CHEMICAL · DRUG · PESTICIDE

MCDP-22

Self Medication - Don't Overdo

January, 1970

T. P. Siburt, Extension Specialist
Chemical, Drug and Pesticide Unit

Self-medication is the use of a drug or drugs available without a prescription. They are commonly referred to by the general title of OTC:over-the-counter drugs. These drugs may be helpful in the treatment of some uncomplicated conditions such as simple headache or indigestion, and can be used safely by the average person when directions supplied with the drugs are followed. Self-medication may also describe the use of a prescription drug in a manner other than as prescribed, or by someone for whom it was not prescribed.

America has been called "the over-medicated society". The health of Americans can be enhanced by the abundance and variety of drug remedies available; however, good health is threatened when drugs are used wrongly or excessively.

The chemicals in all drugs — even the most common over-the-counter preparations — do something to a function or a part of the body. If misused, if used in excessive dosages or for too long a period of time, they may be harmful. The use of these drug preparations to treat symptoms which persist or which reappear in a short time may also be dangerous, because these symptoms may warn of a more serious illness requiring professional diagnosis and treatment.

DRUG ACTION AND BODY REACTION

As a drug begins its action on some function or part of the body, the human body reacts by doing something to the drug. Normally, the body will limit the drug's duration of action and effectiveness, and then excrete it. This normal function, called "detoxification", requires the proper function of organs, such as the liver, kidney, or lungs. When a person cannot detoxify the drug — because his body is not reacting properly, because he has taken too much medication, or because of other complications, the drug's action may be more severe and prolonged than desired. Some drugs alter normal body functions, which must be restored after the use of the

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U. S. Department of Agriculture. W. E. Skelton, Dean, Extension Division, Cooperative Extension Service, Virginia Polytechnic Institute, Blacksburg, Virginia 24061.

drug is discontinued. When misuse of drugs changes the delicate balance of the body's chemistry, the return to normal body function is delayed and sometimes permanent damage to vital organs results.

USE AND ABUSE

Some drugs used routinely and seldom thought to be dangerous may be extremely dangerous in large overdoses. For example, aspirin is seldom thought of as a dangerous drug; it is used routinely to relieve aches and pains, but there are numerous reports of poisonings of young children who swallow lethal amounts. Some adults have suffered severe and irreversible kidney damage from excessive use of some pain-killing drugs, while others have been poisoned from bromides used for temporary relief of stomach upsets. Over-medication of symptoms may mask underlying causes of ill health that could be corrected by professional medical or surgical attention.

COMBINING DRUGS

Most of the drugs used throughout the history of human medicine have been compounds made up of both common and rare naturally occurring substances from many parts of the world. Some of these mixtures have contained large numbers of drug substances having low potency and little specific effect. If these drugs often did little for the patient, at least they were seldom responsible for adverse effects.

Today, the biochemical basis of disease is better understood and diagnoses are more specific. As a result, rational drug development has proceeded at an accelerated pace and a multitude of specific and potent drug products, of both natural and synthetic origin, have become available for treatment of various diseases.

Modern drug therapy may require the use of several drug compounds for treatment of one or more diseases. The average hospitalized patient often receives ten or more drugs during his stay and after returning home for the recovery period.

The effect of a drug in the human system may be influenced by a variety of factors both in the environment of the individual and in his own genetic makeup. When any of these factors acts to modify the expected response to a particular dose of a given drug, it may be said that the drug has "interacted" with this factor and together they have caused an unintended or undesirable effect to be produced.

The combined effect of two or more drugs on the body can be very different from the action of each drug taken separately. Sometimes combining drugs can produce dangerous — even fatal — reactions. This is because each drug not only acts on the body, but may act upon and increase the effect of other drugs...a condition known as "potentiation." For example, aspirin potentiates (increases) the "blood-thinning" effect of an anti-coagulant. For that reason, a patient with heart disease who has been taking an anti-coagulant under his doctor's supervision, may risk the serious complication of hemorrhage if he uses aspirin whenever he gets a headache.

Patients who regularly take a prescription medication should seek and follow the doctor's advice in using OTC drugs. Pharmacists also know whether an OTC drug can be safely used in combination with the patient's prescription drug, or whether two or more OTC drugs can safely be taken in combination.

Alcohol is another substance that can potentiate the effect of a drug. Hypnotic drugs, such as sleeping pills, and antihistamines are examples of drugs that interact with alcohol producing potentially harmful results. Again, patients should seek professional guidance before combining alcohol with either prescription or OTC drugs.

THE ROLE OF GOVERNMENT

Federal and State laws provide for protection of the consumer through strict requirements that assure that drugs are safe and effective for their intended uses. These laws require that drugs be properly labeled, with adequate directions for use in a specified condition. Prescription drug labeling must include all the information required by the doctor to prescribe for his patient. The package given to the patient, however, may carry only simple instructions, such as "take 2 tablets after meals".

The labeling of over-the-counter drugs — and this may include the label on the package as well as a leaflet inserted in the package — must provide all the directions for use needed by the average person. This includes the conditions under which the drug should not be taken. The label may advise, for example, that the drug should not be given to infants, very young children, or the elderly.

OUR INDIVIDUAL RESPONSIBILITY

The hazards of self medication result from carelessness, faulty self-diagnosis, and failure to heed the warnings and directions for use of the drug. The Food and Drug Administration enforces the law to protect you, but you can be your own best protection against harmful effects of self-medication. Follow these sample rules for your own safety:

Don't be casual about taking drugs.

Don't take drugs you don't need.

Don't overbuy and keep drugs for long periods of time.

Don't combine drugs carelessly.

Don't continue taking OTC drugs if symptoms persist.

Don't take prescription drugs not prescribed specifically for you.

Do read and follow directions for use.

Do be cautious when using a drug for the first time.

Do dispose of old prescription drugs and outdated OTC medication.

Do seek professional advice before combining drugs.

Do seek professional advice when symptoms persist or return.

Do get medical check-ups regularly.