

MEDICINE

# New Successful Remedies For Six Serious Diseases

## Hundred Per Cent Cure of Gonorrhea, Treatments for Arthritis, Rheumatism, Sinus Trouble Announced

*Six new successful treatments, promising relief or cure for the suffering of thousands of men and women with serious diseases, were reported at the meetings in Cleveland of the American Medical Association and other medical societies. Hundred per cent control of gonorrhea is made possible by sulfa drug. Crude liver extract is the new remedy for painful gout and arthritis. Salts of gold are being tried secretly on human rheumatism patients. Sex hormone treatment gives new hope for those with cancer of prostate gland. Iodized oil helps sinus disease, and X-rays are advised for Hodgkin's disease. Reports by Jane Stafford, Science Service Medical Writer follow here and appear also on page 379.*

### Conquest of Gonorrhea

**C**OMplete control of gonorrhea, most widespread venereal disease, is promised by a new treatment which cures in 100% of the cases, Dr. William Bromme, of Detroit, declared at the meeting in Cleveland of the American Medical Association.

Complete cures in three days of one hundred out of one hundred men were achieved by sulfathiazole treatment, Dr. Bromme reported. Large doses of the drug, averaging 60 grains a day, continued in the same dosage for 48 hours after the patient is apparently cured, are the secret of how to achieve real cures of this dangerous and often crippling disease, he said.

The patients in his series were crane operators, foundrymen and others employed in heavy industries. None of them lost a single day from work while taking the treatment. The sulfathiazole is given by mouth. Mild nausea in 23 patients and fever of 100.6 degrees Fahrenheit, not enough for most persons to know they had fever, in six patients, were the only reactions to the drug.

Large doses of the sulfa drugs at the start of treatment should be used not only for gonorrhea but for meningitis, pneumonia and streptococcus infections,

Dr. Bromme believes on the basis of his experience. Fewer reactions and more effective cures will result from such doses than from the customary small, often-repeated doses, he predicted.

The small, often-repeated doses, which many doctors have used on a cautious, start-in-gently basis, provide a chance for the patient to become sensitized to the drug, with resulting untoward symptoms requiring stopping of the drug. They also give the germs a chance to become used to it, so that it does not affect them.

This is the basis of the "sulfanilamide resistance," he thinks, which has been reported as a cause of failure of the sulfa drugs in some cases in which patients did not get well even after long treatment. Thirty-six of Dr. Bromme's

patients had previously been given sulfanilamide without result, but they all got well at the same time and with the same amount of sulfathiazole as patients who had never had sulfanilamide.

All previous methods of treating gonorrhea have failed, Dr. Bromme stated, because the drugs used could not get at the germs. It has been a common medical mistake, he said, to suppose that gonorrhea germs stayed on the surface of the infected area long enough for medicines applied to surface areas to reach the germs. It takes only a few hours, he said, for the gonococcus to get below the surface to the deeper tissues where it lives.

Sulfathiazole succeeds in killing the gonococci where other drugs have failed because it also gets below the surface. This same situation explains the failure of attempts at chemical prophylaxis of gonorrhea, Dr. Bromme believes. The disease had developed in 36 of his patients despite the use of various commercial prophylactics.

The prompt, complete cures of gonorrhea possible with adequate sulfathiazole treatment will lead to the disappearance of the crippling caused by gon-



"BLACK TERN NO. 2"

*This beautiful photograph by William I. Holzmark, of University City, Mo., won first prize in the bird class in the Third Annual Salon of Nature Photography conducted by Hobbies, the magazine of the Buffalo Museum of Science. It is on exhibit in the museum during June.*

orrhoea. Dr. Bromme predicted that within 20 years there will not be a case of gonorrhoeal crippling or other complication to demonstrate to medical students.

*Science News Letter, June 14, 1941*

## Liver for Gout

**E**XCELLENT results in treating gout and arthritis sufferers with crude liver extract was announced by Dr. John Staige Davis, Jr., of New York, to the American Rheumatism Association.

Concentrated liver extracts, such as are used for treatment of pernicious anemia, did not give such good results.

Among the 46 patients treated, one was a 49-year-old woman with pernicious anemia and rheumatoid arthritis whose arthritis grew steadily worse during the five years she was given concentrated liver extract for the pernicious anemia. On Oct. 20 when the less concentrated liver extract was started she was practically bed-ridden. On November 20 she walked into the doctor's office without a cane and by Dec. 25 she was able to knit a pair of gloves.

Another patient had gout for 20 years and no treatment was of any value until the less concentrated liver extract was given. Now she remains well and able to work on a small weekly dose.

One patient was unable to take alcohol unless he had been given the liver treatment. On one occasion after a week of this treatment he drank 16 Scotch and sodas in 24 hours without ill effect.

The 21 patients on whom Dr. Davis reported suffered from various blood disorders, such as pernicious anemia. The improvement of the gout when less concentrated liver extract was given led to use of this treatment in another 25 cases of gout, all of whom were helped.

