

# **Marathon Running and CVD**

## **“No Pain, No Gain?”**

**Dr. David Bewick**

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**Enthusiasm in long distance running has increased significantly in the last decade with the heightened public awareness of the benefits of regular physical exercise. Concomitantly, one has also seen an increased frequency of media reports on race related catastrophic cardiac events.**

**Most of the runners who had a cardiac event had established risk factors for atherosclerosis; additionally, the incidence is 3-5x in those participants completing full marathons as opposed to those who do one-half marathons. This suggests that as the intensity of the exercise increases, the risk of precipitating an adverse cardiac event escalates.**

**Previous reports implied an exercise-induced “plaque rupture” was the precipitating incident, leading to a cardiac event, but recent studies challenge this concept. Evidence increasingly supports an imbalance in the myocardial “supply-demand” hypothesis precipitating an acute coronary phenomenon. This has important clinical implications, as one should consider a screening exercise treadmill study in those who wish to participate in long distance running, particularly for patients who are middle-aged or those with traditional cardiovascular risk factors for atherosclerotic heart disease.**

**The author`s experience has found that “baby boomers” are performing more aggressive exercise routines and most of these patients had premonitory symptoms{which generally are “ignored”}.In addition, hypertension and dyslipidemia are commonly encountered with frequent patient resistance to standard medical treatment for these conditions.**

**This review will highlight the utility of stress echocardiography for risk stratification and management in the cardiovascular assessment of long distance runners by exemplifying “take home” messages utilizing a case based format.**

