

## MEDICINE

# Pill Checks Gonorrhea

**A single pill of penicillin a few hours after exposure will prevent this venereal disease, it was discovered in tests made on Navy personnel.**

► GONORRHEA can now be prevented by swallowing a single pill of penicillin within a few hours after exposure, Dr. Harry Eagle of the National Institutes of Health, U. S. Public Health Service, reported.

This may herald the conquest of one of the two major venereal diseases. The famous mold remedy has already proved its power to cure cases of gonorrhea. With an easy means of prevention now available, the chain of infection could be broken and the disease may in time be practically wiped out.

The tests showing the mold remedy's preventive power were made on Navy personnel. Associated with Dr. Eagle in the studies, reported in detail in PUBLIC HEALTH REPORTS (Oct. 29), were Lieut. (jg) A. V. Gude and Lieut. (jg) G. E. Beckmann, reserve officers in the Navy Medical Corps; Dr. George Mast, commander in the Navy at the time of the studies; Capt. J. J. Sapero of the Navy Medical Corps; and J. B. Shindedecker, chief hospital corpsman, U. S. Navy.

The penicillin pills used were the ordinary penicillin G mouth tablets made by eight different firms and now available on doctor's prescription. The pills were taken an average of two hours after exposure to gonorrhea. If taken as long as 12 to 18 hours after, it might be necessary to take two pills six hours apart, but this is not definite.

No complications which might work against the general use of penicillin pills for prevention of gonorrhea have appeared so far in the tests involving several hundred men. In the first 16 weeks of the study, the pills were taken as often as five times a week, with an average of slightly over once a week.

No sign of sensitization to penicillin has developed. The germs causing gonorrhea have apparently not developed resistance to the mold chemical. And there has been no case of simultaneous syphilis being suppressed by the preventive pill, only to flare up later as has occurred in penicillin treatment of gonorrhea.

The penicillin tablets were given, one tablet per man, to from 151 to 213 men as they returned to ship from shore liberty. The tablets given these men contained 100,000 units of penicillin. In the group there were five cases of gonorrhea over a 16-week period. In three cases there was reason to doubt that the men actually received penicillin.

Men in another group of approximately the same size, varying from 137 to 217,

each got a placebo tablet that looked like penicillin but contained none of the mold chemical. In this group there were during the six-month period of the test 43 cases of gonorrhea, a rate of 11.9 cases of gonorrhea per 1,000 liberties with a sickness rate of 508 cases per 1,000 men per year.

In the group that got the 100,000 unit penicillin tablet there were 1.8 cases of gonorrhea per 1,000 liberties and an average sickness rate of 105 per 1,000 men per year.

When the penicillin-treated group had their dose stepped up to 250,000 units in a single tablet, during an eight-week period only one case developed among from 87 to 141 men taking 569 liberties. In that case the man said he had not taken the penicillin pill.

The 250,000 unit penicillin pills were then made available to the entire station on a voluntary basis. During an eight-week period, involving 225 men and 1,943 liberties, seven cases of gonorrhea developed. Of these, six were in men who did not request the penicillin pills on returning from liberty. The seventh developed a week after the man received the pill, but during

this week the man had been A. W. O. L. for five days with repeated exposures to gonorrhea.

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## ENGINEERING

## Improved Seismic Method Of Locating Oil Revealed

► AN IMPROVED method of locating probable underground petroleum deposits by the so-called seismic method was revealed by the Institute of Inventive Research, San Antonio, Texas. It is the work of Dr. Thomas C. Poulter, and utilizes "shaped charges" of explosive compositions which are set off above the ground, thus eliminating the cost of drilling shot holes.

Shaped charges go back to what physicists know as the "Munroe effect" which was announced to the world in 1888 by Prof. Charles E. Munroe. He found that if a hollow is made in an explosive cartridge on the side toward the object to be blasted, the effect is greatly increased. The hole can be conical or hemispherical in shape. The principle was well applied during the war in the bazooka rocket, which was far more effective in piercing armor plate than bullets.

In the seismic method of locating probable oil deposits under the earth, a seismograph similar to that used in observatories to record earthquake tremors is employed. But the tremors are man-made, and are rather minor. An explosive is detonated in a drill hole, the depth of which varies in



**SEISMIC OIL EXPLORATION**—Picture shows night explosion of 13-charge detonation covering 120-foot area. This new, above-ground explosion method is expected to be cheaper than conventional methods and to speed up search for oil.