

MEDICINE

Research Shows Diet is Not Responsible for Cancer

In Study Conducted by British Scientist Development of Cancer in Mice is Unaffected by Five Different Diets

DIET IS not responsible for the development of cancer, it appears from experiments reported by Sir Leonard Hill to the British medical publication, *Lancet*. Sir Leonard described his studies of mice on different diets and different beddings, which he conducted in the National Institute for Medical Research.

"Cancers have occurred indifferently in mice on all diets and on all beddings," he reported. "The significant influence has been age."

The mice were kept on five different diets as follows: an approximately natural diet for wild mice, consisting of barley, oats, wheat and fresh green food; a canteen lunch diet of cooked meat, vegetables with the usual amount of common salt, pudding and canned fruit; a canteen tea diet poor in vitamins, consisting of white bread, margarin, rock cakes and biscuits; a diet found to be the average one of Essex farm laborers, low in protein value; and the same diet of which a third had been browned by frying, in order to see whether cancer-producing products were produced in food by such burning. Some of the stocks of mice were fasted two days each week to determine whether abstinence had any effect on cancer-production.

Size and Productivity Changed

While some of the diets had an effect on the size of the mice and their reproductive ability, there was no effect on the development of cancers.

Cancers occurred spontaneously in the mice; two-fifths of these tumors occurring in mice dying between the ages of one and one-half and two years. Three years in a mouse corresponds to very old age in a man, Sir Leonard pointed out. About one-third of the cancers occurred in mice dying between two and two and one-half years.

Besides reporting his investigations on mice, Sir Leonard recounted observations on the relation of cancer and diet made by other investigators. In this connection he quoted a report of the

Imperial Cancer Research Laboratory as follows:

"There is no reliable evidence, experimental, statistical or clinical, which would indicate a causal correlation between cancer and the absence, or the presence, or the excess of any particular dietetic constituent. Sensational statements to the contrary are unfounded and ill-considered, and only serve to alarm the public."

Science News Letter, June 6, 1931

GEOPHYSICS

Height of Northern Lights Measured by Photographs

THE AURORA BOREALIS, least understood of heavenly phenomena, is not so distant from the earth as has previously been thought. Fifty to seventy-five miles from the ground is the height fixed for the eerie flashes of light in a report made to the Royal Society of Canada at its recent meeting by Prof. J. C. McLennan, Dr. Hugh Wynne-Roberts and Dr. H. J. C. Ireton of the

physics department of the University of Toronto.

Utilizing the fact that the northern lights are visible farther south in eastern Canada than anywhere else in the northern hemisphere, the physicists photographed displays last January and February. They set up two observing stations near James Bay. One was located at Blacksmith Rapids, 50 miles from Moose Factory, and the other at Coral Rapids, 30 miles farther south. The stations were connected by telephone lines and each was provided with cameras similar to those used in aerial surveying.

When the aurora was visible from both stations, the photographers focussed their cameras on areas of the sky selected by telephone, and took simultaneous pictures. The exact times were compared by telephone and checked against a master clock. Reference points in the heavens were provided by the stars, photographed on the plates at the same time. When the plates were developed, the heights of shafts of light recorded at both places were calculated by the same triangulation methods used in surveying. In this case, instead of a horizontal triangle, the physicists computed a vertical triangle with one side as the line joining the observing stations.

The results show that the auroral flashes may occasionally lie 155 miles over the earth. Less than 100 miles is the usual height, however. This result agrees with similar measurements obtained in Scandinavia.

Science News Letter, June 6, 1931



ONLY FROM 50 TO 75 MILES ABOVE THE GROUND

This is the height of the Aurora Borealis as determined by a combination of photography and a method of triangulation similar to that used in surveying. Prof. Carl Stormer at Oslo, Norway, took this striking photograph of the least understood of heavenly phenomena.