

## MEDICINE

## Advice on Shampoos

► DOCTORS ARE sometimes asked whether frequent shampoos are harmful to hair and scalp, or what kind of soap or shampoo should be used and whether it hurts the hair to wet it when combing it.

Answers to these and some other questions about hair and shampoos are given in the *Journal of the American Medical Association* (Aug. 8) as follows:

Washing the hair will not itself result in hair damage. But if strong cleansing agents are used consistently, the hair and scalp may become excessively dry.

"Years ago, cleansing agents were more often alkaline than they are today, and inferior shampooing results were not rare," the consultant stated.

"There are few persons who find it necessary to wash the hair more than twice a week. The average person in a city may require shampoos once a week. Wetting the hair for grooming purposes is not harmful.

"The type of a detergent used in a particular shampoo is a trade secret, unless the manufacturer wishes to disclose it. Some

shampoos contain both a soap and a synthetic detergent product. The most satisfactory criterion for determining shampoo action is to experiment with several reputable brands until one is found that suits the individual needs.

"This experimentation will not result in serious hair damage. The most that will occur is temporary excessive dryness and such cosmetic disadvantages as inferior manageability and hair gloss.

"In general, synthetic detergents are efficient cleansers, and some would not be suitable for any but extremely oily hair; however, by the addition of certain chemicals, cleansing ability can be decreased, and a product can be produced that is satisfactory for dry and average hair.

"When excessive dryness of the hair persists despite a change in shampoos, other causes should be investigated. Over-processing during permanent waving is a common cause of brittleness and dryness of hair. The possibility of organic causes also should be considered."

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## PHYSIOLOGY

## Hunger Chills Stomach

► HUNGER CHILLS the stomach. Eating warms it up again. Studies showing this in both normal persons and stomach ulcer patients are reported by Drs. H. B. Benjamin, Marvin Wagner and Walter Zeit of Marquette University School of Medicine, Milwaukee.

In the normal persons, men and women medical students, the temperature inside the stomach ran consistently one to three degrees Fahrenheit higher than the temperature inside the mouth. When they first felt hungry, about 11 a.m., the temperature inside the stomach took a sharp drop. Shortly after eating it went back to its former level.

The same was true of the stomach ulcer patients. Their stomach temperatures dipped sharply when they had the hunger pangs typical of stomach ulcers, and returned to normal after eating. An exception was one patient who had learned to eat small quantities of food almost constantly. His stomach temperature was lower than that inside his mouth, and varied only in a one degree range between 98 and 99 Fahrenheit during the 24 hours of the test.

The temperature drop in hunger, the doctors believe, is due to the fact that muscular contractions of the stomach in hunger stop the blood flow, and lead to a lack of oxygen and consequent lowering of metabolism in the stomach. A lowered metabolism means the body fires are burning slower. These changes, the doctors point out, can occur not only generally but separately in various regions of the body.

To measure temperatures inside the stomach, they made a special thermopile that could be passed through the nose into the throat and then swallowed. A weighted balloon at its end made possible the moving of the thermopile from place to place within the stomach. Details of the construction of the thermopile are reported in *Surgery, Gynecology and Obstetrics* (July).

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## PHYSICS

## Warning Radar Looks Into 300,000 Cubic Miles

► RADAR OF the type that is used to warn of approaching enemy planes can look into 300,000 cubic miles of space, Dr. Vannevar Bush, president of the Carnegie Institution of Washington and wartime head of the U. S. Office of Scientific Research and Development, explains in an analysis of radar development issued in connection with a series of books reporting the war achievements of the Radiation Laboratory at the Massachusetts Institute of Technology. (See SNL, July 25, p. 60.)

"It is as efficient on a moonless night as on the brightest day," Dr. Bush explains, "and the obscuring effects of storms and fogs, which have beset navigators from earliest times, hold no problems for it. It not only revealed the hiding places of the enemy's ships and planes, but it identified our own planes in darkness and in battle

and guided many a flyer back to the safety of his own base.

"Now an instrument which can accomplish such wonders is necessarily a complex mechanism. Although its development spreads over the two decades of the twenties and thirties, the period of greatest progress occurred during the war under the impetus of strategic and tactical needs.

"Radar, which is the ear-catching word coined to describe the processes of radio detection and ranging, was one of the greatest tools of the recent war, but it also has vast usefulness in the postwar world and its powers are happily extensible to many problems of modern navigation."

Science News Letter, August 22, 1953

## MEDICINE

## Deep Sleep Treatment Succeeds in Epilepsy

► SUCCESS WITH a new, deep sleep treatment for epilepsy is announced by Drs. Tracy J. Putnam and Sanford F. Rothenberg of Beverly Hills, Calif., and the Cedars of Lebanon Hospital, Los Angeles, in the *Journal of the American Medical Association* (Aug. 8).

The treatment was given to 25 patients who had not been helped by standard anti-convulsion drug treatment. All 25 were relieved of seizures for a long period, although three subsequently relapsed. A second course of the deep sleep treatment has given one of these freedom from attacks for four years, has kept the attacks under control in a second for over a year and has moderated the seizures in the third.

The treatment consisted in putting the patient into a profound state of unconsciousness by giving massive doses of the anti-convulsion drug, diphenylhydantoin. If this did not produce a comfortable relaxation, either paraldehyde or phenobarbital was given as an additional relaxing agent. The treatment included doses of glutamic acid and small, hourly inhalations of a carbon dioxide-oxygen mixture.

A special diet was prescribed, and when the patient became too sleepy to eat or drink, a sugar solution was injected into the veins to provide some nourishment and water. Antibiotics were also given to prevent infection. Continuous special nursing care was provided. Anti-convulsion drugs were given when the patient awoke and for home use following recovery.

The period of sleep usually lasted four days. The entire treatment lasted about two weeks.

"While no patient in this series died, there certainly is some potential risk in the treatment," the doctors pointed out.

Even in the most successful cases, the good results did not show immediately. In some there was even a period when the patient seemed worse. In one case this lasted for six weeks. In some cases, also, a single convulsion may occur after three months and then no more.

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