

METs Table

CALCULATING YOUR WEEKLY ENERGY EXPENDED IN RECREATIONAL-TIME PHYSICAL ACTIVITY USING METs (Metabolic Equivalent Task)*

METs/Hr of Exercise Activity

2-3 Walking at a slow pace (1-2 mi/hr), Playing musical instrument, Walking at an average pace (2-2.5 mi/hr), Dancing (slow), Golf, using power cart, Bowling, Fishing

3.5 Walking at a brisk pace (1 mi/20 min), Weight lifting, water aerobics, Golf, not carrying clubs, Leisurely canoeing or kayaking

4-5 Walking at a very brisk pace (1 mi/17 to 18 min), Climbing stairs, Dancing (moderately fast), Bicycling <10 mph, leisurely, Slow swimming, Golf, carrying clubs

5 Walking at a very brisk pace (one mi every 15 min), Most doubles tennis, Dancing (more rapid), Some exercise apparatuses

6 Slow jogging (one mi/ 13 to 14 min) , Ice or roller skating, Doubles tennis (if you run a lot)

6-7 Hiking

6-8 Rowing, canoeing, kayaking vigorously, Dancing (vigorous), Some exercise apparatuses

6-10 Bicycling 10 to 16 mph, Swimming laps moderately fast to fast, Aerobic calisthenics

7-12 Singles tennis, squash, racquetball

8 Jogging (1 mile every 12 min), Skiing downhill or cross country

10 Running 6 mph (10-minute mile)

13.5 Running 8 mph (7.5-minute mile)

16 Running 10 mph (6-minute mile)

METs/hr Expended On Home and Occupational Activities

1.3 Standing

1.5 Reading, talking on telephone

1.8 Sitting in class, studying, note taking

2.0 Walking on job, at 2 mph (in office or lab area), easy casual, Light gardening, Light office work, light use of hand tools (watch repair or micro-assembly, light assembly/repair); standing, light work (bartending, store clerk, assembling, filing)

2.5 Walking downstairs, Cooking, light housekeeping, shopping, Somewhat heavier gardening or yard work, Pushing stroller with child, walking dog

3.0 Standing, light/moderate work (assemble/repair heavy parts, welding, auto repair, pack boxes for moving, etc), patient care (as in nursing); driving heavy tractor, bus, truck, Washing car or windows, mopping, moderately vigorous playing with children, sweeping outside house, vacuuming, picking fruit or vegetables, scrubbing floors

3.5 Walking on job, 3 mph (one mile every twenty minutes), in office, moderate speed, not carrying anything, or carrying only light articles

4.0 Raking lawn, planting shrubs, weeding garden, heavy yard work or gardening activities, Masonry, painting, paper hanging, moderately heavy lifting, moderately heavy farm work

5.0 Walking downstairs or standing, carrying objects about 25-49 lb, Digging, spading, vigorous gardening, using heavy power tools; general gardening, mowing lawn (hand mower), Painting, carpentry, cleaning gutters, laying carpet, other vigorous activities, Chopping wood

6.0 Using heavy tools (not power) such as shovel, pick, spade; driving heavy machinery, forestry

6.5 Walking downstairs or standing, carrying objects about 50-74 lb, Loading and unloading truck (standing); moving heavy objects; heavy farming work

7.5 Walking downstairs or standing, carrying objects about 75-99 lb

8.0 Heavy farming

MET values for each activity are approximations; there may be considerable individual variation.

One MET is the energy expended at rest. Two METs indicates the energy expended is twice that at rest. Three METs is triple the resting energy expenditure, etc. Thus, the METs per hour score is a measure of the intensity of a physical activity.

*The ratio of the metabolic rate of the average person while seated and resting, to the metabolic rate of a particular person while performing some task. The symbol MET comes from *metabolic equivalents of task*. It is commonly used in medicine to express metabolic rates measured during a treadmill test. Two definitions of the MET are essentially equivalent:

- 1 MET is equivalent to a metabolic rate consuming 3.5 milliliters of oxygen per kilogram of body weight per minute.
- 1 MET is equivalent to a metabolic rate consuming 1 kilocalorie per kilogram of body weight per hour.

In a treadmill test, actually measuring METs requires that the person being tested wear a mask in order to measure his or her oxygen consumption (and the carbon dioxide exhaled). However, METs are often estimated on the basis of other factors.

METs can be converted to kilocalories consumed per minute: $\text{kcal/min} = \text{METs} \times \text{body weight in kilograms} \div 60$.

Adapted from Compendium of Physical Activities. Ainsworth, BE et al. *Medicine and Science in Sports and Exercise*. Vol 25, Pg 713 (1993) and Vol 32, S498 (2000).

To get weekly MET scores, multiply MET value for each activity by hours expended in that activity each time, then add all weekly activities.