

MEDICINE

# New Leads to Prevention of Infantile Paralysis Found

**During Epidemics, Individuals Should Avoid Chilling And Strenuous Exercise; See Physician as Soon as Ill**

**D**ISCOVERIES that may lead to prevention of infantile paralysis were announced in reports to the medical committee of the National Foundation for Infantile Paralysis.

The mouth and alimentary tract are the probable areas of invasion by the virus of the disease, rather than the nose, as previously believed, and the alimentary tract is the chief site from which the virus is eliminated, Dr. Albert B. Sabin, of the University of Cincinnati, reported.

This puts the disease in a class with ailments like typhoid fever, instead of in a class with colds and influenza, from the standpoint of how it is spread and how its spread may be prevented. Diseases like the common cold which invade the body by way of the nose are spread by germs in nasal discharges, the breath and the saliva. Dr. Sabin could not find the causative virus in nasal secretions or saliva from patients sick with infantile paralysis, nor in portions of the nerves

of smell examined after death in 12 fatal human cases. These findings, he pointed out, do not agree with the theory that the virus enters the body through the nose and travels along the nerves of smell to the brain and spinal cord.

Avoiding strenuous exercise and chilling during epidemics was advised by Dr. Sabin and Dr. Sidney O. Levinson, of Chicago, as a possible method of preventing the paralysis even if it does not prevent getting the disease.

"The history of heavy exercise (playing ball, swimming, hiking, etc.) is very frequently given by patients with paralytic poliomyelitis, and a limited personal inquiry has revealed that the interval between this exercise and the onset of paralysis is usually less than 24 hours," Dr. Sabin said. "This short interval suggests not only that those individuals were already harboring the virus in their nervous systems, but also that it might already have involved their medulla ("after-brain") and spinal cord and that the

exercise could be the factor which converts what might have remained an inapparent or nonparalytic type of poliomyelitis into the frankly paralytic type of the disease."

This would mean that, at least in epidemic areas, those persons who have fever, headaches, intestinal upsets, pain in the back and neck, and other otherwise unexplained symptoms of acute sickness, should not only see a physician immediately but also, under no circumstances, should indulge in heavy exercise.

Dr. Levinson stated that monkeys with infantile paralysis who were chilled by immersion in cold water developed a more severe paralysis than did either those that remained in their cages or those that were immersed in water at body temperature. This would indicate the obvious necessity of guarding humans with the disease against chilling.

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PUBLIC HEALTH

## Find Clues For Predicting Infantile Paralysis Outbreaks

**C**LUES for predicting where infantile paralysis outbreaks are likely to occur in the summer have been discovered by Dr. C. C. Dauer, epidemiologist of the District of Columbia Health Department.

The clues point to a possible outbreak of the dreaded childhood malady in Virginia this coming summer, Dr. Dauer suggests. (*Public Health Reports*)

The epidemics may not always come off as predicted. The clues which foretell the possibility are found in the number of infantile paralysis cases occurring in a given locality in the late fall and early winter. When there are a relatively large number of cases in a community at such a season, that community and surrounding area is likely to have a severe outbreak the following summer, Dr. Dauer finds from examining epidemic records as far back as the big 1916 infantile paralysis epidemic, when 27,363 cases were reported from 27 states.

Although no preventive of infantile paralysis has yet been discovered, Dr. Dauer suggests that the possibility of predicting where summer epidemics may come will give scientists a chance to test any preventive measures that may be devised and to carry on valuable preliminary studies on the epidemiology and immunology of the disease.

The records show, he says, that "several counties in eastern Kentucky and western West Virginia which had a high incidence in the fall of 1939 appear to have



**FLYING FORTRESS**

*This American ship now is seen wearing the bullseyes of the R. A. F. This Boeing B-17C-type bomber has a top speed of over 300 miles an hour and is especially equipped for high altitude flying.*