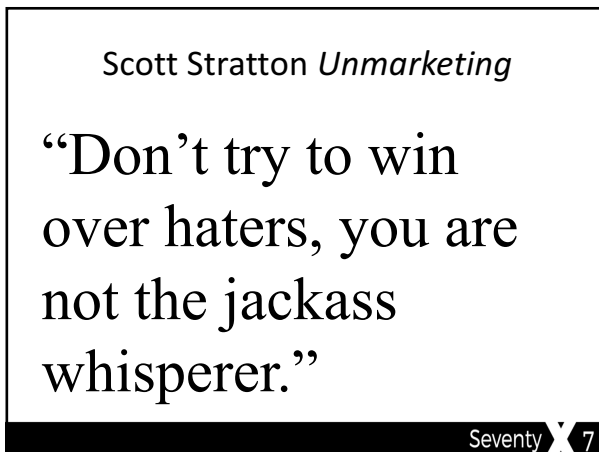
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## Stigma Building



Seventy X 7

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## Virgin on the Rocks



Seventy X 7

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Leonardo DiVinci

*We have to be fearless  
about changing our mind  
based on new  
information.*

Seventy X 7

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## Dependence versus Addiction

- **Dependence**- once the drug is stopped, a predictable physiological withdrawal syndrome occurs
- **Addiction**- the compulsive use, loss of control and continued use despite adverse consequences; hallmark is *cravings*.

Seventy X 7

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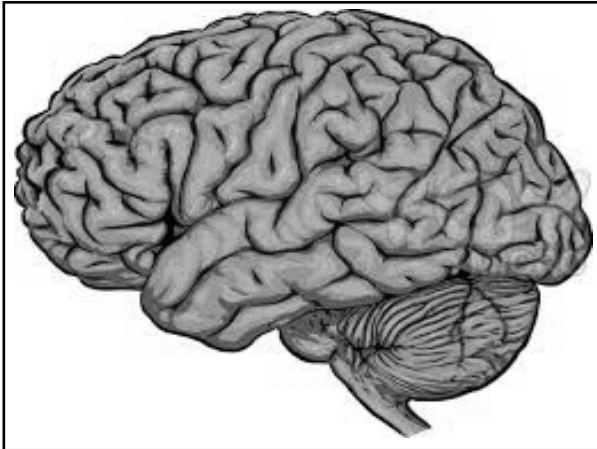
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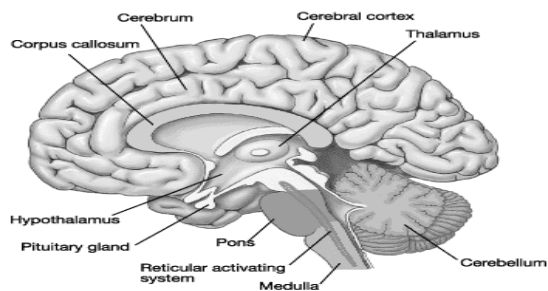
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## Hi-Jacking of the Limbic System (Rewards)



Seventy X 7

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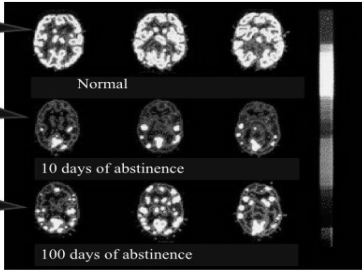
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### Brain Healing Takes Time

Normal levels of brain activity in PET scans show up in yellow to red

Reduced brain activity after regular use can be seen even after 10 days of abstinence

After 100 days of abstinence, we can see brain activity "starting" to recover



The image displays a 3x3 grid of PET scans. The top row is labeled 'Normal' and shows high activity (yellow/red). The middle row is labeled '10 days of abstinence' and shows significantly reduced activity (darker). The bottom row is labeled '100 days of abstinence' and shows a partial recovery of activity, with some yellow/red areas reappearing. A color scale bar is on the right.

Source: Volkow ND, et al. Synapse 11:184-190, 1992; Volkow ND, et al. Synapse 14:169-177, 1993.

Science = Solutions

Seventy X 7

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### 1930's Mental Health Treatment



A black and white photograph showing several men in a room. One man in the foreground is sitting in a chair, looking down. Another man is leaning over him, possibly examining him. Other men are visible in the background, some sitting and some standing. The setting appears to be a clinical or institutional environment.

Seventy X 7

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### What's the picture that changes the face of addiction? (David Kirby)



A black and white photograph showing a man lying down, possibly in a hospital bed, being held by a woman. The man appears to be in a state of distress or unconsciousness. The woman is looking at him with a concerned expression. The scene is intimate and emotional.

Seventy X 7

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Does this change the face of drug addiction?



Seventy X 7

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Thumb?



Seventy X 7

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Underground Healthcare



Seventy X 7

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## Withdrawal Syndrome

- Short acting opioids (heroin, oxycodone, hydrocodone)
  - Develops with 4-6 hours, progresses to 72 hours, subsides in a week
- Long acting opioids (methadone, *Oxycontin*)
  - Develops in 24-36 hours, may last for several weeks
- *Obsessive thinking and cravings may persist for years*
- **Fetal death** is a risk in pregnant women *not treated for opioid addiction* because the offspring experience acute opioid abstinence syndrome (*Obstet Gynecol Clin North Am* 1998;25:139-51)

Seventy **X** 7

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## Effects on Pregnancy Outcomes

- 1<sup>st</sup> trimester- codeine can cause congenital heart defects
- No increase in the risk of birth defects after prenatal exposure to oxycodone, propoxyphene and meperidine
- Heroin- fetal growth restriction, *abruptio placentae*, fetal death, pre-term labor and intrauterine passage of meconium (*effects of repeated withdrawal on placental function*)
- Risk of woman engaging in prostitution, theft and violence
  - Sexually transmitted diseases
  - Becoming victims of violence
  - Legal consequences- loss of child custody, criminal proceedings or incarceration

Seventy **X** 7

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## Screening in Pregnancy

- Part of complete obstetric care
- Should be done in partnership with the pregnant woman
- *Non-judgmental approach*
- Screening- 4 P's, CRAFFT

Seventy **X** 7

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## Pregnancy Substance Abuse Red Flags

- *Seek prenatal care late in pregnancy*
- Poor adherence to their appointments
- Poor weight gain
- Sedation, intoxication, withdrawal symptoms, erratic behavior
- Track marks, abscesses, cellulitis (injection sites)
- Positive serology for Hepatitis B&C, HIV

Seventy **X** 7

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## Treatment

- Methadone- standard of care since the 1970's
- Rationale for treatment- prevent complications of illicit opioid use and narcotic withdrawal
- Goals- encourage prenatal care and drug treatment
  - Reduce criminal activity
  - Avoid risks associated with the drug culture
- *Comprehensive opioid-assisted therapy that includes prenatal care reduces the risk of obstetric complications (SAMSHA/CSAT February 9, 2012)*

Seventy **X** 7

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