

## MEDICINE

# Tuberculosis Still A Menace

About 35,000,000 Americans are infected with tuberculosis, while throughout the world more than 3,000,000 persons will probably die of it this year, Faye Marley reports.

► MORE THAN 10,000 persons a year are still dying from tuberculosis in the United States in spite of new drugs that can arrest the disease.

The world picture is much blacker—more than 3,000,000 a year are dying from TB—but even in this country, Public Health Service officials say it will take another generation before TB can be wiped out.

The problem is largely one of finding new cases and checking up on old ones to be sure the tubercle bacillus is not again active. But some types of TB infection are resistant to certain drugs.

The National Tuberculosis Association estimates that about 35,000,000 Americans are infected with TB germs and that in the next five years about 250,000 persons will develop active tuberculosis.

## TB Tests Recommended

Sources of infection are frequently unknown, but tuberculin tests should be made routinely. Any time that a member of the family or a close contact is known to have TB, tests and possibly BCG vaccination should be done.

A school bus driver in New York State, for example, was found to have active tuberculosis, and the state health department conducted a survey of the entire school to find out which children might be infected.

After testing 3,667 of the school children, it was found that 60 children who had not even been exposed to the active case reacted positively. Another 85 pupils among the exposed 266 were also infected.

The drug most often used in treating TB because it is nontoxic and can be given by mouth is isoniazid, alone or in combination with other drugs. In this school situation, the treatment recommended for most of the infected children consisted of isoniazid alone or with para-aminosalicylic acid (PAS), or with both PAS and streptomycin. All children who reacted positively to the tuberculin tests were X-rayed to show the extent of damage done by TB germs.

Regardless of known contacts, all children and young adults should have a regular tuberculin test, and if the test is positive, they should have an annual X-ray.

Older persons, among whom the largest number of TB cases are now being found, should have a chest X-ray as part of a regular physical examination every year or two. A chest X-ray may also reveal other chest ailments.

The U.S. Public Health Service has been conducting a study of some 60,000 to 70,000 persons from Alaska to Puerto Rico and all states between to prove whether or not isoniazid is effective as a preventive of human tuberculosis. A report on the findings is expected in 1962.

There is no tuberculosis vaccine suitable for everyone, although BCG (bacillus Calmette-Guerin), the one most widely used since its discovery in France more than 30 years ago, does give some protection. It is of no use to those already infected, of course. This is one of the objections to a country-wide vaccination program.

Considerable research is going on with killed vaccines in the hope that one may be found that will not interfere with tuberculin sensitivity.

## BCG Cancels Tuberculin Test

BCG is a suspension of living cells of an authentic strain of the bacillus of Calmette and Guerin. This vaccine cancels out permanently the effectiveness of the tuberculin test, by which it can be determined whether or not an individual is infected with TB.

Even though not infected, a person shows a positive reaction to the tuberculin test after vaccination with BCG.

In England a vole bacillus isolated from a mouse-like field vole by Dr. A. Q. Wells of Oxford has been used along with BCG in vaccination for TB.

Dr. Stuart H. Willis, director of the North Carolina State Tuberculosis Sanatorium, with headquarters at Chapel Hill, has been working on a new vaccine with University of North Carolina collaborators. This is to have field trials in Haiti.

In the U.S., authorities agree that BCG should be given to those who run the greatest risk of infection. This means physicians, nurses and medical students; patients and employees in mental hospitals as well as inmates and workers in prisons.

Persons living where the TB rate is high, and especially if there is or has been TB in the house, should be vaccinated.

Tuberculosis was the leading cause of death in the U.S. in 1905. Improved sanitation, milk pasteurization and treatment of cases were responsible for gradual lessening of the death rate as the century wore on. But new drugs in recent years have made the public complacent. TB is still the leading cause of death in the U.S. from infectious diseases.

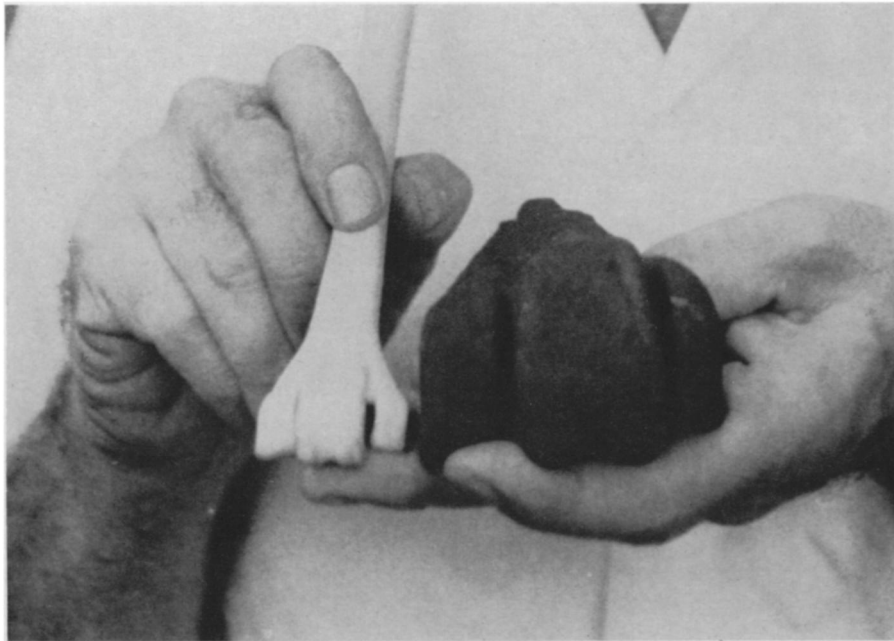
Dr. Edward T. Blomquist, chief of the tuberculosis branch, U.S. Public Health Service, has pointed out that many tuberculosis hospitals have closed or been converted to other purposes.

This has been interpreted by the public to mean that TB services can be decreased, and in a great many communities tuberculosis patients are getting inadequate treatment or none at all.

"They remain as much of a potential problem in public health as were the patients on hospital waiting lists in pre-chemotherapy days," Dr. Blomquist said.

The Public Health Service and the National Tuberculosis Association are attempting to be realistic in their approach to the

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**FOSSIL ANKLE JOINT**—The fossil ankle joint shown on the right, found near Gainesville, Fla., is believed to be evidence of the largest flightless bird the world has ever known. It is twice as large as the ankle on the left belonging to the rhea of southern South America.