


**Addiction Recognition
Brief Intervention
Motivational Interviewing**

Addiction is the worlds most democratic disease, it can affect anyone.




The stereotypic image that only skid-row bums are alcoholics and drug addicts is false

■ Data shows that 100% of addicts do have contact with health professionals during their drug-using career.

■ Roughly one out of ten people in this country have had, or will have a problem with alcohol or other drugs.

■ The truth is that addicts may be anywhere and anyone, in the neighborhood, down the hall, in practice with you, or even in the mirror.



■ 36 year old Internist bleed to death trying to gain I.V. access

■ Wife states "it wasn't like he used everyday"

- Over time, anyone given high enough doses of a drug may become addicted to it. When a person has a genetic predisposition, or when uses start in early adolescences addiction happens sooner and with greater ease.

Addiction = genetics plus environment

Father to son, mother to daughter.



Statistics

- 11% of Americans drink 1 oz. Or more of alcohol per day
- 55% of Americans drink 3 or more drinks per week
- 35% of Americans abstain from alcohol
- Alcohol related problems are ranked 3rd , only behind heart disease and cancer
- Fewer than 10% of addictive people are in self help groups or receive professional treatment

Statistics (cont.....)

- Abuse and Dependence are more common in Men than Women
- Patients with alcohol related problems are expected to lose an average of 15 years of life
- Alcohol is a factor in 1 of every 4 suicides
- Approximately 50% of all Emergence Room visits are alcohol or drug related

Statistics (cont.....)

- 25-40% of all Medical/Surgical beds are related to alcohol
- 50% of convicted criminal were under the influence of alcohol or drugs when they committed their crime
- 50% or more of fatal automobile accidents involve alcohol

INTERNET

- Growing trend for obtaining mood altering prescription medications.
- Currently multibillion dollar business
- Not presently able to obtain class #2 drugs via internet.

ASAM

- "Alcoholism is a primary chronic disease with genetic, psychosocial, and environmental manifestations. The Disease is often progressive and fatal. It is characterized by impaired control over drinking, preoccupation with the drug alcohol, use of alcohol despite adverse consequences, and a distortion in thinking, most notably denial"

Physical dependency

A physiological state of adaptation to a drug or alcohol, usually characterized by the development of tolerance to the drug effects and the emergence of a withdrawal syndrome during prolonged abstinence.

Psychological dependency

The emotional state of craving a drug either for its positive effect or to avoid negative effects associated with its absence, can range in severity from mild desire to compulsive drug seeking behavior.

Addiction or Chemical Dependency

- A state where physical and/or psychological dependence exists
- A disease characterized by continued use and abuse of a drug despite recurring negative consequences in a person's life

Misuse vs. Abuse

Misuse - use of a drug that varies from a socially or medically accepted use.

Abuse - any use of drugs that causes physical, psychological, economic, legal or social harm to the individual user or to others affected by the drug user's behavior.

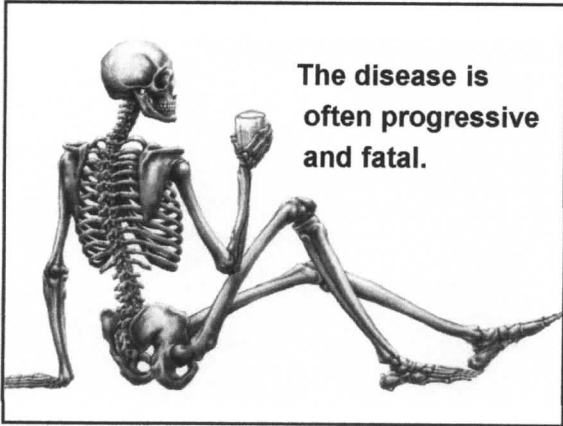
Addiction or Chemical Dependency

- A behavioral pattern of drug use, characterized by overwhelming involvement with the use of a drug (*compulsive use*), the securing of its supply, and a high tendency to relapse after withdrawal
- *Loss of control over taking a substance*

Chemical dependency is a primary, chronic disease with genetic, psychosocial, and environmental factors influencing its development and manifestations.

It is characterized by continuous or periodic:

- impaired control over drug use,
- preoccupation with drugs,
- use of the drugs despite adverse consequences, and
- distortions in thinking, most notably denial.



The disease is often progressive and fatal.

Treatment Admissions Increase For Opiates, Marijuana, Methamphetamine

- Alcohol accounted for 43% of admissions in 2002 down from 59% of admissions in 1992.
- 45% of today's primary alcohol abuse admissions reported secondary drug abuse, as well.
- Heroin abuse is the primary reason for admission to treatment in 15% of cases, up from 11% of admissions in 1992.

