

MEDICINE

# New Measles Vaccine Successful in First Trials

Army Officials as Well as Parents Will Welcome It; Country Lads in World War Had Disease Severely

**S**UCCESS in vaccinating a small group of children against measles, widespread childhood ailment that often leads to pneumonia and serious ear trouble, has been achieved by Dr. Joseph Stokes, Jr., University of Pennsylvania Medical School, and Dr. Geoffrey Rake, Squibb Institute for Medical Research, New Brunswick, N. J.

Army officials as well as parents throughout the land will hail this promise of triumph over measles, announced at the University of Pennsylvania Bicentennial Conference in Philadelphia.

During the last World War, it was pointed out, measles became one of the commonest causes of death in the Army. This was because thousands of country

lads who had never had measles due to their relative degree of isolation during childhood contracted the disease after they got into Army training camps. Many of them not only had measles but a severe and often fatal pneumonia as a complication of the measles.

The new anti-measles vaccine was made by growing the measles virus or germ on fertile hen's eggs. Apparently the virus becomes weakened or attenuated while growing in this environment and when injected under the skin or placed within the nose it produces a very mild type of measles in some children and no symptoms at all in others.

Two groups of children in New Jersey and Philadelphia, with the permis-

sion of their parents and health authorities, gave the new measles vaccine its first trials. None of the children had ever had measles. One group was vaccinated and the other was not. Both groups were then given injections of measles virus from patients who had measles. The unvaccinated children came down with measles, but the vaccinated ones did not. This was most encouraging, but Dr. Stokes pointed out that the number of children in these trials of the vaccine was too small to be entirely sure of the value of the vaccine.

Permission to make the tests was readily given by parents as well as health authorities because neither group of children ran very much danger. In the first place, they were all likely to get measles at some time in their lives, since 98 out of every 100 children are susceptible to it. In the second place, the trials were made in spring, the season when measles is least likely to be followed by ear trouble, pneumonia or other complications. Besides this, the children all had the very best medical and nursing care to help them recover safely from the ailment.

Production of large amounts of the vaccine, it is said, will not be difficult and it can be preserved for long periods.

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HEREDITY

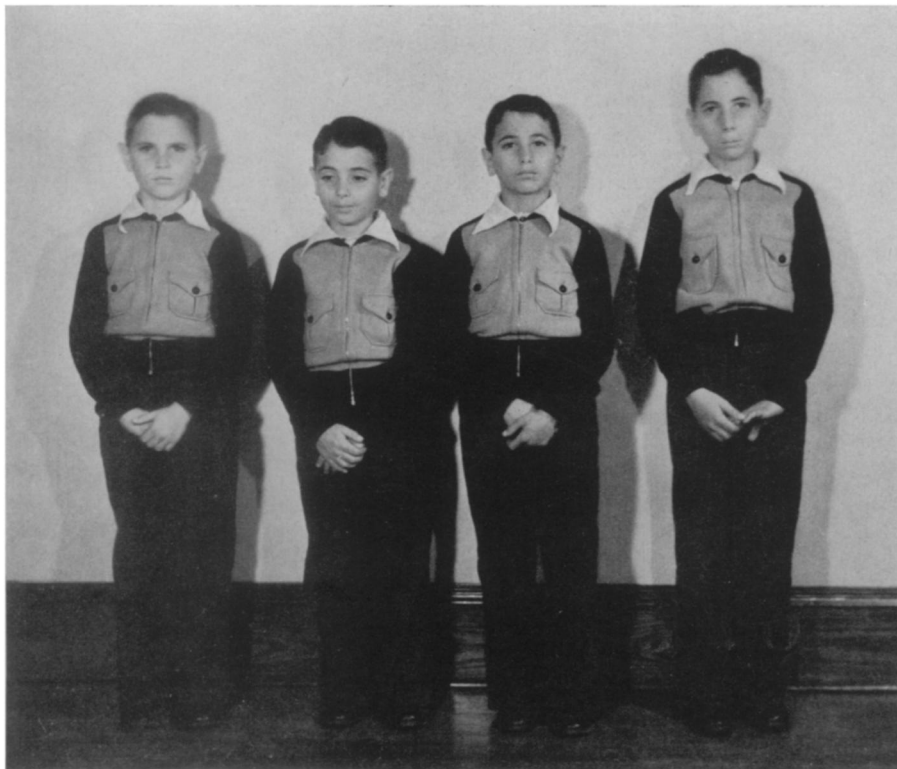
## Scientists Amazed by Quads; Only One of a Kind in Four

**"ALMOST** a miracle," is what scientists say about four little Texas boys, nicknamed the Alphabetical Quadruplets because they are named Anthony, Bernard, Carl, and Donald—A., B., C., and D.

These Perricone quads seem to be the only all-male set now living in the United States. But that is only one of their unusual qualities, described by Dr. Iva C. Gardner, Baylor University psychologist, and Dr. H. H. Newman, biologist, in the current issue of the *Journal of Heredity*.

These quads are all what is known to scientists as non-identical—just four ordinary brothers who happened by the most remarkable chance to be born at the same time.

Quadruplets, like twins and other multiple births, may come about in two ways. The cells developing from a single egg cell, or ovum, may through a biological accident split apart and form two or more perfect individuals. The twins formed in this way are called identical because they are so exactly alike in physi-



**ALPHABETICAL QUADRUPLETS**

*Anthony, Bernard, Carl and Donald surprise scientists because no two of them are alike. They differ mentally as well as in appearance. This photograph is from the Journal of Heredity.*

cal and even mental and personality characteristics. They may be mistaken for each other even by their parents. The Dionne quintuplets are believed to be all identical.

