

EXERCISE LIST

Category	Description	Mets
bicycling	bicycling,	4
bicycling	bicycling, >20 mph, racing, not drafting	15.8
bicycling	bicycling, 10-11.9 mph, slow, light, leisure	6.8
bicycling	bicycling, 12-13.9 mph, moderate, leisure	8
bicycling	bicycling, 14-15.9 mph, fast, vigorous, racing or leisure	10
bicycling	bicycling, 16-19 mph, racing, not drafting	12
bicycling	BMX biking	8.5
bicycling	unicycling	5
conditioning	stationary bicycle, general	7
conditioning	stationary bicycle, 90-100 watts, moderate to vigorous	6.8
conditioning	stationary bicycle, 161-200 watts, vigorous	11
conditioning	stationary bicycle, 201-270 watts, very vigorous	14
conditioning	stationary bicycle, 30-50 watts, very light to light	3.5
conditioning	stationary bicycle, 51-89 watts, light to moderate	4.8
conditioning	calisthenics, vigorous	8
conditioning	calisthenics, light or moderate, general	3.5
conditioning	circuit training, vigorous	8
conditioning	health club, exercises, general	5.5
conditioning	stationary rowing, ergometer, vigorous	6
conditioning	stationary rowing, 100 watts, moderate	7
conditioning	stationary rowing, 150 watts, vigorous	8.5
conditioning	stationary rowing, 200 watts, very vigorous	12
conditioning	stationary rowing, moderate, general	4.8
conditioning	ski machine, general	6.8
conditioning	slimnastics	6
conditioning	stair-treadmill, ergometer	9
conditioning	stretching, mild	2.3
conditioning	teaching exercise class, aerobics, water aerobics	6.8
conditioning	water conditioning exercises, aerobics, calisthenics	5.3
conditioning	resistance training, weight lifting, vigorous	6
conditioning	sitting in a whirlpool	1.3
dancing	dancing, ballet	5
dancing	dancing, ballroom, fast	5.5
dancing	dancing, ballroom, slow	3
dancing	dancing, general	7.8
fishing	fishing related, digging worms	4.3

EXERCISE LIST

fishing	fishing, from boat or canoe, sitting	2
fishing	fishing, from river bank, walking	4
fishing	fishing, from river bank, standing	3.5
fishing	fishing, in stream, in waders	6
fishing	fishing, general	3.5
fishing	fishing, ice, sitting	2
hunting	hunting, with bow and arrow or crossbow	2.5
hunting	hunting, large game, deer, elk	6
hunting	hunting, duck, wading	2.5
hunting	hunting, general	5
hunting	hunting, pheasant or grouse	6
hunting	hunting, rabbit, squirrel, small game	5
hunting	pistol shooting or trap shooting, standing	2.5
home activities	cleaning, sweeping carpet or floors, general	3.3
home activities	carrying groceries upstairs	7.5
home activities	child care, sitting or kneeling, light	2
home activities	child care, standing, moderate	3
home activities	cleaning, heavy or major, moderate (washing car, cleaning garage)	3.5
home activities	cleaning, general, moderate	3.3
home activities	cleaning, dusting or polishing furniture	2.3
home activities	cooking or food preparation, standing or sitting, light	2
home activities	cooking or food preparation, walking	2.5
home activities	grocery shopping	2.3
home activities	laundry, standing, putting clothes in washer/dryer, light	2
home activities	laundry, putting clothes away, walking	2.3
home activities	putting away household items, implied walking	3
home activities	ironing	1.8
home activities	making bed, changing linens	3.3
home activities	moving household items upstairs	9
home activities	moving household furniture	5.8
home activities	moving household items, carrying boxes	5.8
home activities	putting away groceries, carrying packages	2.5
home activities	scrubbing floors, bathroom, moderate	3.5
home activities	serving food, setting table	2.5
home activities	playing with children, sitting, light	2.2
home activities	sewing, knitting, sitting, light	1.3
home activities	changing light bulb, standing, light	2

EXERCISE LIST

home activities	packing boxes, lifting, standing, moderate	3.5
home activities	playing with children, standing, light	2.8
home activities	sweeping garage, outside sidewalk	4
home activities	playing with children, walk/run, moderate	3.5
home activities	playing with children, walk/run, vigorous	5.8
home activities	noncleaning household tasks, walking, moderate	3.5
home activities	washing dishes, walking, light	2.5
home activities	clearing dishes from the table, light	2.5
home repair	airplane repair	3
home repair	automobile body work	4
home repair	automobile repair, light or moderate	3.3
home repair	carpentry, finishing or refinishing furniture	3.3
home repair	carpentry, general, workshop	3
home repair	carpentry, outside house, installing rain gutters	6
home repair	carpentry, sawing hardwood	6
home repair	caulking, chinking log cabin	5
home repair	caulking, except log cabin	4.5
home repair	cleaning gutters	5
home repair	excavating garage	5
home repair	hanging storm windows	5
home repair	laying or removing carpet	4.5
home repair	laying tile or linoleum	3.8
home repair	painting, outside home	5
home repair	painting inside house, wallpapering, scraping paint	3.3
home repair	putting on and removing a sailboat tarp	3
home repair	roofing	6
home repair	sanding floors with a power sander	4.5
home repair	scraping and painting sailboat or powerboat	4.5
home repair	spreading dirt with a shovel	5
home repair	washing and waxing hull of sailboat or airplane	4.5
home repair	washing fence, moderate	4.5
home repair	plumbing, general	3
inactivity	lying quietly and watching television	1
inactivity	reclining, reading	1.3
inactivity	reclining, talking or talking on phone	1.3
inactivity	reclining, writing	1.3
inactivity	sleeping	0.95

