Modifiable Activity Questionnaire

1. Please circle all activities listed below that you have done more than 10 times in the past year:

Jogging (outdoor, treadmill) . . . 1
Swimming (laps, snorkeling) . . . 2
Bicycling (indoor, outdoor) 3
Softball/Baseball 4
Volleyball 5
Bowling 6
Basketball 7
Skating (roller, ice, blading) . . . 8
Martial Arts (karate, judo) 9
Tai Chi 10
Calisthenics/Toning exercises 11
Wood Chopping 12
Water/coal hauling 13
Football/Soccer 14
Racquetball/Handball/Squash 15
Horseback riding 16
Hunting 17
Fishing 18
Aerobic Dance/Step Aerobic 19
Water Aerobics 20
Dancing (Square,Line,Ballrm) 21
Gardening or Yardwork . . . 22
Badminton 23
Strength/Weight training . . . 24
Rock climbing 25
Scuba Diving 26
Stair Master 27
Fencing 28
Hiking 29
Tennis 30
Golf 31
Canoeing/Rowing/Kayaking 32
Water skiing 33
Jumping rope 34
Snow skiing (X-country/Nordic trk) 35
(downhill) 36
Snow shoeing 37
Yoga 38
Other 39
Walking for exercise (outdoor, indoor at mall or fitness center, treadmill) 40

List each activity that you circled in the "Activity" box below, check the months you did each activity over the past year (12 months) and then estimate the average amount of time spent in that activity.

Activity	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Average # of Times Per Month	Average # of Minutes Each Time

2. In general, how many HOURS per DAY do you usually spend watching television? _____ hrs

3. Over this past year, have you spent more than one week confined to a bed or chair as a result of an injury, illness or surgery? Yes_____ No_____
   If yes, how many weeks over this past year were you confined to a bed or chair? _____ weeks

4. Do you have difficulty doing any of the following activities?
   a. getting in or out of a bed or chair? Yes_____ No_____
   b. walking across a small room without resting? Yes_____ No_____
   c. walking for 10 minutes without resting? Yes_____ No_____

5. Did you ever compete in an individual or team sport (not including any time spent in sports performed during school physical education classes)?
   If yes, how many total years did you participate in competitive sports? _____

6. Have you had a job for more than one month over this past year, from last _____ to this _____?

List all JOBS that the individual held over the past year for more than one month. Account for all 12 months of the past year. If unemployed/disabled/retired/homemaker/student during all or part of the past year, list as such and probe for job activities of a normal 8 hour day, 5 day week.

			AVERAGE JOB SCHEDULE			Out of the total # of "Hrs/Day" the individual reported working at this "job", how much of this time was usually spent sitting? Enter this # in "Hrs Sitting" column, then place a check "✓" in the category which best describes their job activities when they were not sitting.			
		Walk or bicycle to/from work				Hrs spent sitting at work	Check the category that best describes job activities when not sitting		
Job Name	Job Code	Min/Day	Mos/Yr	Day/Wk	Hrs/Day	Hrs Sitting	A	B	C

Category A

(includes all sitting activities)

Sitting
Standing still w/o heavy lifting
Light cleaning - ironing, cooking, washing, dusting
Driving a bus, taxi, tractor
Jewelry making/weaving
General office work
Occasional/short distance walking

Category B

(includes most indoor activities)

Carrying light loads
Continuous walking
Heavy cleaning - mopping, sweeping, scrubbing, vacuuming
Gardening - planting, weeding
Painting/Plastering
Plumbing/Welding
Electrical work
Sheep herding

Category C

(heavy industrial work, outdoor construction, farming)

Carrying moderate to heavy loads
Heavy construction
Farming — hoeing, digging — mowing, raking
Digging ditches, shoveling
Chopping (ax), sawing wood
Tree/pole climbing
Water/coal/wood hauling

JOB CODES

Not employed outside of the home:

1. Student
2. Home Maker
3. Retired
4. Disabled
5. Unemployed

Employed (or volunteer):

6 Armed Services
7. Office worker
8. Non-office Worker

Modifiable Activity Questionnaire

Activity component(s) assessed:
Leisure and occupational

Time frame of recall:
Past year (past 6-month, past month, and past week)

