

# Polio Vaccine Consists Of Billions Of Dead Viruses

**By ALTON L. BLAKESLEE**  
AP Science Reporter

NEW YORK (AP)—Each child taking the Salk polio vaccine this spring will have 30 billion dead polio viruses shot into his arm. Each will get three shots, each shot containing 10 billion viruses. Because they are dead, the viruses cannot cause polio. But even though dead, they still have some power to stimulate a person to make antibodies, the body's natural disease fighters.

Giving billions of dead viruses means concentrating this antibody-making power.

The big question is whether the vaccine can produce enough antibodies to protect children against natural exposure to live polio virus this summer.

All the scientific evidence indicates that it will. But the only way to find out is to have half a million to a million children take the vaccine, and see whether and how well they resist polio this summer.

And the test must be run upon a huge number of children, because paralytic poliomyelitis is actually a rare disease.

Polio has been called an epidemic if only 20 out of 100,000 persons come down with it. However, it hits children more often than adults.

If you picked any scattered group of 500,000 children aged 6 to 9, you would expect that about 350 or so would become recognizably sick next summer with polio. (Of this 350, more than half would recover with no paralysis.)

So for an adequate test you must have half a million to a million vaccinated children to compare with an equal number of nonvaccinated youngsters of the same ages, living in the same communities.

Among the nonvaccinated half million, there might be 350 cases of polio. How many will there be among the vaccinated half million? No cases? A perfect vaccine. Thirty-five cases? The vaccine would be 90 per cent effective. Very good.

Across the nation, children and parents and doctors and nurses and schoolteachers and health officers are volunteering to take part in this crucial test of the vaccine developed by Dr. Jonas E. Salk of Pittsburgh.

Local health authorities and the National Foundation for Infantile Paralysis are conducting the trial. Up to a million children in 179 communities or areas of 44 states are scheduled so far to get the vaccine.

In some communities the vaccine will be offered to all children of the second grade in schools. Children in the first and third grades of the same schools will be recorded as the "controls" or comparisons.

In other communities, half of the children in the first three grades of the school will be given the vaccine. The other half will get identical-looking shots of a fluid which is ineffective. All the syringes, whether containing real vaccine or useless fluid, will bear only code numbers, which will be placed next to the child's name on records made when he takes his shot.

These children, their parents and doctors, will not know whether they got the actual vaccine, or the ineffectual fluid. The meaning of the code numbers will be known only to a team of experts who will get reports, after the polio season is over, of the names and what happened to children who did develop polio during the summer.

This team, headed by Dr. Thomas Francis Jr., University of Michigan School of Public Health, will receive complete reports on all children—known to be vaccinated or not—in the test areas who are diagnosed as having polio.

That team can then give the answer on whether the vaccine really works.

Only a few years ago the possibility of a practical vaccine looked far distant. Then some great discoveries, mostly made in research supported by the March of Dimes, cracked the barriers to making field tests of a promising vaccine.

First it had to be learned how many different types of polio virus could cause human paralysis. That answer was learned in brilliant, three-year cooperative research by several great medical institutions. There are three dangerous types—Brunnhilde, Lansing and Leon.

This meant an effective vaccine would have to contain all three types of polio virus.

But where to get the virus? This roadblock was broken by the success of Dr. John F. Enders of Harvard in growing polio virus in test tube cultures of non-nervous tissues.

Where to get enough virus? The Enders method was developed and improved, until now the kidney tissues from a single monkey can be made to produce enough virus to give a series of vaccine shots to 1,000 children.

This yields a harvest of live virus. The live virus then is killed by bathing it in formaldehyde.

And it was found that polio virus, when it attacks, usually goes from the intestinal tract to the bloodstream and then goes on to strike at nerves. This meant that if a person had antibodies standing guard in his bloodstream, he could defeat the attack.

Dr. Salk showed that a vaccine containing dead virus could produce significant, even large, amounts of antibodies in the blood of vaccinated humans.

The stage was all set for the field test.

Five pharmaceutical firms are growing the virus and preparing the vaccine. Each batch of vaccine is tested nine times for safety to make sure all the viruses are dead, and that the vaccine is pure. Triple tests are made individually by the manufacturer, by Dr. Salk's laboratory, and by the Laboratory of Biological Control, National Institutes of Health, U. S. Public Health Service.

The National Foundation is footing the bill of at least 7½ million dollars. The pharmaceutical firms are making the vaccine for the tests on a nonprofit basis.

If the vaccine passes the test, then it could be supplied in large enough amounts for everyone. It would take 40,000 or more monkeys to supply the tissue to grow enough virus for vaccinating all the nation's youngsters.

But there's reason to believe that each child may need only one series of shots for lifetime protection. The job after that would be only to vaccinate each new crop of babies early in life, much as they now get vaccinated for diphtheria and other diseases.

The scourge of polio would be over.



SHARON CHAFFIN, left, daughter of Mr. and Mrs. George Chaffin and Bruce Vandergran, son of Mr. and Mrs. Bill Vandergran, Lakeview, will go to Portland in April to attend the three day roller skating meet at the Imperial Skating Rink. They will enter competition as a novice dance team. Fred Flesher is the instructor.

### Churchill Bows To Labor Party

LONDON (AP)—Prime Minister Churchill, bowing to Laborite demands, announced Wednesday the House of Commons will open a full debate on hydrogen bomb problems next Monday.

The 79-year-old Prime Minister told Commons he will speak himself on Britain's position and policy.

