

Work to Keep Young

Physical exercise, which trains the human heart to carry its own load, may contribute to longevity and prevent hardening of the arteries

► **HOUSEWORK** rather than hormones is one of the primary reasons most women escape severe hardening of the arteries until after the menopause, a Cincinnati heart specialist said in Chicago.

After the change of life a woman tends to slow down on her exercise.

Dr. Robert S. Green reported at the American Medical Association convention that he believes that the key to longevity is training the heart to carry its own load.

Dr. Green is associated with the Heart Research Foundation.

During World War II Dr. Green aided in the examination of more than 100,000 inductees' hearts. He said men with obvious heart murmurs and defects who had not been aware of them were healthy, but those whose activity had been restricted by medical advice were generally sickly and incapable of even moderate activity.

Fifty percent of the Korean War inductees who had a clear-cut history of rheumatic fever had no heart damage detectable by electrocardiogram, fluoroscopy or chest X-ray, Dr. Green found. An equal percentage of persons with

unequivocal rheumatic valve disease had no history of ever having had rheumatic fever. However, he said that rheumatic fever is a "tricky smoldering disease."

When rheumatic fever occurs it should be treated with penicillin to eradicate the streptococci that somehow cause it and to prevent a recurrence of the disease. If it attacks heart valves, the work load of the heart chambers is increased.

Therefore, gradual increase of activity over a period of six months is advisable to permit the heart to adjust itself to its new load.

Heart attacks need not happen, Dr. Green said. The average person can avoid an attack by obeying the warnings of nature, acting his age, eliminating unnecessary exertion, by training in preparation for any new activity, and resting when tired.

Dr. Green is planning a book on his research that will soon be published.

Another speaker, Dr. Stephen A. Hegedus of the Veterans Administration Hospital, Perry Point, Md., demonstrated a safe method of determining what persons are likely to have strokes

because of obstruction of the neck arteries.

The compression test, made low in the neck rather than in the higher area of bifurcation of neck arteries, has been safely used in 4,000 patients in the United States.

Dr. Hegedus has used the method on nearly 300 veterans ranging in age from 39 to 92.

The test could be used in mass screening of persons who could be saved from stroke through surgery.

Strokes can be caused by hemorrhages and blood clots. Ten percent are caused by cerebral thrombosis. Some 20% of the cases of cerebral thrombosis are caused by obstruction of the carotid, or neck arteries leading to the brain.

Asked by **SCIENCE SERVICE** if the test could become a part of the new heart, cancer and stroke program, Dr. Hegedus said that it could, and that it could be performed routinely in a doctor's office.

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IMMUNOLOGY

Live Mumps Vaccine Shows Promise in Tests

► **A PROMISING** live weakened vaccine against mumps has been named for the eight-year-old daughter of a Pennsylvania physician who helped develop it. Her name is Jeryl Lynn Hilleman, and her father is Dr. Maurice R. Hilleman of the Merck Institute for Therapeutic Research, West Point, Pa.

The Jeryl Lynn strain was isolated from the girl three years ago when she had mumps. The strain was altered to reduce its virulence, and the vaccine is prepared from cell cultures in chick embryo tissue from a special flock of disease-free chickens.

So far, only a killed virus vaccine has been used, but it is not generally recommended because it is only effective for two years.

The new vaccine already has been tried out with 98% success on more than 500 school-age and preschool-age children in controlled studies involving nearly 1,500 youngsters, but further trials will be carried out before licensing is considered.

Mumps, like measles, has usually been regarded as one of the minor illnesses of childhood, but in a small percentage of children and larger proportion of adults, the consequences may be severe. Complications may include impairment of the brain, the eyes, the heart and the reproductive organs.

Dr. Hilleman reported results of studies with the vaccine, which he developed with Dr. Eugene Buynak, also of Merck, before the annual meeting of the American Therapeutics Society in Chicago.

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Merck Sharp and Dohme

COULD MUMPS BE WORSE?—Kirsten Jeanne Hilleman, 15 months old, does not know how lucky she is. Dr. Robert Weibel of the University of Pennsylvania is administering an injection of the newly developed Jeryl Lynn strain of mumps vaccine. Her sister, for whom the vaccine was named, tries to comfort her.