



Pacific

Information

Service

on

Street-Drugs

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Beta Omega Chapter

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accordance with a progressive increase in dose (6). At dosages between 15 and 30 mg. the user experiences a gradual loss of voluntary activity, involving sensory perception, mental activity and skeletal muscle coordination (7). In this sedated condition, the user literally senses less, thinks less and acts less. He does not feel hassled by the problems of reality and so life seems much better. Most people prefer this level of depression. However, if reality becomes overly malicious, the user may take more of the drug in an attempt to enhance this feeling of detachment. Unfortunately, between doses of 100 and 300 mg. the user sinks into an unconscious state (7). If the dose has been raised above 500 mg. the depression continues to deepen causing a loss of involuntary activity concerned with blood pressure and respiration (8). When respiration fails, death follows. This dose-response profile applies to the first time user since the experienced user will require more drug to produce the same effects (tolerance) (9). An important biological principle is revealed here -- self-preservation. The body tends to protect those functions most vital to its preservation. Hence, the last physiological system to be affected by the drug is the involuntary system which governs the vital functions of blood pressure and respiration. Tolerance is best understood as the body's attempt to adapt to an abnormal condition, namely the drug induced depression of Reds. Because of tolerance or adaptation, a normal dose of the drug does not affect the experienced user, thus preserving the user's ability to function normally. Unfortunately, most people continue to take more of the drug to maintain the so-called "high", despite the body's attempt to maintain normal function. The healthy body considers drugs to be foreign and will always attempt to protect itself from their influence.

The chronic effects of Reds does not include physical damage to the liver, brain or other organs; however, psychological and physical dependence are absolutely inevitable (10). In general, a drug will cause psychological dependence if it can provide a feeling of relief from a life situation. Reds reduce the amount of reality perceived and, therefore, the number of problems to be confronted. Consequently, they produce psychological dependence. In addition, 400 mg. or more of Reds taken daily for 3 months or more will produce physical dependence such that a withdrawal reaction will occur if the user cannot obtain the drug (11). The degree of dependence and the potential severity of the withdrawal increase as the user continues to take more and more of the drug over a continuing period of time. It is generally not realized that barbiturate withdrawals are more severe than heroin withdrawal and can lead to death (12, 13). Usually 12 to 16 hours after the last dose, the user

becomes restless, anxious and develops the shakes, abdominal cramps, nausea, vomiting, insomnia, and generalized weakness; he may occasionally faint when standing. The individual does not eat and quickly loses weight, further adding to the condition of generalized weakness. In 2 or 3 days after cessation of drug taking, the user may experience one or more grand mal (epilepsy-like) convulsions. Mental confusion develops between the 4th and 7th day, characterized by hallucinations and disorientation as to time and place. In this stage the user resembles a psychotic person. The acute syndrome usually ends within 8 days.

Those who buy Reds from a pusher cannot be certain of how much drug they are buying and, therefore, cannot be sure of what kind of response they will have. One investigator (1) reported that the actual Seconal^R content of 1,000 samples of Reds ranged from 21 to 113 mg. This represents the difference between conscious sedation and unconscious "sleep", a critical difference for those who drive cars or operate any machinery. A Seconal^R capsule purchased from the pharmacy, however, contains a specified amount of drug, e.g. 100 mg. and the response therefore, is predictable.

Those who elect to mainline (inject intravenously) Reds face additional problems. A mainline injection is meant to be made into a vein and NOT an artery. The following quotations were made by individuals purported to have received a mainline injection: "the hand felt like a flaming branch"... "like boiling water being poured over my hand"... "a feeling as if my hand was on fire"(14). These mis-injections had been made into an artery and not into a vein. Arteries deliver blood from the heart to individual tissues of the body (e.g. arms, hands, feet). Veins deliver blood from the tissues back to the heart where it is pumped back into the arteries. A dose of Reds "mainlined" into an artery travels directly to the tissues of the arm and hand. Because all of the drug is concentrated in a small area of the body, and because barbiturate salts are extremely alkaline in body (physiological) fluids, the user experiences severe pain followed by tissue damage, gangrene and subsequent amputation of the hand or arm may follow (14). A dose of Reds properly injected into a vein travels back to the heart where it is pumped into all arteries of the body. In this way the barbiturate salt is diluted and each tissue receives only a small portion of the total dose. In this way the problems of pain, tissue damage and possible gangrene are avoided.

