Conclusion: Both physical fitness and physical activity patterns were associated with survival, but fitness as estimated in METs from treadmill testing more powerfully predicts survival than activity from a questionnaire.

838-4 Can a Pre-Exercise Test Score Predict Prognosis in Women With a Low Prevalence of Coronary Disease? The National Heart, Lung, and Blood Institute-Sponsored Women’s Ischemia Syndrome Evaluation (WISE) Study

Anthony Morrise, Nathan B. Olson, C. Noel Bailey Merz, Sunil Markand, William J. Rogers, Carl J. Pepine, Steven E. Reis, Barry L. Sharaf, George Sopko, Gerald M. Pohost, C. Noel Bairey Merz, Sunil Mankad, William J. Rogers, JACC March 19, 2003 ABSTRACTS - Cardiac Function and Heart Failure 191A

Background: Both physical fitness and daily physical activity patterns are inversely associated with mortality, but a comparison between the two has not been performed in the same population.

Methods: Physical fitness was determined as METs calculated from speed and grade for 842 males (age 56±12) referred for treadmill testing for clinical reasons. Adulthood recreational activity pattern, expressed in kcal/week, was quantified using a modified Harvard Alumni Questionnaire at the time of exercise testing. Subjects were followed for a mean of 5.5±2.0 years with all-cause mortality as the endpoint.

Results: Recreational energy expenditure showed a graded pattern, with the more active demonstrating a lower mortality (hazard ratio for ≥2000 kcal/week = 0.53, p=0.03). However, adjusting for age, a Cox proportional hazards model showed that peak METs achieved was a stronger predictor of mortality than physical activity pattern (hazard ratio for ≥3 METs=0.30, p<0.001). The Figure shows the reduction in risk for quartiles of fitness and activity we observed relative to the recent meta-analysis of Williams (Med Sci Sports Exer 2001; 33;754). Both fitness and activity levels in our subjects were similar to the meta-analysis in reducing risk.

Conclusion: CI and HRR are independent and incremental predictors of cardiac death.