

PUBLIC HEALTH

Athlete's Foot Basin Bad

Urge discarding these puddles as unhygienic. Contagion plays a "negligible" part in bringing on attacks. Prevention measures outlined.

► MANY OF the commonly used methods for preventing athlete's foot are "ineffective and potentially harmful" and "should be discarded," the American Public Health Association was advised at its meeting in Buffalo.

The advice came from Drs. Rudolf L. Baer, Stanley A. Rosenthal, Jerome Z. Litt and Hyman Rogachefsky of New York University Post Graduate Medical School and the skin and cancer unit of University Hospital.

It was based on new experiments still going on which are being done under a grant from the Army.

The methods reported to be useless and perhaps harmful include sterilizing articles in and around bathrooms, showers, swimming pools, shoes, socks and the like, and use of pre-swim antiseptic foot baths.

"It is naive," the scientists declared, "to expect that wading for a few seconds through a basin of antiseptic solution would help to prevent the transmission of fungous disease of the feet (athlete's foot)."

"These stagnating, unhygienic puddles should be abandoned."

The fungi that cause athlete's foot are shed from the feet of many persons both with and without active disease, the studies showed.

Attempts to induce acute attacks by deliberately exposing the feet of 45 persons who did not have the disease failed. These persons had their feet contaminated with

fungi from persons who had athlete's foot. They did not get an attack of the disease up to six weeks later, although during this period fungi were found one or more times on 60% of them.

Contagion, the doctors concluded, plays a "negligible" part in bringing on attacks of athlete's foot.

Lowered resistance of the skin, with resulting activation of the fungi already on the feet, is responsible for attacks of the infection.

For prevention, the doctors advise: Use of perforated shoes whenever possible and especially in hot weather, to reduce the tendency toward moist conditions and maceration, and to prevent a relative shift of the skin on the feet toward the alkaline side.

"Perhaps" wearing wool and cotton socks which can absorb moisture rather than wearing nylon, rayon and other non-absorbing socks.

Regular use of a drying, mildly fungus-checking foot powder.

Keeping lamb's wool between the toes of persons with a tendency to maceration.

Careful drying of the feet and changing to dry footwear whenever the socks and shoes become "soaked"; and, logically though not yet experimentally proved, washing the feet with non-alkaline, soapless detergents rather than soaps that increase the tendency to alkalinity.

Science News Letter, October 30, 1954

ENGINEERING

U. S.-Europe Telephone

► A \$35,000,000 telephone link between Newfoundland and Scotland will be completed by late 1956. It will provide 36 high-grade telephone circuits over two cables between the United Kingdom, Canada and the United States.

The cables were described in Chicago to the American Institute of Electrical Engineers in a paper presented by Dr. Mervin J. Kelly, president of Bell Telephone Laboratories. Co-authors of the paper include Sir Gordon Radley, deputy director general of the British Post Office, George W. Gilman, Bell Laboratories' director of systems engineering, and R. J. Halsey, assistant engineer in chief of the British Post Office.

To be owned jointly by the American Telephone and Telegraph Company, the Eastern Telephone and Telegraph Company, the British Post Office and the Canadian Overseas Telecommunications Cor-

poration, the cables will be 2,300 miles long and will lie three miles deep in spots.

They will be of the co-axial type, having a single copper conductor centered in a copper tube about two-thirds of an inch in diameter. The two conductors will be properly insulated with high-molecular-weight polyethylene.

Wrappings of copper tape will protect the cables from the teredo worm, a marine borer. Outside will be wrappings of heavy jute, steel armor wires for mechanical strength and an outer wrapping of jute to prevent corrosion of the armor wires. The deep sea sections will be about an inch and a quarter in overall diameter.

Each cable will have 52 repeaters built into it to amplify trans-Atlantic voices. Their pressure-resistant housings, shaped like tubes, must withstand crushing forces of several tons per square inch.

Repeaters will be built smoothly into the cables so they will feed easily around the drums and sheaves of the ship "Monarch" which may lay the cables in 12 days sometime between May and September of 1955.

The repeaters, spaced about 40 miles apart, are designed for trouble-free operation for 20 years or more. Types of the electronic vacuum tubes and circuit components to be used in the repeaters have been under life test since 1940.

More than 2,000 volts of electric power will be fed into the completed cables from each end.

The longest submarine telephone cable now in use is less than 200 miles long. No cable contains more than four repeaters.

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