EXERCISE LIST

inactivity	standing quietly, standing in a line	1.3
yardwork	carrying, loading or stacking wood	5.5
yardwork	chopping wood, splitting logs, vigorous	6.3
yardwork	clearing undergrowth, hauling branches, vigorous	6.3
yardwork	digging sandbox, shoveling sand	5
yardwork	digging, spading, filling garden, compositing, general	5
yardwork	gardening with heavy power tools	5.8
yardwork	gardening, general, moderate	3.8
yardwork	laying crushed rock	6.3
yardwork	laying sod	5
yardwork	mowing lawn, general	5.5
yardwork	mowing lawn, riding mower	2.5
yardwork	mowing lawn, hand mower, walking	6
yardwork	mowing lawn, power mower, moderate to vigorous	5
yardwork	operating snow blower, walking	2.5
yardwork	planting seedlings, shrub, stooping, moderate	4.3
yardwork	planting trees	4.5
yardwork	raking lawn, general	4
yardwork	raking roof with snow rake	4
yardwork	riding snow blower	3
yardwork	sacking grass, leaves	4
yardwork	shoveling snow, by hand, general	6
yardwork	trimming shrubs or trees, manual cutter	4
yardwork	trimming shrubs or trees, power cutter, moderate	3.5
yardwork	applying fertilizer or seeding a lawn, push applicator	3
yardwork	watering lawn or garden, standing or walking	1.5
yardwork	weeding, cultivating garden, general	4.5
miscellaneous	sitting, reading, book, newspaper	1.3
miscellaneous	sitting, studying, general, reading and/or writing, light	1.3
miscellaneous	sitting, talking, computer, or text messaging, light	1.5
miscellaneous	sitting, writing, desk work, typing	1.3
miscellaneous	playing cards, sitting	1.5
miscellaneous	sitting in class, general, note-taking or class discussion	1.8
miscellaneous	standing, reading	1.8
miscellaneous	standing, talking, computer, or text messaging, light	1.8
music playing	playing the accordion, sitting	1.8
music playing	playing the cello, sitting	2.3

EXERCISE LIST

music playing	conducting orchestra, standing	2.3
music playing	playing the drums, sitting	3.8
music playing	playing the flute, sitting	2
music playing	playing the guitar, classical, folk, sitting	2
music playing	playing the guitar, rock and roll band, standing	3
music playing	playing the horn, standing	1.8
music playing	marching band, drum major, walking	3.5
music playing	marching band, playing an instrument, walking, brisk pace	5.5
music playing	playing the trombone, standing	3.5
music playing	playing the trumpet, standing	1.8
music playing	playing the violin, sitting	2.5
music playing	playing a woodwind instrument, sitting	1.8
occupation	bakery work, general, moderate	4
occupation	bookbinding	2.3
occupation	building a road, driving heavy machinery	6
occupation	building a road, directing traffic, standing	2
occupation	carpentry, general, moderate	4.3
occupation	carrying heavy loads such as bricks or tools	8
occupation	carrying moderate loads upstairs, moving boxes 25-49 lbs	8
occupation	chambermaid work, making bed, cleaning bathroom, pushing cart	4
occupation	coal mining, drilling coal, rock	5.3
occupation	coal mining, erecting supports	5
occupation	coal mining, general	5.5
occupation	coal mining, shoveling coal	6.3
occupation	construction work, outside, remodeling, new structures	4
occupation	farming, bailing hay, cleaning barn, vigorous	7.8
occupation	farming, driving harvester	2.8
occupation	farming, driving tractor	2.8
occupation	farming, feeding cattle, horses	4.3
occupation	farming, feeding small animals	3.5
occupation	farming, milking by hand, cleaning pails, moderate	3.5
occupation	farming, milking by machine, light	1.3
occupation	fire fighter work, climbing in full gear	8
occupation	fire fighter work, general	8
occupation	fire fighter work, hauling hoses, carrying equipment, in full gear	9
occupation	forestry work, ax chopping, very fast, 51 blows/min, extremely vigorous	17.5
occupation	forestry work, ax chopping, slow, 19 blows/min, moderate	5

EXERCISE LIST

occupation	forestry work, barking trees, vigorous	8
occupation	forestry work, carrying or stacking logs, vigorous	8
occupation	forestry work, felling trees, vigorous	8
occupation	forestry work, hoeing, moderate	4.5
occupation	forestry work, planting by hand, vigorous	8
occupation	forestry work, sawing by hand, vigorous	8
occupation	forestry work, sawing wood with power saw, moderate	4.5
occupation	forestry work, trimming trees, vigorous	8
occupation	forestry work, weeding, moderate	4.5
occupation	furrier	4.5
occupation	horse grooming	7.3
occupation	horse racing, galloping	7.3
occupation	horse racing, trotting	5.8
occupation	horse racing, walking	3.8
occupation	locksmith work	3
occupation	machine tooling, machining, light to moderate	3
occupation	machine tooling, operating lathe, light to moderate	3
occupation	machine tooling, operating punch press, moderate	5
occupation	machine tooling, welding, light to moderate	3
occupation	masonry work, concrete, moderate	4.3
occupation	massage therapist work, standing	4
occupation	moving, carrying or pushing heavy objects, 75+ lbs	7.5
occupation	operating heavy duty equipment, automated, not driving	2.5
occupation	orange grove work, picking fruit	4.5
occupation	police work, directing traffic, standing	2.5
occupation	police work, driving a squad car, sitting	2.5
occupation	police work, making an arrest, standing	4
occupation	police work, riding in a squad car, sitting	1.3
occupation	printing, paper industry worker, standing	2
occupation	shoe repair work, general	2
occupation	shoveling, digging ditches	7.8
occupation	shoveling, >16 lbs/minute, deep digging, vigorous	8.8
occupation	shoveling,	5
occupation	shoveling, 10-15 lbs/minute, vigorous	6.5
occupation	office work, sitting tasks, light	1.5
occupation	office work, attending meetings, sitting, general	1.5
occupation	operating a riding mower, forklift, crane, sitting , moderate	2.5