The fact that this liver treatment clears up the gout and arthritis symptoms supports the theory that the liver is in some way associated with rheumatic disease. Dr. Davis believes that the liver disorder in rheumatic or gouty patients is probably one of an underfunctioning liver which fails to produce some of the substances contained in the crude liver extracts, but absent in the concentrated and more refined extracts usually given for pernicious anemia.

*Science News Letter, June 14, 1941*

## Gold for Arthritis

**A** GOLD compound, called calcium aurothiomalate, is the new and promising treatment for arthritis, which grandpa calls rheumatism, now being

given carefully controlled trials at the University of Cincinnati.

Results of these trials on patients will not be ready to publish for some months yet, but successful trial of the new remedy on an experimentally produced progressive, chronic arthritis in mice was announced by Dr. Albert B. Sabin and Dr. Joel Warren.

Gold salts have been used for some time in Europe in treatment of arthritis, but the danger of poisoning has been so great with most of the gold salts that American physicians have hesitated to give them to patients.

Chemical and biological studies showed, Dr. Sabin reported, that gold salts must be in colloidal form to be effective as a remedy and that their safety for mice depended on their being insoluble. With these facts as guide, the new compound, calcium aurothiomalate, was made and tested. It has a margin of safety for mice at least one hundred times greater than any other gold compound tested, and gives a complete and persistent cure of the arthritis when given early in the disease in an effective dosage. Monkeys weighing five or six pounds survived twice the dose of the remedy used for a 150-pound man.

The new compound was not effective if given to mice so late in the disease that extensive amounts of cartilage around the joints were destroyed. Other arthritis remedies tested for comparison, including sodium salicylate and sulfapyridine and sulfathiazol, were ineffective in the mouse arthritis.

Because the new remedy may not be as safe and effective for human patients as for mice, Dr. Sabin emphasized that it will not be available until the results of the trials now being made are known, nor would he disclose where these trials are being made.

*Science News Letter, June 14, 1941*

## Sex Hormone Treatment

**L**IVES of thousands of men suffering from cancer may be saved for years of health and useful work by a new sex hormone treatment announced by Dr. Charles Huggins, Dr. George Gomori, Dr. C. V. Hodges and Dr. W. W. Scott, of the University of Chicago.

The treatment brought spectacular benefit in 80% of cases of cancer of the prostate gland, which is one of the commonest and most hopeless types. The treatment is not a "cure," Dr. Huggins said, because it does not kill the cancer cells, but it stops the malignant activity of the cancer cells in the prostate gland

and of those that have spread from there into the bones, and shrinks the size of the cancers. The 21 patients reported on were beyond hope of benefit from operation to remove the cancer when the new treatment was started two years ago, as are most patients with this type of cancer when first seen by physicians. Today, 17 of the 21 are alive, although they would ordinarily have been expected to live only half this long even with the aid of radium or X-ray treatments. Of the four who died, only one died of cancer, the others dying of apoplexy or heart failure.

The successfully treated patients have gained from 40 to 80 pounds each, their red blood cells have increased from an anemic two million to a healthy five million, they are free of the pain which was so severe as to require constant morphine, they have hearty appetites, demanding "seconds" at every meal, instead of the cancer patient's typically poor appetite, and they have been able to get out of bed and go back to work.

This striking benefit has been confirmed by a new blood test for prostate gland cancer which shows in terms that can be expressed in "cold figures" that the cancerous activity was stopped.

Cancer of the prostate gland, contrary to previous ideas, is not an overgrowth of primitive, embryonic cells, the Chicago scientists have discovered. They have proved that it is an overgrowth of adult cells of the kind that form skin and other epithelial tissues. This kind of cancer, both in the prostate gland and where it has spread into bones, can be inhibited by reducing the amount of male sex hormones in the body or by decreasing the activity of the male sex hormones. This can be accomplished either by castration or by doses of synthetic female sex hormones.

This treatment for human cancer patients results from research on animals which won for Dr. Huggins and his associates the A.M.A. gold medal award for original research last year.

The test which gives objective proof of the success of the treatment is made by measuring the amount of an enzyme called "acid" phosphatase, in the blood. No one knows the function of this enzyme, although an "alkaline" phosphatase is made by the bones to help them get phosphorus from phosphates for building new bone tissue. The "acid" phosphatase is found in large amounts in adult prostate glands, but when the amount in the blood rises above ten units, it signifies cancer in the gland. When the male sex hormone activity

has been reduced, the "acid" phosphatase in the blood drops to the normal amount. At the same time, the "alkaline" phosphatase increases, indicating healthy, cancer-inhibiting activity of the bones. When the cancer that has spread to the bones has been checked, this "alkaline" phosphatase also returns to normal.

*Science News Letter, June 14, 1941*

## Iodized Oil Helps Sinus

**S**UCCESS with iodized oil treatment of sinus disease, in some cases with only two treatments, was announced by Dr. Henry M. Goodyear, of Cincinnati.

