The Role of Fitness and Physical Activity in Heart Disease

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There is compelling evidence that regular physical activity whether expended at work or during leisure activities, is associated with a reduction in the incidence of heart disease.

As a corollary, since the mid-19th century exercise has also played a role in the rehabilitation of patients with established disease. Initially the approach was pragmatic, with the goal being alleviation of angina and improvement in functional capacity. Subsequently exercise therapy fell out of favour for an extended period and it was not until the 1950's that it re-emerged as a component of cardiac rehabilitation programs. Ensuing research has established its worth.

Physical fitness, considered a surrogate for physical activity, has now been shown to be a significant predictor of cardiac and all-cause mortality. As such, it should be incorporated into a risk stratification procedure for individuals with suspected or established vascular disease. Questions remain as to:

1. The mechanisms by which physical exercise benefits the cardiovascular system,
2. The degree to which one's genotype contributes to exercise capacity, and
3. Whether the improvement in survival in patients attending a cardiac rehabilitation program is associated with an increase in physical **fitness** or physical **activity**,
4. These and related subjects will be addressed.

Objectives of the Session

1. Outline the historical background of exercise therapy in ischaemic heart disease
2. Explain the scientific rational for its place in a comprehensive cardiac rehabilitation program
3. Evaluate the role of physical fitness as a prognostic indicator in cardiac rehab patients

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Received October 8, 2008; accepted October 29, 2008