

# Ask Parents to Follow Do's, Don'ts To Help in Prevention of Infection

By KEN W. MacTAGGART

As hot, steamy weather sets the stage for the ideal conditions under which outbreaks of polio usually occur, Canadian medical authorities are urging parents to follow the few known do's and don'ts that can help to prevent infection. These are:

- Make children wash their hands often, especially after visiting the bathroom;
- Compel all persons handling food (and this especially includes mothers) to wash their hands often;
- Avoid small swimming pools, particularly the private type in which water is not changed often;
- Wage war on flies.

Although polio is the subject of one of the biggest research drives in all medical history, it is still one of the most controversial medical subjects. Though research has almost opened the door which will reveal the secret of successful long-term immunization, top authorities will admit there is much they still do not know about the affliction.

Yet all agree that parents should not become unduly alarmed; that few children are crippled of those who undergo active infection, and that far more have undergone natural immunization by mild, low-grade attacks and never even knew it.

So, they urge, do not become too alarmed. Because it is generally agreed that the main method of infection is by transference of bowel discharge, they urge the practices mentioned above. Children should wash their hands often; so should mothers. So should all handlers of food.

If infection breaks out in serious degree, what then? Active immunization—long-term immunization by vaccine—is still under study. Doctors think they are very close to its perfection.

Passive immunization—short-term prevention—has been tried, with very good results, but it can't be available generally. There is not enough gamma globulin, which is made from blood and requires one pint of blood for one average dose.

Gamma globulin produced in Canada by Connaught Laboratories is wholly controlled by the Federal Department of Health, under the guidance of a committee which includes provincial officials and top polio doctors. In the U.S. all gamma globulin has also been

frozen by U.S. public health authorities.

These stock will be available for serious outbreaks with a three-fold purpose: An effort to confine the outbreak to its local area, an attempt to reduce infection of children in that area, a test of the g.g. to add to the fund of information existing at present.

The very development of g.g. has caused doctors a headache. In Toronto, for instance, a few doctors bought modest supplies when these were available months ago before U.S. officials seized all g.g. These intimated to some mothers that they had some g.g. Word flew around that g.g. could be obtained.

Hundreds of doctors, including those at the Hospital for Sick Chil-

dren, had countless mothers clamoring for assurance that g.g. would be available for their youngsters.

It has been difficult for these doctors to convince mothers that g.g. is not available, that it is useless to inject it into children immediately because it only lasts about five weeks before efficacy wears off, and that little actually is known of the real value of the stocks which some doctors bought from drug firms before the freeze went into effect.

Instead, doctors now want mothers to know that if a serious outbreak occurs, some will be available probably from the pitifully small stocks on hand. Thanks to the Connaught Laboratories, more was produced in Canada than was originally thought possible.

Yet it could be wasted in a day if casually released. It will be made available only on a carefully planned basis for use where it is drastically required.

Further, doctors know a lot more about diagnosis and treatment. At the Hospital for Sick Children, for instance, research projects, wholly apart from the vaccine search pressed for many months in collaboration with the Connaught Laboratories, are continuing constantly.

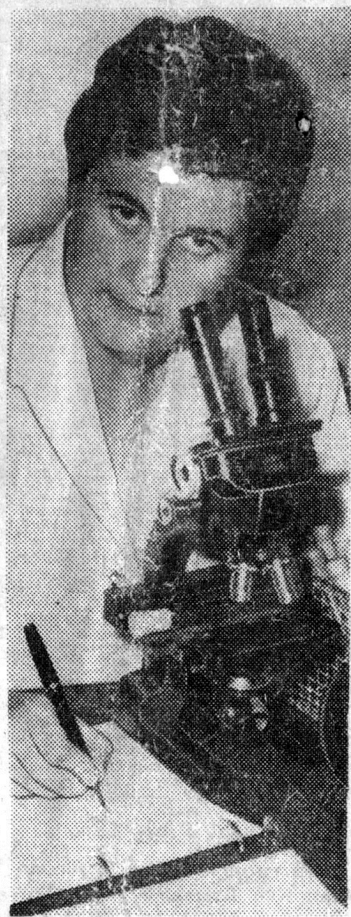
There the laboratories have evolved a diagnosis method using monkey tissue. Early diagnosis of doubtful cases is important, so this is a distinct contribution.

In a doubtful case, a spinal puncture to seek polio virus is made. If this proves nothing conclusive, a sample of the child's bowel discharge is concentrated by centrifuge and added to a solution containing live and growing tissue. Under carefully controlled conditions this is watched. If tissue is destroyed by polio virus, the child has polio.

The same process, by addition of a serum compounded from a child's blood, will reveal if the youngster has antibodies in its blood—in other words, has a polio resistance.

This work, carried on under a federal-aided health grant by Dr. George McNaughton, chief of the hospital's infectious diseases division, and Mrs. Darlene Duncan as chief of the laboratory work, is important apart from its immediate service to patients.

It is also classifying the types of polio encountered in Canada. There are three known: Types 1 and 3 have been found so far, with type 1 by far the commoner.



Dr. Ann Peach,

Edinburgh-trained head of hospital's polio ward, studies under microscope condition in tube. Laboratory process can reveal if child has immunity to polio, or can reveal type of three viruses which have attacked victim.