Treatment Admissions Increase For Opiates, Marijuana, Methamphetamine

- Prescription narcotic pain medications- admissions increased from less than 1% of all admissions in 1992 to greater than 2% in 2002.
- Marijuana admissions increased from 6% of all admissions in 1992 to 15% in 2002
- Methamphetamine admissions increased 1% in 1992 to 7% in 2002. Cocaine admissions declined from 18% in 1992 to 13% in 2002.

Narcotics

Narcotics

Narcotics

The latest trend in Chemical
Dependency

OPIATES

- The number of individuals abusing prescription opiates non-medically for the first time increased from 600,000 in 1990 to more than 2 million in 2001.
- In 2002, about 1.5 million persons age 12 and over were dependent on or abused prescription pain relievers.

OPIATES

- The number of persons who were dependent on or abused prescription pain relievers (1.5 million) was second only to number of persons who were dependent on or abused marijuana (4.3 million).
- Nearly 30 million persons in the same age group reported using these medications non-medically at some point in their lifetime.

Trends in Substance Abuse Treatment in 2001

Admission Age less than 55 years		Admissions Age 55 years and older	
- Alcohol	44%	- Alcohol	74%
- Opiate	18%	- Opiate	14%
- Cocaine	13%	- Cocaine	5%
- Cannabis	15%	- Cannabis	1%
- Amphetamine	8%	- Amphetamine	<1%
- Benzodiazepine	0.3%	- Benzodiazepine	0.5%

Trends in Substance Abuse Treatment in 2001

- Nearly two-thirds (64%) of older admissions reported abuse of alcohol alone, with no secondary drug abuse, while less than one-quarter (23%) of admissions younger than 55 reported abuse of alcohol alone.

- Crystal Methamphetamine
 - Crystal Meth
 - Ice
- *An old drug revitalized*

■ In 2004, 11 % of admissions were related to cocaine while 10% of admissions were related to crystal methamphetamine admissions.

■ Between 80% and 90% of cocaine-dependent outpatients use alcohol and more than 60% are alcohol-dependent. The same is true for Methamphetamine.

Methamphetamine
has really replaced cocaine
as the drug of choice for
pregnant women.

Benzodiazepine

- Benzodiazepines were more likely to be reported as secondary to the use of alcohol or another drug than as primary substance.
- Primary Benzodiazepine admissions were more than twice as likely as other admissions to have a psychiatric problem.

Chemical Dependency

- Evolution of addiction
 - experimental (gateway drugs)
 - social use
 - abuse
 - addiction

Chemical Dependency

- Behavioral signs of addiction
 - preoccupation with obtaining the drug
 - compulsive use in spite of adverse consequences
 - relapse following periods of abstinence

Chemical Dependency

- Pathophysiology of addiction
 - neurotransmitters
 - acetylcholine
 - dopamine
 - GABA
 - norepinephrine
 - serotonin

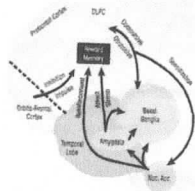
Chemical Dependency

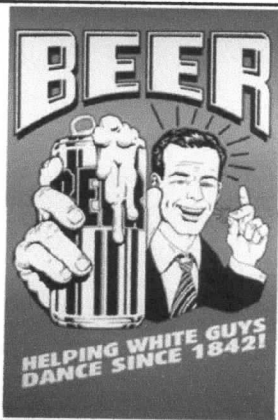
- Pathophysiology of addiction
 - neurochemicals
 - endorphins
 - enkephalins
 - substance P

Reward/Reinforcement

- Reward/Reinforcement is in part controlled by Dopamine receptors in the:
 - Ventral Tegmental Area (VTA) and
 - Nucleus Accumbens with projections to
 - Prefrontal Cortex

Figure 2. Neuroanatomical Network of the Components of Craving*





ALCOHOL

- 30 – 45 % of all adults in the United States have had at least one transient episode of alcohol related problems because of excessive drinking:
 - blackouts
 - DUI
 - missed work or school
 - family conflict

ALCOHOL

- 10 % of all women and 20 % of men meet DSM IV Criteria of Alcohol Abuse during their lifetime.
- Women have less Alcohol Dehydrogenase enzyme than men, thus women become more intoxicated than men on the same amount of alcohol.

