

## MEDICINE

# X-Rays Worry Patients

Medical doctors are concerned that the patient requiring X-ray treatment or diagnosis may refuse it because of his fear of radiation damage.

► DOCTORS are worried because their patients are worried about X-rays and other forms of ionizing radiation.

This is clear from a sudden rash of editorials and articles written by doctors for doctors in the nation's medical journals.

Physicians have had to face patients lately who flatly refuse to undergo diagnosis or treatment if X-rays or any other form of radiation is involved.

The public's attitude has been stirred by recent publicity given to X-ray dangers, the possible harmful effects of radiation, atomic and hydrogen tests and fallout.

To counter this mounting fear, doctors argue the use of radiation as a medical tool, if handled properly, does more good than harm and saves more lives than it takes.

In the lead article of the *Journal of the American Medical Association* (April 5) Dr. George Tievsky, clinical instructor in radiology at the George Washington School of Medicine, Washington, D. C., points up the current dilemma.

"Common sense," he pleads, "demands that the practitioner view the current lay and scientific alarm about the harmful effects of ionizing radiation with a sense of proportion."

The opinion of geneticists and radiation biologists, he says, must be respected, but at the same time, the physician must place the opinions in "proper context."

The use of ionizing radiation in medicine should be approached with the same "cool sense of emotional detachment" that the doctor uses for prescribing and using other hazardous procedures. Damage to future generations, Dr. Tievsky points out, cannot be allowed to interfere with the use of radiation as long as there is no other equally satisfactory substitute.

He warns his colleagues that the doctor and the doctor alone must make the decision concerning the use of hazardous procedures on human beings. "The primary need," he says, "is for education, not for alarm."

In another article appearing in the *Journal of the Michigan State Medical Society* (March), Drs. William R. Eyler and Wendell M. Burns of the radiology department of the Henry Ford Hospital, Detroit, Mich., plead for "a reasonable attitude toward the medical use of diagnostic radiation."

"There is no question that, at the present time, the yield of otherwise unobtainable information concerning life-shortening disease and correctable life-shortening disease, far exceeds the chance of a patient succumbing from leukemia. The considerable lay publicity has almost always overlooked the great benefit derived from diagnostic radiation."

Similarly, an editorial entitled "Let's All

Calm Down a Moment," appeared in a publication of the American College of Radiology. It points out:

"But some fear persists. The radiologist and radiation physicist are deeply concerned when some patients who need X-ray examinations for the diagnosis of early infections, tuberculosis, cancer, tumors, or other diseases delay them or even refuse them because of this ungrounded fear. Radiologists do not and will not perform X-ray examinations that are harmful."

Science News Letter, April 19, 1958

## BIOCHEMISTRY

## Oat Hull Extract Protects Teeth

► CANDY AND chewing gum may soon carry built-in protection against tooth decay.

If as little as one-half percent of a person's diet contains oat hull extracts, tooth decay may be reduced by half, University of Wisconsin researchers have found.

Earlier studies showed oat hulls—the coarse outer skins of the oat seeds—had a powerful protective effect against dental caries in laboratory rats. Dr. Paul H. Phillips and Fumito Taketa have now traced the protective powers of the material to a group of ten phenol type compounds and fatty acids.

The finding of this protective factor helps explain why people who eat highly refined foods generally have more decay than those eating coarser, less refined foods.

Further research is underway to find which compound, or compounds, is responsible for the action. The scientists believe the protection is a result of the bacteria-killing properties of the oat hull extracts.

Science News Letter, April 19, 1958

## TECHNOLOGY

## Radio Waves Replace Hand Waves in Tests

► RADIO WAVES have replaced the traditional hand waves used by ground crews conducting flight line tests with supersonic engines.

To make themselves heard over the din of powerful turbojet engines, without resorting to the limited vocabulary of hand wig-wag signals, ground crew personnel at Republic Aviation, Farmingdale, N. Y., operate a novel five-way radio system. This self-powered, inter-communication system, based on a development by Radio Corporation of America, consists of an ear-muff type headset receiver, a soundproofed mike, and a transistorized amplifier in a chest

harness. It is operated by a portable power supply.

The engineers can stand right next to a roaring J-75 turbojet, a 15,000-pound thrust engine rated one of the world's most powerful, and talk as easily as though they were on a home telephone. Five can talk simultaneously.

The system was developed because of the complexities of ground testing the F-105 Thunderchief, the Air Force's new supersonic fighter-bomber.

Not only is the system expected to save wear and tear on the ear drums of the ground crews, but, by reducing the time normally consumed by the tests (because of the speedier communication), it will also reduce the ground engine noise in the neighborhood.

Science News Letter, April 19, 1958

### SCIENCE NEWS LETTER

VOL 73 APRIL 19, 1958 NO. 16

The Weekly Summary of Current Science, published every Saturday by SCIENCE SERVICE, Inc., 1719 N St., N.W., Washington 6, D. C., North 7-2255. Edited by WATSON DAVIS.

Subscription rates: 1 yr., \$5.50; 2 yrs., \$10.00; 3 yrs., \$14.50; ten or more copies in one bundle to one address, 7½ cents per copy per week; single copy, 15 cents, more than six months old, 25 cents. No charge for foreign postage.

Change of address: Three weeks notice is required. When ordering a change please state exactly how magazine is now addressed. Your new address should include postal zone number if you have one.

Copyright © 1958 by Science Service, Inc. Reproduction of any portion of SCIENCE NEWS LETTER is strictly prohibited. Newspapers, magazines and other publications are invited to avail themselves of the numerous syndicated services issued by Science Service. Science Service also publishes CHEMISTRY (nine times a year) and THINGS of Science (monthly).

Printed in U.S.A. Entered as second class matter at the post office at Washington, D. C., under the act of March 3, 1897. Acceptance for mailing at the special rate of postage provided for by Sec. 34.40 P. L. and R., 1948 Edition, paragraph (d) (act of February 28, 1925; 39 U. S. Code 283) authorized February 28, 1950. Established in mimeograph form March 13, 1922. Title registered as trademark, U. S. and Canadian Patent Offices. Indexed in Reader's Guide to Periodical Literature, Abridged Guide, and the Engineering Index. Member Audit Bureau of Circulation.



## SCIENCE SERVICE

The Institution for the Popularization of Science organized 1921 as a non-profit corporation.

Board of Trustees—Nominated by the American Association for the Advancement of Science: William W. Rubey, U. S. Geological Survey; Wallace R. Brode, National Bureau of Standards; Karl Lark-Horovitz, Purdue University. Nominated by the National Academy of Sciences: Edward U. Condon, Washington University; Harlow Shapley, Harvard College Observatory; Philip Bard, Johns Hopkins University. Nominated by the National Research Council: I. I. Rabi, Columbia University; Leonard Carmichael, Smithsonian Institution; John R. Dunning, Columbia University. Nominated by the Journalistic Profession: O. W. Riegel, Washington and Lee University; Michael A. Gorman, Flint Journal; Lee Hills, Detroit Free Press. Nominated by the Scripps Estate: Edward J. Meeman, Memphis Press-Scimitar; Frank Ford, Washington, D. C.; Charles E. Scripps, Cincinnati, Ohio.

Officers — President: Leonard Carmichael; Vice President and Chairman of Executive Committee: Charles E. Scripps; Treasurer: Wallace R. Brode; Secretary: Watson Davis.

Staff — Director: Watson Davis. News Editor: Howard Simons. Writers: Marjorie Van de Water, Ann Ewing, Jane Marye, David Pursglove, Benita Tall. Science Youth Division: Harold A. Edgerton, Joseph H. Kraus, Margaret E. Patterson. Photography: Fremont Davis. Production: Priscilla Howe, Marcia Nelson. Syndicate Sales: Hallie Jenkins. Interlingua Division in New York: Alexander Gode, 80 E. 11th St., GRamercy 3-5410. Advertising Manager: Fred A. Moulton, MEtropolitan 8-2562.