

MEDICINE

Report Allergy to Thiamin To Medical Association

PEOPLE can become allergic or sensitive to thiamin hydrochloride, the synthetic form of vitamin B₁ given by hypodermic injections, it appears from the history of one such case reported by Dr. Clarence L. Laws, of Atlanta, Ga. (*Journal, American Medical Association, July 19.*)

The patient was an elderly woman who had been getting weekly injections of thiamin hydrochloride, on the advice of her physician, for five months when she noticed that after leaving the doctor's office she sneezed violently several times. Two months later, after allowing 10 days instead of one week to elapse between thiamin injections, she had a severe reaction, turning blue and having great difficulty in breathing. Epinephrine was given and she recovered. Tests then made showed she had acquired sensitivity to the thiamin hydrochloride as people acquire sensitivity to other foreign proteins including those in ragweed pollens.

Doctors should make tests for such sensitivity before giving injections of this synthetic vitamin, Dr. Laws warns, particularly if the patients have previously received thiamin.

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MEDICINE

Synthetic Vitamin Is Allergy Cause

LATEST addition to the long list of substances that can cause trouble for patients with allergies is synthetic vitamin C which now takes its place with ragweed pollen, feathers, milk, eggs, wheat and other causes of hayfever, asthma, hives and headaches. The apparent allergy to synthetic vitamin C in patients with fruit allergies is reported by Dr. Albert H. Rowe in his new book, *Elimination Diets and the Patient's Allergies*, (*Reviewed, SNL, this issue.*)

Fruit allergies are not new. Almost everybody knows someone who gets hives after eating strawberries. Some persons are allergic to several fruits and even at times to all fruits. Others can take cooked but not uncooked fruits. Since fruits are an important source of the anti-scurvy vitamin C, the patient on a fruit-free diet to keep free of hives, gastrointestinal upsets, headaches or other allergic symptoms might get his needed vitamin C by taking the synthetic preparation which is just as good for prevent-

ing scurvy as the natural form. Some of them, according to Dr. Rowe's findings, cannot take the synthetic vitamin, however, and must get their vitamin C from various vegetables rich in this vitamin.

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ASTRONOMY

Bright Meteor Followed By Northern Lights

SIMULTANEOUS occurrence of an extraordinary meteor and an unusual auroral display is reported by Dr. C. W. Gartlein of Cornell University. Both are recorded on a chart made by a photoelectrical instrument which Dr. Gartlein maintains at his residence a few miles north of Ithaca, N. Y.

Dr. Gartlein first noticed the meteor, as it illuminated the landscape with a flash of red light. He hurried outdoors, and saw the greenish train it had left in the eastern sky. Since meteors of this magnitude are rare, all persons who saw it are requested to communicate with Prof. S. L. Boothroyd, director of the Fuertes Observatory at Cornell.

The auroral display was first noticed by Dr. Gartlein while he was watching the meteor train's glow die out. The aurora was weak at first, but soon increased in brilliancy. A greenish elliptical arc appeared in the northwest and moved across the sky into the northeast, shooting up rays that looked like narrow searchlight beams.

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ENGINEERING

Novel Type Wall Uses Green Cottonwood Blocks

A NOVEL method for putting heat-insulating air spaces into a concrete wall is being used in the erection of a new WPA warehouse in Bismarck, N. D. Short lengths of split green cottonwood logs are set, like bricks, into the wet concrete. In a short time the green wood will shrink and decay, leaving the spaces practically empty.

The method is very economical, constructors say, and produces a wall stronger than hollow tile, and with better insulation properties. The idea originated in Scandinavian lands, and was brought to this country by immigrants. It has been used in farm buildings in the region, but the Bismarck warehouse represents its first introduction into public buildings.

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IN SCIENCE

ENTOMOLOGY

New Bacterial Disease Attacking Insect Pest

A NEW disease of citrus red scale, a serious insect pest in California orchards, has been discovered by Dr. V. P. Sokoloff and Dr. L. J. Klotz of the California Citrus Experiment Station. It is caused by a bacterium that lives in the soil. Experiments are now under way, to determine whether the disease can be encouraged to attack the insects by means of spraying or otherwise spreading the bacterial spores.

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MEDICINE

New Operation Successful For High Blood Pressure

A NEW operation that successfully lowers high blood pressure has been performed on human patients for the first time in medical history by Dr. Keith S. Grimson, Dr. Alf S. Alving and Dr. Wright Adams, of the University of Chicago.

In this operation the entire sympathetic nervous system was removed, without serious injury to the patients. This nervous system is the one which has control over the heart, stomach and other internal organs and functions independently of the brain and central nervous system. In previous operations, the connections between this nervous system and certain internal organs have been cut, but the Chicago surgeons removed the nerve centers entirely.

Immediate reduction of high blood pressure resulted. The operation was performed on eleven patients. In some the blood pressure, although lowered, did not reach normal levels, and in some it rose again some weeks after the operation.

A loss of ability to perspire accompanied the lowering of blood pressure, but removal of the sympathetic nervous system had no effect on the activity of the stomach, bladder or lungs, so that a relatively normal existence is possible without these nerves. Operations on cats and dogs had previously been accomplished without loss of life.

