MEDICINE

Study Salt Intake

Studies of both animals and the diets of different populations has led one scientist to conclude that too great a salt intake can be harmful.

➤ EATING TOO much salt can cause high blood pressure.

This is the conclusion of Dr. Lewis K. Dahl of the Brookhaven National Laboratory, Upton, N. Y., who says:

"I believe there is ample evidence to indicate that salt is primary in the cause of 'essential' hypertension (high blood pressure) which, after atherosclerosis, is the commonest form of cardiovascular disease in western society."

Dr. Dahl's findings and conclusions, which are at odds with all those that recommend salt be added to diets as beneficial to man, are based on animal experiments, hospital experiments and study of populations with both high and low salt intake.

Although Dr. Dahl thinks it would be a healthy idea for the population generally to restrict its salt intake, he is not prepared at present to recommend tolerance levels.

Averages, he believes, are meaningless and the salt intake of each individual is what is important. If he were pressed for a guess at what would be a safe level, he might recommend from one to four grams (.035 to .14 ounces) per day or less as a maximum. But, he emphasizes, much more research into the how and why of salt as it relates to hypertension is necessary.

Dr. Dahl's studies and those of others have led him to the following conclusions and predictions:

1. A low-salt diet is associated with normal adrenocortical function.
2. A high-salt diet is associated with a markedly increased incidence of hypertension and cerebral apoplexy.
3. Evidence suggests high salt intake is a cause of, and not caused by, the hypertension.
4. Sharp reductions of current levels of salt intake could be carried out without harm and probably with great benefit, by reducing the incidence of hypertensive cardiovascular disease.
5. Wherever low-salt diets prevail (that is, less than about two grams, or .07 ounces, of sodium chloride per day) hypertensive cardiovascular disease will be uncommon.
6. Conversely, where high-salt diets (that is, more than perhaps five grams, or .175 ounces, of sodium chloride per day) are the rule, hypertension and its complications will be frequent.

The findings on salt and hypertension seem equally applicable to the etiology of eclampsia, a severe complication occurring in the later stages of pregnancy marked by intermittent convulsions followed by an ever deepening coma.

Many of Dr. Dahl's conclusions are based on studies of various populations. He reports, for example, that southern Negroes of the United States have several times as much hypertension as the southern whites.

"My interviews with Negroes from that region," he says, "indicate that for most of them salted pork in one form or another has been a prominent article in the diet from early childhood."

Similar examples have been reported for peoples in Japan, the West Indies, China and Egypt.

Presently Dr. Dahl is in Japan studying the salt intake of groups there, where there is both a generally genetically pure population and a generally stable diet. This will permit him to compare the effects of the use of pure salt on foodstuffs and its subsequent role in hypertension.

A preliminary report on salt intake, adrenocortical function and hypertension appeared in *Nature* (April 5) and a second report is forthcoming shortly. The work was carried out under the auspices of the U. S. Atomic Energy Commission.

Science News Letter, April 19, 1958

BETTER ANESTHESIA—Dr. C. R. Stephen (center), professor of anesthesia, Duke Medical Center, Durham, N. C., administers Fluothane to a youthful surgical patient. Dr. Stephen was one of the first American investigators to use the new non-explosive anesthetic.

EDUCATION

More Money Needed To Train Doctors

➤ FROM $10,000,000 to $20,000,000 a year more than is now being spent is needed to train the nation's doctors adequately.

If sufficient private support is lacking, medical schools will have to seek Federal aid, the National Fund for Medical Education concludes after studying the problem. The Fund has issued a 4,000-word annual report entitled "Medical Manpower for Tomorrow."

The crisis is largely the medical schools' fault, growing directly out of the tremendous scientific strides made by the schools, the Fund reports.

Lack of funds shows most clearly in the unfilled faculty posts, 331 in 1956-57 compared to 251 the previous year. Lack of funds also cuts down on the amount of basic research performed at medical schools.

Science News Letter, April 19, 1958

SURGERY

Fluorinated Hydrocarbon Anesthetic Non-Explosive

➤ A POTENT, non-explosive anesthetic named Fluothane has been introduced to aid U. S. surgery.

A fluorinated hydrocarbon first synthesized in England in 1951 as trifluorobromchlorethane, it is said to have many advantages over ether and chloroform. It has been successfully used in 20,000 clinical trials in England, Canada and the U. S. since 1956.

According to Dr. John B. Jewell, medical director of Ayerst Laboratories, New York City, which introduced the anesthetic, it has been used successfully in almost all known operative procedures in patients of all ages and conditions.

Fluothane has exhibited essentially no adverse side effects such as nausea or vomiting, and emergence from the anesthetic is very rapid. Because of its non-explosive nature, Fluothane will permit wider use of modern electrical equipment in advanced operative procedures.

Science News Letter, April 19, 1958