

- 1 **Heroin**
- PowerPoint –
Heroin Abuse Patterns and Tolerance and Withdrawal
CJUS 240
- 2 **Heroin Nouns**
- 3 **Heroin Verbs**
- 4 **Heroin Adjectives**
- 5 **Heroin**
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- 7 **Patterns of Heroin Abuse**
 - The DOMINANT ROUTE of administration in heroin abuse is intravenous (IV) injections.
 - This is usually referred to as “mainlining” or “shooting.”
 - Heroin can also be administered by a variety of OTHER routes, however... (we’ll discuss those later in the PowerPoint).
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- 23 **Preparing Heroin for Injection**
- 24 **Preparing Heroin for Injection (Continued)**
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- 31 **Preparing Heroin for Injection (Continued)**
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40 41 42  **Preparing Heroin for Injection (Continued)**43 44 45 46 47 48 49 50 51  **Track Marks**

- Like we just said on the previous slide, heroin addicts typically mainline the drug (inject the drug DIRECTLY into a vein).
 - After a period of time, scars or needle tracks (track marks) form along the infected veins as you can see in these pictures.
 - It is not uncommon for the heroin addict to try to hide their track marks by covering them with tattoos.

52  **Track Marks (Continued)**53  **Skin-Popping**

- Skin-popping occurs when the heroin addict injects the drug subcutaneously (just under the skin and NOT directly in the vein).
 - The scars that result from skin-popping look entirely DIFFERENT from track marks...
 - The scars from skin-popping first produces round abscesses and then they later heal to form characteristic round, shiny scars as you can see in these pictures.

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- Check out these images of a needle tip under the microscope before being used, after 1 use, and after 6 uses...

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61 **Other Methods of Taking Heroin**

- Since users often BEGIN their addiction WITHOUT injecting, OTHER WAYS have been formulated...
- Grinding Into a Powder Form:
 - This is one of the more popular ways of consuming black tar heroin for those who do NOT wish to use needles.
 - The black tar heroin is put into some sort of blender and mixed in with lactose.
 - This creates a fine powder product that can be easily snorted.

62 **Other Methods of Taking Heroin (Continued)**63 **Other Methods of Taking Heroin (Continued)**

- Water Looping:
 - Water looping is when a user places the heroin in an empty eye dropper bottle or a syringe with the needle removed.
 - The user allows the heroin to completely dissolve into water.
 - The solution is then dropped into the nose.
 - This at times can be wasteful if a user allows too much of the solution to go down the throat.

64 **Other Methods of Taking Heroin (Continued)**

- Smoking (Chasing the Dragon):
 - Heroin smoking is popular in Middle Eastern countries and in Asia, but it is only seldom observed in the United States.
 - A user puts the heroin on a piece of foil and heats the foil with a lighter underneath it.
 - The user uses a straw or similar apparatus and inhales the smoke.

65 **Other Methods of Taking Heroin (Continued)**

- Chasing the dragon got its name because you burn the heroin and then you suck up the smoke as it rises and shimmies (like a dragon's tail).

66 **Other Methods of Taking Heroin (Continued)**

- Orally:
 - This is less common due to the wastefulness (heroin is significantly degraded by the digestive system, which is why an oral route of administration of heroin is NOT typical).

67 **Other Methods of Taking Heroin (Continued)**

- Suppository:
 - This is accomplished by delivering a solution (via "rebuilt" syringe) or lubricated mass of heroin deep into the rectum.

68 69 **Withdrawal from Heroin (Opiates)**

- When withdrawal begins, the drug addict is irritable.
- As withdrawal progresses, symptoms include:
 - Sweating,
 - Yawning,
 - Runny eyes and nose,
 - Chills, and
 - Goose-pimples (hence the term "cold turkey").
- There is also abdominal pain and cramping with twitching of the leg muscles, from which we get the expression "kicking the habit."
- Additional withdrawal symptoms are:
 - Insomnia,
 - Vomiting, and
 - Diarrhea.
- The physical pangs of withdrawal last from five to seven days.

70 **Opiate Withdrawal Help**

- Clonidine (Catapres®) helps to reduce opiate withdrawal symptoms during opiate withdrawal.

71 72 **Tolerance and Withdrawal Symptoms**

- A prime feature of chronic heroin abuse is the tolerance that develops...
 - The tolerance effects themselves do NOT occur across the board with regard to all of the responses commonly associated with heroin...
- Gastrointestinal effects of constipation and spasms do NOT show much tolerance at all, whereas distinctive pupillary responses (the pinpoint feature of the eyes) eventually subside with chronic use...

73 **Tolerance and Withdrawal Symptoms (Continued)**

- The greatest signs of tolerance are seen in the degree of analgesia, euphoria, and respiratory depression.
 - The intense thrill of the intravenous (IV) injection will be noticeably lessened.
- The overall decline in heroin reactions, however, is dose-dependent.
 - If the continuing dose level is high, then tolerance effects will be more dramatic than if the dose level is low.

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- The first sign of heroin withdrawal is a marked craving for another fix, and this generally begins about 4 – 6 hours after the previous dose.
 - This craving intensifies gradually to a peak over the next 36 – 72 hours, with other symptoms beginning from a few hours later.

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- The abuser is essentially over the withdrawal period in 5 – 7 days, though mild physiological disturbances (such as elevations in blood pressure and heart rate) are

observed as long as six months later.

- Generally, these long-term effects are associated with a gradual withdrawal from heroin rather than an abrupt one.

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- The overall severity of heroin-withdrawal symptoms is a function of the dosage levels of heroin that have been sustained...
 - When dosage levels are in the "single digits" (less than 10%), the withdrawal symptoms are comparable to a moderate to intense case of the flu.
 - In more severe cases, the withdrawal process can result in a significant loss of weight and body fluids.
- Only rarely, however, is the process of heroin withdrawal life threatening – unlike the withdrawal from barbiturate drugs (which can be lethal).

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- You probably should NOT be too surprised to hear that withdrawal symptoms from heroin/narcotics are essentially the MIRROR image of symptoms observed when a person is under the influence of heroin/narcotics!

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- Heroin abusers tend to continue to take heroin for a number of different reasons...
- There is a major combination of fear and distress associated with the prospect of experiencing withdrawal symptoms, along with the genuine craving for the effects of heroin.
 - This goes to show you the extreme physical and psychological dependence that heroin brings.

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- In addition, long-term heroin abuse frequently produces such a powerful conditioned-learning effect that the SOCIAL SETTING in which the drug-taking behavior has occurred takes on reinforcing properties of its own!

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- Even the ACT of inserting a needle can become pleasurable!
 - Some heroin abusers (called "needle freaks") continue to insert needles into their skin and experience heroin-like effects even when there is NO heroin in the syringe!!!
 - In effect, the heroin abuser is responding to a placebo.
- Any long-term treatment for heroin abuse must address a range of physical, psychological, and social factors in order to be successful.