ALCOHOL

- 200,000 deaths per year are directly related to alcohol abuse

Heroin (Narcotics)

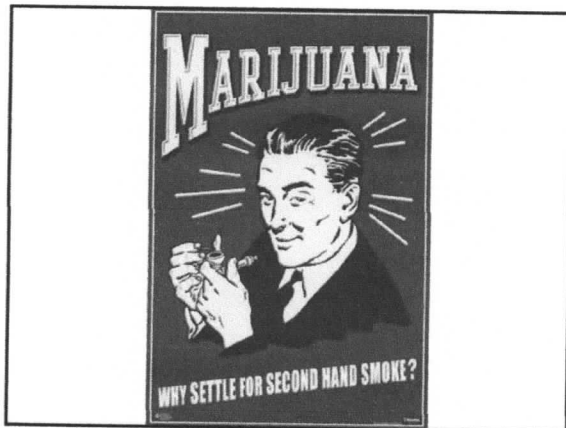
- Examples
 - Naturally Occurring
 - Morphine/Codeine
 - Semisynthetic Heroin/Dihydromorphone (Dilaudid)
 - Synthetic
 - Methadone/Fentanyl

General Information

- Heroin and other opioids may be snorted, injected, or smoked.
- Street heroin may be "cut" with lactose, inositol, mannitol, or other adulterants.
- The average concentration used by the intravenous user is about 3%.
- The addict who "snorts" heroin will use about 25% concentration.

Opioid Detection

- Federal guidelines-300 ng/ml or greater is positive
- Urine will be positive for about 2-4 days from last dose



Marijuana

- Two most popular species
- the marijuana plant contains approximately 450 to 500 different chemicals-the major one being- **Delta-9-Tetrahydrocannabinol**
- Sex of the plant very important (ex. Sensimilla)
- Seeds do not contain delta-9-tetrahydrocannabinol
- Marijuana may be used orally or smoked

Marijuana Pharmacological Effects

- Euphoria
- disinhibition
- increased appetite (munchies)
- disoriented behavior (dysphoria)
- paranoia
- distortion of time and space (distance perception)

Marijuana Excretion/detection

- Casual user 2 to 4 days
- heavy user 30 to 60 days
- Body fat absorbs it

Cocaine (General Information)

- Sources of Cocaine
 - South America (Andes Mountains)
 - Peru
 - Bolivia
 - Colombia
- Name of plant - Erythroxylon Coca
- Forms
 - Leaf/paste
 - cocaine hydrochloride
 - crack, rock, free base

Cocaine Routes of Administration

- Oral
- Snorting
 - Onset 3-5 minutes
 - duration 1 hour
- Intravenous
 - onset 15-30 seconds
 - duration 30 minutes
- Inhalation
 - onset 8-10 seconds
 - duration 10-12 minutes
 - The Free base form is more addictive than other forms!!!

Cocaine

- Metabolism/Excretion
 - metabolized to benzoecgonine and ecgonine methylester
 - 99% metabolized

Cocaine

- Pharmacological effects are dose-dependent
 - Euphoria
 - Dysphoria
 - Hallucinosis
 - Psychosis

Amphetamines

- Dextroamphetamine (Dexies, Black Beauties)
- Methamphetamine (Meth, Speed, Crystal)
- "Ice" - Longer duration of action
- Signs and Symptoms
 - weight loss
 - sweats
 - restlessness, anxiety
 - increased blood pressure

TREATMENT

- Detoxification in and of it's self, is not the answer
 - Long-term abstinence and recovery are possible if the addict's craving can be kept at bay long enough for the individual to overcome denial and learn the process of recovery.

Comorbidity (cont...)

- 6 out of 100 of the General Population (14 million) suffer with a Dual Diagnosis.
- 18% of alcohol dependent patients have comorbid chemical dependence
- 29% of psychiatric patients have comorbid substance abuse problem
- 35-60% of patients with substance abuse/dependents meet criteria for Anti-Social Personality Disorder

Comorbidity (cont...)

- Personality disorders occur more commonly in alcoholics and drug addicts than the general population.
- 40% of patients with alcohol dependents meet criteria for major depression some time during their lives.
- 32% of patients with major depression, also abuse drugs and alcohol.

Comorbidity (cont...)

- 1/3 to 1/2 of all persons with opioid dependent met criteria for major depression.
- 1/4 of patients with anxiety disorders have substance abuse/ dependents.
- 15% of patients with alcohol dependence commit suicide
- In general, the most potent and dangerous substances have the highest comorbidity rates.

Comorbidity (cont...)

The earliest recorded case of Dual Diagnosis is **Sigmund Freud**; he suffered bouts of depression and abused cocaine.

Common Characteristics of Addictive and Major Mental Disorders

- **Chronicity**
- **Incurability**
- **Propensity to relapse**
- **Potential for deterioration without treatment**
- **Potential for stabilization with regular treatment**
- **Deficit symptoms requiring long term rehabilitation.**

- In 1935, **Alcoholics Anonymous** came into being and with it was born the American disease model of alcoholism. The disease is sometimes likened to an allergy to alcohol and is seen as arising from the combination of physical, psychological, and spiritual causes.



