

MEDICINE—PUBLIC HEALTH

# Infantile Paralysis Carried By Flies, Study Indicates

## Coupled With Recent Finding That Disease May Enter Through Digestive Tract, Points to Contaminated Food

**F**LIES were indicted as the villains that may be responsible for the spread of infantile paralysis in a report by Dr. John R. Paul and Dr. James D. Trask, of Yale University, at the meeting of the American Public Health Association in Atlantic City.

The case against flies has not yet been proved but the virus that causes infantile paralysis has been found on two occasions recently in flies caught in the open during infantile paralysis epidemics. In both instances the flies had the opportunity of feeding both inside and outside of privies on human excreta which may have contained the polio virus.

The virus has been found in sewage and in excreta from both infantile paralysis patients and healthy persons believed to be carriers of the disease. These findings plus the recent discoveries showing that the infantile paralysis virus may get into the body through the mouth and digestive tract have suggested that patients may get the disease from contaminated food or water. If flies can spread it, the way in which food becomes contaminated is easy to see.

The possible carrying of the virus by these insects would explain much about the baffling nature of this disease, the Yale investigators declared.

This is a problem which, in the opinion of the medical men, deserves grave consideration by sanitary engineers.

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## Cancer Checked by Diet

**C**ONTROL of cancer by diet may be possible in the future, Dr. Carl Voegtlin, chief of the National Cancer Institute, announced.

The growth rate of certain cancers in animals can be strikingly slowed by keeping the animals on special diets, National Cancer Institute researchers have found. The diets in these studies were partly deficient in such essential compounds as vitamins or another group of chemicals, the amino acids which are building blocks of proteins. No specific diet for cancer patients has yet been

recommended by this group of cancer experts, but Dr. Voegtlin declared that "the time may come when it will be possible to devise diets which will control the cancerous growth in patients."

Cancer research, he said, is on the verge of discoveries comparable to the discoveries that started thirty-five years ago of the vitamins as cures and preventives of nutritional diseases, such as pellagra, beriberi and rickets.

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## Test Toluene Drunkenness

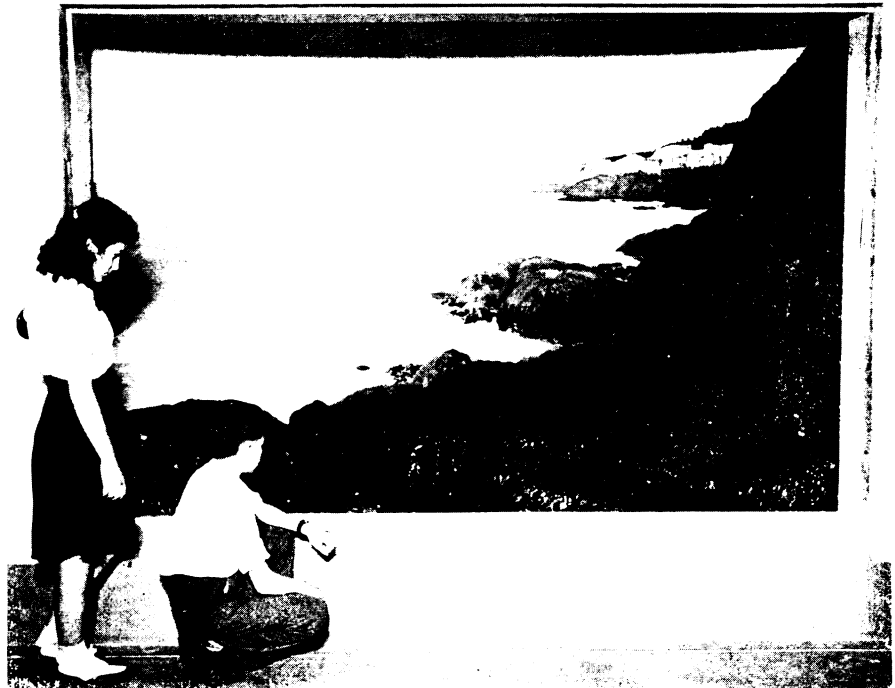
**D**ANGER of defense industry workers getting toluene drunk from inhaling the fumes in their work and causing accidents costly both in manpower and materials may be prevented by a new test announced by Dr. Wolfgang F. Von Oettingen, Dr. Paul A. Neal and Dr.

Dennis D. Donahue, of the U. S. National Institute of Health, to the American Public Health Association.

Toluene poisoning, like alcoholic intoxication, reduces a man's powers of coordination and reaction time and even gives an exhilaration similar to that felt after taking two or three cocktails on an empty stomach, and finally puts him to sleep. The early stages of incoordination and slowed reaction time, which might be fatally dangerous for a man working in a TNT factory, are not recognized by the victim of the poisoning.

A chemical test which gives advance warning of the danger by showing how much toluene the worker is getting into his system has now been worked out by the federal health scientists. It consists in determining the amount of another chemical, hippuric acid, which is excreted. Along with this test the doctor can make a simple test of the worker's coordination, such as asking him to pick up and thread a needle. The victim of insidious toluene poisoning, though he may not appear to be an accident-prone worker, would have trouble even picking up the needle.

Exposure for eight hours to as little as two hundred parts per million of toluene produces definite impairment of coordination and reaction time, the federal scientists reported. Higher con-



MAINE IN MIDWEST

*This little slice of the rocky North Atlantic shore near Lubec, Maine, has been transported in replica to Chicago by a new exhibit in the Field Museum of Natural History.*

centrations, such as may occur under defense-increased industrial activities, may be damaging within three hours exposure. (See *SNL*, May 17)

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## Quick Test For Influenza

**T**HE CHANCE for protection against influenza has been greatly improved by new developments reported by Dr. Frank L. Horsfall, Jr., of the Rockefeller Institute for Medical Research to the American Public Health Association.

