

**OPIOID TREATMENT 101**  
 SUBSTANCE ABUSE "RESEARCH TO PRACTICE"  
 TELECONFERENCE TRAINING SERIES

**September 23, 2010**  
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**Aspects of Training**

- Descriptions and definitions of opioid agonists, partial agonists, and antagonists
- Opioid treatment options

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**Opiate/Opioid : What's the Difference?**

**Opiate**

- A term that refers to drugs or medications that are derived from the opium poppy, such as heroin, morphine, codeine, and buprenorphine.

**Opioid**

- A more general term that includes opiates as well as the synthetic drugs or medications, such as buprenorphine, methadone, meperidine (Demerol®), fentanyl—that produce analgesia and other effects similar to morphine.

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### Basic Opioid Facts

Description: Opium-derived, or synthetics which relieve pain, produce morphine-like addiction, and relieve withdrawal from opioids

Medical Uses: Pain relief, cough suppression, diarrhea

Methods of Use: Intravenously injected, smoked, snorted, or orally administered

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### Terminology

Receptor:

Specific cell binding site or molecule: a molecule, group, or site that is in a cell or on a cell surface and binds with a specific molecule, antigen, hormone, or antibody

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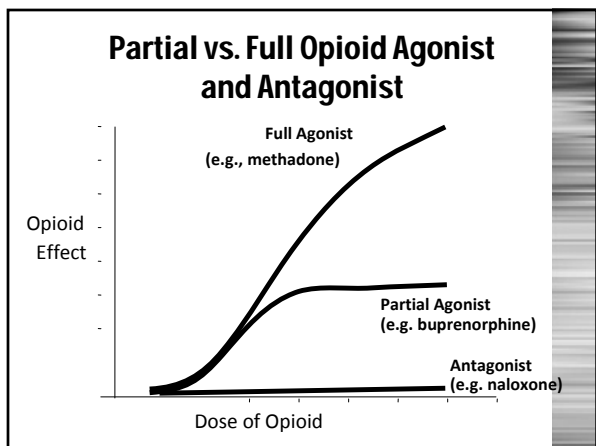
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### Opioid Agonists

- Natural derivatives of opium poppy
  - Opium
  - Morphine
  - Codeine

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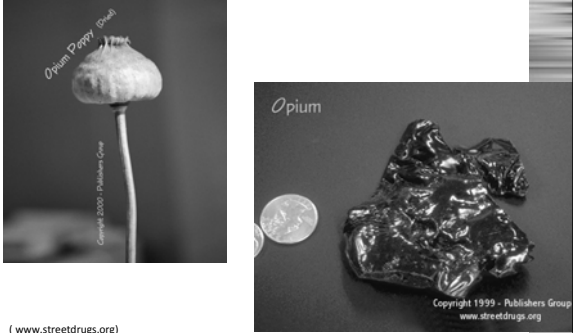
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### Opium



The image contains two photographs. The left one shows an opium poppy flower with the text 'Opium Poppy' and 'Copyright 2000 - Publishers Group' overlaid. The right one shows a pile of raw opium resin with a coin for scale, with the text 'Opium' and 'Copyright 1999 - Publishers Group www.streetdrugs.org' overlaid.

(www.streetdrugs.org)

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### Morphine



The image contains two photographs. The left one shows several white, round morphine tablets with the text 'Morphine Tablets' and 'Copyright 1999 - Publishers Group www.streetdrugs.org' overlaid. The right one shows a bottle of Roxanol (Morphine Sulfate) with the text 'ROXANOL', 'Morphine Sulfate', '20 mg per mL', and 'MORPHINE' overlaid.

(www.streetdrugs.org)

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### Opioid Agonists

- Semisynthetics: Derived from chemicals in opium
  - Diacetylmorphine – Heroin
  - Hydromorphone – Dilaudid®
  - Oxycodone – Percodan®, Percocet®
  - Hydrocodone – Vicodin®

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### Heroin



Copyright 1999 - Publishers Group  
www.streetdrugs.org

TAR HEROIN

Heroin

Copyright 1999 - Publishers Group  
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Heroin

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(www.streetdrugs.org)

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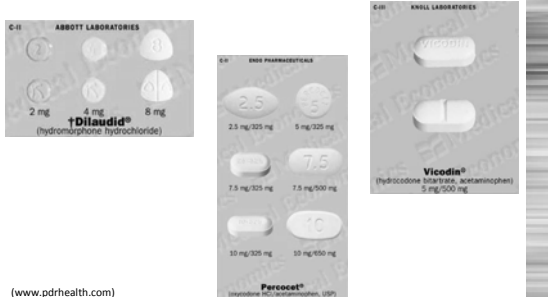
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### Opioid Agonists



C-11 ABBOTT LABORATORIES

2 mg 4 mg 8 mg

**Dilaudid®**  
(hydromorphone hydrochloride)

D-11 ENDO PHARMACEUTICALS

2.5 mg/325 mg 5 mg/325 mg

7.5 mg/325 mg 7.5 mg/500 mg

10 mg/325 mg 10 mg/650 mg

**Percocet®**  
(oxycodone HCl, acetaminophen, USP)

C-11 KNOLL LABORATORIES

**Vicodin®**  
(hydrocodone bitartrate, acetaminophen)  
5 mg/500 mg

(www.pdrhealth.com)