Ask about alcohol use

- Ask all patients:
do you drink alcohol?
How many days per week, number of drinks
per time, maximum amount in last month
- CAGE questions
1. Cut down
 2. Been annoyed by people criticizing your drinking
 3. Felt bad or guilty about drinking
 4. Eye opener

What is a Drink?

- A standard drink is 12 grams of pure alcohol
- One 12-ounce beer
- One 5-ounce glass of wine
- 1.5 ounces of 80-proof distilled spirits
- The alcohol content of different types of beer, wine and distilled spirits can vary widely

Assess for Alcohol Related Problems

- Drinking above recommended levels or personal or family history of alcohol related problems
- Blackouts
- Chronic abdominal pain
- Depression
- Liver dysfunction
- Hypertension
- Sexual dysfunction
- Trauma
- Sleep disorders
- Interpersonal or work problems
- Problems with the law

Physical Findings

- Mild tremor
- Odor of alcohol on breath
- Enlarged tender liver
- Nasal irritation
- Conjunctival irritation
- Labile hypertension
- Tachycardia and/or arrhythmia
- After shave/Mouthwash syndrome
- Odor of cannabis on clothes

Case History 1

68 yo wm presents "to get off beer". He states that he began drinking two years ago on the recommendation of his physician as a means of improving his appetite. He did this for a year, but then began drinking more each evening for the past year. While watching football this past weekend, he was noted by his wife to have consumed 21 beers. The patient decided this was his wake-up call!

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Case History (continued)

He also was given Xanax 0.25 mg bid one year ago for his nerves!

He has had no occupational consequences, as he has been retired for many years.

He has had no legal consequences yet.

Past medical history includes a V&P in the '70s. The patient has chronic gastritis manifested by nausea for which he takes Phenergan. He is taking metoprolol for hypertension and Goody powders for arthritis.

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Case History (continued)

Family history is pertinent in that the patient's maternal uncle was alcoholic.

The patient has been married for 36 years to his second wife. He has been retired from the City of Montgomery as a heavy equipment operator since 1980, but has had several full- and part-time jobs since.

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Case History (continued)

Physical examination is remarkable for a BP of 130/98. Pulse is 88; however, the patient is taking metoprolol.

Clinical impression is alcohol dependence with chronic, stable benzodiazepine use.

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Case History 2

66 yo wm presents "for some help to get off alcohol". The patient states that he completed a 28-day inpatient stay at Bradford-Madison in 1998, but did not attend intensive outpatient treatment nor AA meetings due to his wife's death and his incarceration for 72 days. He has been drinking since age 21 on a daily basis, except for "a year or two" of sobriety on several different occasions. He is currently consuming a half gallon of liquor and a case of beer every 3-4 days. His last drink was on the day of admission.

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Case History (continued)

He admits to taking prescription pain pills, but states he never abused them. He also states he has been taking "nerve pills" as prescribed by his physician. He quit smoking in 1977.

He has a past medical history of hypertension, Parkinson's disease, LLC, and PTCA.

His family history is positive for alcoholism in his father and son.

He has been married twice with the first ending in divorce and the second due to death. He states his 86 yo mother "fusses about his drinking". He lives alone.

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Case History (continued)

He was arrested 6 months ago for writing bad checks which he reports he was writing to support "a group of ladies" he met after the death of his wife.

Phone interview with the patient's physician is revealing in that the patient had had chronic pain and was on Oxycontin 10 mg bid, but had been on Lortab and methadone in the past! He also was taking Klonopin 0.5 mg tid to "help him get off alcohol". The physician also reported that the son who came with the patient also seemed to be a heavy drinker!

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Case History (continued)

Review of systems was pertinent for a "recent" history of right hand "palsy".

Physical examination revealed a chronically ill-appearing man with marked dysphonia. He had rubrous facies with telangiectasias. There was a recent nasal abrasion. Liver edge was palpable 2 cm below the RCM. Examination of the extremities was remarkable for a right radial nerve paralysis with wrist drop and marked dorsal thenar atrophy. There was a mild intention tremor.

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Case History (continued)

Clinical impression:

Axis I: Alcohol Dependence, relapse
Benzodiazepine Use

Axis II: No diagnosis

Axis III: Parkinson's Disease

CAD
Right radial nerve paralysis ("park
bench palsy")

Axis IV: Severe psychosocial dysfunction with poor
family support and social isolation

Axis V: GAF 30/50

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