

PHYSIOLOGY

Babies Under 5 Months Are Vitamin C Factories

VERY YOUNG babies provide their own supplies of vitamin C. This, the anti-scorbutic substance found in fresh vegetables and fruits, orange juice, etc., without which grown-ups can not live, is manufactured in the body of infants up to the age of five months, it is reported to the British scientific journal, *Nature*, by three investigators, Paul Rohmar, N. Bezsonoff and Ursula Sanders, from the medical faculty of the University of Strasbourg.

In its ability to produce its own vitamin C, the infant has a great advantage over the adult, and many animals. Birds and rats, however, also can produce their own vitamin C.

After the age of five months the infant gradually loses the faculty of producing in its own body this valuable substance, its power to do so disappearing entirely at the age of fourteen months. Thereafter it must obtain the vitamin from food.

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PSYCHOLOGY

Psychology to Capture All The Sciences of Man

THE SCIENCE of psychology would expand and swallow up all the sciences that deal with man if the recommendations presented by Dr. William McDougall, professor of psychology at Duke University in Durham, N. C., to the International Congress of Anthropological and Ethnological Sciences, London, were put in effect.

He advocates the integration of sociology, archaeology, anthropology and other "human sciences" into an expanded psychology.

This new psychology, Dr. McDougall urged, should have "the right to pronounce upon all questions of empirical fact concerning the nature of man."

Out of his extensive experience in research and teaching in his native England, at Harvard and at much younger Duke University, Dr. McDougall shot these ideas at the scientists:

"The whole of knowledge is inevitably and always relative to man's own nature."

"This is the true and all comprehensive doctrine of relativity."

"To be scientific, history must become thoroughly psychological."

"Animal behavior is the most important branch of biology."

"All sciences are beginning to become conscious of the need for psychology and they even clamor for a psychology adapted to their requirement."

Dr. McDougall urged upon the scientists the necessity of working with a view to synthesis which alone can produce the much needed systematic psychology which will give a complete theory of man's nature and his relations to the physical world.

Science News Letter, August 11, 1934

PUBLIC HEALTH

Business Recovery Shown By Fewer Suicides

BUSINESS recovery is being reflected slightly in a decline in the suicide rate, Dr. Frederick L. Hoffman, consulting statistician of Boston, Mass., has found. While there were over 21 suicides per 100,000 population in 1932, Dr. Hoffman found that in 1933 there were only slightly over 19 per 100,000.

Davenport, Iowa, for some unknown reason, leads the country, having almost twice as many suicides per 100,000 of its population as the country at large. Cities having the three lowest suicide rates were Williamsport, Pa., Troy, N. Y., and Lansing, Mich.

Firearms, hanging or strangulation and poisonous gas were the three leading methods of committing suicide during 1933.

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PUBLIC HEALTH

Outbreak of Dengue Fever Reported From Miami

AN OUTBREAK of tropical disease, dengue fever, in Miami, Fla., has been reported to the U. S. Public Health Service. So far there have been 80 cases. Efforts are being made by local health authorities to check the spread of the disease by eradicating the mosquitoes which carry it.

Dengue fever is not a fatal disease but causes much suffering. It used to be confused with yellow fever, and occurs frequently in the Southern states as well as in tropical and other semi-tropical regions. During a recent outbreak in Greece almost the entire population suffered from it within a period of about six weeks.

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SEISMOLOGY

Earthquake Located In North Pacific Ocean

THE EARTHQUAKE recorded on seismographs Saturday afternoon, July 28, was centered in the north Pacific, about 150 miles southwest of Kodiak Island. Information reported from Bozeman, Mont., Tucson, Ariz., Ottawa, Canada, St. Louis University, Georgetown University, Honolulu and Manila allowed the U. S. Coast and Geodetic Survey to locate this strong submarine quake.

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GENERAL SCIENCE

Industry Supporting Many Research Scholarships

OUT of 115 industrial concerns and associations, which are at present supporting 200 fellowships and scholarships at various American institutions, 77 are profit-making enterprises, indicating a belief that the education of young men in the field in which a company specializes will be of lasting benefit to hardboiled industrial corporations.

A list of fellowships and scholarships ranging from \$250 to \$2000 has been compiled by Dr. C. J. West of the National Research Council. It contains nearly every imaginable field from research in the vitamins of cranberries to the critical pressure in steam boilers, standard sizes and measurements of woven underwear to extreme-pressure lubricants and spark plugs.

Non-profit organizations which draw their membership from the staffs of numerous private companies working in allied fields also figure prominently in the list. The larger percentage deals in specialized courses, whereas in the private concerns, engineers are for the most part trained in general engineering fields such as chemistry, physics or mechanics. A number of fellowships are also maintained in government offices such as the National Bureau of Standards and the U. S. Bureau of Mines.

