

MEDICINE

Better Influenza Vaccine

➤ **BETTER INFLUENZA** vaccines seem to be on the way, thanks to work in the World Health Organization laboratories around the world and the World Influenza Center in London during the past two years.

Difficulty with anti-flu vaccines heretofore has been that there are many strains of influenza viruses. Vaccines made to act against one may not be effective if another strain is making people sick.

The classical A strains, used in vaccines made during World War II, have disappeared, in the opinion of Drs. A. Isaacs and C. H. Andrews of the World Influenza Center. They have been supplanted, these scientists believe, by A prime strains.

Under study right now for its value in a vaccine is an influenza virus strain called P. The P influenza has occurred side by side with one called Q in a number of coun-

tries in different parts of the world. It is believed that they are two phases of 'flu virus and that they are reversible. That is, one may exist in a population for a time, until it has passed through partially immune persons to the point where it encounters so much antibody to it that it is transformed into the other phase. Production of antibodies in the blood in response to influenza virus invasion of the body is, so far as is known, the main defense of human beings against influenza.

In the 1950-51 outbreaks of influenza in Europe, Q strains were associated with mild summer outbreaks while P strains were associated with more severe winter outbreaks.

A "surprising feature" of the 1950-51 outbreaks was the fact that the spread of influenza seemed to be directly geographical rather than along main lines of travel.

Science News Letter, November 3, 1951

visits may be eight or nine times as frequent. The blood, instead of traveling at a rate of 55 feet a minute in the large arteries, may move 450 feet a minute.

The greater rapidity of the blood flow must therefore make possible a more rapid and complete removal of waste from all parts of the body, and naturally increases the amount of oxygen in certain parts of the body depending on it. Exercise taken simply and regularly tends to keep the arteries soft, warding off arteriosclerosis or other old age conditions.

Science News Letter, November 3, 1951

SCIENCE NEWS LETTER

VOL. 60 NOVEMBER 3, 1951 No. 18

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

Subscription rates: 1 yr., \$5.50; 2 yrs., \$10.00; 3 yrs., \$14.50; 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, 1951, 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 syndicate services issued by Science Service. Science Service also publishes CHEMISTRY (monthly) 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, 1879. 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 mimeographed form March 18, 1922. Title registered as trademark, U. S. and Canadian Patent Offices. Indexed in Readers' Guide to periodical literature, Abridged Guide, and the Engineering Index.

Member Audit Bureau of Circulation. Advertising Representatives: Howland and Howland, Inc., 393 7th Ave., N.Y.C., Pennsylvania 6-5566 and 360 N. Michigan Ave., Chicago. STAtE 2-4822.

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: Edwin G. Conklin, Princeton University; Karl Lark-Horowitz, Purdue University; Kirtley F. Mather, Harvard University. Nominated by the National Academy of Sciences: Harlow Shapley, Harvard College Observatory; R. A. Millikan, California Institute of Technology; L. A. Maynard, Cornell University. Nominated by the National Research Council: Ross G. Harrison, Yale University; Alexander Wetmore, Secretary, Smithsonian Institution; Rene J. Dubos, Rockefeller Institute for Medical Research. Nominated by the Journalistic Profession: A. H. Kirchofer, Buffalo Evening News; Neil H. Swanson, Baltimore Sun Papers; O. W. Riegel, Washington and Lee School of Journalism. Nominated by the E. W. Scripps Estate: Frank R. Ford, Evansville Press; John T. O'Rourke, Washington Daily News.

Officers—President: Harlow Shapley; Vice President and chairman of Executive Committee: Alexander Wetmore; Treasurer: O. W. Riegel; Secretary: Watson Davis.

Staff—Director: Watson Davis. Writers: Jane Stafford, A. C. Monahan, Marjorie Van de Water, Martha G. Morrow, Ann Ewing, Wadsworth Likely. Science Clubs of America: Joseph H. Kraus, Margaret E. Patterson. Photography: Fremont Davis. Sales and Advertising: Hallie Jenkins. Production: Priscilla Howe. In London: J. G. Feinberg.

PUBLIC HEALTH

Exercise Helps Your Health

➤ **BRISK FALL** weather makes many people feel more like getting outdoor exercise, which is a good thing.

Unfortunately, too many give up exercising at the end of the summer and spend most of their time sitting indoors at desk, card table, movies, and riding in cars and buses. Walking is one of the best of exercises, so if you cannot get any other kind, try to walk at least part of the way to work each day.

Exercise alone cannot keep you in good health, but it can help do that. Some of the ways exercise helps are explained by the Illinois State Medical Society as follows:

A chief value of exercise is to stimulate the general chemistry and physiology of the body through its effect on the circulation and on elimination.

This stimulation keeps the action of the muscles smooth and improves the coordination of nerves and muscles. That is particularly true in persons beyond 20 years of age.

In a man at rest about a gallon of blood is circulated every minute. According to one authority, approximately the entire blood supply of the individual visits the tissues once every minute under resting conditions. With vigorous exercise these

Question Box

ACOUSTICS

Why does the dentist's drill make radio music sound sour? p. 280.

AGRICULTURE

From what countries have our major crops come? p. 282.

ASTRONOMY

How much does the galaxy of which we are a part weigh? p. 278.

ENGINEERING

In what way are "dancing conductors" cured? p. 278.

Photographs: Cover and p. 283, W. J. Mead; p. 275, N. Y. Zoological Society; p. 277, Scripps Institution of Oceanography; p. 279, Carl Byoir and Associates; p. 282, Fremont Davis.

GEOLOGY

To what are changes in crystal rocks now linked? p. 280.

OPTICS

How will knowledge of the twilight sky brightness help plane spotters? p. 280.

PHYSICS

How can X-ray dosage now be measured? p. 278.

TECHNOLOGY

When will home-to-home long distance dialing be available? p. 284.