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CE FIELDS

MEDICINE

Chloroform Rubbed on Skin Stops Itching of Bites

TO STOP the itching of mosquito bites and chiggers, try rubbing the bites briskly with cotton soaked in chloroform, being careful to keep it away from eyes, nose and mouth. This should also be good for flea bites and swimmers' itch, says W. A. Hoffman, professor of parasitology at the School of Tropical Medicine in San Juan, Puerto Rico. (*Science*, July 18.)

It stops the itching quickly. The sooner it is used after the bites, the better, he found in tests on himself and several other persons, including some physicians, who had been bitten by the local red bug or chigger, mosquitoes, black flies and gnats.

Skin doctors may object to chloroform as being too irritating, but Prof. Hoffman reports that it causes only a temporary burning sensation. He urges that it be given further, more critical trials. So ask your doctor about it.

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PHYSIOLOGY

New Nerve Growth Follows Marked-Out Paths

NEW GROWTH of nerve tissue tends to follow paths naturally marked out for it in the tissues, experiments reported by Prof. Paul Weiss of the University of Chicago indicate. Prof. Weiss spoke before the symposium of the Society for the Study of Development and Growth, meeting at Dartmouth College.

The experiments were planned as a contribution to the study of normal nerve growth. They aimed, however, to let nerve growth occur in the organism "under conditions infinitely simpler and more transparent than those under which it normally occurs and whose complexity defies direct analysis, but still in the organism."

The organisms used were the larvae, or tadpoles, of amphibians—animals of the frog-toad-salamander group. One of the operations consisted in removing a

considerable part of the brain—which the tadpoles don't seem to miss, anyway. The hollow space became filled with a jelly-like substance. Into this new nerve fibers grew from the cut end of the major nerve trunks, especially those leading to eyes and nose. After growing through the gelatinous mass in the skull, nerves often grew along the courses marked for them by other nerve trunks; eye-nerves along the nose-nerve channels, and vice-versa.

A second type of operation consisted in transplanting a bit of brain tissue into a channel that runs through the tadpole's back fin. At a little distance, a developing leg was set into the same channel. Nerve fibers grew rapidly along the path marked by the channel, made connections with the leg, and in some instances actually caused movement in it.

Presence of the transplanted leg seemed to have pronounced influence on nerve growth from the brain fragment. If the leg was in front, the nerves grew forward; if in the rear, the nerves pushed in that direction. If no leg was transplanted at all, only stray fibers left the brain fragment, but no nerve cables formed.

Prof. Weiss also described occurrences in the more complicated situations that arose when new nerve fibers formed branches.

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ECOLOGY

Chinese Tree-of-Heaven Marks Mining Camp Sites

SITES of early California mining camps, so completely vanished that not even a fragment of a building is now to be seen, can be traced by the thickets of ailanthus, or tree-of-heaven, originally planted by Chinese cooks, washermen and laborers, states Harry M. Butterfield of the University of California Agricultural Extension Service.

The ailanthus is a fast-growing tree with long, compound leaves. It puzzles many persons, because it looks somewhat like an oversized sumac, and also a little like an undersized walnut or butternut tree. It has no near relatives in this country, and was introduced from southeastern Asia. It has made itself at home in the East as well as on the Pacific Coast. Once cultivated as an ornamental, it has fallen somewhat into disfavor, partly because it spreads like a veritable weed by means of suckers from its roots, and partly because many find the odor of its flowers disagreeable.

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ENTOMOLOGY

Insects Can Be Lured By Scents of Female Sex

LURING insect pests to their doom with scents that falsely promise mating, is the suggestion put forth in German entomological circles, according to an item in *Die Umschau*, received here after some delay in transmission.

It has long been known that male moths will fly long distances, even in total darkness, to seek females of their own species. It has been commonly assumed that the specific attractant is a scent imperceptible to human noses but easily picked up by the olfactory sense of the insects.

Recently, Prof. Adolf Butenandt of Goettingen University, noted pioneer in the study of sex hormones, succeeded in extracting a substance from female silkworm moths, which in quantities as small as a millionth of a gram would powerfully attract male moths of the same species.

If further research makes it possible to synthesize corresponding attractant compounds for such insect pests as codling moth and European corn borer, they might be used as baits in insect traps. To be sure, only the males would presumably be lured to their destruction. But then the females, left unmated, would be able to produce no eggs, or only sterile ones, with consequent wholesale reduction in the succeeding generation of caterpillars.

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PHYSIOLOGY

Heart Brake in the Brain Regulates the Beating

A NEW heart brake (not heart-break) chemical which keeps the heart from beating too fast is produced in the brain, Dr. Herman Kabat of the University of Minnesota has announced.

The newly-discovered heart brake chemical is apparently produced continuously in the head, (presumably in the brain) and passes into the blood stream and checks the heart's action. When blood from a dog's head is kept from reaching the rest of the body, his heart beats faster, the acceleration averaging 22 beats a minute. The heart beat returns to normal as soon as the "brake" is applied by letting blood from the head flow into the body again.

Experiments are now being made, Dr. Kabat said, to determine the nature of the heart brake chemical.

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