



# e-quilibrium

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## METs

The obesity epidemic remains a topic of great concern, as weight-related health problems continue to increase. On an individual basis, the healthiness of one's weight is typically determined by measuring actual weight in pounds, waste circumference, body mass index (BMI), or body fat percentage. However, in the past few years, some very compelling epidemiological studies have been published which suggest that cardiorespiratory fitness (CRF) is a much better predictor of health outcomes than are these other weight-related indicators. Cardiorespiratory fitness is typically measured in metabolic equivalent of tasks (METs), commonly referred to as metabolic equivalents.

A MET is essentially a measure or estimate of how much oxygen the body uses during physical activity. 1 MET represents how much oxygen the body uses over one minute per unit of body weight, while at rest. A useful way to understand METs is that an activity that has a MET level of 4 requires four times as much oxygen than does being sedentary. Activities that require 3-6 METs are considered to be moderate-intensity physical activity, while vigorous intensity physical activities require more than 6 METs. Walking has a MET value of 3, while the MET value of dancing is 4.5. Running and biking have MET values in the range of 8. MET values for numerous activities can be found at <http://riskfactor.cancer.gov/tools/atus-met/>. At a minimum, individuals should strive for an exercise capacity (i.e., fitness level) of at least 5 METs, but higher is better.

Recent studies using data from the Aerobics Center Longitudinal Study (which includes tens of thousands men and women) have yielded a number of interesting findings. Among men, every 1 MET improvement in fitness over a 6-year period was associated with a 15% decrease in mortality from any cause, regardless of any change in weight. Other health benefits of fitness that have been found in these analyses include decreased risk of diabetes or depression, and decreased risk of death from dementia or dyslipidemia (abnormal levels of cholesterol and fats in the blood).

These studies imply that improving fitness (or maintaining fitness among those already fit) should perhaps be a higher priority than weight loss (or weight maintenance among those already at a healthy weight), if the goal is to improve health and decrease the risk of early death. That is, perhaps we should give more attention to METs (measuring cardiorespiratory fitness) than we do to BMI or waist circumference. This isn't to suggest that weight management is unimportant, but rather that gains in fitness appear to yield greater health benefits.

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