

Tennessee Academy of Family Physicians  
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**“Pharmacologic Treatment in Substance  
Use Disorders”**

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Presentation Objectives:

- 1) Become familiar with the concept of addiction as a primary brain disease that is not substance-specific, as defined by the American Society of Addiction Medicine.
  - 2) Become familiar with DSM criteria for the diagnosis of various substance use disorders, including the three disorders for which FDA-approved treatment exists.
  - 3) Become familiar with medications used in treatment of substance use disorders, including mechanisms of action and side effects, with particular emphasis on the use of buprenorphine and naltrexone.
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# Addiction MAT

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Addiction is a treatable chronic medical disease involving complex interaction among brain circuits, genetics, the environment, and an individual's life experiences. People with addiction use substances or engage in behaviors that become compulsive and often continue despite harmful consequences.

--American Society of Addiction Medicine

Addiction is a complex condition, a brain disease that is manifested by compulsive substance use despite harmful consequence.

--American Psychiatric Association

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## **Working Definition: (ASAM 2011)**

**Addiction is a primary, chronic disease of brain reward, motivation, memory, and related circuitry**

**Dysfunction in these circuits leads to characteristic biological, psychological, social, and spiritual manifestations**

**This is reflected in an individual pathologically pursuing reward and/or relief by substance use and other behaviors**

**Like other chronic diseases, addiction often involves cycles of relapse and remission**

**Without treatment or engagement in recovery activities, addiction is progressive and can result in disability or premature death**

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Risk Factors:

Genetics

Trauma

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**Wine is a mocker and beer a brawler;  
whoever is led astray by them is not wise.**

**--Proverbs 20:21**

**I do not understand what I do. For what I  
want to do I do not do, but what I hate I do.**

**--Romans 7:15**

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# Disease Model of Addiction

## Dopamine

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**Nomenclature:**

**Addiction vs Substance Use Disorder**

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## Diagnostic Criteria:

- Pattern of increasing use
  - Preoccupation
  - Tolerance
  - Cravings/Withdrawal
  - Inability to stop
  - Use in physically dangerous situations
  - Continued use despite adverse consequences
  - Failure to fulfill obligations
  - Impaired relationships
  - Isolation
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# DSM-5 Substance Use Disorders

Alcohol use disorder

Opioid use disorder

Cannabis use disorder

Sedative hypnotic anxiolytic use disorder

Cocaine use disorder

Other stimulant use disorder

Inhalant use disorder

Phencyclidine use disorder

Other hallucinogen use disorder

Tobacco use disorder

Gambling disorder

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## TREATMENT

The primary treatment for all addiction is therapeutic counseling

Pharmacologic treatments in addiction are adjunctive

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**Tobacco Use Disorder**

**Alcohol Use Disorder**

**Opioid Use Disorder**

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Varenicline

Bupropion

Nicotine

Disulfiram

Acamprosate

Naltrexone

Naltrexone

Methadone

Buprenorphine

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Tobacco Use Disorder

Alcohol Use Disorder

Opioid Use Disorder

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# Naltrexone

- opioid antagonist
  - not a DEA scheduled drug
  - requires unbound opioid receptors
  - available in monthly extended-release injection
  - unique in that it has both OUD and AUD indications
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# Naltrexone vs Naloxone

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# Methadone

- full opioid agonist
  - DEA Schedule II
  - long half life
  - multiple interactions with other drugs
  - stringent state and federal prescribing regulations
  - risk of death from overdose
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# Buprenorphine

- partial opioid agonist at mu receptor
  - DEA Schedule III
  - “ceiling effect” minimizes overdose risk
  - daily sublingual dosing most common
  - also available in extended-release monthly injection
  - easy initiation in active opioid abusers
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# A Word on Efficacy

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**Physicians are men who pour  
drugs they understand little to  
cure diseases they understand  
less in people whom they  
understand not at all.**

**-Voltaire**

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