

MEDICINE

Onions Can Cause Anemia

► EATING LOTS of onions every day will make you anemic in a week. Four Chicago doctors, one of whom tried it himself, reported this at the Federation of American Societies for Experimental Biology meeting in Cleveland.

The doctor who had to try it on himself before giving the onion diet to volunteer medical students is Dr. M. Kalsner. His colleagues in the studies at the University of Illinois College of Medicine are Drs. H. K. Ivy, D. F. Magee and A. C. Ivy.

Dr. Kalsner and the medical students ate over two pounds of onions a day in addition to their regular food. They ate the onions cooked. After five days of the onions, they all felt very tired and their finger nails were pale. Blood counts showed a red cell drop of as much as a million and a half at the end of seven days. Hemoglobin was down and there were other signs of hemolytic anemia.

The human onion-eaters got a mild anemia compared to that of dogs who ate the same amount of onions, in proportion to their weight. The dogs had a drop of 50% in hemoglobin and red blood cells at the end of 15 days.

Object of the study originally was to find a drug for patients with polycythemia who have too many red blood cells. Dr. Ivy had remembered that another scientist seeking a cure for blacktongue in dogs tried onions and reported the dogs got anemic.

Better agents for treating polycythemia have meanwhile been found. But the Chicago group will continue the onion study to find whether onions should be banned from the diets of high altitude pilots and persons doing strenuous physical work. Both conditions affect red blood cells and hemoglobin counts.

You can safely eat a piece of raw onion on your hamburger every day, the Chicago doctors feel sure. But onion oil extract, used commercially for flavoring, should perhaps be taken in considerable moderation. This oil contains the active anemia-causing principle of onions. A quarter of a teaspoon of the oil per day caused a marked anemia in dogs. Dr. Kalsner said he did not dare try it in comparable doses on humans.

He and his fellow volunteers all recovered from their anemia a week or 10 days after they stopped eating so many onions.

Science News Letter, May 12, 1951

MEDICINE

Cortisone in Eye Drops

► ANOTHER DISEASE has yielded to cortisone, one of the "miracle hormones." Now, it appears that the substance will save the sight of thousands of children who might otherwise become blind.

The disease has a name that's a layman's nightmare: phlyctenular keratoconjunctivitis. It occurs in people with tuberculosis, particularly children, causing corneal scarring and frequent blindness.

Two doctors have found that they can clear up the disease and hold it in check simply by applying a solution containing cortisone with an eyedropper, four times a day for several days.

This appears to be the first really effective method of combatting the disease, according to a report in the *AMERICAN JOURNAL OF OPHTHALMOLOGY* (April) by Dr. Phillips Thygeson, of the University of California School of Medicine, and Dr. Milo H. Fritz, U. S. Public Health Service consultant at Anchorage, Alaska.

Rapid healing, usually within 48 hours, occurred in all 26 patients treated. Only two recurrences occurred, and these were quickly quelled by new treatments. Only small quantities were needed, so cost was not a major factor.

While most of the treatment was administered with an eye-dropper, some patients received injections under the membrane that lines the eyeballs. The scientists

said that even in the most serious cases it does not appear to be necessary to inject it into the body so that it affects the whole system. Thus adverse reactions which sometimes result from such injections are avoided.

The physicians pointed out that cortisone does not cure the disease, which can recur so long as the individual has tuberculosis. However, it seems able to clear it up at any time and hold it in check.

The treatment will be especially useful in Alaska, where the tuberculosis rate among the Indians and Eskimos is high and there is little protection of the children from it. The physicians treated patients both in Alaska and the San Francisco area.

The disease is believed to be caused by an allergic reaction to products thrown off by the tubercle bacillus.

Science News Letter, May 12, 1951

GENERAL SCIENCE

Close to Five Million Wives Older Than Their Husbands

► AS MANY as 4,750,000 American wives are older than their husbands. An equal number are just as old as their husbands. The rest—about 28,500,000 women—declare and affirm that they are younger than their husbands.

This accounts for all 38,000,000 married women in the nation, a record. This figure is a high, not only in absolute numbers but also in relation to the adult population. It is also 8,000,000 more women than were married in 1940.

The chances are about two to one that these 38,000,000 women will outlive their husbands. Women who are 25 years old, however, can look forward to an expectancy of 36 years of married life first.

One in every eight of this bumper crop of married women has been married before. In one out of every six families either the husband or wife has been previously married.

A fact that has been long suspected by wary males is now confirmed—it does not necessarily take education to get a man. In 1947, 95% of the women between 35 and 44 years of age who had received only up to seven years of schooling had become wives, while only 83% of the college girls were able to get husbands.

All figures are from the *STATISTICAL BULLETIN* of the Metropolitan Life Insurance Company.

Science News Letter, May 12, 1951

CHEMISTRY

Seaweed Chemicals Goal of British Research

► NEW CHEMICALS from seaweed are expected to result from work now underway at the new Institute of Seaweed Research established with government aid at Inveresk Gate, Musselburgh, Scotland. The laboratory is designed and equipped primarily for pilot scale processes.

Agar and alginates are already in large-scale commercial production from Scotland's bountiful supply of seaweed. It is known that seaweed contains other chemical substances but commercial processes of extracting them need development. This will be the principal job of the new undertaking.

Available seaweed contains considerable amounts of alginic acid, a sugar known as mannitol, a starch called laminarin, and a new chemical known as fucoidin. Included also are smaller, and as yet unassessed, quantities of proteins, fats, sterols and amino acids.

An incomplete survey of Scotland's seaweed beds shows that probably 4,000,000 tons could be harvested. To conserve resources, not more than one-fourth of this amount should be gathered each year. A million-ton harvest would yield 200,000 tons of dry brown seaweed, which in turn would yield some 30,000 tons of alginic acid, a slightly larger amount of mannitol, and 40,000 tons of laminarin, the seaweed starch.

Science News Letter, May 12, 1951

Desert Institute, recently established in Egypt, is a government organization to conduct studies of the Egyptian *deserts* in respect to geology, geography, geophysics, water supply and agriculture.