EXERCISE LIST

occupation	standing tasks, light effort (bartending, store clerk, librarian)	3
occupation	standing tasks, light to moderate effort (auto repair, welding)	3
occupation	standing, intermittent lifting 50 lbs, hitch/twisting ropes	3.5
occupation	standing, lifting > 50 lbs, moderate to heavy	4.5
occupation	steel mill work, fettling, moderate	5.3
occupation	steel mill work, forging, moderate	5.3
occupation	steel mill work, hand rolling, vigorous	8.3
occupation	steel mill work, merchant mill rolling, vigorous	8.3
occupation	steel mill work, removing stag, vigorous	8.3
occupation	steel mill work, tending furnace, vigorous	8.3
occupation	steel mill work, tipping molds, moderate	5.3
occupation	tailoring, cutting fabric	2.3
occupation	tailoring, general	2.5
occupation	tailoring, hand sewing	1.8
occupation	tailoring, machine sewing	2.5
occupation	tailoring, pressing	3.5
occupation	truck driving, loading/unloading truck, carrying heavy loads	6.5
occupation	typing for work, electric, manual, or computer	1.3
occupation	using heavy power tools, such as jackhammers, drills	6.3
occupation	using heavy tools, such as shovel, pick, tunnel bar, spade	8
occupation	walking on job, 3.0 mph, in office, moderate speed	3.5
occupation	walking on job, 3.5 mph, in office, brisk speed	4.3
occupation	walking on job,	2
occupation	walking on job, or downstairs or standing, carrying 100+ lbs	8.5
occupation	walking on job, or downstairs or standing, carrying 25-49 lbs	5
occupation	walking on job, or downstairs or standing, carrying 50-74 lbs	6.5
occupation	walking on job, or downstairs or standing, carrying 75-99 lbs	7.5
occupation	walking on job, 2.5 mph and carrying	3.5
occupation	walking on job, 3.0 mph and carrying	4.5
occupation	walking on job, 3.5 mph and carrying	4.8
occupation	working in scene shop, theater actor, backstage employee	3
running	jog/walk combination (jogging)	6
running	jogging, general	7
running	running, 10 mph (6 min/mile)	14.5
running	running, 10.9 mph (5.5 min/mile)	16
running	running, 5 mph (12 min/mile)	8.3
running	running, 6 mph (10 min/mile)	9.8



EXERCISE LIST

running	running, 6.7 mph (9 min/mile)	10.5
running	running, 7 mph (8.5 min/mile)	11
running	running, 7.5 mph (8 min/mile)	11.5
running	running, 8 mph (7.5 min/mile)	11.8
running	running, 8.6 mph (7 min/mile)	12.3
running	running, 9 mph (6.5 min/mile)	12.8
running	running, cross country	9
running	running, general	8
running	jogging, in place	8
running	running, on a track, team practice	10
running	running, up stairs	15
self care	bathing, sitting	1.5
self care	dressing, undressing, standing or sitting	2.5
self care	eating, sitting	1.5
self care	showering, toweling off, standing	2
self care	sitting on toilet, eliminating while standing or squatting	1.8
self care	grooming, sitting or standing	2
self care	standing, general	2.3
self care	talking and eating or eating only, standing	2
sexual activity	sexual activity, active, vigorous	2.8
sexual activity	sexual activity, general, moderate	1.8
sexual activity	sexual activity, passive, light, kissing, hugging	1.3
sports	archery, non-hunting	4.3
sports	badminton, competitive	7
sports	badminton, social singles and doubles, general	5.5
sports	basketball, game	8
sports	basketball, non-game, general	6
sports	basketball, officiating	7
sports	basketball, shooting baskets	4.5
sports	basketball, wheelchair	7.8
sports	billiards	2.5
sports	bowling, general	3
sports	boxing, in ring, general	12.8
sports	boxing, punching bag	5.5
sports	boxing, sparring	7.8
sports	broomball	7
sports	children's games, adults playing, playground apparatus	5.8

EXERCISE LIST

sports	coaching, football, soccer, basketball, baseball, swimming	4
sports	cricket, batting, bowling, fielding	4.8
sports	croquet	3.3
sports	curling	4
sports	darts, wall or lawn	2.5
sports	drag racing, pushing or driving a car	6
sports	fencing	6
sports	football, competitive	8
sports	football, touch, flag, general	8
sports	frisbee playing, general	3
sports	frisbee, ultimate	8
sports	golf, walking, carrying clubs	4.3
sports	golf, general	4.8
sports	golf, miniature, driving range	3
sports	golf, walking, pulling clubs	5.3
sports	golf, using power cart	3.5
sports	gymnastics, general	3.8
sports	hacky sack	4
sports	handball, general	12
sports	handball, team	8
sports	hang gliding	3.5
sports	field hockey	7.8
sports	ice hockey, general	8
sports	horseback riding, general	5.5
sports	saddling, cleaning, grooming, harnessing horse	4.5
sports	horseback riding, trotting	5.8
sports	horseback riding, walking	3.8
sports	horseshoe pitching, quoits	3
sports	jai alai	12
sports	martial arts, judo, moderate	10.3
sports	juggling	4
sports	kickball	7
sports	lacrosse	8
sports	moto-cross, off-road motor sports, all-terrain vehicle, general	4
sports	orienteering	9
sports	paddleball, casual, general	6
sports	paddleball, competitive	10

EXERCISE LIST

sports	polo, on horseback	8
sports	racquetball, general	7
sports	racquetball, competitive	10
sports	rock climbing, ascending rock, high difficulty	7.5
sports	rock climbing, rappelling	5
sports	rope jumping, 120-160 skips/min, fast	12.3
sports	rope jumping, 100-120 skips/min, 2 foot skip, plain bounce	11.8
sports	rope jumping,	8.8
sports	rugby, union, team, competitive	8.3
sports	shuffleboard	3
sports	skateboarding, general, moderate	5
sports	roller skating	7
sports	skydiving, base jumping, bungee jumping	3.5
sports	soccer, casual, general	7
sports	soccer, competitive	10
sports	softball, fast or slow pitch, general	5
sports	softball, officiating	4
sports	softball, pitching	6
sports	squash	12
sports	table tennis, ping pong	4
sports	tai chi, qi gong, general	3
sports	tennis, doubles, general	6
sports	tennis, general	7.3
sports	tennis, singles	8
sports	trampoline, recreational	3.5
sports	volleyball, beach, in sand	8
sports	volleyball, competitive, in gymnasium	6
sports	volleyball, non-competitive, 6 - 9 member team, general	3
sports	wallyball, general	7
sports	wrestling (one match = 5 minutes)	6
transportation	driving an automobile or light truck (not a semi)	2.5
transportation	driving a truck, semi, tractor, >1 ton, or bus	2.5
transportation	flying an airplane or helicopter	1.8
transportation	driving a motor scooter, motorcycle	3.5
transportation	pushing plane in and out of hangar	6
walking	backpacking, general	7
walking	carrying 1-15 lb load, upstairs	5



