

<sup>\*</sup> Miniño AM, Arias E, Kochanek KD, Murphy SL, Smith BL. Deaths: final data for 2000. National Vital Statistics Reports 2002; 50(15):1-120.
† Mokdad AH, Marks JS, Stroup DF, Gerberding JL. Actual causes of death in the United States, 2000. JAMA. 2004;291(10):1238-1246.



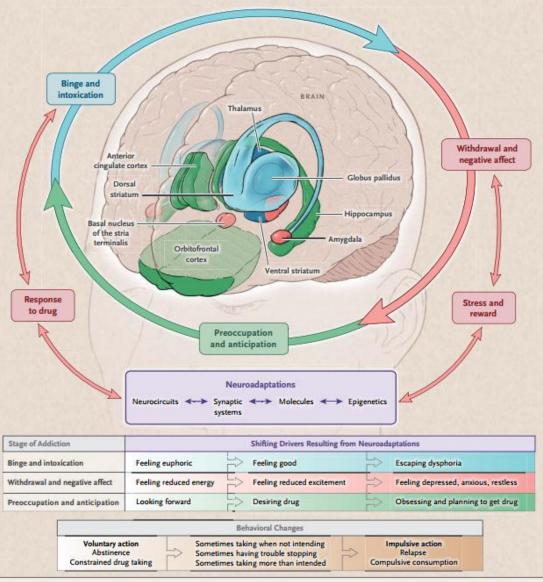


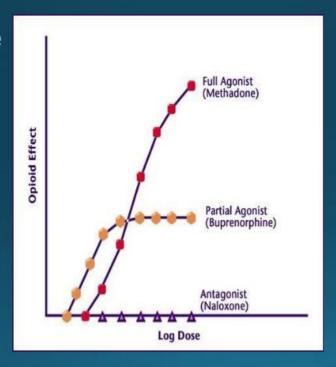
Figure 1. Stages of the Addiction Cycle.

During intoxication, drug-induced activation of the brain's reward regions (in blue) is enhanced by conditioned cues in areas of increased sensitization (in green). During withdrawal, the activation of brain regions involved in emotions (in pink) results in negative mood and enhanced sensitivity to stress. During preoccupation, the decreased function of the prefrontal cortex leads to an inability to balance the strong desire for the drug with the will to abstain, which triggers relapse and reinitiates the cycle of addiction. The compromised neuro-circuitry reflects the disruption of the dopamine and glutamate systems and the stress-control systems of the brain, which are affected by corticotropin-releasing factor and dynorphin. The behaviors during the three stages of addiction change as a person transitions from drug experimentation to addiction as a function of the progressive neuroadaptations that occur in the brain.

## **Opioid Agonist Treatment**

Methadone





**Buprenorphine** 





### Which treatment is best?

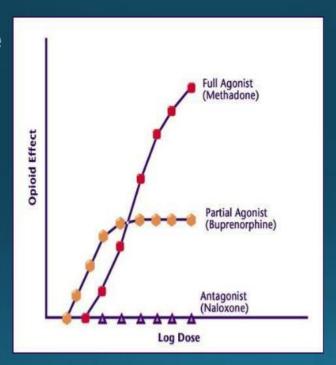
General guidelines	
Methadone	Long history of use, high opioid tolerance, unstable living situation
Buprenorphine	Mild-to-moderate dependence, greater life stability
Naltrexone	Short history of opioid use, early access to treatment; strong support system

## **Opioid Agonist Treatment**

Methadone



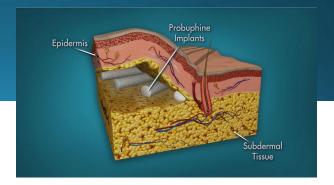




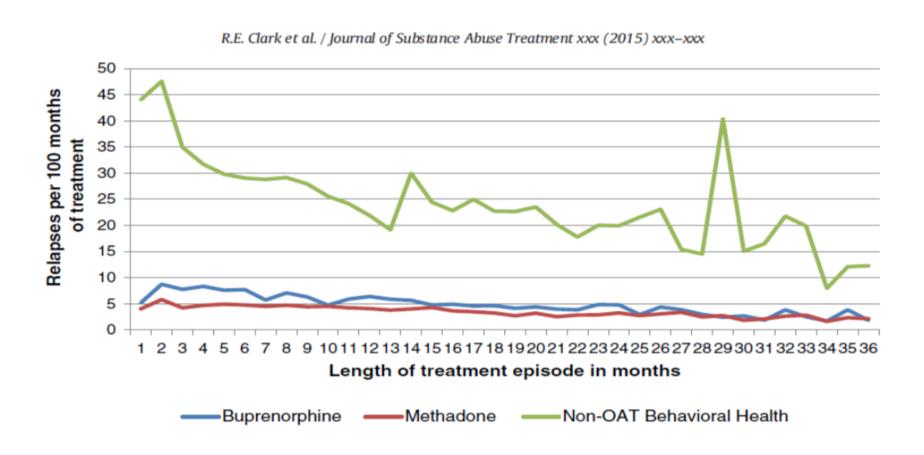


#### **Buprenorphine**





## What actually works?



# What are the costs? (OAT = Opioid Agonist Treatment)

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Length of treatment episode in months

——Non-OAT Behavioral Health

Methadone

Buprenorphine

# COMPARISON OF RELAPSE RATES BETWEEN DRUG ADDICTION AND OTHER CHRONIC ILLNESSES