Mainlining a normal sedative dose of Reds can easily produce a lethal response, while swallowing the same dose only produces

pleasant sedation. A mainline injection made too quickly into a vein has the effect of delivering a highly concentrated dose of the drug to the respiratory center in the brain. This may stop breathing and cause death. However, the same dose taken by mouth is slowly absorbed from the gastro-intestinal tract into the blood stream. By the time the drug reaches the respiratory center, it has been well diluted by circulating blood. In this way, all of the drug does not reach the respiratory center at the same time.

The tell-tale characteristics of barbiturate mainliners are the patchy, white scars along the arm. These scars are the result of injecting directly into tissue, missing the vein completely or pushing the plunger part way before the needle is into the vein. The immediate problems are the same as those encountered from a mis-injection into an artery -- pain and local tissue damage. Mainlining is the fastest, the most economical (less drug is required) and the most dangerous means of putting a drug into the body. Take a drug by mouth is the slowest, the least economical (some drug is lost through "digestion") and the safest means of putting a drug into the body. An overdose can be partially recovered by vomiting if taken by mouth, while an overdose mainlined can NEVER be recovered. An allergic reaction is not likely to occur from the drug or some contaminant in the "score" when taken by mouth, but if mainlined an allergic reaction is certain to happen if the person is susceptible and may cause death. Infectious hepatitis from dirty needles is another major problem faced by those who mainline their drug.

Nearly 1500 people die each year from barbiturate overdoses(15). This is a surprisingly small number when one considers that as few as five 100 mg. Seconal^R capsules taken at one time kill. While barbiturates are the preferred method of attempted suicide (15,16), they are one of the least causes of death in cases of completed suicide (17). If they do kill so easily, why is their record so poor? Most people who choose barbiturates for "committing" suicide expect to be rescued -- notes are left in conspicuous places and last minute phone calls are usually made. Their suicidal act is a plea for help. These people choose barbiturates because the drug will produce "real" evidence of a death-like state (unconsciousness) and because of a lag time (death comes on slowly), they are able to allow time for help to arrive. Of course, when help does not arrive, the attempted suicide becomes a completed suicide. People who really want to complete suicide choose a much more absolute method (e.g. firearms) (18). Since barbiturates are not so "absolute", they are not preferred by persons intent on suicide, but are preferred by those attempting suicide. However, recent reports indicate

that they are becoming one of the increasing causes of death in cases of completed suicide (18).

Accidental overdosing may result from two causes. One: mixing a normal sedative or hypnotic ("sleep") dose of Reds with another downer can produce a lethal response -- respiratory arrest. Included among these other downers are alcohol, antihistamines (alone or in combination with decongestant capsules or tablets and cough syrups), tranquilizers (such as Thorazine^R and Miltown^R), and opiates (such as heroin, morphine and codeine). Alcohol because of its popularity and ready availability is the most frequently seen example. McCarthy (19) reported that in 1964, 54 unintentional deaths occurred from this mixture. Two: the production of an amnesia-like effect is thought to be the cause of many accidental overdoses (8). If an individual awakens for some reason after taking a "sleeping" dose of Reds, he may take another dose, forgetting the previous dose and begin a cycle resulting in an "unconscious" overdose eventually leading to respiratory arrest and death. It is best to leave one's supply of drug where it cannot be reached once the hypnotic dose has been taken.

Reds are currently used to "please" the emotions in much the same way that alcohol is used. They are also used to reduce the side effects of LSD (muscle tremors and increased heart rate) and of Speed (methamphetamine-- agitation and paranoia) and as a temporary substitute for a scarce or too costly supply of heroin (20). Regardless of how you use Reds, a predictable response cannot be achieved without specific information as to the quality of the drug. Unfortunately, this information is neither sold by nor guaranteed by the illegal dealer. Therefore, it is predictable that drug-induced accidents will continue to happen to those who use drugs purchased in the illicit street market.

William C. Watson
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References

- (1) Finkle, B. S. 1971. Clinical Toxicology, 4(2): 253.
- (2) Ray, O. S. 1972. Drugs, Society, and Human Behaviour, The C. V. Mosby Company, Saint Louis, Missouri. p. 173.
- (3) Di Palma, J. R. 1971. In: Drill's Pharmacology and Therapeutics, McGraw-Hill Book Company. p. 262.
- (4) Krantz, J. C., Jr. and Carr, C. J. 1969. The Pharmacologic Principles of Medical Practice, The Williams and Wilkins Company, Baltimore, Maryland. p. 179.

