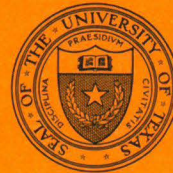


NEWS RELEASE

THE UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL SCHOOL AT DALLAS



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NEW YORK, FEB. 28 -- Carefully controlled exercise has helped a group of sedentary blind men attain not only improved physical fitness but a brighter mental outlook and increased job productivity as well, a scientist from the University of Texas Southwestern Medical School at Dallas told the American College of Cardiology here today.

Dr. Jere H. Mitchell, Director of the Pauline and Adolph Weinberger Laboratory for Cardiovascular Research at Southwestern, reported that after undergoing a measured program of stepped-up activity, nine workmen at Dallas' Lighthouse for the Blind showed dramatic physical and psychological improvement.

The studies were part of continuing research at Southwestern into the effects of physical training on the heart and circulatory systems of sedentary men. The work is being conducted by Dr. Mitchell, Dr. Gunnar Blomquist and Dr. Wayne Siegel under a grant from the National Heart Institute.

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first add exercise

The medical team found that the blind participants registered an average 20 per cent increase in their capacity to perform physical work after repeated brief sessions of stationary bicycle riding. The increase was computed by measuring the maximal rate of oxygen consumption, a prime indicator cardiopulmonary (heart-lung) function.

And surprisingly, Dr. Mitchell said, the men -- all blind for many years and locked into a sedentary pattern of existence -- showed positive gains in all categories of a personality inventory test, indicating they had become less depressed and gained an improved sense of well-being as a result of the exercise.

Improved fitness also led to a generally heightened level of productivity among the men, who perform piecework tasks such as broom-making. Increased individual output, the researchers found, more than made up for work time lost on days when the men engaged in exercise sessions.

The test group began the experiments in a very poor state of physical fitness and low body-work capacity -- decidedly below the expected level for their age group, said Dr. Mitchell.

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second add exercise

The blind volunteers were placed on an exercise program similar to that of long-distance runners in training: alternate three-minute periods of work and rest for a total of 12 minutes. Three of the 12-minute sessions were conducted each week for 12 weeks.

Despite their poor initial condition, the men showed rapid improvement, Dr. Mitchell said. Various medical tests were conducted on each individual after each exercise period. Care was taken not to reach or exceed maximum comfortable stress levels.

After a plateau of increased fitness was reached, tests continued to determine the proper amount of exercise necessary to maintain optimal conditioning. Three 12-minute bicycling periods weekly were found to be needed.

Dr. Mitchell said he and his associates, whose studies are aimed primarily at increasing knowledge of the cardiovascular (heart-blood vessel) function, regard the results of the research with the blind men as a significant piece of new information in this area.

"Previously it had been considered very difficult to change the capacity of the cardiovascular systems and work capacity in older men," the Dallas medical scientist said.

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third add exercise

"Here we have demonstrated that very brief periods of exercise three times a week are enough to improve significantly the functional capacity of the heart and blood vessels."

One goal of the exercise research, Dr. Mitchell said, is to develop a "pharmacopea or prescription guide of exercise."

"Everybody's been prescribing exercise, but nobody knows enough about the optimal dosage," he observed.

Dr. Mitchell cautioned that while the short-term value of exercise in improving heart performance and blood distribution is well documented, much remains to be learned about the long-range relationship between exercise, such as the currently popular jogging, and cardiovascular disease.

"On the basis of what we know now," he said, "one cannot say that jogging prevents heart attacks. However, it does appear to have some beneficial effects along this line."

To establish the long-term credibility of exercise in the prevention of heart and blood vessel disorder would require a massive nationwide research effort, involving perhaps 50,000 persons over a five to 10-year period. Nothing approaching this in scope has yet been attempted, he pointed out.