EXERCISE LIST

walking	carrying 16-24 lb load, upstairs	6
walking	carrying 25-49 lb load, upstairs	8
walking	carrying 50-74 lb load, upstairs	10
walking	carrying >74 lb load, upstairs	12
walking	carrying 15 lb load, level ground or downstairs	5
walking	carrying load upstairs, general	8.3
walking	climbing hills with 0-9 lb load	6.5
walking	climbing hills with 10-20 lb load	7.3
walking	climbing hills with 21-42 lb load	8.3
walking	climbing hills with 42+ lb load	9
walking	descending stairs	3.5
walking	hiking, cross country	6
walking	marching, military, no pack, rapidly	8
walking	pushing or pulling stroller with child	4
walking	race walking	6.5
walking	stair climbing, using or climbing up ladder	8
walking	using crutches	5
walking	walking,	2
walking	walking, 2.0 mph, level, firm surface, slow	2.8
walking	walking, 2.5 mph, downhill	3.3
walking	walking, 2.5 mph, level, firm surface	3
walking	walking, 3.5 mph, level, firm surface, brisk	4.3
walking	walking, 4.0 mph, level, firm surface, very brisk	5
walking	walking, 4.5 mph, level, firm surface, very, very brisk	7
walking	walking, for pleasure, work break	3.5
walking	walking, grass track	4.8
walking	walking, to work or class	4
water activities	driving a power boat	2.5
water activities	canoeing, on camping trip	4
water activities	canoeing, portaging	7
water activities	canoeing, rowing, >6 mph, competition, vigorous	12.5
water activities	canoeing, rowing, 2.0-3.9 mph, light	2.8
water activities	canoeing, rowing, 4.0-5.9 mph, moderate	5.8
water activities	canoeing, rowing, general, for pleasure	3.5
water activities	canoeing, rowing, competition, crew or sculling	12
water activities	diving, springboard or platform	3
water activities	kayaking, moderate effort	5

EXERCISE LIST

water activities	paddle boating	4
water activities	sailing, in competition	4.5
water activities	sailing, leisure, ocean, keel boats, yachting	3.3
water activities	water skiing	6
water activities	driving a jet ski	7
water activities	skindiving, fast	15.8
water activities	skindiving, moderate	11.8
water activities	skindiving, scuba diving, general	7
water activities	snorkeling	5
water activities	surfing, body or board, general	3
water activities	swimming laps, freestyle, fast, vigorous	9.8
water activities	swimming laps, freestyle, front crawl, slow, light or moderate	5.8
water activities	swimming, backstroke, general, training or competition	9.5
water activities	swimming, breaststroke, general, training or competition	10.3
water activities	swimming, butterfly, general	13.8
water activities	swimming, crawl, 75 yards/min, fast, vigorous	10
water activities	swimming, crawl, 50 yards/min, medium, vigorous	8.3
water activities	swimming, lake, ocean, river	6
water activities	swimming, leisurely, not lap swimming, general	6
water activities	swimming, sidestroke, general	7
water activities	swimming, synchronized	8
water activities	swimming, treading water, fast, vigorous	9.8
water activities	swimming, treading water, moderate, general	3.5
water activities	water polo	10
water activities	water volleyball	3
water activities	whitewater rafting, kayaking, or canoeing	5
winter activities	moving ice house, set up/drill holes	6
winter activities	ice skating, <= 9mph	5.5
winter activities	ice skating, general	7
winter activities	ice skating, > 9 mph, rapidly, not competitive	9
winter activities	speed skating, competitive	13.3
winter activities	ski jumping, climb up carrying skis	7
winter activities	skiing, cross country, >8.0 mph, elite skier, racing	15
winter activities	skiing, cross country, 2.5 mph, light effort, ski walking	6.8
winter activities	skiing, cross country, 4.0-4.9 mph, moderate, general	9
winter activities	skiing, cross country, 5.0-7.9 mph, brisk speed, vigorous	12.5
winter activities	skiing, cross country, hard snow, uphill, maximum	15.5

EXERCISE LIST

winter activities	skiing, downhill, alpine, light effort	4.3
winter activities	skiing, downhill, alpine, moderate effort, general	5.3
winter activities	skiing, downhill, vigorous effort, racing	8
winter activities	skiing, general	7
winter activities	luge riding	7
winter activities	snow shoeing, moderate	5.3
winter activities	snowmobiling, driving, moderate	3.5
bicycling	mountain biking, general	8.5
conditioning	jumping jacks, vigorous	8
conditioning	pullups, moderate	3.8
conditioning	pullups, vigorous	8
conditioning	pushups, moderate	3.8
conditioning	pushups, vigorous	8
conditioning	situps, moderate	3.8
conditioning	situps, vigorous	8
conditioning	yoga, Hatha	2.5
dancing	dancing, 19th century	3
dancing	aerobic dancing, general	7.3
dancing	aerobic dancing, high impact	7.3
dancing	aerobic dancing, low impact	5
dancing	aerobic step dancing, with 6-8 inch step	7.5
dancing	dancing, Anishinaabe Jingle	5.5
dancing	dancing, belly	4.5
dancing	dancing, cha cha	3
dancing	dancing, contra	7.8
dancing	dancing, country	7.8
dancing	dancing, disco	7.8
dancing	dancing, flamenco	4.5
dancing	dancing, folk	7.8
dancing	dancing, foxtrot	3
dancing	dancing, Greek	4.5
dancing	dancing, hula	4.5
dancing	dancing, Irish step	7.8
dancing	dancing, jazz	5
dancing	dancing, line	7.8
dancing	dancing, mambo	3
dancing	dancing, Middle Eastern	4.5