Original mode of administration:
Interviewer-administered

INSTRUCTIONS:

Leisure Activity

Through pilot testing in the target population, a list of popular activities is developed and forms the basis of the leisure activity section of the questionnaire. The interviewer first reads through the list of activities provided and identifies all leisure activities that the participant performed on at least 10 different occasions over the past year (as the interviewer circles all positive responses). After the list has been read and all of the positive response have been circled in the "Activity" column provided. Estimates of frequency and performed over the past year (past 12 mo) is checked, and then the average # of Times Per Month and the Average# of Minutes Each Time is entered in the appropriate columns.

> Note: Walking or biking in the leisure activity section does not include walking or biking to and from work, which is captured in the occupational activity section.

Inactivity

The general section of the MAQ also assesses inactivity, such as the average number of hours per day usually spent watching television, or whether the individual was confined to a bed or chair for more than 1 week over the past year as a result of an illness, injury, or surgery.

Occupational Activity

The occupational section of the MAQ is used to determine, for each job held over the past year, the number of hours that the individual participated in physically demanding activities during an average work day. The individual is asked to identify all jobs held during the past year for more than 1 month (including "occupations" such as homemaker or being disabled, retired, or unemployed). The interviewer then writes all of these jobs in the "Job Name" column and enters the number of months over the past year that the participant performed each job in the "Mos/Yr" column. All 12months of the past year should be accounted for. Note that "occupations," such as homemaker, retired, unemployed, or being disabled, are only listed during moths when no other job is identified.

Next to each job name, the interviewer enters the "Job Code" that best describes the job. For each job entry, the participant answers questions about usual transportation to and from the job, as well as the average job schedule. If the usual form of transportation to and/or from work was either biking (pedal) or walking, the total amount of time in minutes spent walking or biking to work each day is entered in the "Min/Day" column. The participant is also asked about the average schedule for that job, including the average number of "Days/Wk" and "Hrs/Day" that he/she works at that specific job.

Finally, the individual is asked to specify the usual number of hr/d spend *sitting* at work (out of the total number of "Hrs/Day" the individual reported working). The interviewer enters this number in the "Hrs Sitting" column and then asks the participant to describe the job activities that he/she does when not sitting. The interviewer places a check in the most appropriate activity category ("A", "B", or "C"), based upon the job description given by the participant. The "A" category includes job activities involving standing still, occasional short distance walking, and sitting activities; Category "B" includes job activities that require an effort similar to that of continuous walking, while the "C" category includes all those activities with energy demands approaching those of heaving lifting, digging, or running. The lists of activities in each column may need to be slightly modified to include typical job activities for the population in question.

Note: If the individual reported being a homemaker, retired, unemployed, or being disabled, during all or part of the past year, the interviewer should elicit typical "job" or household-related activities of a normal 40-hour-per-wk (5-d wk, 8-h d). In other words, "Day/Wk" is automatically "5" and "hrs/Day" is "8". Also, since it make no sense in this situation to ask a subject if he/she walks or bikes to "work," a "0" should be entered for this question.

CALCULATIONS:

Leisure Activity

Hours per week averaged over the past year:

(no. of mo) X (times/mo) X (min/time) ÷ 60 min/h ÷ 52 wk/yr

Hours per week for all activities are summed to determine total leisure hours per week averaged over the past year. These values can also be weighted by their estimated metabolic cost and expressed as MET-hours per week by multiplying hours per week for each specific activity by the estimated MET value of that activity. Note: Since reported leisure walking for exercise has been found to be unreliably reported in many populations, it is recommended that the data are analyzed both with and without inclusion of this activity.

Occupational Activity

1. Hours per week of moderate activity averaged over the past year (calculate only for job entries in which column "B" is checked):

   (mo/yr) X (4 wk/mo) X (days/wk) X (h/day of moderate activity) ÷ 52 wk/yr

   [where h/day of moderate activity = (average h/day at job – hours sitting) + (min/day walking or bicycling to work ÷ 60)]

2. Hours per week of hard activity averaged over the past year (calculate only for job entries in which column "C" is checked:

   (mo/yr) X (4 wk/mo) X (days/wk) X (h/day at job – hours sitting) ÷ 52 wk/yr

3. The summation of hours per week of moderate and hard activity will provide an estimate of the average hours per week above light activity during the past year.

