

MEDICINE

Syphilis Shortens Life

Find evidence from carefully controlled tests with mice that syphilis cuts life span short. Penicillin and sulfa drugs still best for treating disease.

► EVIDENCE THAT syphilis shortens the life of the infected person was presented by Dr. Paul D. Rosahn of Yale University School of Medicine at the meeting of the American Academy of Dermatology and Syphilology in Chicago.

Heretofore medical scientists have not been sure whether people with syphilis died earlier than non-syphilitics because of the disease or whether their shorter lifespan was due to social and economic factors. Syphilis is more prevalent in socio-economic groups in which the mortality rates are highest.

To get his evidence, Dr. Rosahn used mice of the same genetic, or inherited background, putting a pair of the same sex from the same litter in a cage. One had syphilis, the other did not. Otherwise the mice were the same and lived in exactly the same environment. The females without syphilis lived about 80 days longer than their syphilitic sisters, and the males without syphilis lived about 88 days longer than their syphilitic brothers.

Penicillin and sulfa drugs are still the most desirable for treating syphilis and gonorrhea, although the newer antibiotic drugs are effective in most instances, Dr. Raymond C. V. Robinson of Johns Hopkins School of Medicine reported.

Cortisone, used as drops or ointment, is good medicine for a syphilitic eye disease if used early enough, he said. If continued long enough, there may even be "an apparent clinical cure." He warned that penicillin treatment of the underlying syphilitic infection should be given at the same time.

Patients getting "prophylactic" treatment for syphilis, when they think they have been exposed to the disease but have not yet had time to develop it, deserve the same thorough follow-up as patients get when they are treated for known syphilitic infection.

This was stressed by Dr. Charles R. Rein of New York. He also warned that a patient getting penicillin for pneumonia, or some other infection, might get enough to mask syphilis symptoms if they were in

the incubation stage of that disease. He advised thorough laboratory methods to avoid this.

Science News Letter, December 22, 1951

OCEANOGRAPHY

High Mountains Rise From Pacific's Floor

► THIRTY-FIVE MAJOR sea mountains, from 3,500 to 12,400 feet high, rise from the floor of the Gulf of Alaska, two oceanographers of the U. S. Navy Electronics Laboratory in San Diego, Calif., report.

The mountains are divided into two area-wide groupings. One type is of volcanic origin and the other was formed orogenically, that is, when the earth's crust folded. Drs. Henry W. Menard and Robert S. Dietz believe that the volcanic mountains formed along a major rift in the crust. Most of the soundings on which their study is based were made by the U. S. Coast and Geodetic Survey and the Hydrographic Office of the U. S. Navy.

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ENGINEERING

Artificial Harbor Tests Effects of Subsea A-Bomb

► CIVIL DEFENSE experts will know how much time it will take to make our harbors safe after an underwater A-bomb explosion as a result of a "theoretical flume" in operation at Woods Hole Oceanographic Institution, Woods Hole, Mass.

The flume is an oblong glass channel. Fresh water comes in at a steady rate at one end and salt water, regulated to simulate the tides, comes in and goes out at the other end. When dye is added to the salt water, it can be seen moving up the stream as a sort of wedge.

With this model of a theoretical harbor, scientists can study how long it will take for radioactive water and debris to be flushed out to sea. The same knowledge can be applied to biological warfare agents used to contaminate one of our harbors.

More important right now are the peacetime applications. Sewage and industrial pollution emptied into our rivers are a problem in many harbors. A study of the interaction of the river and the salt water tides in this flume will give engineers knowledge of the safe rate at which waste can be introduced into the harbor.

The flume is housed in a separate building, one of the few anywhere with a waterfall coming out of one of its walls. The channel is 20 feet long. A moving weir produces the tides.

Harlow Farmer, hydraulic engineer of the Massachusetts Institute of Technology, is in charge of the flume which was constructed under a contract with the Office of Naval Research.

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A-BOMB SAFETY FOR HARBORS—Tests in this artificial harbor are helping to tell civil defense experts how much time is needed after A-bomb explosions before entry is safe. Careful scrutiny will show the layer of fresh water on top of salt water in this tidal flushing flume.