

How 88,648 Heavy Smokers Stopped Smoking

NEW YORK—The Anti-Tobacco Center of America has just published a booklet which explains how 88,648 heavy smokers (of whom many are physicians) have stopped smoking without straining their will power. This booklet is available free of charge to smokers. All you need to do, to obtain it, is to send your name and address to The Anti-Tobacco Center of America, Dept. A-84-M 366 Fifth Avenue, New York 1; New York. This offer is open while the supply of these booklets lasts.

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- 1. EARLY NORTH AMERICA (ILLUS.).** 1690. Here California is shown as an island! America's founding Missions are marked with church symbols. An exciting Map, decorated with Gloucester's Coat of Arms. Size: 17 x 19.
 - 2. THE AMERICAS.** 21 x 25 inches. A decorative scholarly Map, dated 1739. Designed by G. Delisle, Royal Cartographer for Louis XV.
 - 3. THE WORLD—Typical French flowered Cartouche.** 1742. 12 x 18 inches—very interesting!
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ART FORUM Dept. 267-B, 80 - 4th Ave. New York, N.Y., 10003

Toward a syphilis vaccine

Researchers unable to culture the deadly spirochete, though its benign relatives may give immunity.

by Faye Marley

Twice every minute in the United States someone gets VD—venereal disease. This multiplies out to more than a million a year, and 300,000 of them are teenagers.

Medical men, with adequate treatment already in hand, are eagerly searching for a vaccine. There is hope for one from experiments now being conducted.

Work on a vaccine against syphilis centers at Baylor University College of Medicine in Texas, under a \$300,000 grant from the John A. Hartford Foundation of New York.

Led by Dr. John M. Knox, the researchers have finished the first of three year's work, and believe the development of an immunizing vaccine against syphilis for humans is possible.

Dr. Knox, who reported his vaccine tests at an international meeting on venereal diseases in Munich, West Germany, believes that "we have possibly gone as far as we can toward decreasing incidence of syphilis without immunization."

What he and his collaborators plan to do in their two succeeding years of research is to find a means of keeping the syphilis-causing organism—a spirochete—alive in a test tube, an essential step in developing a vaccine. So far this has proved impossible for disease causing strains of the organism.

Another avenue of investigation is the possibility of using an organism that normally infects rabbits with syphilis but causes little harm to man. This would be similar to the use of cowpox organism against smallpox.

Dr. Knox says, "its own 'relatives' may betray the spirochete *Treponema pallidum* to investigators seeking a vaccine against syphilis." He notes that cross-immunity studies of *treponema* indicate common antigen compounds.

"Of particular interest may be the *T. cuniculi* of rabbits, which induces only very mild disease in primates," he points out. It is possible, he explains, that an organism of the *T. cuniculi* type could be the basis for a weakened live syphilis vaccine.

In the rabbit tests, Dr. Knox finds, a vaccine protected 9 of 23 animals against the challenge of 6 million virulent syphilis organisms. Greater protection might be provided, he believes, by increasing the amount of antigen (the substance that causes the



In warm blood: syphilis spirochetes.

formation of antibodies when introduced into the body) or lengthening the time of antigenic stimulation.

The major study on which Dr. Knox and his three co-workers reported in Munich was preceded by a smaller one in which no difference in size and number of chancres (ulcerating sores) was seen in control rabbits. No chancres at all, however, developed in three rabbits immunized with ultrasonically broken *T. pallidum* mixed with an extract of the bacterium *E. coli*.

Dr. Knox expects even better results in the future.

"Of potential importance," he says, "is the fact that our studies only recently have been initiated and the dosage schedules were arbitrary."

In the absence of a vaccine, syphilis would be even more of a problem than it is, were it not for another peculiarity of the syphilis spirochete.

"One of the truly fortunate things in the penicillin therapy of syphilis," according to Dr. William J. Brown, "has been the failure of the spirochete to develop resistance to penicillin."

Dr. Brown is chief of the Public Health Service's Communicable Disease Center's VD branch.

"What penicillin has accomplished in the therapy of syphilis has been little short of miraculous," Dr. Brown concludes. "The vast majority of syphilitics have now been treated and spared the ravages of syphilis and early death."

However, says Dr. Knox, "we don't believe that syphilis ever will be controlled unless a vaccine or some other approach can be developed." ♦