4. To weight by its estimated metabolic cost and express as MET-hours per week, the moderate and hard activity categories are multiplied by their estimated average group MET values of 4 and 7 METs, respectively, prior to summing.

Total Activity

Total physical activity averaged over the past year can be determined as the sum of past-year leisure hours per week and past-year occupational (moderate + hard) hours per week. Similarly, leisure and occupational MET-hours per week can be summed as well.

EXAMPLE

Leisure Activity

Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average No. of Times/Mo	Average No. of Min Each Time
Swimming (laps)					✓	✓	✓	✓	✓				24	30
Wood chopping	✓	✓	✓							✓	✓	✓	8	20
Bicycling (indoor)	✓	✓	✓	✓						✓	✓	✓	20	45
Gardening				✓	✓	✓	✓	✓	✓				8	60

Swimming: (5 mo) X (24 times/mo) X (30 min/time) ÷ 60 min/h ÷ 52 wk/yr = 1.2 h/wk
Wood chopping: (6 mo) X (8 times/mo) X (20 min/time) ÷ 60 min/h ÷ 52 wk/yr = 0.3 h/wk
Bicycling: (7 mo) X (20 times/mo) X (45 min/time) ÷ 60 min/h ÷ 52 wk/yr = 2.0 h/wk
Gardening: (6 mo) X (8 times/mo) X (60 min/time) ÷ 60 min/h ÷ 52 wk/yr = 0.9 h/wk

Past-year leisure activity = 1.2 + 0.3 + 2.0 + 0.9 = 4.4 h/wk averaged over the past year

Conversion to MET-h/wk:
Swimming: 1.2 h/wk X 7.0 METs = 8.4 MET-h/wk
Wood chopping: 0.3 h/wk X 5.0 METs = 1.5 MET-h/wk
Bicycling: 2.0 h/wk X 4.0 METs = 8.0 MET-h/wk
Gardening: 0.9 h/wk X 3.5 METs = 3.2 MET-h/wk

Past-year leisure activity = 8.4 + 1.5 + 8.0 + 3.2 = 21.1 MET-h/wk averaged over the past year

Occupational Activity

Job Name	Job Code	Walk or Bicycle to Work (min/day)	(mo/yr)	(d/wk)	(h/d)	H Spend Sitting at Work (hours sitting)	Check the Category That Best Describes Job Activities When Not Sitting		
							A	B	C
Cab Driver	8	0	12	1	6	6	✓		
Groundskeeper	8	30	12	5	8	1		✓	
Construction worker	8	0	6	1	8	1			✓

Cab driver: No credit for category A

Groundskeeper:
(12 mo/yr) X (4 wk/mo) X (5 d/wk) X [(8 h/d – 1 h/d sitting) + (30 min/d ÷ 60 min/h)] ÷ 52 wk/yr = 34.6 h/wk

Construction Worker:
(6 mo/yr) X (4 wk/mo) X (1 d/wk) X [(8 h/d – 1 h/d sitting) ÷ 52 wk/yr = 3.2 h/wk
Past-year occupational activity = 3.2 h/wk + 34.6 h/wk = 37.8 h/wk

Conversion to MET-hours per week:

Moderate activity: 34.6 h/wk X 4 METs = 138.4 MET-h/wk

Hard activity: 3.2 h/wk X 7 METs = 22.4 MET-h/wk

Past-year occupational activity = 138.4 MET-h/wk + 22.4 MET-h/wk = 160.8 MET-h/wk

Total Activity

Based on the above hypothetical data, total physical activity averaged over the past year in hours per week would be:

4.4 h/wk (leisure) + 37.8 hr/wk (occupational) = 42.2 h/wk

Total physical activity averaged over the past year in MET-hours per week would be:

160.8 MET-h/wk (occupational) + 21.0 MET-h/wk (leisure) = 181.8 MET-h/wk