### General Physical Activities Defined by Level of Intensity

The following is in accordance with CDC and ACSM guidelines.

<table>
<thead>
<tr>
<th><strong>Moderate activity</strong> (^*)</th>
<th><strong>Vigorous activity</strong> (^*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0 to 6.0 METs* (3.5 to 7 kcal/min)</td>
<td>Greater than 6.0 METs* (more than 7 kcal/min)</td>
</tr>
</tbody>
</table>

#### Moderate activity

- Walking at a moderate or brisk pace of 3 to 4.5 mph on a level surface inside or outside, such as:
  - Walking to class, work, or the store;
  - Walking for pleasure;
  - Walking the dog; or
  - Walking as a break from work.
- Walking downstairs or down a hill
- Racewalking—less than 5 mph
- Using crutches
- Hiking
- Roller skating or in-line skating at a leisurely pace

#### Vigorous activity

- Racewalking and aerobic walking—5 mph or faster
- Jogging or running
- Wheeling your wheelchair
- Walking and climbing briskly up a hill
- Backpacking
- Mountain climbing, rock climbing, rapelling
- Roller skating or in-line skating at a brisk pace

#### Activities

- Bicycling 5 to 9 mph, level terrain, or with few hills
- Bicycling more than 10 mph or bicycling on steep uphill terrain
- Stationary bicycling—using moderate effort
- Stationary bicycling—using vigorous effort

- Aerobic dancing—higher impact
- Aerobic dancing—higher impact
- Step aerobics
- Water aerobics
- Water jogging
- Teaching an aerobic dance class

- Calisthenics—light
- Yoga
- Yoga
- General home exercises, light or moderate effort, getting up and down from the floor
- Jumping rope

- Using a stair climber machine at a light-to-moderate pace
- Using a stair climber machine at a fast pace
- Using a rowing machine—with moderate effort
- Using an arm cycling machine—with vigorous effort

- Weight training and bodybuilding using free weights, Nautilus- or Universal-type weights
- Circuit weight training

- Boxing—punching bag
- Boxing—in the ring, sparring
- Wrestling—competitive

- Ballroom dancing
- Professional ballroom dancing—energetically
- Line dancing
- Square dancing—energetically
- Folk dancing—energetically
- Clogging

- Modern dancing, disco

- Ballet

- Table tennis—competitive
- Tennis—singles
- Tennis—doubles
- Wheelchair tennis

- Golf, wheeling or carrying clubs

- Softball—fast pitch or slow pitch
- Most competitive sports
- Basketball—shooting baskets
- Football game
- Coaching children’s or adults’ sports
- Basketball game
- Soccer

