Exercise prevents signs of aging in the heart 
  Research reveals how much is enough

Sept. 16, 2014, Fort Worth — Having established that extreme athletes can maintain youthful heart function, researchers now have encouraging news for the rest of us: People who exercise four or five times a week also can prevent age-related stiffening of the heart, reducing the risk of heart failure.

“We’ve known since 2004 that competitive master athletes who train six or seven days a week throughout adulthood prevent the stiffening of the heart observed in sedentary people as they age,” said cardiologist Paul Bhella, MD, lead author of research published in the Journal of the American College of Cardiology. “But that level of commitment to exercise is not practical for most people. We wanted to find out if there was a lower ‘dose’ of exercise that could produce the same benefit. How much exercise is enough?”

Bhella and co-investigators recruited 102 healthy people over the age of 64 with verifiable fitness histories, assigning them to one of four groups depending on how many times a week they exercised for at least 30 minutes consistently over the previous 25 years. Heart catheterization and echocardiography were performed to evaluate the stiffness of the heart’s left ventricle, which pumps oxygenated blood into circulation.

They found that people who exercised four or five times a week achieved much of the same benefit as competitive athletes who train daily, and considerably more than those who exercised less frequently or not at all.

The study results present an opportunity for people now in their 30s and 40s, who have time to adopt a heart-healthy exercise regimen before irreversible age-related stiffening begins.

“This is research we should be discussing with our loved ones, with our children,” said Bhella. “I’ve been involved with a number of research projects over the years, but this is one I want to send to my friends.”

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Bhella is director of Cardiac Imaging at JPS Health Network. The senior author of the study is Benjamin Levine, MD, of the University of Texas Southwestern Medical Center and the Institute for Exercise and Environmental Medicine at Texas Health Presbyterian Hospital in Dallas.

The research, “Impact of Lifelong Exercise ‘Dose’ on Left Ventricular Compliance and Distensibility,” was funded by the National Institutes of Health. It was published online Monday and will be in the September 23 print edition of the Journal of the American College of Cardiology.

Study subjects included Adrian Cheong, of Colleyville, a 70-year-old emergency room physician who enjoys the cardiac benefits of having worked out four or five days a week for more than 20 years. Dr. Cheong is willing to share his experience, if you would like to talk to one of the subjects.