It will be his second declaration on the subject in less than a week. He said Tuesday American experiments in the Pacific were essential to defense of the free world and spurred demands that he use his influence to have them called off.

## HOT, HEARTY and DIFFERENT!

...cooks in "no-time"



You don't have to stick with the same hot cereal everyday! Here's a nourishing breakfast dish with a wonderful "wheaty" flavor that's different! Carnation Instant Wheat has all the natural whole wheat values, too! At your grocer's now!

(Tomorrow: Possible pitfalls, other vaccines, and G. G.)

Excise Tax Reduction Sale now in progress on Kenmore electric ranges, Goldspot refrigerators and freezers, plus all other excise taxed items. Additional savings up to \$24.00. Sears, Roebuck & Co.

# Rome Hosts World Wide Festival

ROME (AP)—Top musicians of the free world launch a two-week festival of 20th century music in Rome Sunday. A competition for 12 young composers—two of them Americans—is one of the top events.

This year's International Conference of Contemporary Music, April 4-15, is an offspring of the 1952 Masterpieces of the 20th Century in Paris. That month-long festival of music, ballet and painting, designed to prove that art thrives on freedom, brought boys from European Communist and high praise for such American performers as the Boston Symphony Orchestra and the New York City Ballet.

The Reds so far have ignored the Rome festival, perhaps because the sponsors are playing down the political angle. And the Americans this year are leaving most of the spotlight to the Europeans.

Leading composers, music critics and performers were invited this year from Russia and her satellites but the festival's chairman, Nicholas Nabokov of New York, now on the staff of Rome's American Academy, said only Poland's leading composer, Panufnik, replied—"a very polite letter say-

ing he was 'terribly busy.'"

The festival is sponsored by the anti-Communist Congress for Cultural Freedom, which staged the 1952 Paris event, the European Center of Culture of Geneva and the Italian radio.

**\* PICTURE FRAMING**  
*Underwoods*  
CORNER SHOP  
200 Main St. Phone 7000

# BEST FOOD BUYS WHY PAY MORE?

**Meats** IT COSTS NO MORE to have the BEST!

PURE **Ground Beef 3 lbs. \$1**

U.S. "GOOD" or "CHOICE" **Rib Steaks 69c lb.**

**HAMS 69c lb.** (Half or Whole)

**FRYERS 65c lb.** (The Best! Really Fresh) (69c lb.)

DOUBLE "AA" BRAND - Pan Ready

Spring Chinook <b>Salmon 65c lb.</b>	<b>Red Snapper 3 lbs. \$1</b> (lb. 35c)	15-18 Size <b>Fresh OYSTERS 59c pt.</b>
--------------------------------------	---	---

**CARL'S SUPERIOR MARKET**

**LOCAL BUTTER 55c lb.** (Medo-Land or Crater Lake)

**Golden West COFFEE 95c lb.** (While it Lasts! Limit!)

**SNOWDRIFT SHORTENING 3-lb. tin 79c**

**MECO TOMATOES 19c** (No. 2½ Tins 6 for \$1)

**PEACHES 25c** (No. 2½ tins)

**DEL ROQUE TOMATO JUICE 19c** (46-oz. Tins)

**PEAS 10c** (Picnic Tin)

**Arizona Grapefruit 45c** (8-lb. bag)

**Young, Tender Asparagus 23c** (lb.)

**New Red Potatoes 9c** (lb.)

**Onion Sets 23c** (lb.)

**U.S. No. 1 Klamath Potatoes 35c** (10 lbs.)

**Tomatoes 23c** (12-oz. Cello tube)

# Dutch Pantry SALE



**JEWEL SHORTENING**

3-lb. Tin 69c

50c Worth of Coupons in each can



**Swansdown Cake Flour**

29c Pkg.

**POTEET'S MKT.**

Owned & Operated by Bob & "Peanuts" Poteet

Swift's Premium **PICNICS 49c lb.** (4-6 lb. ave.)

Lean, Fresh **Ground Beef 29c lb.**

End Cuts **Pork Chops 59c lb.**

Lean, Center Cut **Pork Roast 49c lb.**

**SELECT PRODUCE**

10-lb. bag **25c**

Sweet Juice **ORANGES 3 lb. 29c**

**Tomatoes 19c** (tube)

**Cabbage 5c** (lb.)

Firm, Fancy Fruit **Bananas 2 lb. 29c**

Performs Cooking Miracles!

**CARNATION MILK 3 cans 39c**

**GOLD MEDAL FLOUR 10 lb. 99c** (bag)

**WESSON OIL 69c** (Quart)

**SPAM 49c** (can)

**Gaines Dog Meal 1.49** (10 lb. bag)

**Chili Con Carne 39c** (2 cans) (With Beans—Stidd's)

**DEPEND ON US FOR QUALITY**

GET THIS ROLY POLY PLASTIC **TONY THE TIGER ONLY \$1.00** (WITH BOX TOP FROM)

**Hellberg's SUGAR FROSTED FLAKES 23c pkg**

Free Delivery On \$5.00 Orders Or Over

**JURGENSEN'S**

GROCERIES • PRODUCE • FROZEN FOODS

1710 Oregon Ave. --- Phone 3860

Prices Effective Through Saturday

**NO CHARGE FOR PLANS OR ESTIMATES**

ON New Construction or Remodeling

FHA Terms—No Down Payment

Galloways Building Service

Phone 2-2564 — Evenings 6469

**FRIENDLY SERVICE!**

**GRIGG'S SUPERIOR FOODS**

**EASY SHOPPING!**