EXERCISE LIST

dancing	dancing, polka	7.8
dancing	dancing, samba	3
dancing	aerobic step dancing, with 10-12 inch step	9.5
dancing	dancing, swing	4.5
dancing	dancing, tango	3
dancing	dancing, tap	4.8
dancing	dancing, waltz	3
home activities	bathing dog, standing	3.5
home activities	building a fire inside	2.5
home activities	butchering animal, large, vigorous effort	6
home activities	carrying child, weighing >=15 lb, walking	3
home activities	cooking Indian bread on an outside stove	3
home activities	elder care, disabled adult, general, active periods	4
home activities	household animals, feeding	2.5
home activities	maple syruping, carrying buckets and wood	5
home activities	mopping, standing, light	2.5
home activities	multiple household tasks at once, light	2.8
home activities	multiple household tasks at once, moderate	3.5
home activities	multiple household tasks at once, vigorous	4.3
home activities	playing with animals, sitting, light	2.5
home activities	playing with animals, standing, light	2.8
home activities	playing with animals, walk/run, light	3
home activities	playing with animals, walk/run, moderate	4
home activities	playing with animals, walk/run, vigorous	5
home activities	reclining, with baby	1.5
home activities	vacuuming, general, moderate	3.3
home activities	watering plants	2.5
home repair	carpentry, outside house, building a fence	6
home repair	painting fence, moderate	4.5
home repair	repairing appliances	3
inactivity	lying quietly, lying in bed awake, listening to music	1.3
occupation	bakery work, light	2
occupation	custodial work, electric buffer, moderate	3.8
occupation	custodial work, cleaning sink and toilet, light	2.3
occupation	custodial work, dusting, light	2.3
occupation	custodial work, feathering area floor, moderate	3.8
occupation	custodial work, mopping, moderate	3.8

EXERCISE LIST

occupation	custodial work, take out the trash, moderate	3.8
occupation	custodial work, vacuuming, light	2.3
occupation	custodial work, vacuuming, moderate	3.8
occupation	farming, chasing cattle, spreading manure, harvesting, moderate	4.8
occupation	farming, hauling water, general	4.3
occupation	farming, taking care of animals, general	4.5
occupation	skindiving, scuba diving as a frogman, Navy Seal	12
occupation	tailoring, weaving, moderate	4
occupation	walking on job, gathering things, ready to leave	3
occupation	walking, pushing a wheelchair	3.5
religious activities	cleaning at church	3.3
religious activities	eating at church	1.5
religious activities	eating and talking at church, or standing eating	2
religious activities	general yard work at church	4
religious activities	kneeling in church or at home, praying	1.3
religious activities	preparing food at church	2
religious activities	serving food at church	2.5
religious activities	sitting in church, talking or singing, attending a ceremony	1.8
religious activities	sitting in church, in service, attending a ceremony	1.3
religious activities	sitting in church, playing an instrument	2
religious activities	sitting, reading religious materials at home	1.3
religious activities	spiritual dancing in church	5
religious activities	standing in church, singing, attending a ceremony	2
religious activities	standing in church, talking	1.8
religious activities	standing in church, quietly, attending a ceremony	1.3
religious activities	standing, lifting ≥ 50 lbs, manual labor, moderate to heavy	4.5
religious activities	standing, lifting heavy objects, fast assembling, moderate	3.5
religious activities	typing, electric, manual, or computer, religious work	1.3
religious activities	walk or stand combination for religious purposes, usher	2
religious activities	walking,	2
religious activities	walking, 3.5 mph, brisk speed, religious activity	4.3
religious activities	walking in church	2
religious activities	walking, 3.0 mph, moderate speed, religious activity	3.5
religious activities	cleaning kitchen at church, washing dishes	3.3
running	jogging, on a mini tramp	4.5
self care	hairstyling, standing	2.5
self care	having hair or nails done by someone else, sitting	1.3

EXERCISE LIST

self care	getting ready for bed, standing	2.3
self care	taking medication, sitting or standing	1.5
miscellaneous	arts and crafts, sitting, carving wood, weaving, light	1.8
miscellaneous	arts and crafts, sitting, carving wood, weaving, moderate	3
miscellaneous	sitting at a sporting event, spectator	1.5
inactivity	meditating	1
inactivity	sitting, listening to music or watching a movie in a theater	1.5
miscellaneous	retreat activities, sitting, relaxing, talking, eating	1.8
sports	baseball, fast or slow pitch, general	5
miscellaneous	camping, general, light to moderate	2.5
sports	children's games, adults playing, 4-square	5.8
sports	children's games, adults playing, dodge ball	5.8
sports	children's games, adults playing, hopscotch	5.8
sports	children's games, adults playing, t-ball	5.8
sports	children's games, adults playing, tetherball	5.8
sports	martial arts, jujitsu, moderate	10.3
sports	martial arts, karate, moderate	10.3
sports	martial arts, kick boxing, moderate	10.3
sports	martial arts, tae kwon do, moderate	10.3
sports	track and field, discus	4
sports	track and field, hammer throw	4
sports	track and field, high jump	6
sports	track and field, hurdles	10
sports	track and field, javelin	6
sports	track and field, long jump	6
sports	track and field, pole vault	6
sports	track and field, shot put	4
sports	track and field, steeplechase	10
sports	track and field, triple jump	6
miscellaneous	arts and crafts, standing, carving, weaving, light	2.5
miscellaneous	arts and crafts, standing, carving, weaving, moderate	3.3
miscellaneous	arts and crafts, standing, carving, weaving, vigorous	3.5
miscellaneous	standing, miscellaneous	2.5
transportation	riding in a bus or train	1.3
volunteer activities	child care, sitting, only active periods	2
volunteer activities	sitting, light office work, in general	1.5
volunteer activities	sitting, moderate work	2.5

