

MEDICINE

Radioactivity Aids Ills

Elements made radioactive are used to treat a blood disease, to attack the cancer problem and to further knowledge of nerve disorders.

► **RADIOACTIVE PHOSPHORUS** from Oak Ridge is being used exclusively for the successful treatment of patients suffering from a blood disease called polycythemia vera at the University of Maryland Hospital in Baltimore, the Atomic Energy Commission revealed in its fourth semi-annual report to Congress.

In this disease, patients have too many red blood cells and in consequence their blood thickens, their spleens enlarge and they have the peculiar blue skin color called cyanotic. The disease extends over many years with the patient growing weak, developing dropsy and heart and kidney trouble.

An attack on the cancer problem with radioactive calcium is being made at Georgetown University Medical School in Washington. This important bone-building element stays in the body longer and is more apt to go to bones and soft tissues when it is in oil-soluble form than when in water-soluble form, the Georgetown scientists have found. Several forms of cancer concentrate calcium, the AEC report of the Georgetown studies states.

Better knowledge of nerve disorders and of thyroid gland function in health and disease are likely as a result of studies with radioiodine and radioactive phosphorus at the Johns Hopkins University in Baltimore as summarized in the AEC report.

New light on resistance to specific germ diseases may come from other studies at this institution and at the National Institutes of Health, U. S. Public Health Service, Bethesda, Md. At Hopkins, radioactive carbon (C14) has been successfully synthesized into an amino acid, arginine. This will be fed to mice in order to label the protein formed in the animals' blood serum.

The animals will then be immunized to some infectious disease and it is hoped the radioactive carbon will show whether the disease-fighting antibodies in their blood are composed of newly synthesized protein or of previously formed protein which has undergone rearrangement after the immunizing shots.

The Public Health Service studies on disease resistance center around use of radioactive carbon, phosphorus and arsenic in preparing radioactive antigens. The antigens are the substances in disease germs which call up disease-fighting antibodies in the blood.

Determining blood loss and blood needs of patients undergoing surgical operations may be done more quickly and accurately in future, if preliminary work with radio-

active phosphorus is borne out by further studies. This work, the AEC report states, is being done at the Medical College of Richmond, Va.

Several anesthetics block the entrance of

ANTHROPOLOGY

Guatemala's "New Look"

► **NATIVE COSTUMES**, long one of the chief tourist attractions in Guatemala, are taking on a "new look." Century-old styles gradually are being discarded in favor of clothes similar to those worn in the United States.

The old, authentic costumes are disappearing, bemoans Mrs. Lilly de Jongh Osborne, who has lived most of her life in Guatemala and possesses a superb collection of textiles.

The colorful native dress typical of each community is donned on religious holidays, important in the life of every Indian. But in most communities cheaper, machine-

radioactive phosphorus into the red blood cell, studies at the University of Virginia, at Charlottesville, show. This, the report states, "points to a possible general action of anesthetics and may aid in explaining the action of sleep-producing drugs."

Better knowledge of what vitamins do in the body may come from studies at Howard University in Washington, in which radioactive phosphorus is being used. At present the studies are concerned with learning how the vitamins affect the utilization of this important chemical in the chick embryo.

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made blouses, skirts and trousers are worn the rest of the time.

Two factors are important in accounting for this change, Mrs. Osborne states. They are:

Easier communication. The natives travel everywhere and are familiar with clothes worn by the outside world.

Higher cost of living. It takes a woman four or five months to weave a good blouse, called a huipil, on the pre-Columbian looms still in use.

Most of the native costumes are made of cotton, which grows plentifully in Guatemala. Where in the past silk was used for



GUATEMALAN FASHIONS—Women of Santiago Atitlan are noted for their halo-like hair arrangement. A gaily colored ribbon many yards long is wound around their head to form a sort of crownless flat hat.