

DENTISTRY

Preventing Tooth Decay

Anti-carries mouth rinses and tooth powder getting trial as result of discovery of role of ammonia in decay immunity.

► HOPE THAT tooth decay may be prevented by use of an ammonia-containing mouth rinse and tooth powder appears in a report which four University of Illinois scientists gave at the meeting of the Chicago Dental Society.

The four scientists are Dr. Robert G. Kesel, Dr. Joseph F. O'Donnell, Dr. Edward C. Wach and Dr. Ernst R. Kirch. The paper announcing their studies won the dental society's annual \$500 essay competition award.

Don't start using the household ammonia from the kitchen or the spirits of ammonia in the medicine chest for a private campaign to protect your teeth from decay. Those are not the kinds of ammonia used in the studies. The prescriptions for the anti-carries tooth powder and mouth wash call for ammonia in the form of dibasic ammonium phosphate.

Also, the rinse and powder are still on trial and it will be 18 months to two years before the scientists are sure these can prevent tooth decay. Patients who have been using them say their mouths feel "exceptionally clean" and dental ex-

aminations show that their teeth are notably free of white matter and deposits usually present in cases of active decay.

Even more encouraging, those using the ammonia preparations have shown a marked reduction in the number of *Lactobacilli acidophilus* in their mouths. These micro-organisms are used as a "yardstick" of susceptibility to tooth decay.

The idea for using ammonia compounds to prevent tooth decay came from findings Dr. Kesel and associates announced to scientists in the scientific journal, *Science*, and which were reported in March, 1945. (See SNL, March 10, 1945.)

Immunity to caries, or tooth decay, those earlier findings suggested, comes from tiny amounts of ammonia continuously present in the mouth. The ammonia comes from a small group of the protein building-blocks known to scientists as amino acids. The lucky persons who are immune to caries have in their salivary enzymes capable of producing ammonia from certain of these amino acids.

Science News Letter, February 23, 1946

MEDICINE

Tularemia Remedy

Streptomycin lives up to its promise of succeeding in treatment of the disease. The drug speeds recovery, reduces disability time.

► STREPTOMYCIN, penicillin's potent ally in the war against germ diseases, is living up to its promise of being a successful remedy for tularemia, or rabbit fever. Its successful use as a remedy for seven tularemia-stricken men and women, following trials on laboratory animals, is reported by Dr. Lee Foshay and Dr. A. B. Pasternack, of the University of Cincinnati College of Medicine. (*Journal, American Medical Association*, Feb. 16.)

Swift change "from a state of wretchedness to one of almost complete comfort," dramatic drops in temperature, recovery time and disability period reduced by more than half, are among the

results achieved with streptomycin treatment of the seven patients. All the patients developed tularemia after handling wild rabbits.

"The disease usually causes 31 days of fever, 31 days in bed, a duration of disease of four months characterized by buboes (painful swellings of glands) for 3.5 months, disability for 3.5 months, and a healing time for primary lesions (sores) of 39 days," the Cincinnati physicians point out.

In the first case they report, the patient did not get streptomycin until the eighth day of his sickness. He had altogether, however, only 13 days of fever, 15 days in bed, and a bubo that could

be felt for only 16 days. The initial sore on his thumb, although it had been cut open, had healed within 17 days without ulcerating. He was totally disabled for 28 days with partial disability for 1.4 months.

The other patients showed similar improvement, although the time interval to beginning of streptomycin treatment, symptoms and severity of the attack and the time for recovery varied somewhat.

Although serum treatment of tularemia has given good results, these have not been as uniformly good as those with streptomycin in this small group of patients, the Cincinnati physicians observe.

Science News Letter, February 23, 1946

PUBLIC HEALTH

"Army of Health" Urged As Part of Program

► TRAINING of more personnel to build up an "army of health" for an aggressive attack on the nation's peacetime health problems is urged by Surgeon General Thomas Parran, U. S. Public Health Service, in the 73d annual report of the service.

Although the nation's health record was good during the war years, with no significant increase in the general death rate and a decline in infant mortality, the reconversion period, Dr. Parran predicts, will bring health "problems comparable in scope and extent with those of the war."

To meet these problems, the Surgeon General recommends expansion and intensification of all preventive services; establishment of basic health organizations staffed with well-trained personnel for every community in every part of the country; addition of cancer control programs and dental care to traditional public health services; establishment of mental health programs at the community level; inclusion of bedside care as a part of the visiting services of all public health nursing programs; continuation by states and communities of environmental sanitation work, carried on during the war through federal appropriations.

Science News Letter, February 23, 1946

Cloth made from grass in China is said to have greater tensile strength and resiliency than ordinary cotton cloth.

What will be probably the largest concrete dam ever built is planned to be constructed on the Yangtze river in China; American government engineers have been engaged to assist in design and construction.