

MEDICINE

Study Drugs, Healing

➤ A CHEMICAL present in small amounts in celery aids the normal sun tanning process in humans and helps protect against excessive sunburn.

Known as 8-MOP (8-methoxypsoralen), it is most prevalent in the fruit of an Egyptian plant and was originally used to treat patients suffering from vitiligo, a disease that causes areas of the skin to appear bleached.

Dr. Francis P. Rhoades, a Detroit physician, described the chemical to family doctors at the American Academy of General Practice Scientific Assembly in San Francisco.

Sunlight activates production of the skin pigment melanin. When 8-MOP is taken two hours prior to exposure, Dr. Rhoades said, the skin's physiological reaction is altered as certain layers are thickened and the body's output of melanin is increased.

Dr. Rhoades said there is a "definite need" for agents that will combat the effects of damage caused by light rays that produce chemical changes. 8-MOP is commercially available in capsules or tablets.

Clean Wounds

➤ THERE IS LITTLE, if any, reason to keep clean surgical incisions bandaged for more than a few days, a Des Moines surgeon reported to the Assembly.

In a controlled study of 211 patients with 222 clean surgical wounds, Dr. Louis T. Palumbo, clinical professor of surgery at the State University of Iowa College of Medicine, treated half the wounds in the

conventional manner, with 90% of the bandages removed by the end of the eighth day following surgery.

Bandages from the other 111 wounds were removed at varying intervals between six hours and 48 hours after surgery.

Complications were minimal and almost identical in both groups, Dr. Palumbo stated. The unbandaged incisions appeared to heal faster with less local inflammation and no adhesive irritation.

Furthermore, none of the test patients objected to seeing the unbandaged wounds. Most of them seemed eager to watch the incisions heal.

Penicillin Reaction

➤ PERSONS who have an allergic reaction to penicillin may now be helped by a drug that curbs such reactions.

At least five to ten out of every 100 Americans have an allergic reaction to penicillin, a drug second only to aspirin in daily use. Symptoms include hives, swelling, fever and exhaustion.

Dr. William Strauss of New York City told scientists at the American Academy of General Practice that the new drug is effective in 93% of the reaction cases. The drug is marketed under the trade name, Neutrapen.

The number of persons allergic to penicillin is increasing from one to two percent each year, Dr. Strauss reported, due to widespread medicinal use and increased exposure to non-therapeutic sources of penicillin.

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Humans Test Cancer Drugs

➤ AT THIS very moment in clinics throughout the United States, some 85 chemical compounds that have exhibited anti-tumor activity are cautiously being tested on human cancer patients.

All of these drugs could prove to be beneficial. Likewise, none of them may make the grade that eventually would place them among the approximately 20 drugs now used by physicians in this country to combat tumor growth.

Some or even all of the drugs may prove to be too toxic, or poisonous, for the patients. The tumor cell may die, but not before the patient.

This problem of toxicity, plus the cancer patient's ability to build a resistance to the drug, were explained by Dr. Sidney Farber of Children's Hospital, Boston, to science writers at a seminar in Excelsior Springs, Mo. The seminar is sponsored by the American Cancer Society.

"We do not have a rational approach to the cancer problem. We do not have a chemical formula that will knock out cancer," Dr. Farber said. Therefore, chemicals that exhibit any activity against the growth

of tumors are screened with the hope that one will prove beneficial in man, he explained.

The screening program itself is a joint effort of the National Cancer Institute, the Veterans Administration, the Atomic Energy Commission, industry, the Damon Runyan Memorial Fund, and the Food and Drug Administration. The nucleus of the program is located at the National Institutes of Health in Bethesda, Md.

This past year alone it tested between 35,000 and 40,000 potential cancer killers, Dr. Stuart Sessoms of NIH said.

Initially, six tests in mice are done on any material that promises to arrest three cancer growths, one type of leukemia, a sarcoma and a carcinoma. If the agents chosen prove active against any one or all of these types, they are then subjected to more experiments with other laboratory animals. In this manner, investigators determine just how these agents attack the malignant growths, what bad effects they cause, and the amount of each drug that can safely be given to the animal without killing it.

It takes about six months for this process, and more than 90% of the materials are rejected at this stage, Dr. Sessoms explained.

However, those few that do make the grade, and this year more than 70 did, are cautiously evaluated in clinical trials on patients in clinics throughout the U. S.

Some of the agents now on trial were developed by scientists in an attempt to develop new and more effective anti-cancer drugs. A few are submitted by the drug industry. Others come from Government laboratories, universities and research organizations. They include synthetics, plant extracts, natural products, antibiotic filtrates and hormones.

Because the three mouse cancer growths used initially to determine a drug's anti-tumor activity may not necessarily be the best challenge with which to test a drug against human cancers, a program is now underway to use tissue cultures as a test. Thus, some of the drugs that fail in the initial test on mice may be considered, not rejected.

Meanwhile, there is a slim chance that one of the 85 agents now at the clinical trial level may find a place in the chemotherapy regimen of the cancer patient.

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HORTICULTURE

Machine Measures Lawn Wear-and-Tear

➤ "HOW WILL it look after everyone has tramped on it? How will it stand up under wear?"

These are the nagging questions that a backyard gardener, proudly surveying his newly-planted lawn, sometimes asks himself.

The problem is even more pressing for managers of golf courses, football fields, parks, playgrounds, and other public places, where energetic youngsters and their athletic elders trample, scuff, spike, tear, and dig into the grass.

Part of the problem would be solved if gardeners could measure accurately how different types of grass stand up under heavy wear. So far, such measurements have been made only by sight comparison.

Now, however, Prof. Russell L. Perry, an agricultural engineer at the University of California, Los Angeles, has devised a simple and ingenious research machine to measure turf grass wear resistance.

The present model, first of its kind, includes four revolving corrugated wooden feet which simulate severe scuffing, two rollers covered with golf shoe spikes, and a slanting wheel similar to a golf cart wheel.

Preliminary tests, in which the grass in the test area is scuffed down until the stems are just above the ground, have been run by Dr. Victor B. Younger, assistant professor of ornamental horticulture at UCLA.

The tests indicate that among the most common grass varieties used on home lawns, tall fescue show the strongest wear resistance, and seaside bent the least. Among Bermuda grasses, tifgreen seemed the most, and U-3 the least, durable.

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