Sure-fire protection by vaccination against even one of the three or more strains of influenza-causing viruses is "very improbable," Dr. Horsfall declared.

Combination of a new, quick test for susceptibility or resistance to influenza plus a potent vaccine against the A type influenza virus, however, seems to offer a chance of reducing the number of cases of this type of influenza.

The test was developed by Dr. G. K. Hirst, of the Rockefeller Foundation. It is a simple, quick blood test which depends on the fact that allantoic fluid of chick embryos infected with influenza virus will clump red blood cells together.

When an epidemic threatens, it might be possible by this test to pick out those whose resistance to influenza is below normal and then vaccinate them with the vaccine developed by Dr. Horsfall and associates. This vaccine, in tests during the influenza epidemic last winter, reduced the number of cases in six institutions to fifty per cent. of the number among unvaccinated persons in the same institutions.

The vaccine, even if it could be made more potent, is not likely to give one hundred per cent. protection, Dr. Horsfall pointed out. What it does is to bring the influenza-fighting antibodies in a susceptible person's blood up to, but no higher than, the level in a normal person's blood. The level of these antibodies is related to the degree of resistance to the disease, but even a person with a high level of antibodies sometimes gets influenza. That is why the vaccination is not expected to give complete protection.

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## Self-Antiseptic Clothing

**C**LOTHING with self-antiseptic properties provides a new approach to protecting personal health and avoiding offensive body odors, Dr. L. H. James, of the University of Maryland, declared

before the American Public Health Association.

Such clothing is made from specially treated fabrics which kill germs that get into them. Since body odors are due to bacterial growth and decomposition of organic matter contained in perspiration or other secretions, the treated fabrics remain free from offensive odors.

Infections are less likely to develop in skin cuts when such clothing is worn. People with athlete's foot are less likely to reinfect themselves if they wear shoes lined with self-antiseptic fabric. Chances of getting skin or scalp infection from hats, girdles or underwear that others have tried on before you bought them are reduced.

Self-antiseptic clothing keeps itself free of germs but it does not kill the germs on your skin the way medicated bandages do. If it had strong enough antiseptic power to do this, Dr. James warned, it would irritate and injure the skin in the course of repeated contact.

Practically all leather hat bands are now made of self-antiseptic material. Some 15,000,000 mattresses, including those used by the Dionne quintuplets, are made of treated fabrics. More than 2,000,000 pairs of self-antiseptic canvas shoes were made last year and over 4,000,000,000 pieces of personal contact laundry, such as sheets, pillowslips, and night clothes, were treated, Dr. James said, citing these figures to show that self-antiseptic clothing is more than a fad.

Self-antiseptic sheets, nightgowns and the like for patients with smallpox, scarlet fever or other sicknesses in which germs are on the skin in great numbers, Dr. James pointed out, help to protect nurses and laundry workers.

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## More Harm Than Good

**M**OUTHWASHES endowed with germ-killing power are likely to do more harm than good, it appears from studies by Dr. Henry Welch and Dr. Charles M. Brewer, of the U. S. Food and Drug Administration. They not only fail to kill germs but destroy the white blood cells which are part of the body's own germ-fighting forces.

Only 9 of 87 commercial mouthwashes tested were able to kill germs under the conditions of the test, but 62 of them were toxic in a one-to-five dilution. Some were toxic at much greater dilutions. By toxic is meant not life-destroying power but ability to destroy the germ fighters in the blood.

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## Soldiers' Malaria Reduced

**E**FFECTIVE mosquito control measures, carried on in nearly 100 camps, posts and stations, have been a factor in reducing the malaria rate among troops in the United States to one-third of what it was during 1918, Col. W. A. Hardenbergh, Sanitary Corps, U. S. Army, reported.

In providing the necessary water supplies for the million and a half soldiers now in the Army, 11 modern filter plants have been built to serve major camps, and hundreds of deep wells have been sunk. In 42 major camps, modern sewage treatment plants were constructed to protect the health of the troops and of nearby civilian communities and to prevent nuisance.

Nearly 100 sanitary engineers, reserve officers of the Sanitary Corps, who are assigned to duty in the Surgeon General's office and to assist Medical officers in the field, have provided the technical skill required for these procedures.

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## Priorities For Vitamins

**D**EFENSE priority ratings for materials needed in the commercial manufacture of two vitamins have been obtained so that no shortage in these strategic chemicals will occur, Dr. W. H. Sebrell, U. S. Public Health Service, announced to the American Public Health Association.

The two vitamins concerned are the morale vitamin B<sub>1</sub> and riboflavin. The latter is needed for protection against an eye disorder that may destroy vision. It is difficult to obtain an adequate supply of this vitamin from the diet unless plenty of milk is taken every day. Nutrition authorities therefore believe it would be advisable to add this vitamin to enriched bread and flour as soon as an adequate supply is available. Synthetic vitamin factories are now working to increase production of both riboflavin and thiamin, which is vitamin B<sub>1</sub>. When large scale production is under way, Dr. Sebrell said, the addition of riboflavin, thiamin, and pellagra-preventing nicotinic acid to white flour and bread will cost no more than the addition of thiamin and iron does now.

Emphasizing the need for a better national diet for defense Dr. Sebrell cited a newspaper survey which showed that selective service rejections for medical and health defects in Chicago were about twice as great in the slum wards as in the well-to-do wards of the city.

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