



y FRESHLY-PACKED Guaranteed-Potency OPTIMS, day, only \$2.75—not for the usual 30-day sup-ly—but for a complete 100-DAY SUPPLY—One a ply—but for a complete 100-DAY SUPPL' day gives you the massive potencies show

NUTRITIVE OPTIMS 42 NUTRITIVE FACTORS OPTIMS

in a single capsule		
Each OPTIMS Capsule Contains:		
21 VITAMINS Vitamin D 15.000 Units Vitamin D Vitamin B-1 I0 Mg. Vitamin B-1 I0 Mg. Vitamin B-2 S Mg. Vitamin B-2 S Mg. Vitamin C 100 Mg. Vitamin C 00 Mg. Vitamin C 00 Mg. Vitamin C 00 Mg. Vitamin C 00 Mg. Vitamin S 0.1 Mg. Vitamin B 0.2 Mg. Rutin 10 Mg. Rutin 10 Mg.	Lemen Bioflaveneid Complex 10 Ms. Calcium Fanethenate S Ms. Banchenate S Ms. S Mes. Hesperidin 200 Mes. Linciels Acid S Ms. Intrinsic Factor Cone. 1/50 U.S. Iz MINERALS Iron 30 Ms. Iodine 0.1 Ms. Calcium 28 Ms. Macresium 5 Ms. Macresium 5 Ms.	Zine 9.5 Me. Melybdenum 9 1 Me. Cebalt 0.04 Me. Nickel 0.04 Me. 5 AMINO ACIDS Gil-Methicolne 20Mg Lin a Nadural Base Centaining: Brewer-Y east 10 Mg Liver Des. 10 Mg Rose Hips Extract 10 Mg Rose Hips Extract

Compare OPTIMS with any food supplement you have ever used and SEE HOW MUCH MONEY YOU SAVE!

100 Capsules, \$2.75 | 500 Capsules, \$11.75 250 Capsules, 6.25 | 1000 Capsules, 22.00

Buy in confidence! All orders supervised by qualified pharmacists! VITAMINS LISTED ARE SOLD ONLY AT AD-DRESS BELOW. Call, phone or order C.O.D., or save all charges by sending check or money or-der. We pay all postage. Money back if not

VITAMIN-QUOTA Estab. 1923 Prescription Specialists & one of world's largest distributors of Vitamins. Serving over 2,500,000 families coast-to-coast.

Dept. T-713, 880 Broadway. New York 3, N. Y. or Dept. T-713, 1125 Crenshaw Blvd., Los Angeles 19, Cal. Sales in California add 4% to total of order

PSYCHOLOGY

New Method Tried for Handling Delinquents

AS AN EXPERIMENT, a new way of handling serious juvenile delinquents is to be tried out in Provo, Utah.

When a boy gets into trouble with the law, it is a mistake to pack him off to a reformatory or other "correctional" institution, David Hunter of the Ford Foundation indicated.

Authorities are coming to recognize that such punishment does not cure delinquency, he said. In fact, some reformatories serve as training centers for penitentiaries.

In this new experiment, the youthful offenders will be kept at home and kept in school. But for two hours daily, five days a week, they will meet as a group in rehabilitation sessions. There an attempt will be made to change the delinquent's standards and his attitudes. In addition, he will be helped with athletics, vocational training and, where necessary, remedial school work. An effort will be made to help the boy overcome the pressures that fostered his trouble with the law in the first place.

As part of the research financed by the Ford Foundation, a follow-up comparison will be made of the behavior of boys who participated in the program and those who had instead traditional probation or correctional procedures.

Science News Letter, October 3, 1959

MEDICINE

. . . . \$5.75

Brain May Be Sensitive to Radiation

THE BRAIN, once thought to be resistant to radiation, now appears to be radiation sensitive, report Drs. Thomas J. Haley and H. Gangloff of the nuclear medicine department of the University of California Medical School, Los Angeles.

They exposed experimental animals to radiation at dose levels of 200 and 400 roentgens. The 400 r level can lead to a 50% death rate, but the 200 r level is not normally fatal and usually results only in some radiation sickness.

Electroencephalograph recordings and other observations were made immediately following radiation exposure. Marked spontaneous abnormal electrical activity was

ENGINEERING-How long could strontium-90 be used as a source of electrical power? p. 215.

PHYSIOLOGY—What chemical is stored in large amounts by pregnant women? p. 217.

SEISMOLOGY-What is the estimated size of the rock slide occurring in the Montana earthquake? p. 211.

Photographs: Cover, National Bureau of Standards; p. 211, Convair-General Dynamics Corporation; p. 213, Information Office, Belgian Congo and Ruanda-Urundi; p. 215, Indiana University; p. 218, A. Scholes, p. 224, The Herbert Mart.

noted in certain brain areas at both dose levels. Transistory inability to sleep occurred shortly after radiation exposure.

It had been thought previously that brain cells were among the most resistant type of cells to radiation effects. The UCLA observations are among the first in this country indicating such marked sensitivity of brain cells to radiation. Some Russian scientists had previously suggested it.

These results suggest that even relatively low level radiation belts, such as 200 r, may pose a problem to space crews and troops under tactical nuclear weapons fire. Spontaneous brain electrical discharges and insomnia resulting from radiation effects might make such persons temporarily incapable of performing their duties.

Science News Letter, October 3, 1959

SCIENCE NEWS LETTER

VOL. 76 OCTOBER 3, 1959 NO. 14

Edited by WATSON DAVIS

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. Cable Address: SCIENSERVC.

Subscription rates: 1 yr., \$5.50; 2 yrs., \$10.00; 3 yrs., \$14.50; ten or more copies in one package 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 re-uired. When ordering a change please state xactly how magazine is now addressed. Your ew address should include postal zone number if

Copyright © 1959 by Science Service, Inc. Republication 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 (eight times a year) and THINGS of Science (monthly).

Printed in U.S.A. Second class postage paid at /ashington, D. C. Established in mimeograph form Mashington, D. C. 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.

organized 1921 as a non-profit corporation.

Board of Irustees—Nominated by the American Association for the Advancement of Science: William W. Rubey, U. S. Geological Survey; Wallace R. Brode, National Bureau of Standards; Douglas Whitaker, Rocketeller Institute for Medical Research. Nominated by the National Academy of Sciences: Harlow Shapley, Harvard College Observatory; Philip Bard, Johns Hopkins University, Henry Allen Moe, John Simon Guggenheim Memorial Foundation. Nominated by the National Research Council: Leonard Carmichael, Smithsonian Institution; John R. Dunning, Columbia University, Benjamin H. Willier, Johns Hopkins University, Nominated by the Journal-Bulletin; O. W. Riegel, Washington and Lee University: 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. Writers: Helen Buechl, Ann Ewing Richard Litell, Allen Lona, Jane Marye. Benita Tall, Marjorie Van de Water. Science Youth Division: Joseph H. Kraus, Dorothy Schriver, Shirley Moore. 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.