- Rugby
- Field or rollerblade hockey
- Kickball
- Lacrosse

[^*]: METs: Metabolic Equivalent of Task
<table>
<thead>
<tr>
<th>Physical Activities</th>
<th>Aquatic Activities</th>
</tr>
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<tbody>
<tr>
<td><strong>Volleyball—competitive</strong></td>
<td><strong>Beach volleyball—on sand court</strong></td>
</tr>
<tr>
<td>Playing Frisbee</td>
<td>Handball—general or team</td>
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<tr>
<td>Juggling</td>
<td>Racquetball</td>
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<tr>
<td>Curling</td>
<td>Squash</td>
</tr>
<tr>
<td>Cricket—batting and bowling</td>
<td><strong>Downhill skiing—with light effort</strong></td>
</tr>
<tr>
<td>Badminton</td>
<td>Ice-skating—fast pace or speedskating</td>
</tr>
<tr>
<td>Archery (nonhunting)</td>
<td>Cross-country skiing</td>
</tr>
<tr>
<td>Fencing</td>
<td>Sledding</td>
</tr>
<tr>
<td><strong>Downhill skiing—with light effort</strong></td>
<td>Tobogganng</td>
</tr>
<tr>
<td>Ice skating at a leisurely pace (9 mph or less)</td>
<td>Playing ice hockey</td>
</tr>
<tr>
<td>Snowmobiling</td>
<td><strong>Swimming—recreational</strong></td>
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<tr>
<td>Ice sailing</td>
<td>Treading water—slowly, moderate effort</td>
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<tr>
<td><strong>Swimming—recreational</strong></td>
<td>Diving—springboard or platform</td>
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<tr>
<td>Treading water—slowly, moderate effort</td>
<td>Aquatic aerobics</td>
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<tr>
<td>Diving—springboard or platform</td>
<td>Waterskiing</td>
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<td>Aquatic aerobics</td>
<td>Snorkeling</td>
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<td>Waterskiing</td>
<td>Surfing, board or body</td>
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<tr>
<td>Snorkeling</td>
<td><strong>Canoeing or rowing a boat at less than 4 mph</strong></td>
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<tr>
<td>Surfing, board or body</td>
<td>Rafting—whitewater</td>
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<tr>
<td><strong>Canoeing or rowing a boat at less than 4 mph</strong></td>
<td>Sailing—recreational or competition</td>
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<tr>
<td>Rafting—whitewater</td>
<td>Paddle boating</td>
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<tr>
<td>Sailing—recreational or competition</td>
<td>Kayaking—on a lake, calm water</td>
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<tr>
<td>Paddle boating</td>
<td>Washing or waxing a powerboat or the hull of a sailboat</td>
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<tr>
<td>Kayaking—on a lake, calm water</td>
<td><strong>Fishing while walking along a riverbank or while wading in a stream—wearing waders</strong></td>
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<tr>
<td>Washing or waxing a powerboat or the hull of a sailboat</td>
<td>———</td>
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<tr>
<td><strong>Horseback riding—general</strong></td>
<td><strong>Hunting deer, large or small game</strong></td>
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<tr>
<td>Saddling or grooming a horse</td>
<td>Pheasant and grouse hunting</td>
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<tr>
<td>Horseback riding—trotting, galloping, jumping, or in competition</td>
<td>Hunting with a bow and arrow or crossbow—walking</td>
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<tr>
<td><strong>Playing on school playground equipment, moving about, swinging, or climbing</strong></td>
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<tr>
<td>Playing hopscotch, 4-square, dodgeball, T-ball, or tetherball</td>
<td><strong>Playing polo</strong></td>
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<tr>
<td>Skateboarding</td>
<td><strong>Playing instruments while actively moving; playing in a marching band; playing guitar or drums in a rock band</strong></td>
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<tr>
<td>Roller-skating or in-line skating—leisurely pace</td>
<td><strong>Playing a heavy musical instrument while actively running in a marching band</strong></td>
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<tr>
<td><strong>Playing instruments while actively moving; playing in a marching band; playing guitar or drums in a rock band</strong></td>
<td><strong>Gardening and yard work:</strong> raking the lawn, bagging grass or leaves, digging, hoeing, light shoveling (less than 10 lbs per minute), or weeding while standing or bending</td>
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<tr>
<td>Twirling a baton in a marching band</td>
<td><strong>Gardening and yard work:</strong> heavy or rapid shoveling (more than 10 lbs per minute), digging ditches, or carrying heavy loads</td>
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<tr>
<td>Singing while actively moving about—as on stage or in church</td>
<td>Felling trees, carrying large logs, swinging an ax, hand-splitting logs, or climbing and trimming trees</td>
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<td><strong>Gardening and yard work:</strong> raking the lawn, bagging grass or leaves, digging, hoeing, light shoveling (less than 10 lbs per minute), or weeding while standing or bending</td>
<td><strong>Pushing a nonmotorized lawn mower</strong></td>
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<td><strong>Gardening and yard work:</strong> heavy or rapid shoveling (more than 10 lbs per minute), digging ditches, or carrying heavy loads</td>
<td><strong>Shoveling light snow</strong></td>
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<td>Shoveling heavy snow</td>
<td><strong>Moderate housework:</strong> scrubbing the floor or</td>
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| Bathtub while on hands and knees, hanging laundry on a clothesline, sweeping an outdoor area, cleaning out the garage, washing windows, moving light furniture, packing or unpacking boxes, walking and putting household items away, carrying out heavy bags of trash or recyclables (e.g., glass, newspapers, and plastics), or carrying water or firewood | Furniture (75 lbs or more), carrying household items weighing 25 lbs or more up a flight or stairs, or shoveling coal into a stove
Standing, walking, or walking down a flight of stairs while carrying objects weighing 50 lbs or more |
|---|---|
| General household tasks requiring considerable effort | Carrying several heavy bags (25 lbs or more) of groceries at one time up a flight of stairs
Grocery shopping while carrying young children and pushing a full grocery cart, or pushing two full grocery carts at once |
| Putting groceries away—walking and carrying especially large or heavy items less than 50 lbs. | Vigorously playing with children—running longer distances or playing strenuous games with children
Racewalking or jogging while pushing a stroller designed for sport use
Carrying an adult or a child weighing 25 lbs or more up a flight of stairs
Standing or walking while carrying an adult or a child weighing 50 lbs or more |
| Actively playing with children—walking, running, or climbing while playing with children
Walking while carrying a child weighing less than 50 lbs
Walking while pushing or pulling a child in a stroller or an adult in a wheelchair
Carrying a child weighing less than 25 lbs up a flight of stairs
Child care: handling uncooperative young children (e.g., chasing, dressing, lifting into car seat), or handling several young children at one time
Bathing and dressing an adult | Animal care: forking bales of hay or straw, cleaning a barn or stables, or carrying animals weighing over 50 lbs
Handling or carrying heavy animal-related equipment or tack |
| Animal care: shoveling grain, feeding farm animals, or grooming animals
Playing with or training animals
Manually milking cows or hooking cows up to milking machines | Home repair: cleaning gutters, caulking, refinishing furniture, sanding floors with a power sander, or laying or removing carpet or tiles
General home construction work: roofing, painting inside or outside of the house, wall papering, scraping, plastering, or remodeling |
| Home repair or construction: very hard physical labor, standing or walking while carrying heavy loads of 50 lbs or more, taking loads of 25 lbs or more up a flight of stairs or ladder (e.g., carrying roofing materials onto the roof), or concrete or masonry work | Outdoor carpentry, sawing wood with a power saw
Hand-sawing hardwoods |
| Automobile bodywork
Hand washing and waxing a car | Pushing a disabled car |
| ~Occupations that require extended periods of walking, pushing or pulling objects weighing less than 75 lbs, standing while lifting objects weighing less than 50 lbs, or carrying objects of less than 25 lbs up a flight of stairs
Tasks frequently requiring moderate effort and considerable use of arms, legs, or occasional total body movements.
For example:
- Briskly walking on a level surface while carrying a suitcase or load weighing up to 50 lbs
- Maid service or cleaning services | ~Occupations that require extensive periods of running, rapid movement, pushing or pulling objects weighing 75 lbs or more, standing while lifting heavy objects of 50 lbs or more, walking while carrying heavy objects of 25 lbs or more
Tasks frequently requiring strenuous effort and extensive total body movements.
For example:
- Running up a flight of stairs while carrying a suitcase or load weighing 25 lbs or more
- Teaching a class or skill requiring |
• Waiting tables or institutional dishwashing
• Driving or maneuvering heavy vehicles (e.g., semi-truck, school bus, tractor, or harvester)—not fully automated and requiring extensive use of arms and legs
• Operating heavy power tools (e.g., drills and jackhammers)
• Many homebuilding tasks (e.g. electrical work, plumbing, carpentry, dry wall, and painting)
• Farming—feeding and grooming animals, milking cows, shoveling grain; picking fruit from trees, or picking vegetables
• Packing boxes for shipping or moving
• Assembly-line work—tasks requiring movement of the entire body, arms or legs with moderate effort
• Mail carriers—walking while carrying a mailbag
• Patient care—bathing, dressing, and moving patients or physical therapy