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CE FIELDS

PUBLIC HEALTH

Typhoid To Be Fought By Local Health Officials

THE U. S. Public Health Service is leaving the fight against typhoid fever in drought areas to state and local health authorities. These officials are competent to handle the situation, the federal authorities state.

Control of the disease depends on sanitary measures which must be taken by the local authorities, it was pointed out.

The outbreak is limited to those small towns and rural areas where the water supply which is ordinarily safe has been exhausted and the inhabitants have turned to other water supplies that are contaminated.

Persons living in such areas or travelling through them may safeguard themselves by boiling all drinking water and boiling the milk unless it is pasteurized. The federal health authorities do not feel that the situation is acute enough to call for widespread preventive inoculations against typhoid fever.

Reports received by the U. S. Public Health Service for the week ending July 28 show that Indiana had an increase of two cases over the same period last year, Illinois had an increase of 36, Missouri of 43, North Dakota one, Nebraska two, and Kansas 23. South Dakota had just two cases for both years. Oklahoma and Texas showed a decrease, the former of six cases and the latter of 17 cases.

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ENTOMOLOGY

Wood-Eating Termites Must Have Fungi on Food

TERMITES, destructive feeders on all wooden things, apparently need a dressing of fungi on their stiff diet, just as human gourmets require a certain mouldiness on cheese.

This point was brought out by Dr. Esther C. Hendee of the University of California, who discussed her termite researches before the meeting of the

American Association for the Advancement of Science.

Dr. Hendee put similar batches of termites on three kinds of diet: well-rotted wood thoroughly riddled with fungi, new wood with a recent development of fungus growth, and new wood with no fungus at all. The insects thrived best on the well-rotted wood, next best on the wood with fresh fungus growth.

On the fungus-free wood they did not do well at all. They lost weight and did not regain it. They were sluggish and inactive, and abnormal in appearance. They resorted to cannibalism to an excessive degree.

Dr. Hendee has therefore concluded that termites of the species she studied require fungus on the wood, as well as one-celled animals in their own digestive tracts, for the proper handling of their tough provender.

Science News Letter, August 11, 1934

MEDICINE

Fight on Heart Disease Must Start With Children

THE FIGHT on heart disease must be made on childhood's front, it appears from facts reported by Dr. J. V. De Porte, statistician of the New York State Health Department.

Practically three-fourths of all cases of heart disease develop in children under ten years of age, according to estimates quoted by Dr. De Porte.

"The implication of this statement is most important," he declared. "The problem of our high mortality from heart disease should be attacked in the age period where most of the cases have their inception."

In one survey conducted by the State Health Department, more cases of heart disease were found among school children than of communicable, reportable diseases like measles and scarlet fever. In Essex County alone during one year physicians saw 535 cases of heart disease among children and only 312 cases of the reportable group of diseases.

The work of the school physician could be made of the utmost importance in connection with prevention of heart disease and reduction of the high death rate from this cause, Dr. De Porte pointed out. These physicians have an opportunity to discover the first symptoms of heart disease, often long before the parents are aware that anything is wrong.

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PHYSICS

Cosmic Ray Expedition Takes Data in Bad Weather

BATTLING extremes of temperature and high gales atop Mt. Evans in Colorado, scientists of Massachusetts Institute of Technology have just completed successfully the first field tests of the largest cosmic ray meter ever constructed.

The object of the expedition, sponsored by the Carnegie Institution of Washington, was to test the meter in a wide variety of atmospheric conditions. The meter, weighing 3,200 pounds, is one of a new type designed by Dr. Arthur H. Compton, and built in the physics laboratories of the University of Chicago.

The heart of the apparatus is a large sphere of lead at whose center is a small chamber containing argon gas compressed to a pressure of 750 pounds to the square inch. The apparatus has an automatic photographic recording device and is compensated for changes in temperature and atmospheric pressure.

The device is one of seven being built for a world-wide survey which will be carried on by the Carnegie Institution over a period of five years. It is expected these heavy meters will operate continuously for the full period of five years. With them it is hoped to learn more about the nature of the mysterious and powerful cosmic rays which continually bombard the earth.

Dr. Compton believes that the results of this investigation will enable the correlation of variations in the intensity of the cosmic radiation with solar or sidereal time, variations in the intensity of the earth's magnetic field, the sunspot cycle, and other phenomena.

The expedition to Mt. Evans was under the leadership of Prof. Ralph D. Bennett of the electrical engineering department at Massachusetts Institute of Technology. He was accompanied by Gordon S. Brown and Henry Rahmel of the same department.

Preliminary observations were made on the campus of the University of Denver and at Echo Lake at an elevation of 10,600 feet. The apparatus was then taken to the peak of Mt. Evans, 14,120 feet above sea level, where the barometric pressure is 18 inches, and all the extremes of summer and winter weather may be experienced in the space of a few minutes.

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