

MEDICINE

Clue to Leprosy Spread

► THE ANCIENT and still practised Buddhist custom of shaving the heads of new babies has given two U. S. Army doctors a clue to how leprosy spreads.

The disease is caught by an infant through skin-to-skin contact with a leprosy person, the doctors, Col. Edward A. Cleve and Col. Francis W. Pruitt, report from the Letterman Army Hospital, San Francisco, to the *Journal of the American Medical Association* (June 13).

In Japan, Korea and Formosa as well as China, children's heads are shaved and kept shaved from the time they are one week old until they are about four, if girls, and eight or nine, if boys.

Examinations of 1,369 patients with leprosy in leprosariums in Japan, Korea and Formosa showed that 35% were bald because of leprosy infection of their scalps. In 11 countries where infant head shaving is not the custom, less than one in a hundred (0.3%) of patients have this scalp leprosy and baldness.

The germs of leprosy, the Army scientists state, must at some time leave the patient's

body through the sweat glands. Heads shaved of their protective hair and "inevitably" nicked and cut from time to time during the shaving would give ready entrance to large numbers of the germs from an infected grown person.

In support of the skin-to-skin contact theory the Army scientists also point to the distribution of the first skin sores in children at the Cullion Leprosy Colony, Philippine Islands. These appeared on both cheeks, elbows and knees and those parts of the thighs, buttocks and arms that would be in contact with the mother as she carried the baby in her hands and bare arms.

"Contraction of leprosy by healthy adults is rare and most reported cases are open to question," the scientists point out.

In a certain number of cases first recognized in a grown-up, the germs may have gotten into the body when the patient was a child and lain dormant for many years.

The way to control leprosy, Col. Cleve and Col. Pruitt state, is to separate the leprosy person from the infant or child.

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ceived. New York callers averaged 71,000 weather inquiries each day during 1951, but on four days weather calls sometimes shot up to 270,000.

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• RADIO

Saturday, July 4, 1953, 3:15-3:30 p.m. EDT
"Adventures in Science" with Watson Davis, director of Science Service, over the CBS Radio Network. Check your local CBS station.

Pat Murphy, assistant national director, Red Cross Safety Service, will discuss "Summer Safety."

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CHEMISTRY

Synthetic Petrochemicals

► MOST OF the organic chemicals now marketed will in the future be made from petroleum, Dr. Gustav Egloff, director of research for the Universal Oil Products Company, predicted at the meeting of the Chemical Specialties Manufacturers Association in Chicago.

Citing the fact that thousands are already so based, he said that "the possibilities are almost limitless when one considers that there are now 600,000 organic compounds and in a few years there may be over a million. Not only are new chemicals continually being introduced but new specialty applications are being found for products already in use."

As an example, he noted the epon resins, which, used primarily for primers and floor varnishes, have also been applied to a variety of fields such as baking finishes and can coatings.

New combinations of the petrochemical products are also resulting in a wide range of interesting specialties, Dr. Egloff said. Pouches of a laminated plastic material consisting of polyethylene film on the inside and cellophane on the outside are used for orange concentrate.

"A 2.5 ounce bag of concentrate can be converted to 10 ounces of juice in 15 seconds, which saves about seven cents worth of labor for each glass of juice," he stated.

Among the outstanding new products

with a wide range of possible applications is Hypolon, a chlorosulfonated polyethylene rubber. This product is completely resistant to ozone, has good resistance to abrasion, weather, heat and crack-growth. It is particularly applicable to such products as weather stripping, garden hose covers, radiator hose, and wire and cable covering.

It can be blended with other rubbers and made into tire treads without carbon black. It also can be dyed a wide range of colors.

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TECHNOLOGY

Dialing "Time" Gave Score to Series, Too

► MORE THAN a million New Yorkers dialed the telephone number that gave them the time of day during the 1951 World Series. Reason: Right after the time announcement, the recorded voice revealed the up-to-the-minute World Series score.

On the average, about 68,000 persons called the time number daily during the year. But 1,456,000 called it during the Series.

Describing recorded machine telephone announcements to the American Institute of Electrical Engineers meeting in Atlantic City, W. Bennett of the Bell Telephone Laboratories, Inc., said that the recorded weather announcement also was well re-