EXERCISE LIST

volunteer activities	sitting, meeting, general, and/or with talking involved	1.5
volunteer activities	child care, standing, only active periods	3
volunteer activities	standing, light work (filing, talking, assembling)	2.3
volunteer activities	standing, moderate (lifting 50 lbs, assembling at fast rate)	3.5
volunteer activities	standing, light to moderate work (pack boxes, assemble/repair)	3
volunteer activities	standing, moderate to heavy work	4.5
volunteer activities	typing, electric, manual, or computer, volunteer work	1.3
volunteer activities	walk/run play with children, moderate, only active periods	3.5
volunteer activities	walk/run play with children, vigorous, only active periods	5.8
volunteer activities	walk/stand combination, for volunteer purposes	3
volunteer activities	walking,	2
volunteer activities	walking, 2.5 mph slowly and carrying	3.5
volunteer activities	walking, 3.0 mph, moderate speed, volunteer activity	3.5
volunteer activities	walking, 3.0 mph and carrying	4.5
volunteer activities	walking, 3.5 mph, briskly and carrying	4.8
volunteer activities	walking, 3.5 mph, brisk speed, volunteer activity	4.3
walking	walking, 5.0 mph, level, firm surface	8.3
walking	bird watching, slow walk	2.5
walking	walking, household	2
walking	pushing a wheelchair, non-occupational	3.8
walking	walking with children, 2.5-3.1 mph	4
walking	walking the dog	3
water activities	water aerobics, water calisthenics	5.5
water activities	water jogging	9.8
winter activities	sledding	7
winter activities	tobogganing	7
conditioning	pilates, general	3
bicycling	bicycling, on dirt road, moderate pace	5.8
bicycling	bicycling, general	7.5
conditioning	Dance Dance Revolution, vigorous	7.2
conditioning	Exergaming, vigorous	7.2
conditioning	stationary bicycle, 101-160 watts, vigorous	8.8
conditioning	stationary bicycle, RPM, spin bike class	8.5
conditioning	abdominal crunches, light	2.8
conditioning	calisthenics, light	2.8
conditioning	situps, light	2.8
conditioning	circuit training, moderate	4.3

EXERCISE LIST

conditioning	resistance training, squats, slow or explosive effort	5
conditioning	upper body exercise, arm ergometer	2.8
conditioning	stationary bicycle, Airdyne, arms only, 40 rpm	4.3
conditioning	video workouts, yoga, stretching, light	2.3
conditioning	video workouts, cardio-resistance, moderate	4
conditioning	yoga, Power	4
conditioning	yoga, Nadisodhana	2
conditioning	Haka Powhiri , moderate, general	5.3
conditioning	Moteatea, moderate, general	5.3
conditioning	native New Zealand exercises, moderate, general	5.3
conditioning	Waita Tira, moderate, general	5.3
conditioning	Whakawatea, moderate, general	5.3
conditioning	Haka, vigorous, general	6.8
conditioning	native New Zealand exercises, vigorous, general	6.8
conditioning	Taiahab, vigorous, general	6.8
dancing	dancing, ballet, vigorous	6.8
dancing	dancing, jazz, vigorous	6.8
dancing	dancing, modern, vigorous	6.8
dancing	aerobic step dancing, with 4 inch step	5.5
dancing	dancing, bench step class	8.5
dancing	aerobic dancing, wearing 10-15 lb weights	10
dancing	dancing, ballroom, competitive, general	11.3
dancing	dancing, Caribbean	3.5
fishing	fishing, crab fishing	4.5
fishing	fishing, catching fish with hands	4
hunting	hunting, large marine animals	4
hunting	hunting, large game, from a hunting stand, limited walking	2.5
hunting	hunting, large game, from a car, plane or boat	2
hunting	hunting, flying fox, squirrel	3
hunting	hunting, hiking with hunting gear	9.5
hunting	rifle exercises, shooting, lying down	2.3
hunting	rifle exercises, shooting, kneeling or standing	2.5
bicycling	mountain biking, uphill, vigorous	14
bicycling	mountain biking, competitive racing	16
bicycling	bicycling, to and from work, self selected pace	6.8
bicycling	bicycling, 5.5 mph, leisure	3.5
bicycling	bicycling, 9.4 mph, leisure	5.8

EXERCISE LIST

bicycling	bicycling, >19 mph drafting, very fast, racing general	12
bicycling	bicycling, 12 mph, seated, hands on brake hoods, 80 rpm	8.5
bicycling	bicycling, 12 mph, standing, hands on brake hoods, 60 rpm	9
conditioning	Wii Fit, light, balance, yoga	2.3
conditioning	Wii Fit, moderate. aerobic, resistance	3.8
conditioning	army obstacle course exercise	5
conditioning	boot camp training program	5
conditioning	calisthenics, moderate	3.8
conditioning	lunges, moderate	3.8
conditioning	Curves exercise routines for women	3.5
conditioning	Elliptical trainer, moderate	5
conditioning	resistance training, body building, vigorous	6
conditioning	resistance training, power lifting, vigorous	6
conditioning	resistance training, vigorous	6
conditioning	resistance training, multiple exercises, 8-15 repetitions	3.5
conditioning	health club, gym and weight training classes	5
conditioning	health club, conditioning classes	7.8
conditioning	home exercises, general	3.8
conditioning	skipping rope	12.3
conditioning	slide board exercise, general	11
conditioning	jazzercise	6
conditioning	Fitball exercise	2.8
conditioning	video workouts, cardio-resistance, vigorous	6
conditioning	yoga, Surya Namaskar	3.3
dancing	dancing, modern	5
dancing	dancing, bamba y plena	4.5
dancing	dancing, merengue	4.5
dancing	dancing, salsa	4.5
fishing	fishing, jog or line, standing, general	1.8
fishing	fishing, dip net, setting net and retrieving fish	3.5
fishing	fishing, setting net and retrieving fish, general	3.8
fishing	fishing wheel, setting net and retrieving fish	3
fishing	fishing, with a spear, standing	2.3
hunting	hunting, large game, dragging carcass	11.3
hunting	hunting, birds	3.3
hunting	hunting, wild pigs	3.3
hunting	trapping game, general	2

