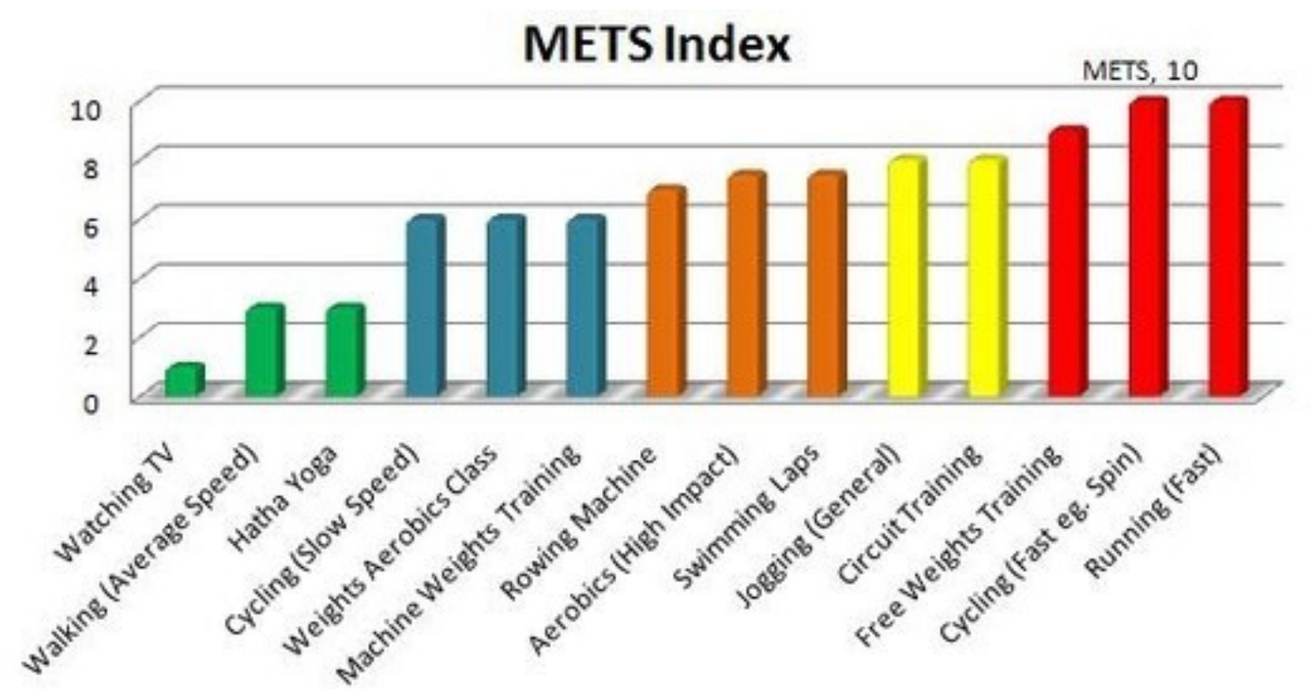
PERFORMANCE 101: How Judge Exercise Intensity and Fitness with METS

An easy way to judge exercise intensity and fitness is to use a METS

You might see METs on the screen of exercise equipment. It is there to help you measure your physical activity level. I use it as a way to judge your level of fitness. METS stands for metabolic equivalents. The higher the METS you can sustain the greater your fitness level. METS is a great way to judge exercise intensity. One MET is your oxygen requirements at rest, while 3-4 METS are the requirements while walking. An activity with a MET value of 4 means you're exerting four times the OXYGEN than you would if you were sitting still. Jogging is about 7-8 METS, while running fast is 10. The American Heart Association recommends at least 150 minutes of moderate-intensity aerobic exercise each week for optimal cardiovascular health. That's equal to about 500 MET minutes per week. Also, if you know the MET value of a particular activity, can you figure out how many calories you're probably burning. The formula to use is: METs x 3.5 x (your body weight in bump) / 200 = calories burned per minute. Here's an online METS-to-calories calculator from Cornell University Ergonomics Unit (non-metric, unfortunately).



A research study showed exercise capacity is the most powerful predictor of mortality, even among those with existing cardiovascular diseases risk factors. Each 1-MET increase in exercise capacity conferred a 12 per cent improvement in survival. More intense exercise requires us to use more energy, and hence rates higher in METS.The study grouped participants into three blocks of exercise intensity:

- Below 5 METS
- Between 5 and 8 METS
- Above 8 METS.

The average exercise intensity of the Above 8 METS group was 9.7 METS and **80% more of this group had survived** compared to those in the low exercise group - the Below 5 METS.

Activity	MET Value	Activity	MET Value
Lying quietly	1.0	Golf (without cart, carrying heavy bag of clubs)	4.4
Riding in a vehicle	1.0	Swimming at a slow pace	4.5
Sitting and doing light activity	1.5	Dancing (ballet or modern)	4.8
Playing the accordion	1.8	Chopping wood	4.9
Walking slowly, <2 miles per hour (mph)	2.0	Snorkeling	5.0
Gardening, light	2.0	Tennis (doubles)	5.0
Playing the flute	2.0	Competitive aerobic dancing	5.0
Playing the piano	2.3	Competitive ballroom dancing, fast	5.5
Playing the cello	2.3	Square dancing	5.5
Horseback riding (horse is walking, not running)	2.3	Ice skating	5.5
Billiards	2.4	Mowing the lawn with hand mower	5.5-6.0
Canoeing at a slow, leisurely pace	2.5	Shoveling snow	6.0
Playing the violin	2.5	Ballet	6.0
Watering plants	2.5	Surfing	6.0
Aerobic/ballroom dancing at a slow, leisurely pace	2.9	Roller skating	6.5
Taking out the trash (not too heavy)	3.0	Skiing, downhill	6.8
General house cleaning	3.0	Climbing hills (not carrying a load)	6.9
Loading/unloading car	3.0	Strenuous hiking	6.0-7.0
Walking the dog	3.0	Rowing/kayaking	6.0-8.0
Walking briskly (3 mph)	3.3	Bicycling (10-16 mph)	6.0-10.0
Mopping the floor	3.5	Climbing hills (carrying a 5-kilogram load)	7.4
Vacuuming	3.5	Swimming, moderate or fast pace	7.0-8.0
Household tasks requiring moderate effort	3.5	Tennis (singles)	7.0-12.0
Heavy yard work or gardening	4.0	Jogging (10 minutes per mile pace)	10.2
Climbing stairs	4.0	Skipping rope	12.0
Biking, casual (<10 mph)	4.0	Squash	12.1
Raking lawn	4.0	Running (8 mph)	13.5