But twinning may occur also by another sort of biological accident, the simultaneous development of two or more egg cells and their fertilization at the same time. Twins formed in this way may not be any more like each other than other brothers and sisters and may be of different sexes.

Quadruplets could thus be of four combinations—all identical, two pairs of identical twins, identical triplets and an odd one, or four brothers or sisters, no two of whom are identical. The chances of the last occurrence—four separate egg cells developing safely to maturity at the same time—are extremely small.

Yet the Alphabetical Perricones represent just such a fabulous occurrence. And to add to their rarity, they are all boys. The chances that non-identical quadruplets would be all boys is only one in 16.

Psychological studies by Dr. Gardner reveal that these four brothers are just as different in mind and temperament as they appear physically. Although they are all just about average in intelligence, Carl's IQ is 10 points higher than either Anthony's or Donald's and five points higher than Bernard's. The particular questions they do well on are different.

Carl and Bernard rush ahead and make quick decisions. Anthony and Donald deliberate longer. Donald misses questions that have to do with reading, but he is very good in detecting absurdities. Anthony and Donald are better than either Carl or Bernard on the non-reading performance tests.

These little boys were born of Italian parents on October 31, 1929, on a small truck farm near the outskirts of Beaumont, Texas.

In physical appearance, Bernard and Carl are more alike than any other pair among the four. But Bernard has medium chestnut hair and light brown eyes while Carl has dark brown hair and dark brown eyes. Carl is two inches taller than Bernard. And Bernard has freckles.

Anthony is also freckled, but is fair with bluish-gray eyes. He is the only left-handed one of the quads.

The boys have five older brothers and each of the quads has one older brother whom he resembles more than he does any one of the other quads.

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MEDICINE

# Anti-Bleeding Vitamin K May Prove Weapon Against Cancer

## Vitamin K Favors Production of Prothrombin; This In Turn May Protect Body Against Cancer Causers

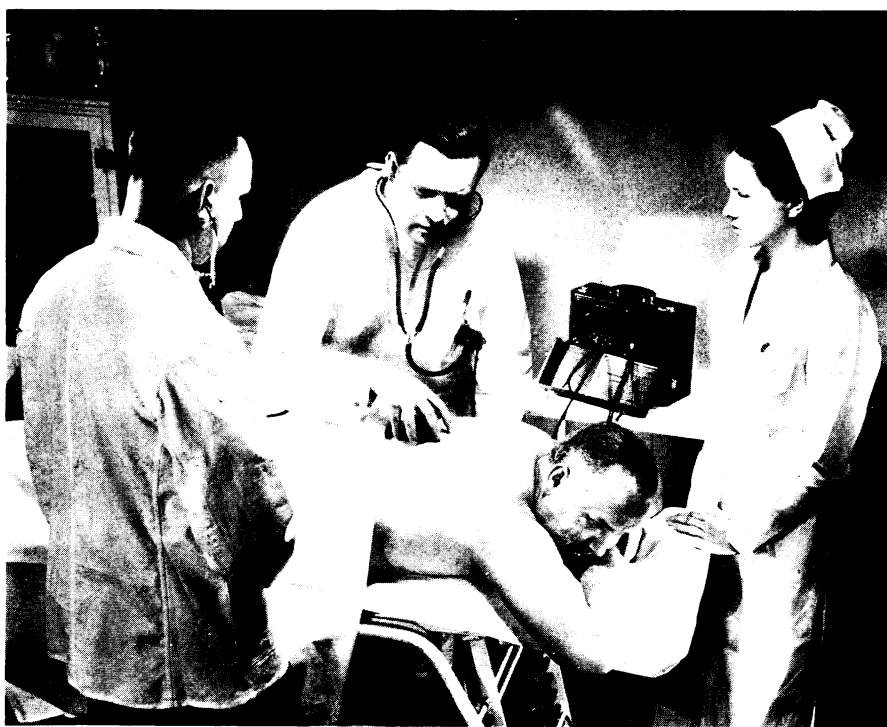
**V**ITAMIN K, the vitamin that is saving new-born babies and sick adults from bleeding to death, appeared in the new role of a possible weapon for the fight against cancer in a report by Dr. Louis F. Fieser, of Harvard University, to the University of Pennsylvania Bicentennial Conference.

Prevention of cancer by means of this vitamin is the possibility, admittedly purely speculative as yet, which Dr. Fieser suggested to fellow scientists as a result of recent chemical studies of both the vitamin and cancer-causing chemical compounds.

Vitamin K prevents bleeding in certain cases because it favors production in the body of prothrombin, the blood constituent necessary for proper blood

clotting. A recent report from Duke University researchers on this point indicates, Dr. Fieser said, that the chemical relationship between the vitamin and prothrombin is similar in certain ways to a detoxifying of cancer-causing chemicals that has been observed in laboratory animals.

"On the hypothesis that a cancer-producing hydrocarbon can be detoxified by interaction with suitable disulfide compounds," Dr. Fieser said, "it is conceivable that one of the normal functions of prothrombin may consist in the protection of the body from incidental carcinogens (cancer-causers). This would suggest the possibility that maintenance of prothrombin at the top level of activity by administration of vitamin K



### SENSITIVE

*Even the hard of hearing can make use of the electrical microphone stethoscope now available for U. S. Navy physicians. A volume control and filter makes it possible to separate normal heart sounds from abnormal sounds.*

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