

Fight Obesity

Dr. Naresh Somani

Obesity and its association with diabetes, hypertension, thyroid disorders, arthritis and many other health related problems is well known. However, more alarming scenario is accumulation of evidences which show that physical activity is associated with decreased cancer risk and obesity is associated with increased cancer risk.

The actions of these two risk factors may be interrelated or independent.

Physical activity is defined as any movement of the body resulting in energy expenditure. This may be in form of leisure-time physical activity (or recreational physical activity) or Occupational activity occurring over longer periods of time and generally requiring less energy expenditure per hour than bouts of strenuous or moderate leisure-

time physical activity.

Occupational physical activity, with increasing mechanization and technological advances, has decreased in developed areas of the world, perhaps leading to a decreased in overall activity. Obesity is defined as the condition of being extremely over weight.

Body mass index (BMI), which is most popular way of assessing obesity is measured as weight in kilograms (kg) divided by the square of height measured in meters (m²).

The prevalence of obesity, defined as having BMI of 30 kg/m² or greater, has reached epidemic levels in developed areas of the world as has the prevalence of overweight (with a BMI of 25 to 29.9 kg/m²). Ideally activity levels are represented by duration, frequency and intensity of activity.

Epidemiologic evidences for a role of physical activity or obesity in relation to

cancer risk exist for cancers of the breast, colon, endometrium, esophagus, and kidney. Evidences are also accumulating to line at least one of these "exposures" to incidence of lymphoma (NHL), and advance prostate cancer.

In addition to specific biological mechanisms pertinent to physical activity or to obesity at each specific organ site, several "global mechanisms" have been implicated in both relationships across a number of these organ sites.

The steroid hormone and insulin and insulin like growth factor (IGF) pathways are two such global mechanisms involved in the links between physical activity or obesity and cancer. Obesity produces a pro-inflammatory state, and thus, inflammation may mediate the relationship between obesity and cancer risk.

(The writer is Senior Cancer Specialist, BMCHRC, Jaipur)