

## Some Definitions

### Definition of Chemical Dependence

1. In 1956, the American Medical Association declared alcoholism to be an illness, and in 1987 it extended its declaration to all drugs of abuse. Based on the AMA's statements, we arrived at the following definition of chemical dependence:

Chemical dependence is a chronic, progressive illness characterized by significant impairment that is directly associated with persistent and excessive use of a psychoactive substance. Impairment may involve medical, psychological, or social dysfunction

2. This definition implicitly states several things:
  - a. Chemical dependence is an illness; that is, a disease.
  - b. It is chronic; that is, it takes place over a period of time.
  - c. It is progressive; that is, it gets worse over time if it is not treated.
  - d. It causes significant impairment from medical, psychological, or social dysfunction.

## Specific Definitions

3. Psychoactive substance.
  - a. A chemical that exerts a mood altering effect on the brain and which is capable of producing addiction.
  - b. Psychoactive substance and drug, or drug of abuse, are used interchangeably.
  - c. The terms addiction and dependence are also used interchangeably.
4. Drug dependency.
  - a. Drug dependence exacts the highest personal costs from most users and involves a far more complex set of reactions than had been previously realized.
  - b. The compulsive use of a psychoactive substance that endangers physical or mental health.
    - a. Compulsive use means uncontrollable use, even irrational use.
    - b. It is not the physical or mental harm drugs of abuse are capable of causing that gives drugs an abuse potential.
      - i. It is their ability to provide sensory rewards, the effects they have on the pleasure centers of the brain.
      - ii. The "rush" of injected heroin or amphetamine mimics the intense pleasurable sensations of orgasm; these drugs have high abuse potential.
  - c. Drug users are conditioned through reinforcement to continue self-administering drugs.
    - i. Drug-taking is self-reinforcing; the payoff is the drug experience itself.
    - ii. Reinforcement in humans can be helped along and amplified by secondary conditioning--the association of drug use with particular settings, sights and sounds, or even smells.
    - iii. The power of reinforcement can lead to psychological dependency (the feeling that the effects of drug of choice necessary to maintain a feeling of

well-being.

3. Physical dependence.
  - a. A drug which on stopping its use causes withdrawal symptoms.
  - b. Abstinence syndrome.
  - c. The body is a very conservative organism; most of its efforts are devoted to maintaining the status quo and keeping things as they are.
  - d. When the central nervous system is continually being stimulated by a drug, the body will attempt to counteract this foreign influence.
  - e. When a person uses depressants, the brain will struggle to function normally.
    - i. The drug is telling the appropriate parts of the brain to slow down, the body's own chemical messengers are carrying a "stay-alert" message to the affected nerve tracts.
    - ii. As the user is dumping in sedatives, the body is attempting to jam the sedative signals with its own homemade stimulants.
    - iii. As a result, it takes greater amounts of barbiturates to achieve the same degree of sedation.
    - iv. When the barbiturate user suddenly quits cold, the body's "stay-alert" messages continue to flow.
    - v. The brain is stimulated to hypersensitivity.
    - vi. With no external sedatives to reduce this stimulation, the user experiences an "abstinence syndrome," known as withdrawal.
    - vii. Symptoms can range from discomfort and nervousness to extreme agitation and even life-threatening convulsions.
  - f. A point to remember about physical dependency.
    - i. The need to sustain drug use to avoid the discomfort created by rebound or withdrawal symptoms.
    - ii. Need drug, not for any euphoria, but in order to "stay straight," to feel normal.
4. Psychological dependence. A drug, which, on stopping its use, does not cause withdrawal symptoms.
5. Tolerance. With prolonged use, more and more of the drug becomes needed to get the same effect.
6. Cross-tolerance.
  - a. The development of tolerance to drugs within the same group as an abused drug.
  - b. Can occur without actual use of the other drugs.
  - c. Heroin addicts, for example, develop tolerance to morphine, although they may never have used it.
7. Cross-addiction.
  - a. Means that a person who has been addicted to one drug can never use any drug without serious risk of becoming addicted to that drug.
  - b. An alcoholic, having given up alcohol, cannot switch to cocaine without serious risk of becoming addicted to it.
8. Crossing the wall.
  - a. Progression from use to addiction is often referred to as crossing the wall.
  - b. Attempts to quit using drugs in this stage are said to resemble beating your head against a brick wall.

- c. Very hard to do without outside help.
- d. The progression from use to addiction--dependence--occurs much more rapidly in adolescents than in adults.