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### Opioid Agonists

- Synthetics
  - Propoxyphene – Darvon®, Darvocet®
  - Meperidine – Demerol®
  - Fentanyl citrate – Fentanyl®
  - Methadone – Dolophine®
  - Levo-alpha-acetylmethadol – ORLAAM®

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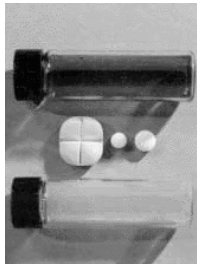
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### Methadone



### Darvocet



(www.methadoneaddiction.net/m-pictures.htm)

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### Opioid Partial Agonists

- Buprenorphine – Buprenex®, Suboxone®, Subutex®
- Pentazocine – Talwin®

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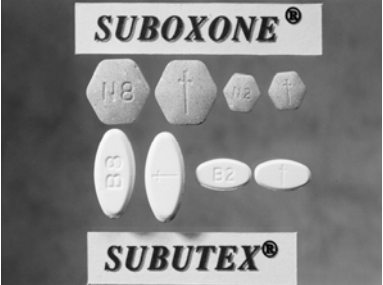
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**Buprenorphine/Naloxone  
Combination and Buprenorphine  
Alone**



The image shows two rows of pills. The top row is labeled 'SUBOXONE' and contains four hexagonal tablets with markings 'N8', a cross, '02', and another cross. The bottom row is labeled 'SUBUTEX' and contains four oval tablets with markings '02', a cross, '02', and a cross.

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**Opioid Antagonists**

- Naloxone – Narcan®
- Naltrexone – ReVia®, Trexan®



The image shows a box and a vial of Narcan (Naloxone) on the left. On the right, a ruler is shown with two white, round tablets labeled 'Trexan' placed on it.

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**Treatment of Opioid Addiction**

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**Treatment Options for Opioid-Addicted Individuals**

- Behavioral treatments educate patients about the conditioning process and teach relapse prevention strategies.
- Medications such as methadone and buprenorphine operate on the opioid receptors to relieve craving.
- ***Combining the two types of treatment enables patients to stop using opioids and return to more stable and productive lives.***

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**How Can You Treat Opioid Addiction?**

Medically-Assisted Withdrawal

- Relieves withdrawal symptoms while patients adjust to a drug-free state
- Can occur in an inpatient or outpatient setting
- Typically occurs under the care of a physician or medical provider
- Serves as a precursor to behavioral treatment, because it is designed to treat the acute physiological effects of stopping drug use

(National Institute on Drug Abuse, 2009)

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**How Can You Treat Opioid Addiction?**

Long-Term Residential Treatment

- Provides care 24 hours per day
- Planned lengths of stay of 6 to 12 months
- Models of treatment include Therapeutic Community (TC), Cognitive Behavioral Therapy.

Outpatient Psychosocial Treatment

- Less costly than residential treatment
- Varies in types and intensity of services offered
- Group counseling is emphasized
- Medically-assisted withdrawal is offered generally done with clonidine and other non-narcotic medications.

(National Institute on Drug Abuse, 2009)

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### How Can You Treat Opioid Addiction?

#### Behavioral Therapies

- Contingency management
  - Based on principles of operant conditioning
  - Uses reinforcement (e.g., vouchers) of positive behaviors in order to facilitate change
- Cognitive-behavioral interventions
  - Modify patient’s thinking, expectancies, and behaviors
  - Increase skills in coping with various life stressors

(National Institute on Drug Abuse, 2009)

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### How Can You Treat Opioid Addiction?

#### Agonist/Partial Agonist Maintenance Treatment

- Usually conducted in outpatient settings
- Treatment provided in opioid treatment programs traditionally using methadone, now with buprenorphine, in office-based settings
- Patients stabilized on adequate, sustained dosages of these medications can function normally.
- Can engage more readily in counseling and other behavioral interventions essential to recovery and rehabilitation
- The best, most effective opioid agonist maintenance programs include individual and/or group counseling, as well as provision of, or referral to other needed medical, psychological, and social services.

(National Institute on Drug Abuse, 2009)

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### Benefits of Methadone Maintenance Therapy

- Used effectively and safely for over 30 years
- Not intoxicating or sedating, if prescribed properly
- Effects do not interfere with ordinary activities
- Suppresses opioid withdrawal for 24-36 hours

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### How Can You Treat Opioid Addiction?

#### Antagonist Maintenance Treatment

- Usually conducted in outpatient setting
- Initiation of naltrexone often begins after medical detoxification in a residential setting
- Repeated lack of desired opioid effects will gradually over time result in breaking the habit of opiate addiction.
- Patient noncompliance is a common problem. A favorable treatment outcome requires a positive therapeutic relationship, effective counseling or therapy, and careful monitoring of medication compliance.

(National Institute on Drug Abuse, 2009)

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### Summary

- Opioids attach to receptors in the brain, causing pleasure. After repeated opioid use, the brain becomes altered, leading to tolerance and withdrawal.
- Medications operating through the opioid receptors, such as buprenorphine, prevent withdrawal symptoms and help the person function normally.
- Behavioral treatment can also address cravings that arise from environmental cues.

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