

## **Eight Year Mortality in 1024 CABG Surgery Israeli Patients According to Their Physical Activity Habits**

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Studies have shown that coronary artery bypass surgery (CABG) surgery outcomes are better in cardiac patients who were physically active prior to the surgery. Cardiovascular morbidity and mortality were also shown to be lower in coronary patients who became or remained physically active. It has been shown that more cardiac patients engage in leisure time physical activity after CABG surgery. In Israel in the early 90's, about 30% of first acute myocardial infarction patients living in the center of Israel reported of habitual physical activity. Of those who survived the first year (n=1123) 39.8% reported habitual physical activity.

We followed up a cohort of 1024 CABG surgery patients operated on in 5 cardiothoracic units in Haifa, Tel Aviv, Petach Tikva and Jerusalem during 2004-2006, in order to describe the 8-year mortality in relation to physical activity habits prior to the surgery and at 1-year follow up.

Physical fitness before and 1-year after CABG surgery was calculated as well.

Rates of participation in physical exercise increased from 34% to 45% during the 1-year follow up, and while 65% of those who were physically active during baseline participated in cardiac rehabilitation programs after the surgery only 23% of the sedentary patients attended a cardiac rehabilitation program during that time. Calculated oxygen capacity (VO<sub>2</sub>) improved only in patients who attended cardiac rehabilitation programs, regardless of their baseline Charlson comorbidity index. In an 8-year mortality follow up, age and co-morbidity index adjusted death rates were significantly higher in the sedentary group as compared to the physically active one (p=0.0009).

Physical activity rates in Israeli cardiac patients have remained stable during the past 20 years.

We conclude that patients should be motivated to be physically active before the coronary surgery as well as be referred to cardiac rehabilitation programs after the surgery to increase their survival after CABG surgery.