active and strenuous participation, such as aerobics or physical education instructor
• Firefighting
• Masonry and heavy construction work
• Coal mining
• Manually shoveling or digging ditches
• Using heavy nonpowered tools
• Most forestry work
• Farming—forking straw, baling hay, cleaning barn, or poultry work
• Moving items professionally
• Loading and unloading a truck


* The ratio of exercise metabolic rate. One MET is defined as the energy expenditure for sitting quietly, which, for the average adult, approximates 3.5 ml of oxygen uptake per kilogram of body weight per minute (1.2 kcal/min for a 70-kg individual). For example, a 2-MET activity requires two times the metabolic energy expenditure of sitting quietly.

† For an average person, defined here as 70 kilograms or 154 pounds. The activity intensity levels portrayed in this chart are most applicable to men aged 30 to 50 years and women aged 20 to 40 years. For older individuals, the classification of activity intensity might be higher. For example, what is moderate intensity to a 40-year-old man might be vigorous for a man in his 70s. Intensity is a subjective classification.

Data for this chart were available only for adults. Therefore, when children’s games are listed, the estimated intensity level is for adults participating in children’s activities.

To compute the amount of time needed to accumulate 150 kcal, do the following calculation: 150 kcal divided by the MET level of the activity equals the minutes needed to expend 150 kcal. For example:

\[
150 \div 3 \text{ METS} = 50 \text{ minutes of participation.}
\]

Generally, activities in the moderate-intensity range require 25-50 minutes to expend a moderate amount of activity, and activities in the vigorous-intensity range would require less than 25 minutes to achieve a moderate amount of activity. Each activity listed is categorized as light, moderate, or vigorous on the basis of current knowledge of the overall level of intensity required for the average person to engage in it, taking into account brief periods when the level of intensity required for the activity might increase or decrease considerably.

Persons with disabilities, including motor function limitations (e.g., quadriplegia) may wish to consult with an exercise physiologist or physical therapist to properly classify the types of physical activities in which they might participate, including assisted exercise. Certain activities classified in this listing as moderate might be vigorous for persons who must overcome physical challenges or disabilities.
~Note: Almost every occupation requires some mix of light, moderate, or vigorous activities, depending on the task at hand. To categorize the activity level of your own position, ask yourself: How many minutes each working day do I spend doing the types of activities described as light, moderate, or vigorous? To arrive at a total workday caloric expenditure, multiply the minutes spent doing activities within each intensity level by the kilocalories corresponding to each level of intensity. Then, add together the total kilocalories spent doing light, moderate, and vigorous activities to arrive at your total energy expenditure in a typical day.