EXERCISE LIST

home activities	cleaning, sweeping, slow, light	2.3
home activities	cleaning, sweeping, slow, moderate	3.8
home activities	cleaning, mopping, standing, moderate	3.5
home activities	cleaning windows, general	3.2
home activities	polishing floors with electric polishing machine	4.5
home activities	kitchen activity, general, cooking and cleaning, moderate	3.3
home activities	cleaning, general, light	2.5
home activities	washing dishes, general, standing	1.8
home activities	butchering animals, small	3
home activities	cutting and smoking fish, drying fish or meat	2.3
home activities	tanning hides, general	4
home activities	cooking or food preparation, moderate	3.5
home activities	non-food shopping	2.3
home activities	sewing with a machine	2.8
home activities	laundry, standing, hanging wash, moderate	4
home activities	moving, lifting light loads	5
home activities	organizing room	4.8
home activities	scrubbing floors, bathroom, light	2
home activities	scrubbing floors, bathroom, vigorous	6.5
home activities	pumping gas, standing, light	2
home activities	carrying child, weighing	2.3
home activities	holding child, standing	2
home activities	child care, infant, general	2.5
home activities	breastfeeding, sitting or reclining	2
home activities	household animals, general care	2.3
home activities	elder care, disabled adult, light, active periods	2.3
home repair	carpentry, outside house, building a fence, light	3.8
home repair	carpentry, home remodeling tasks, moderate	4
home repair	carpentry, home remodeling tasks, light	2.3
home repair	hanging sheet rock inside house	5
home repair	hammering nails	3
home repair	home repair, general, light	2.5
home repair	home repair, general, moderate	4.5
home repair	home repair, general, vigorous	6
home repair	painting, general	4.5
home repair	sharpening tools	2
home repair	washing and waxing car	2



EXERCISE LIST

home repair	wiring, tapping-splicing	3.3
inactivity	sitting quietly and watching television	1.3
inactivity	sitting quietly, general	1.3
inactivity	sitting quietly, fidgeting, general, fidgeting hands	1.5
inactivity	sitting, fidgeting feet	1.8
inactivity	sitting, smoking	1.3
inactivity	sitting at a desk, resting head in hands	1.3
inactivity	standing, fidgeting	1.8
yardwork	carrying, loading or stacking wood, light to moderate	3.3
yardwork	chopping wood, splitting logs, moderate	4.5
yardwork	clearing light brush, thinning garden, moderate	3.5
yardwork	digging, spading, filling garden, composting, light to moderate	3.5
yardwork	digging, spading, filling garden, composting, vigorous	7.8
yardwork	driving tractor	2.8
yardwork	felling trees, large size	8.3
yardwork	felling trees, small-medium size	5.3
yardwork	gardening, using containers, older adults >60 years	2.3
yardwork	irrigation channels, opening and closing ports	4
yardwork	mowing lawn, power mower, light to moderate	4.5
yardwork	planting, potting, transplanting seedlings or plants, light	2
yardwork	planting crops or garden, stooping, moderate	4.3
yardwork	raking lawn or leaves, moderate	3.8
yardwork	shoveling dirt or mud	5.5
yardwork	shoveling snow, by hand, moderate	5.3
yardwork	shoveling snow, by hand, vigorous	7.5
yardwork	weeding, cultivating garden, light to moderate	3.5
yardwork	weeding, cultivating garden, using a hoe, moderate to vigorous	5
yardwork	picking fruit off trees, picking fruits or vegetables, moderate	3.5
yardwork	picking fruit off trees, climbing ladder to pick fruit, vigorous	4.5
yardwork	picking up yard, light, picking flowers or vegetables	3.3
yardwork	gathering gardening tools, walking	3
yardwork	pushing garden cart or wheelbarrow	5.5
yardwork	yardwork, general, light effort	3
yardwork	yardwork, general, moderate effort	4
yardwork	yardwork, general, vigorous effort	6
miscellaneous	playing a board game, sitting	1.5
miscellaneous	casino gambling, standing	2.5

EXERCISE LIST

miscellaneous	playing chess, sitting	1.5
miscellaneous	copying documents, standing	1.5
miscellaneous	drawing, writing, painting, standing	1.8
miscellaneous	laughing, sitting	1
miscellaneous	playing traditional video game, computer game, sitting	1
miscellaneous	retreat activities, playing games with children	3
miscellaneous	vacation traveling, riding in a vehicle	2
miscellaneous	vacation traveling, walking	3.5
music playing	playing the double bass, standing	2.5
music playing	playing the drum, bongo, conga, benbe, sitting, moderate	3
music playing	playing the piano, sitting	2.3
music playing	playing musical instruments, general	2
music playing	playing the organ, sitting	2
music playing	marching band, baton twirling, walking, moderate pace	4
occupation	desk work, active workstation, treadmill desk, walking	2.3
occupation	airline flight attendant work	3
occupation	carpentry, general, light	2.5
occupation	carpentry, general, heavy or vigorous	7
occupation	working as a cook or chef	2.5
occupation	electrical work, hook up wire, tapping-splicing	3.3
occupation	engineer work, mechanical or electrical	1.8
occupation	farming, cleaning animal sheds, preparing animal feed, light	2
occupation	farming, rice, planting, grain milling activities	3.8
occupation	fire fighter work, rescue victim, automobile accident, using pike pole	6.8
occupation	fishing, commercial, light	3.5
occupation	fishing, commercial, moderate	5
occupation	fishing, commercial, vigorous	7
occupation	forestry work, ax chopping, fast, 35 blows/min, vigorous	8
occupation	garbage collector, walking, dumping bins into truck	4
occupation	hairstylist, plaiting hair, manicure, make-up artist	1.8
occupation	horse care, feeding, watering, cleaning stalls	4.3
occupation	kitchen maid work	3
occupation	lawn keeper, yardwork, general	4
occupation	laundry worker	3.3
occupation	machine tooling, machine fitter, light to moderate	3
occupation	machine tooling, working sheet metal, light to moderate	3
occupation	property manager work	1.8

