**COCAINE**

A crystalline alkaloid derived from the leaves of the South American coca plant, *Erythroxylum.* Medically, cocaine can be used as a local aesthetic because it interrupts the conduction of the nerve impulses, particularly in the mucous membranes of the eyes, nose, and throat. Illegally, cocaine is widely abused. As powered cocaine hydrochloride, it is usually diluted with some other substance, such as aspirin, cornstarch lactose, or talc, and sucked into the nostrils or dissolved in water and injected intravenously. When cocaine is sniffed, it travels from the nasal tissue to the bloodstream and then to the brain, affecting the user within two or three minutes, and if injected, within 15 seconds. Its physiological effects include dilated pupils; elevated heart rate, blood pressure, and body temperature; rapid breathing; and an increased appetite. The drug may also augment norepinephrine and dopamine activity—an effect similar to the of amphetamines—and stimulate the cortex of the brain. Cocaine produces a quick but short “rush,” characterized by temporary feelings of euphoria, self-confidence, well-being, and optimism, and hallucinations can also be present. The drug’s pleasant effects peak in about 20 to 40 minutes and subside after about a hour, followed by a depression that induces a craving for the drug.

Cocaine can also be converted into a solid form by separating it from its hydrochloride base. This form, commonly known as “crack” cocaine, produces a high that is particularly fast and intense. It is extremely addictive, inducing constant cravings that can cost up to $500 a day to satisfy. Crack cocaine is usually smoked in a pipe or mixed with tobacco in a cigarette. As it has become cheaper to produce, its cost has dropped, and now crack cocaine costs less than one-fifth as much as regular cocaine.

Cocaine is a potent drug, and habituation and dependence may occur very quickly with its abuse. Cocaine users first become psychologically addicted to the drug, as the artificially induced optimism and confidence they feel helps them to cope with daily stresses. Soon, the cocaine user becomes physically addicted as well and often develops a secondary addiction to a depressant, such as alcohol or heroin, to help him or her “come down” from the drug’s effects and to induce sleep. When taken internally in any form, cocaine has a highly toxic effect on the central nervous system. Frequent and/or long-term abuse of cocaine may cause overactivity, loss of appetite, nausea, heart problems, seizures, comas, strokes, and permanent brain damage. It can also precipitate delusional psychotic disorders.

Withdrawal from habitual cocaine abuse is characterized by severe physical and emotional discomfort and may last several weeks. Symptoms include muscle pains and spasms, and decreased energy levels and mental functioning. It is very difficult to withdraw from the drug without professional help. An overdose of cocaine stimulates the spinal cord, and may result in convulsions, depression of the entire nervous system, respiratory failure, and death. In the past 50 years, the incidence of cocaine among Americans has risen dramatically (although there has been a slight decrease since the mid-1980s). A 1988 survey found that one in ten people had used the drug with the number rising to one in four for adults between the ages of 18 and 25.

tigue, craving, and shakiness. They appear within 12 to 24 hours from the last intake, peak at around 48 hours, and continue for a week. Nicotine, the psychostimulant in tobacco, has a powerful effect on the autonomic nervous system. While some claim that nicotine addiction is more psychological than physical, it is associated with definite withdrawal symptoms, including cravings, restlessness, irritability, and weight gain. It can cause lung cancer, heart attack, respiratory disorders, and stroke. When used by pregnant women, it can harm their unborn children in a number of ways.

Certain classes of psychoactive drugs are used clinically to treat depression, mania, anxiety, and schizophrenia. Therapy for severe mental disorders was transformed in the 1950s with the discovery of neuroleptics (antipsychotics), which reduced psychotic symptoms, including delusions, paranoid suspicions, confusion, incoherence, and hallucinations. Phenothiazines, notably chlorpromazine, Thorazine, and Haldol, are the most commonly used antipsychotic drug.

Another drug, clozapine (Clozaril), has effects similar to those of phenothiazines but without the long-term side effect of movement disorders that afflicts at least 25 percent of phenothiazine users. However, about two percent of clozapine users are at risk for a different problem—agranulocytosis, a fatal blood disorder, and all patients who take the drug must be tested regularly for this side effect.

