

PUBLIC HEALTH

Excessive Smoking Bad

► INCREASING AND CONSISTENT evidence shows that excessive smoking is a cause of lung cancer, the U. S. Public Health Service, Washington, has reported, taking a firmer stand on the century's greatest medical controversy.

This statement, by Surgeon General Leroy E. Burney, was based upon the results of a review of 18 independent studies on smoking and health done by a study group set up by the Public Health Service in June, 1956.

Many independent studies "have confirmed beyond reasonable doubt that there is a high degree of statistical association between lung cancer and heavy and prolonged cigarette smoking," the Surgeon General said.

While the evidence is largely epidemiological in nature it must be remembered that many important public health advances in the past have come about through such statistical or epidemiological information, he added.

Other studies have also shown materials in tobacco smoke do cause cancers in laboratory animals, and that pre-cancerous body changes have been found in the lungs of heavy smokers.

"At the same time, it is clear that heavy and prolonged cigarette smoking is not the only cause of cancer," the Surgeon General reported.

Lung cancer is found in non-smokers as well, and the prevalence of the disease in

some population groups does not always coincide with the amount of cigarette smoking.

He recommended more research to isolate and remove the dangerous factors in excessive smoking, as well as more study of air pollution and other possible causes of cancer.

The statement is being sent, along with supplementary data, to state health officers and to the American Medical Association with the request that they distribute it to their members.

The Public Health Service statement has not gone unchallenged by the tobacco industry, however.

The report adds nothing new to what has been known about the cause of lung cancer, Dr. Clarence Cook Little, chairman of the scientific advisory board to the Tobacco Industry Research Committee, New York, has responded.

"It should be remembered that statistical association does not prove cause and effect," he said.

Over \$2,000,000 of independent research sponsored by the Committee has thus far produced no evidence that cigarette smoking or other tobacco use contributes to the origin of lung cancer.

The public should be as cautious in accepting a claim that a cause has been found for cancer as they have been in the past about accepting a claim for a cure, he concluded.

Science News Letter, July 20, 1957

NUTRITION

Food Facts and Fables

Americans generally are the best fed and most well-nourished people in the world, yet many believe a number of myths about the food they eat which have been disproved.

► NOW is a good time to think about some of the facts and fallacies that surround the food you eat.

The American food supply is unequalled in volume, variety and nutritional value. In fact, overeating is becoming a bigger problem to some than undereating.

But there are still many superstitions and myths about the values of certain foods. These false ideas are being used to promote many vitamin and mineral food supplements that are sometimes offered as cure-alls for serious diseases, the U. S. Department of Health, Education and Welfare warns.

Ideas like "fish and celery are brain food" or that "oysters increase fertility" are harmless, but when garlic pills are promoted for high blood pressure or grapes for the treatment of ulcers and cancer, the price of ignorance may come high.

There are four common false ideas about food that are used by practically all pro-

motors of health food preparations.

One is the myth that all diseases may be due to diet. There are many variations to this theme but in all of them something is sure to be missing in the diet which can only be supplied by the product in question. There are, it is true, certain diseases that are caused by dietary deficiencies, but they are rarely found in the U. S.

Myth number two is that soil depletion causes malnutrition. The promoters of this idea insist that repeated cropping has so impoverished our soil that foods grown on it are nutritionally inferior. Actually, when the soil gets too depleted, the crop yield will be small, but what crops there are will be of the normal nutritional value.

Myth number three is the one of over-processing. This is an exaggeration of the fact that some methods of processing and cooking do reduce some of the vitamins and minerals. But modern food processing

methods have been devised not only to preserve the food value but to restore any depleted ingredients. Examples of this are flour, bread, milk and oleomargarine which have been fortified with additional vitamins and minerals.

The fourth myth is that if you have "that tired feeling" it is because you are suffering from a "subclinical deficiency" in your diet. This is defined as a condition in which a vitamin or mineral deficiency is suspected but unfortunately cannot be proved. Unfortunately for you, of course, but not for the food supplement promoters. Naturally, everyone gets "that tired feeling" at one time or another, but there is no basis for believing it is due to a subclinical deficiency. Your doctor is the best source of information about this one.

Science News Letter, July 20, 1957

PALEONTOLOGY

Worms, Insects, Spiders Share Common Ancestor

► A PICTURE of the common ancestor of today's insects, worms, spiders and crustaceans has been drawn by Dr. R. E. Snodgrass, a collaborator at the Smithsonian Institution in Washington.

In a report published by the Institution, Dr. Snodgrass traces crustacean changes and finds that the ancestor was more wormlike than buglike.

There is enough evidence, he reports, to indicate ancestors of the arthropods, all creatures with jointed legs, were closely related to ancestors of the annelid worms, and that both had a common ancestor originally.

The basic characteristics of the annelid-arthropod organization preserved today allow us to visualize the primitive annulated or segmented common ancestor "as a very simple, wormlike creature," Dr. Snodgrass says. It probably had a long segmented body, an alimentary canal extending through the length of its body and other highly technical features.

From this ancestor, the annelids evolved with little addition other than the development of parapodia, lateral bristles that help them to swim and burrow.

"By a different type of specialization for locomotion, members of another branch from the ancestral stock developed ventrolateral lobelike outgrowths of the body segments, and thus became walking animals. These primitive legs eventually evolved into the jointed appendages of modern arthropods," writes Dr. Snodgrass.

The wormlike Peripatus, living today in tropical America and Africa, is an animal quite close to this early stage.

Dr. Snodgrass points out that Peripatus is probably a direct descendant of the early lobe-legged creatures and has not progressed much beyond them structurally.

Several fossils of onychophorans, the group Peripatus belongs to, have been found in rocks formed a half billion years ago. This is the earliest date scientists have for the discovery of traces of higher animals.

Science News Letter, July 20, 1957