

## MEDICINE

# Saltless Diet Dangers

Not taking enough salt during hot weather can endanger health. Low-salt diet should be followed only under close, constant supervision by physician.

► DO NOT go too easy on the salt in hot weather or you may endanger your health.

An emphatic warning against salt-deficient diets resulting from fad or self-diagnosis has been issued in Chicago by the Illinois State Medical Society's committee on nutrition.

No individual should attempt to maintain such a diet except under close, constant supervision by a physician, the doctors say. It is dangerous to disturb the salt balance of the body. The only persons who might be benefited by such a diet are those seriously ill of heart or kidney disease, who should therefore be under the constant care of a physician.

This danger is especially menacing in hot weather. The increased loss of salt through excessive sweating in summer heat can cause a severe reaction, which might even be fatal, in a person whose salt or sodium reserve is already depleted by an unsupervised low salt diet.

"Any person who succumbs to the popular fad in the hope of losing weight or reducing blood pressure may be sadly disappointed," the warning states, "since the effect of sodium restriction is largely the loss of water, not tissue, from the body. The water is quickly replaced because of the resultant thirst.

"Sodium and chlorine are elements which are essential to normal body function. Every cell in the body requires sodium in some way; a proper balance among sodium, potassium and calcium, for instance, is essential to normal heart action.

"Chlorine is also required for health: for instance, an adequate supply permits the body to manufacture hydrochloric acid, a component of the gastric juice which is necessary to digestion.

"The usual American gets much of his daily requirements of these two elements from his meals, but part of it is taken in the form of extra table salt, which chemically is sodium chloride.

"Occasionally a physician will take the risk of a low sodium diet in order to relieve the symptoms of certain patients suffering from heart or kidney disease. In congestive heart failure, for instance, water can accumulate in the tissues, a condition known as edema or, popularly, 'dropsy.' That imposes a tremendous extra strain on the already weakened heart, so the physician tries to release much of the water, by reducing the intake of sodium, which tends to hold water in the body.

"This is a calculated risk, taken deliberately in order to relieve a more immediately dangerous condition. The patient

must be constantly watched to see that his sodium reserve does not drop below the minimum essential to health, even to life.

"The physician must also be ready to increase the sodium intake immediately in case of any sudden additional loss of sodium, such as that due to prolonged heat and excessive sweating. Perspiration contains sodium chloride and the loss of the chemical via the sweat glands can be severe.

"That may occur even in normal persons exposed to extreme heat, with weakness, nausea, cramps, collapse, coma and even death ensuing, unless the sodium deficiency is quickly corrected.

Science News Letter, July 31, 1954

## ANIMAL NUTRITION

## What Pigs Eat Affects the Ham

► WHEN YOU eat a slice of ham, the nourishment you get from it depends to some extent on what the pig ate. Studies showing that not all hams are the same in nourishing qualities were reported by Prof. Ray L. Shirley of the University of Florida to the American Chemical Society.

Prof. Shirley reported chemical analyses of hams from animals reared on diets varying in protein make-up. The rations of half the animals also contained a small amount of the antibiotic, aureomycin. Farmers feed this antibiotic because of its growth-promoting power.

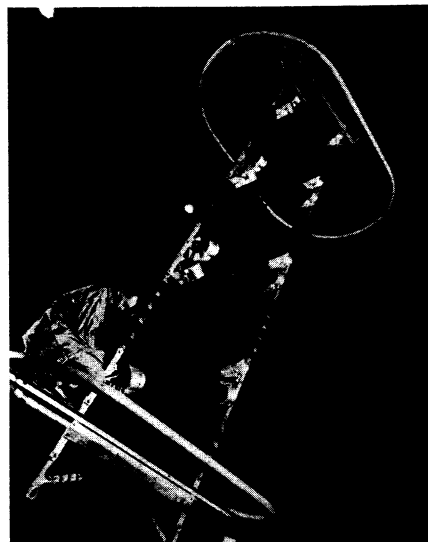
The animals on a low protein ration did not gain as much weight as the others unless they also received aureomycin, Prof. Shirley said. The antibiotic supplement had little effect on pigs getting adequate protein.

Hams with a higher protein value come from pigs that receive more protein, Prof. Shirley said, but aureomycin in the animal feed has less effect than the protein content on the quality of the ham. The antibiotic changed the ham composition significantly only in the case of pigs fed an intermediate level of protein, he reported.

This research, the first reported analysis of edible meat to determine the effect of antibiotics, suggests that the amount of total protein found in hams is regulated by biochemical processes in the animal tissue involving protein and phosphorus.

"Better nutritional studies go hand in hand with a better understanding of the specific chemical influences of rations as well as observations of such characteristics as rate of growth, carcass quality, and vigor of the animal," Prof. Shirley stated.

Science News Letter, July 31, 1954



**LIGHTNING ARRESTER**—Keeping abreast of the rapid increase in size of today's electric power plants are the lightning arresters that must protect these high voltage systems from lightning damage. Shown here is a new 258,000-volt unit built by Westinghouse Electric Corporation that is capable of protecting systems up to 330,000 volts.

## SURGERY

## Surgeon's Glove Found 12 Years After Operation

► THE GRIM joke of something being lost during an operation and sewed up in the patient has come true.

Discovery of a surgeon's glove left in the lung during an empyema operation and removed after 12 years during another operation is reported in the *Journal of the American Medical Association* (July 17) by Dr. R. R. DeNicola of Richland, Wash.

Treating a 30-year-old white patrolman at Kadlec Hospital three years ago, Dr. DeNicola now reports that he "removed with considerable amazement an intact surgeon's glove from the patient's right lung."

What seems to have happened is that 12 years before, at another hospital, a large surgeon's glove with finger tips cut off was used to provide drainage during the first operation. Gauze packing placed in the glove was gradually removed by an attendant who was not the patient's surgeon. As the gauze was being removed, the rubber glove was inadvertently allowed to drop into the chest cavity which despite the presence of this foreign body became superficially a well-healed wound.

The glove did cause severe coughing in what seemed to be colds, which finally led to the operation that revealed the misplaced surgeon's glove. The patient recovered completely after his second operation and gained over 30 pounds in a year.

Science News Letter, July 31, 1954