

MEDICINE

Saliva's Cancer Protection

Report evidence that saliva protects mouths of smokers from cancer. Tobacco, however, also found the most common irritant associated with a condition sometimes pre-cancerous.

► THE POSSIBILITY that saliva may protect smokers' mouths from cancer was suggested in a report to the American Dental Association meeting in Atlantic City.

The report came from Dr. Seymour J. Kreshover of the National Institute for Dental Health, Bethesda, Md. It was based on studies made while he was at the Medical College of Virginia School of Dentistry, Richmond.

Tobacco, however, is the most common irritant associated with white patches in the mouth that sometimes are a pre-cancerous condition, another scientist, Dr. David Weisberger of Harvard School of Dental Medicine, Boston, reported.

This pre-cancerous condition is called leukoplakia. About 60% of patients with mouth cancer develop it at the site of leukoplakia.

Cigarette smokers have the condition least often, pipe smokers most often, and cigar smokers and tobacco chewers are in between.

Aging, in the physiological sense rather than in years, may play an important role in the response of mouth tissues to smoking, he suggested.

Dr. Kreshover's suggestion of the protective action of saliva was based on finding little or no change in the mouth tissues of mice whose lip regions were exposed to whole tobacco smoke. Similar exposure of the ears of mice resulted in precancerous damage, Dr. Kreshover's studies showed.

Either mouth tissues have a built-in greater resistance to tobacco irritants than skin or the mouth tissues have the benefit of "a protective effect exerted by the tongue and saliva in readily removing deposited tars," he said.

Although there is clear evidence that tobacco is irritating to mouth membranes, Dr. Kreshover declared, there is no evidence that cancer of the mouth has shown an increase to parallel the growing use of tobacco in recent years in the way that statistical evidence shows such a relationship between lung cancer and increasing use of tobacco.

He discredited heat from cigarette smoking as a factor in injury to mouth tissues.

Mouth tissues are not immune to cancer induced by coal tar products, although they may be more resistant to these chemicals, Dr. Hamilton B. G. Robinson of Ohio State University College of Dentistry, Columbus, stated.

The possibility of normal mouth tissue being more resistant to cancer because of the make-up of the tissues or the presence of mouth fluids was also suggested in re-

ports by Dr. Paul Goldhaber of Harvard School of Dental Medicine, Boston, and by Dr. Barnet Levy of Columbia University School of Dental and Oral Surgery, New York.

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ENGINEERING

Wastes Prove Problem In Future Space Travel

► THE GREATEST DANGER in future space travel may well be the wastes from the bodies of the space travelers.

New York University scientists working on this problem of sewage disposal in space for the U. S. Air Force are considering incinerating or chemically changing wastes by solar energy re-use of treated wastes to grow algae, by burning them with the heat generated in supersonic flight, and by using them as fuel in the space ship's propulsion system.

To throw out the wastes would put the space ship off its carefully plotted flight path, upset the conservation of total mass, and be impractical because of the tremendous speeds.

Prof. William T. Ingram is director of the N.Y.U. project.

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MEDICINE

Sees Danger of Drug Habit in Tranquilizer

► AT LEAST ONE of the tranquilizing drugs can be habit-forming in a small percentage of cases, Dr. Frederick Lemere of Seattle, Wash., reports in the *Archives of Neurology and Psychiatry* (Aug.).

The drug is meprobamate, sold under the tradenames of Miltown and Equanil. It is, Dr. Lemere states, the "most helpful and least harmful of all drugs used for the relief of nervous and emotional tension." However, its habit-forming qualities for some persons show its use must be carefully supervised.

Some of Dr. Lemere's patients showed withdrawal symptoms such as nervousness, "the jitters" or a "let down" feeling when they missed their usual doses of meprobamate.

The unprecedented demand for the drug, talk of allowing over the counter sale of it without a prescription and its advertisement as non-habit forming led Dr. Lemere to issue his warning.

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NEW RADIO TELESCOPE—Newest addition to Ohio State University's Radio Observatory is this 40-foot parabolic reflector. The steerable "saucer" operates at wavelengths between 20 and 100 centimeters.

ASTRONOMY

Radio Observations Hint Venus Turns in 22 Hours

► VENUS, earth's sister planet, rotates once every 22 hours, an astronomer reports on the basis of observations of radio waves broadcast by the planet's atmosphere. (See SNL, Sept. 8, p. 150.)

The rotation period suggested by Dr. John D. Kraus of Ohio State University in *Nature* (Sept. 29) disagrees with recent optical studies by Dr. Audouin Dollfus of Meudon Observatory near Paris, who found it took Venus 224.7 days to rotate once. This is also the time the planet takes to make one revolution around the sun. (See SNL, July 21, p. 37.)

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TECHNOLOGY

Looking Glass Gives Radiation Protection

See Front Cover

► THREE FEET of high-density glass protects an employee of the Budd Company's new Nuclear Systems Division while he operates a master-slave manipulator to extract radioactive material from a capsule with tweezers.

The facility, licensed by the Atomic Energy Commission, is the first commercial one in the United States able to fabricate radioisotopes of various types in strengths up to 10,000 curies. A curie is the unit used to measure radioactive strength.

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