

## PSYCHOLOGY

## Personality, Diet Link

By learning the personality and environmental factors influencing a patient, the doctor or dietitian will be able to predict the extent of the success of a prescribed diet.

► IT IS PERSONALITY, not pounds, that determines whether a person can lose weight by dieting.

By knowing certain personality and environmental factors at the start, a dietitian can predict with reasonable certainty if the diet will be successful in the end, two psychological researchers found.

Dr. William G. Shipman, senior research psychologist, Institute for Psychosomatic and Psychiatric Research and Training of Michael Reese Hospital, Chicago, and Dr. Marvin R. Plesset, assistant professor of psychiatry of the University of Pittsburgh School of Medicine, studied the emotional states and other initially known environmental factors of 123 dieters at Pittsburgh, observing them for different periods of time.

The doctors issued a true-false questionnaire that contained anxiety and depression statements such as "I work under a great deal of tension" and "I am certainly lacking in self-confidence." Analysis showed that the successful dieters had low anxiety and depression scores, proving that a favorable emotional state is necessary for a successful diet.

As far as environmental factors were concerned, their study showed that those persons with unhappy marital states did

quite poorly, and the economically well-to-do were very successful. Dieters over the age of 50 were not very successful, nor were obese persons more than 60% overweight. White dieters did proportionately better than Negroes, and those who consulted a private doctor instead of a clinic were also more successful.

The amount of weight lost during the first period of the diet, either a week or a month, was indicative of how well the patient would do in the entire diet. However, the weight lost during that first month was usually not large enough to cause physical or psychological stress. The personality and environmental factors began to show a noticeable effect after a month had passed.

The main value of predicting the outcome of a diet is that "goals can be more realistically set."

The patient with a poor prediction can be saved from the discomfort of dieting plus the added "demoralization of failure."

Drs. Shipman and Plesset reported in the *Journal of the American Dietetic Association*, 42:383, 1963, that they now hope to test a theory of the determinants of dieting success.

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## PSYCHOLOGY

## UCLA Scientists Induce Sleep With Bell

► ALTHOUGH an alarm clock's ringing is supposed to awaken, scientists at the University of California, Los Angeles, can put animals to sleep with a bell.

It is all part of a study of sleep systems of the brain being carried out by Drs. C. D. Clemente, M. B. Sterman and Wanda Wyricka of the UCLA Brain Research Institute.

It has been shown that by electrically stimulating a region known as the basal forebrain, sleep could be induced in animals within 30 seconds.

Borrowing a method used by Pavlov, the famous Russian expert on behavioral conditioning, the UCLA scientists introduced a bell tone of a specific frequency each time the forebrain received electrical stimulation.

By the time this procedure had been repeated 20 times, it was found that the animal would go to sleep in response to the bell tone alone, without electrical stimulation.

The electrical stimulation and/or the bell tone initially produced the synchronous brain wave patterns characteristic of sleep, which spread to other parts of the brain. This led to the behavioral patterns of sleep.

These results suggest that just as there is a wakefulness system, known to be centered in the brain stem, there is a sleep system of which the forebrain appears to be an important part.

The sleep system probably acts by inhibiting the wakefulness system.

Early conditioning is perhaps most responsible for our sleep-wakefulness patterns, Dr. Clemente says.

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U.S. Army Engineers

**ARCHAEOLOGICAL FIND**—George Kritzman of Los Angeles holds a smoking pipe estimated to be 1,000 years old found at the U.S. Army Engineers' Hansen Dam flood control reservoir, San Fernando Valley, Calif. The area is believed to have been a reservation of Hobokam Indians centuries ago.

## NUTRITION

## Low-Calorie Protein Diet

► THE TRAPPIST MONK who lives a contemplative life while eating low-calorie, high-protein foods lives no longer than the average person in the United States.

His cholesterol levels, and other fats in his blood, are also average, Dr. Cesar A. Caceres of the George Washington University School of Medicine in Washington, D. C., told SCIENCE SERVICE.

A second study of 30 Trappist monks at Berryville, Va., indicates by inference only that a restricted diet need not be helpful to a heart patient.

Dr. Caceres warned that he could not say definitely that this is true until more studies have been made, but the findings showed disagreement with other studies.

Monks from the age of 21 to 82 were interviewed, and samples of their daily food were ground up for accurate measurement and study.

Some of them claimed that life within the monastery showed more stress than in the outside world, but wide fluctuations in cholesterol levels were found in these men.

"Diet alone does not determine blood-fat levels," Dr. Caceres said. He noted that two of the monks had had no contact with

outsiders since they were interviewed two years previously by him and Dr. Juan B. Calatayud, also of George Washington University.

The excitement of the interview could account for elevating the cholesterol level, which is also true of the first outside office interview of persons whose cholesterol is being tested.

Previous studies have shown that Trappist monks have less cholesterol in their blood than Benedictines who are teachers and preachers, not prohibited from eating meat, or drinking and smoking. Trappists are strict vegetarians, but eat sparingly of eggs and dairy products.

They are withdrawn from the world, devoted to contemplation, prayer and physical labor, and neither smoke nor drink.

Assisting Dr. Caceres and Dr. Calatayud in this study, published in the *New England Journal of Medicine*, 269:550, 1963, were five colleagues at George Washington University and a co-worker at the Heart Disease Control Program of the U.S. Department of Health, Education and Welfare.

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