

and the District of Columbia have state disaster relief programs in effect, Dr. Richard A. Meiling, of Ohio State University, reported. As secretary of the AMA National Emergency Medical Service Council, he requested this information two months ago from all states

and territories. Answers were received from 37. None of the eight with programs in effect nor any of the others with programs in the planning stage have included a medical adviser from the state medical association.

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MEDICINE

Clue to Artery Damage

Mechanics of damage from large fat particles explained. They are trapped in artery walls by scavenger cells. Years of this thickens and hardens arteries.

➤ ONE kind of artery disease results from the simple, well-known fact that oil and water do not mix.

The artery disease is known to doctors as atherosclerosis. It is a fatty degenerative kind of arteriosclerosis, hardening of the arteries to you.

The mechanics of how it develops, beginning with the difficulty of mixing oil and water, have been worked out by Dr. John E. Moreton of Salt Lake City.

Because oil and water do not mix, the fats and oils in blood plasma, which is about 90% water, must be carried in a special form, Dr. Moreton explains in a report to the journal, *Science* (April 9).

The fats from food that get into the blood via the intestines are not carried in the same finely divided state as fatty materials normally in blood plasma.

When a man eats about two ounces of butter fat, a shower of these big fat

particles descends on his blood stream about four hours later. Reporting this finding last fall, Dr. Moreton said that the size of these fat particles gave a clue to how artery damage could result from fat-rich meals eaten over a period of many years.

Today Dr. Moreton gives more links in the chain leading from many fat-rich meals to artery damage. When the big fat particles get into the innermost part of the artery, it is a signal for certain body cells to go into their primitive scavenger act by which they protect the body against disease germs and other harmful substances. These cells arrest, engulf and trap the big fat particles, holding them in the artery walls.

By gradual, infinitesimal stages, the trapping of big fat particles thickens and hardens the artery walls to the point where the bore of the artery is closed and blood cannot get through.

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the course of the cancer in animals untreated. But if the ancestors of these untreated animals had been exposed to radioactivity through living in the laboratory where the chemicals were being tested, they would not give an accurate control to compare with the treated animals.

Besides excluding all radioactive isotopes or animals treated with them, the Jackson Laboratory will have special isolation rooms and units where any chemicals with cancer-causing properties will be used.

The laboratory, long famous for its specially bred strains of animals for cancer and other research, is now conducting a drive for additional funds to rebuild the laboratories and re-establish the animal colonies that were largely destroyed by forest fire last fall. The drive is to meet the present emergency, it was pointed out. It will not be an annual one, and is not in competition to the current drive of the American Cancer Society which conducts an annual campaign for cancer-fighting funds.

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GOURMET'S DARLINGS — Ordinarily shy, and inclined to race for the water when humans approach, when the terrapin once digs a nest, she will not leave until she has carefully covered and camouflaged her eggs. Nest is ingeniously covered so that airpocket remains, preventing eggs from spoiling. Spoon-fed for years in North Carolina waters under a joint federal-state project, terrapins are now being put out on their own. (See *SNL*, April 10.)

MEDICINE

Radioactive-Free Oasis

➤ A LITTLE world where there will be no dangerous radioactivity, no atomic bomb by-products, is now being created. It will be peopled by highly pedigreed mice, rats, rabbits and guinea pigs. But humans exposed to dangerous radiation at work or in any future atomic bombings will benefit.

The radioactive-free oasis is being established at the Jackson Memorial Laboratory at Bar Harbor, Maine. Its unique reversal of present trends at medical research laboratories was announced by its director, Dr. Clarence C. Little, at the laboratory's emergency committee headquarters in New York.

"Our object is to develop for research throughout the United States, Canada and Europe a source of experimental

material which at any time can be guaranteed to be a normal control population for a group of animals being used elsewhere," Dr. Little stated.

Radioactivity can permanently change living cells, among them the reproductive cells from which all future generations are formed. In order to understand such changes, to foresee them, to prevent, direct or evaluate them it is absolutely essential to have control animals completely isolated from any source of radioactivity or atomic energy. Radioactive isotopes are now being used in more and more laboratories in a search for cancer cures and in a search for better means of fighting atomic energy damage.

Results of use of a radioactive chemical in cancer must be compared with