The iodized oil is injected into the sinuses, and is helpful even after irrigation which is sometimes necessary in acute cases, Dr. Goodyear reported. He started to use it after patients who had had the injection previous to X-ray pictures, in which the oil was used to make the sinuses opaque so they will show on the X-ray film, reported their sinus trouble was better.

*Science News Letter, June 14, 1941*

## Advise X-Ray Treatment

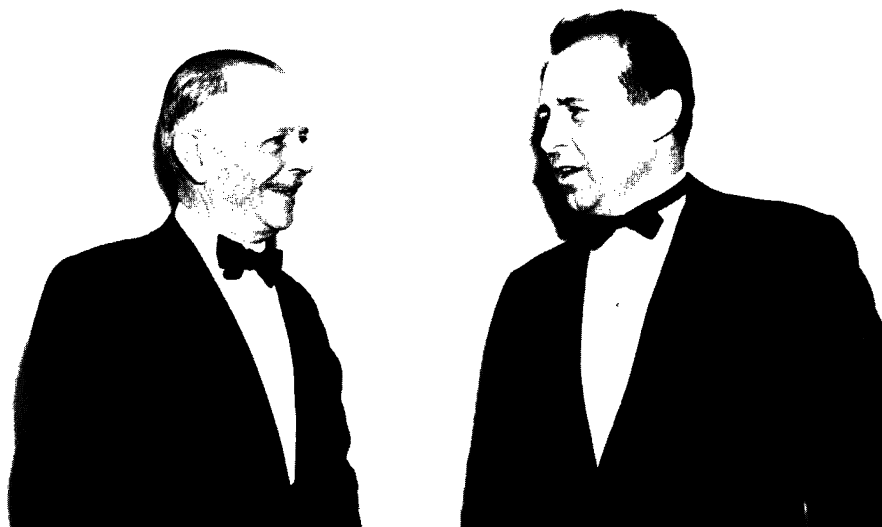
**P**ATIENTS with Hodgkin's disease, a condition marked by inflammatory enlargement of the lymph glands, for which no cure is known, can be given much comfort, freedom from pain, and a somewhat longer lease on life by X-ray or radium treatment, Dr. Ovid O. Meyer, of Madison, Wisconsin, declared.

The treatment is not a cure but saves the victims of this fatal ailment many months of invalidism, he explained. One woman gave birth to two children while she was ill without any demonstrable effect on the illness. She lived 45 months, which is as long as the average. A 14-year-old boy, bedridden last November, left the hospital in December and by April was walking without crutches and has gained 37 pounds.

*Science News Letter, June 14, 1941*

## ● RADIO ●

J. A. Hyslop, principal entomologist in charge, Division of Insects and Pests, U. S. Department of Agriculture, will describe some of the greatest insect pests of today as guest scientist on "Adventures in Science," with Watson Davis, director of Science Service, over the coast to coast network of the Columbia Broadcasting System, Thursday, June 19, 3:45 p.m. EDST, 2:45 EST, 1:45 CST, 12:45 MST and 11:45 a.m. PST. Listen in on your local station. Listen in each Thursday.



GROWER OF EUCALYPTS

*Dr. Edmundo Navarro de Andrade (left), with Robert C. Cook of the American Genetic Association, from which organization Dr. Navarro received the Meyer Medal in recognition of his lifetime of work in promoting the cultivation of eucalyptus trees in Brazil.*

FORESTRY

# Honor Brazilian Botanist for Millions of Eucalyptus Trees

## Since 1903, He Has Grown More than 130 Species In Brazil, Trying to Find Which Will Give Best Yield

**O**NE of the greatest tree planters in the world, Dr. Edmundo Navarro de Andrade, who has devoted his life to the development of eucalyptus tree cultivation in Brazil, recently received the Meyer Medal for distinguished services in plant introduction. This medal was founded by the American Genetic Association. Presentation was made at the Plant Introduction Station of the U. S. Department of Agriculture at Glendale, Md.

The eucalyptus, native to Australia, thrives well in Brazil, and Dr. Navarro's researches have been devoted to finding which of its many species will grow best and furnish largest returns in wood in the shortest time. He has grown more than 130 species of eucalyptus in Brazil, and from them has made his selection of the ones found most economically profitable. In the single Brazilian state of Sao Paulo there are now more than 100 million of the trees, in forests covering nearly 500 square miles.

Elsewhere in Brazil there are probably another 100 million eucalyptus trees.

In the course of his search for the best trees for Brazilian conditions, Dr. Navarro has travelled all over the earth, for eucalyptus is cultivated in many lands outside of Australia. The present is his fifth trip to the United States. California has extensive plantings. Some of the most successful introductions into the republic are from seeds borne by these emigrant trees, rather than directly from Australian forests.

Dr. Navarro, who has been at work on the project since 1903, was impelled in the first instance by the fuel needs of one of Brazil's most important railroads. Coal in Brazil is scarce and of poor quality, and wood is the common railroad fuel. The forests along the line of the Paulista Railroad were being rapidly depleted, and the president of that company, Antonio Prado, foresightedly called Dr. Navarro into conference on the situation. The botanist