

PHYSIOLOGY

# Scientist Discovers Way To Predict Your Life Span

## Age At Which Hardening Lens of Eyes Makes Difficult Accommodation For Reading Betrays Normal Lifetime

ONE of the dreams of science, discovery of a way to predict how long an individual will live—if not claimed by murder or other untimely death—was announced to the National Academy of Sciences.

A key to an individual's normal span of life, long or short, is carried with him, heretofore unrecognized, in his own eye, Dr. Felix Bernstein of Columbia University revealed.

The aging process of the human body, he reported, can be measured easily by taking note of the change when the lens of the eye becomes less elastic, some time during middle life. Most persons become aware of the change at the age of 45 or 50, when the hardening lens can no longer make sufficient accommodation for reading. If this aging process, called presbyopia or "old-sightedness," occurs early, the individual's normal span of life is comparatively short. If it occurs late in middle age, the individual can expect to see a venerable old age, unless some infection or accident cuts short his natural lifetime.

Dr. Bernstein told how he has reached his conclusions after systematic investigation of this means of measuring the aging process, carried on both in Germany and this country.

### 5,000 Cases

"Data on 5,000 cases of presbyopia," he said, "gathered from the University clinics of Goettingen and Leipzig by two students from my Institute in Goettingen and from two private oculists, and followed individually from the first tests until death, proved that presbyopia is correlated with the duration of life in such a way that the early presbyopes die early and the late presbyopes die late."

Brainstroke and heartstroke were the causes of death in the persons who proved the significance of the eye change. These accounted for about half the 5,000. The rest of the patients died of cancer, pneumonia, or other diseases, and for these the research workers could find little or

no correlation between the time the eye lens hardened and duration of life.

Reporting a further experiment under a grant from the Rockefeller Foundation given to the Biological Laboratory at Cold Spring Harbor, N. Y., Dr. Bernstein concluded:

"This shows conclusively that the physiological aging measured by the range of accommodation is strictly hereditary. Our former conclusion that the natural length of life may become predictable if a proper measure of the physiological aging has become available, is strongly backed by these findings."

Stressing the significance of the discovery for heredity, Dr. Bernstein said:

"These implications of natural span of life are especially important in regard to the fact that the natural causes of death come more in the foreground the more the infectious diseases are brought under

control. The span of life in the future will be determined much more by that which Francis Galton called 'the treasure of inheritance' than by conditions which lie in the environment."

*Science News Letter, April 27, 1935*

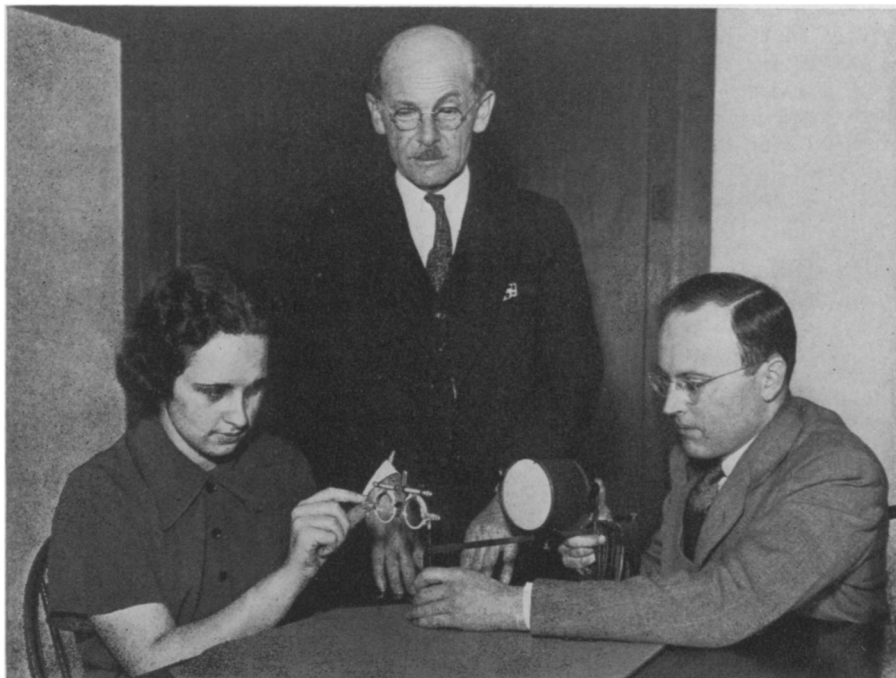
MEDICINE

## Rheumatism Benefited By Big Vitamin D Doses

RICKETS-preventing vitamin D is of great benefit in the treatment of arthritis or rheumatism, as it is sometimes called, Dr. C. I. Reed of the University of Illinois College of Medicine told members of the American Physiological Society.

Seventy out of one hundred arthritis patients treated this way by himself and associates, Drs. M. L. Hathaway and H. C. Struck, were definitely helped and some apparently cured.

The vitamin was given in the form of concentrated viosterol and enormous doses were used. While three thousand units is the standard dose for rickets treatment, Dr. Reed used one million units and in some cases three million to treat the arthritis patients. All kinds of arthritis except that due to gonorrhea were helped.



### HOW LONGEVITY IS PREDICTED FROM THE EYES

With this simple apparatus, Dr. Felix Bernstein (center) of Columbia University has discovered how to tell whether a person is likely to live long or not. Miss Daisy Kinstein (left) is adjusting the instrument which tests the accommodation of the eyes for seeing near and far objects. Miss Kinstein and E. A. Roure (right) are assistants to Dr. Bernstein.