**Antidepressants**, a second class of therapeutic drugs, reduce symptoms of depression (depressed mood, fatigue, appetite loss, sleep disorders) in a majority of users. There are several types of antidepressants, including monoamine oxidase inhibitors (MAO-I), which can also relieve panic attacks; tricyclic antidepressants, which seem to be more effective for many patients; and a
“second generation” of serotonin-related antidepressants. The best-known drug of this type, Prozac (fluoxetine), has become the most widely prescribed antidepressant in the United States due to its combination of effectiveness and lack of side effects. It also helps sufferers from obsessive-compulsive disorder. The drug lithium is used to relieve episodes of both mania and depression in patients with bipolar disorder.

See also Alcohol dependence and abuse

Drug therapy
Medications administered to help people suffering from psychological illnesses.

Because research has shown that many psychiatric illnesses are biological in origin, drug therapy is often the prescribed treatment. Drug therapy is used to treat a variety of psychological disorders, including attention deficit/hyperactivity disorder (ADHD), major depression, schizophrenia, Tourette’s syndrome, anxiety disorders, autism, panic attacks, and obsessive-compulsive disorder, among many others. Drug therapy can be very effective when the patient shows a high level of compliance to the recommended course of treatment. The effectiveness of various medications has enabled many people to lead a full and active life, or at a higher level of functioning than would otherwise be possible without drug therapy.

Along with the benefits derived from drug therapy, however, medications can also evoke side effects such as irritability, agitation, nausea, and headaches. The stimulants used to control ADHD, for example, can suppress growth, particularly weight gain. Schizophrenia is treated with antipsychotic agents such as chlorpromazine, thioridazine, haloperidol, and thiothixene. Long-term use can produce tardive dyskinesia, an involuntary tongue and mouth movement disorder, stiffness, and tremors. Clomipramine, an antidepressant effective in the treatment of obsessive-compulsive disorder, can produce dry mouth, blurred vision, constipation, rapid heartbeat, and urinary retention. Muscle stiffness often accompanies the drug haloperidol when it is taken for Tourette’s syndrome. Antidepressants such as nortriptyline (brand name Pamelor), imipramine (Tofranil), desipramine (Norpramin), fluoxetine (Prozac), sertraline (Zoloft), and paroxetine (Paxil) all carry a small risk of triggering a manic or hypomanic episode. When a person considers taking medication for a psychological condition, it is important to be aware of the possible side effects, as well as knowing the proper dosage, and any harmful drug interactions.

When drug therapy was first introduced, many people, including some mental health professionals, considered medication a simple solution to controlling undesirable behaviors. Research has shown, however, that drug therapy is most effective when used in conjunction with traditional therapy. In the early history of drug therapy, patients in psychiatric hospitals were often medicated, sometimes without receiving any other sort of treatment. Today, it is more common for patients to participate in a range of activities and therapies, such as group therapy and music therapy, while they are on medication. Indeed, sometimes medication makes it possible for some patients to participate in the therapeutic process at all.

See also

Alcohol dependence and abuse
Attention deficit/hyperactivity disorder
Bipolar disorder
Double-blind study
Group therapy
Lithium
Medication
Mental health
Music therapy
Obsessive-compulsive disorder
Pharmacotherapy
Psychiatric hospital
Psychopharmacology
Psychosocial therapy
Psychotropic drugs
Psychotropic side effects
Schizophrenia
Serotonergic antidepressants
Serotonin syndrome
Therapeutic alliance
Therapeutic dosage
Tourette’s syndrome
Unwanted effects

DSM-IV
See Diagnostic and Statistical Manual of Mental Disorders

Dysfunctional family
A family whose interrelationships serve to detract from, rather than promote, the emotional and physical health and well-being of its members.

Although this term is used casually in popular culture, health care professionals define dysfunctional family as one where the relationships among family members are not conducive to emotional and physical health. Sexual or physical abuse, alcohol and drug addictions, delinquency and behavior problems, eating disorders, and extreme aggression are some conditions commonly associated with dysfunctional family relationships.

The concept of the dysfunctional family is based on a systems approach to mental health diagnosis and treatment, where the individual’s symptoms are seen in the context of relationships with other individuals and groups, rather than as problems unique to the client. There is no strict definition of a “dysfunctional family,” and especially in popular usage the term tends to be a catchall for many different relational disorders that take place within the family system and its subsystems (parents, children). Mental health care providers and institutions increasingly recognize family and couples therapy as effective methods of treating diverse mental health disorders, especially where children are involved.

Some of the characteristics of dysfunctional family systems are as follows: