

Science Service Publication Volume 146, No. 25, December 17, 1994

Alfred Scott McLaren Patrick Young Blair Burns Potter Publisher
Editor
Managing
Editor
Production/Design

Greg W. Pearson Janet Raloff

Dan Skripkar

Ron Cowen

Bruce Bower

Richard Lipkin

Director
Associate Editor
Senior Editor
Environment/Policy
Astronomy
Behavioral Sciences

Richard Monastersky Tina Adler Kathy A. Fackelmann, Elizabeth Pennisi Ivars Peterson Larry Norland Adrienne C. Brooks Cait Anthony

Donald R. Harless

Chemistry/ Materials Science Earth Sciences General Science Life Sciences/ Biomedicine Mathematics/Physics Editorial Assistant Science Writer Intern

Books/Resource Manager Advertising/Business Manager

SCIENCE NEWS (ISSN 0036-8423) is published weekly on Saturday, except the last week in December, for \$44.50 for 1 year or \$78.00 for 2 years (foreign postage \$6.00 additional per year) by Science Service, Inc., 1719 N Street, N.W., Washington, D.C. 20036. Second-class postage paid at Washington, D.C., and additional mailing office. POSTMASTER: Send address changes to SCIENCE NEWS, P.O. Box 1925, Marion, Ohio 43305. Change of address: Four to six weeks' notice is required — old and new addresses, including zip codes, must be provided.

Copyright © 1994 by Science Service, Inc. Title registered as trademark U.S. and Canadian Patent Offices. Printed in U.S.A. on recycled paper. ♠

Editorial and Business Offices:

1719 N St. N.W., Washington, D.C. 20036 (202-785-2255)

Republication of any portion of SCIENCE News without written permission of the publisher is prohibited.

Subscription Department:

P.O. Box 1925, Marion, Ohio 43305 For new subscriptions only, call 1-800-247-2160. For customer service, call 1-800-347-6969.

This Week

Tetracycline Turns Genes On and Off
Gamma-ray bursts: The mystery deepens
Theorists grapple with high-flying sprites
Scientists link new herpesvirus to cancer
Brain faces up to fear, social signs
University probe faults 'cloning' research
Oxygen's radical role in cancer and aging
Designing proteins to block cancer genes

Research Notes

415 Anthropology415 Earth Science

Articles

408 DNA Dilemmas412 After the Crash

Cover: Five months after fragments of Comet Shoemaker-Levy 9 crashed into Jupiter, astronomers are still struggling to make sense of the event. Taken over a month, this sequence of images shows the evolution of the H impact site, clockwise from upper left, as seen by the Hubble Space Telescope. The Great Red Spot is visible at the top of each picture. (Photos: Heidi B. Hammel, Hubble comet team)



Departments

403 Letters411 Books

Science Service, which publishes SCIENCE NEWS, is a nonprofit corporation founded in 1921. It gratefully accepts tax-deductible contributions and bequests to assist its efforts to increase the public understanding of science, with special emphasis on young people. More recently, it has included in its mission increasing scientific literacy among members of underrepresented groups. Through its Youth Programs it administers the International Science and Engineering Fair, the Science Talent Search for the Westinghouse Science Scholarships, and publishes and distributes the Directory of Student Science Training Programs for Precollege Students.

Board of Trustees — Chairman, Glenn T. Seaborg; Vice Chairman, Gerald F. Tape; Secretary, David A. Goslin; Treasurer, Willis Harlow Shapley; Joseph W. Berg Jr.; Robert W. Fri; J. David Hann; Dudley Herschbach; Shirley M. Malcom; Elena O. Nightingale; Ben Patrusky; Peter H. Raven; H. Guyford Stever; Sanford J. Ungar; Deborah P. Wolfe. Honorary Trustees — Edward Bliss Jr.; Bowen C. Dees; O.W. Riegel; John Troan. President: Alfred Scott McLaren; Vice President and Business Manager: Donald R. Harless.

Letters

Prostate study problems

"Just say no to prostate cancer screening" (SN: 9/17/94, p.180) leaves me puzzled. The article states "they will die of something else" and then goes on to say that prostate cancer is "the second leading cause of cancer death among men"!

Even more puzzling is the claim that "screening will result in net harm." Why?

M.S.J. Fifer Birmingham, Ala.

The article reports that men with a slow-growing prostate tumor will most likely die of some illness other than prostate cancer, according to some researchers. This does not gainsay the fact that prostate cancer is the second leading cause of cancer death among men. Likewise, the article reports Krahn's assertion that widespread screening of men without symptoms can cause reduced quality of life as a result of treatments. Side effects of treatments can include incontinence and impotence. — The Editors

Your article says that treatment extends life only slightly, without saying how far the cancer had progressed.

Men are warned that impotence is a common effect of radiation therapy. They are not told that radiation reduces or stops production of testosterone and semen. As one patient put it, "Now I'm impotent, but I don't give a damn."

John Perry Winter Haven, Fla.

The findings apply to a general population of men, not just men with cancer. — T. Adler

The Krahn group's conclusions are badly flawed at several points.

They believe that many men diagnosed with prostate cancer would, if untreated, lead normal lives. This is true of the very elderly, who might die of heart disease, pneumonia, or another disease before their cancer kills them. Younger men with prostate neoplasm are regularly killed by their disease. Weighed against early death, incontinence and impotence are usually considered acceptable risks.

The statement that a single PSA test and rectal examination extend life by only a few days is without significance. A basic principle of cancer surgery is that the earlier it is performed, the more likely it is to excise a tumor before the tumor has metastasized. The function of the PSA test is to discover cancer as early as possible.

The krahn report is likely to do great harm by convincing reluctant men to avoid this very valuable testing modality.

Robert T. Cassell Weston, Conn.

When one undergoes a prostate needle biopsy further down the screening road, the gland can be infected by the rectal microbes carried into it by the needle.

Next, the needle is withdrawn from the prostate. If it happens to strike malignant cells, they may be strewn all along the needle trail, leading to possible instant metastasis of an otherwise slow-growing tumor.

Bill Sturgeon Petrolia, Calif.

DECEMBER 17, 1994 403