EXERCISE LIST

occupation	manual or unskilled labor, general, light	2.8
occupation	manual or unskilled labor, general, moderate	4.5
occupation	manual or unskilled labor, general, vigorous	6.5
occupation	masonry work, concrete, light	2.5
occupation	painting, house, furniture, moderate	3.3
occupation	plumbing activities	3
occupation	postal carrier work, walking to deliver mail	2.3
occupation	teaching yoga, or light effort exercise class, sitting	2.8
occupation	standing, lifting items continuously 10–20 lbs, moderate	4.5
occupation	tailoring, weaving, light	2
occupation	truck driving, delivery truck, taxi, school bus	2
occupation	walking on job, 2.5 mph and carrying >25 lbs	3.8
running	running, 4 mph (13 min/mile)	6
running	running, 5.2 mph (11.5 min/mile)	9
running	running, 12 mph (5 min/mile)	19
running	running, 13 mph (4.6 min/mile)	19.8
running	running, 14 mph (4.3 min/mile)	23
running	running, training, pushing a wheelchair or baby carrier	8
running	running, marathon	13.3
sports	Alaska Native Games, Eskimo Olympics, general	5.5
sports	basketball, general	6.5
sports	basketball, drills, practice	9.3
sports	bowling, indoor, bowling alley	3.8
sports	children's games, adults playing, arcade games	5.8
sports	children's games, adults playing, marbles	5.8
sports	cheerleading, gymnastic moves, competitive	6
sports	coaching, actively playing sport with players	8
sports	auto racing, open wheel	8.5
sports	football, touch, flag, light	4
sports	football or baseball, playing catch	2.5
sports	high ropes course, multiple elements	4
sports	ice hockey, competitive	10
sports	horse chores, feeding, watering, cleaning stalls	4.3
sports	horseback riding, canter or gallop	7.3
sports	horseback riding, jumping	9
sports	horse cart, driving, standing or sitting	1.8
sports	martial arts, slower pace, novice performers, practice	5.3



EXERCISE LIST

sports	martial arts, Muay Thai boxing, moderate	10.3
sports	martial arts, tai-bo, moderate	10.3
sports	lawn bowling, bocce ball, outdoor	3.3
sports	rock or mountain climbing	8
sports	rock climbing, ascending or traversing rock, low to moderate	5.8
sports	rodeo sports, general, light	4
sports	rodeo sports, general, moderate	5.5
sports	rodeo sports, general, vigorous	7
sports	rugby, touch, non-competitive	6.3
sports	skateboarding, competitive, vigorous	6
sports	rollerblading, 14.4 km/h (9.0 mph), recreational	7.5
sports	rollerblading, 17.7 km/h (11.0 mph), moderate pace	9.8
sports	rollerblading, 21.0 to 21.7 km/h (13.0 to 13.6 mph), fast pace	12.3
sports	rollerblading, 24.0 km/h (15.0 mph), maximal effort	14
sports	softball, practice	4
sports	sports spectator, very excited, emotional, physically moving	3.3
sports	squash, general	7.3
sports	tai chi, qi gong, sitting, light effort	1.5
sports	tennis, doubles	4.5
sports	tennis, hitting balls, non-game play, moderate effort	5
sports	trampoline, competitive	4.5
sports	volleyball, general	4
transportation	riding in a car or truck	1.3
transportation	pulling a rickshaw	6.3
transportation	walking for transportation, 2.8-3.2 mph, level, moderate	3.5
walking	backpacking, hiking or organized walking with a daypack	7.8
walking	carrying child, weighing 15 lb, slow walking	2.3
walking	loading or unloading a car	3.5
walking	climbing hills, no load	6.3
walking	hiking or walking, normal pace through fields and hillsides	5.3
walking	marching, military, no pack, moderate	4.5
walking	stair climbing, slow pace	4
walking	stair climbing, fast pace	8.8
walking	walking for pleasure	3.5
walking	walking from house to car or bus	2.5
walking	walking to neighbor's house for social reasons	2.5
walking	walking, 2.8-3.2 mph, level, firm surface, moderate	3.5

EXERCISE LIST

walking	walking, 2.9-3.5 mph, uphill, 1% to 5% grade	5.3
walking	walking, 2.9-3.5 mph, uphill, 6% to 15% grade	8
walking	walking, 5.0 mph, uphill, 3% grade	9.8
walking	walking, normal pace, plowed field or sand	4.5
walking	walking, to and from an outhouse	2.5
walking	Nordic walking, 3.5-4 mph, with ski poles, level, moderate	4.8
walking	Nordic walking, 5.0 mph, with ski poles, level, fast	9.5
walking	Nordic walking, with ski poles, uphill	6.8
walking	walking, backwards, 3.5 mph, level	6
walking	walking, backwards, 3.5 mph, uphill, 5% grade	8
water activities	boating, as a power boat passenger, light	1.3
water activities	canoeing, harvesting wild rice, knocking rice off the stalks	3.3
water activities	kayaking, competition, >6 mph, vigorous	12.5
water activities	ice sailing, general	3
water activities	sailing, boat and board sailing, general	3
water activities	windsurfing, general	3
water activities	sailing, leisure, ocean, Sunfish/Laser/Hobby Cat	3.3
water activities	wakeboarding	6
water activities	surfing, body or board, competitive	5
water activities	paddle boarding, standing	6
water activities	swimming, backstroke, recreational	4.8
water activities	swimming, breaststroke, recreational	5.3
water activities	tubing, floating on a river, general	2.3
water activities	water walking, light effort, slow	2.5
water activities	water walking, moderate effort, moderate pace	4.5
water activities	water walking, vigorous effort, brisk	6.8
water activities	windsurfing, not pumping for speed	5
water activities	kitesurfing, crossing trial	11
water activities	windsurfing, crossing trial	11
water activities	windsurfing, competition, pumping for speed	13.5
winter activities	dog sledding, mushing	7.5
winter activities	dog sledding, passenger	2.5
winter activities	ice fishing, sitting	2
winter activities	ice skating, dancing	14
winter activities	skiing, cross country, snow mountaineering	15.5
winter activities	skiing, cross-country, skating	13.3
winter activities	skiing, cross-country, biathlon, skating technique	13.5



EXERCISE LIST

winter activities	snowboarding, light effort	4.3
winter activities	snowboarding, moderate effort, general	5.3
winter activities	skiing, roller, elite racers	12.5
winter activities	bobsledding	7
winter activities	snow shoeing, vigorous	10
winter activities	snowmobiling, passenger	2
winter activities	snow shoveling, by hand, moderate	5.3
winter activities	snow shoveling, by hand, vigorous	7.5
winter activities	snow blower, walking and pushing	2.5