

MEDICINE

Hormones Check Aging?

What may be an anti-aging effect on the body, an increase in the size and weight of vital organs, was noted after giving various combinations of hormones.

► THE mythical fountain of youth is to be found, if at all, in properly balanced doses of all the main hormones produced by the body's glands.

This suggestion comes from the latest report of a scientific search for an anti-old age chemical or combination of them. The search is being carried on by Dr. V. Korenchevsky of the Gerontological Research Unit at Oxford University.

"Some processes of aging can be influenced arbitrarily," he reports to the *British Medical Journal* (April 17).

But it is only some processes which his studies thus far show can be influenced, he stresses.

Male and female sex hormones and thyroid hormone were tested for their effects on aging in female rats. The rats were artificially aged, or made into old lady rats, by having their ovaries removed. The hormones were given alone and in various combinations. The effects were determined by comparing the size and structure of vital organs, such as the adrenal glands, liver, thyroid gland, kidneys, spleen and heart, in the treated animals with the same organs in normal animals and in artificially aged animals that were not treated.

All the hormones had a stimulating and in some cases a simultaneously depressing effect on various organs.

The stimulating effect was shown by an increase in size and weight of the organs. Dr. Korenchevsky thinks this is a sign of an anti-aging effect because decrease in size and weight should be the first sign, at least in some organs, of the shrivelling they do in growing old.

The organs of the artificially-made old lady rats came nearest to the size and structure of the normal young lady rats when all four hormones (male, two female and thyroid) were given simultaneously in suitable, not excessive, doses.

"In this way," Dr. Korenchevsky reports, "a cooperation of useful effects and more or less complete neutralization of pathologic (injurious) effects occurred."

Harmful effects on some organs did occur when large doses of one or another of the hormones were given.

The results, Dr. Korenchevsky points out, do not warrant any definite conclusion as to whether the increase in size of the organs is, as it appears to

PSYCHOLOGY

Trance Slows Down Time

► TIME can be slowed so that incredible tasks can be accomplished in the mind—in the course of only a few seconds.

This is done by suggestion during a hypnotic trance, Dr. Linn F. Cooper, Georgetown University physician, reports in the *Bulletin of the University's Medical Center*.

The slowing of time's flight was accomplished by Dr. Cooper through use of a metronome beating out a regular tick-tock, tick-tock, at one beat a second. The young lady whom he had previously hypnotized was told the rate. Then she was told that he was gradually slowing down the rhythm until only one tick sounded each minute.

In her trance, she seemed to accept this new notion of time.

Then, Dr. Cooper told her that at a signal she would visit in her "mind's eye" her school when she was in the fifth grade. She would have ten minutes and then would be told to stop.

After ten beats of the metronome—ten seconds—the girl was awakened and asked to tell what had happened.

She said she had had "lots of time," told who she had met and talked with, told of walking down a hall, and described the appearance of the school and her classmates. When she learned that all this had transpired in her mind in ten seconds, not ten minutes, she was amazed.

The same speeding up of activity took place when she was not stopped but allowed to continue until she finished a task but told she must finish within a set time. Once it was suggested to her that she was in a cotton patch near her home. She was to walk along the rows and pick and count the cotton bolls. She counted for what she thought was 80 minutes. She told of doing it carefully, looking under the leaves so that

be, a favorable check to the process of aging. The increased size may, instead, be a kind of artificially produced deformity.

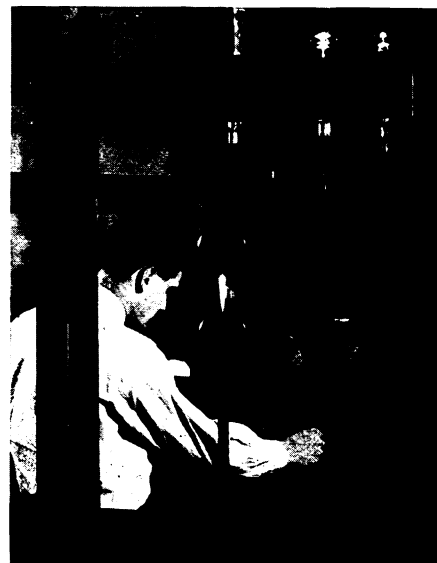
Before any factor can be considered as an anti-aging one, he stresses, especially for treatment of old or aging people, more must be investigated than the changes in weight and size of some organs. For this purpose, both experimentally and clinically, many studies of the biochemical, physiologic and structural changes must be made.

Science News Letter, May 15, 1948

she would not miss any. There were 862 bolls, she said.

Actually it had taken her just 3 seconds. For a waking person it is just not possible to count 862 of anything—even in the imagination—in only three seconds.

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"ELECTRICAL YARDSTICK"—It is used for measuring the high voltages required in many scientific experiments. A scientist is shown in the picture adjusting the control instruments as an arc, generated by 90,000 volts of electricity, leaps across the gap between the two spheres of the "yardstick," which is held upright by the frame in the foreground. The distance between the spheres can be used as an accurate measure of the voltage. This research tool is being used by Westinghouse Research Laboratories.