

PROTOCOL FOR ADMINISTERING AND SCORING THE LEISURE-TIME PHYSICAL ACTIVITY QUESTIONNAIRE FOR PEOPLE WITH DISABILITIES (LTPAQ-D)

COMPLETION OF THE QUESTIONNAIRE

- Interviewer reads the preamble
- “I’m going to ask you about three different intensities of activity—mild, moderate and vigorous.” [read definitions of each intensity]
- “We’re going to start with **aerobic activities**.” [read aerobics activities definition]
- “In the past 7 days, on how many days did you do mild intensity aerobic activities?”
 - “On average, for how many minutes per day did you do these activities?”
- [repeat for moderate and vigorous intensity aerobic activities]
- “Now we are going to move on to **strength training activities**.” [read strength training activities definition]
- “In the past 7 days, on how many days did you strength-training activities?”
 - “On average, for how many minutes per day did you do these activities?”
 - “On average, how many minutes did you spend resting during these activities on average”

INSTRUCTOR GUIDE

In some situations, the interview participant may have questions about certain activities or require prompts to assist them with their responses. Below are some example prompts or responses to frequently asked questions that may assist in completing the LTPAQ-D.

HOW TO QUANTIFY INTERVAL TRAINING

As one activity may be done at several intensities, encourage respondent to tally intervals in the mild, moderate, and vigorous intensity domain separately.

HOW TO CLASSIFY SPORT

While sports such as wheelchair basketball and wheelchair rugby may have aerobic and strength components, here it is classified as aerobic activity only. Strength training activities are specifically intended to improve muscular strength.

DELINEATING MILD, MODERATE, AND VIGOROUS INTENSITY

In some cases, respondents may be unsure which intensity a certain activity fits in. In this case, first reiterate the definitions provided in the questionnaire itself. If this is unhelpful the interviewer may use the 0-10 RPE scale where 0 represents resting and 10 represents maximal exercise. On this scale moderate exercise is considered a 3-4 and vigorous a 5-10.

DELINEATING AEROBIC AND STRENGTH TRAINING ACTIVITIES

In some cases, respondents may bring up activities that do not fit nicely into a certain type of activity. In this case, reiterate the definitions provided in the questionnaire itself.

STRETCHING AND MANUAL THERAPIES

These are not considered to be aerobic or strength activities. The use of resistance bands may be classified as strength training but only if used in the context of strength training (e.g. to provide resistance, not to assist in stretching).

HOW TO COUNT STRENGTH TRAINING IN MINUTES

The calculation should only include time actually doing the lifting. Time resting between sets of strength

training do not count as strength training and should be subtracted from the number of minutes engaged per day.

YOGA

The respondent may mention doing yoga. Ask about what type of yoga and if it increases heart rate and breathing rate to fit into an aerobic category. There may be a difference between chair yoga and standing yoga.

SCORING THE QUESTIONNAIRE

- Mild, moderate, and vigorous aerobic leisure-time physical activity (LTPA) minutes are calculated separately by multiplying the corresponding days per week by minutes per day within each intensity domain.
 - If the respondent indicated that the number of minutes of aerobic LTPA at a specific intensity differs from day to day, ask them for the average number of minutes engaged each day. For example, If the respondent completed mild LTPA on one day for 20 minutes and on another for 40 minutes, they should indicate that the average daily mild LTPA is 30 minutes..
- Total aerobic LTPA is calculated by summing the weekly mild, moderate, and vigorous intensity aerobic LTPA.
- Moderate-to-vigorous intensity physical activity (MVPA) is calculated by summing the moderate and vigorous intensity aerobic LTPA minutes.
- To calculate total strength training LTPA, first subtract time spent resting during strength training activities from minutes per day engaged in strength training activities. Total strengthening LTPA then equals the product of the days per week of strength training activities and the minutes per day of strength training activities minus the total time spent resting per week.
 - For example, if the respondent completes 3 days of 60 minutes strength training that includes 30 minutes of rest, total weekly strength training is equal to 90 min/week (i.e. $3 \times (60 - 30)$).
 - If the participant indicated that the number of minutes of strength training activities differs from day to day, multiply the days per week by the average minutes per day of strength training activities and subtract the average time spent resting that the participant indicated.

QUESTIONNAIRE DEVELOPMENT, VALIDITY & RELIABILITY

For more information on the development, validity and reliability of the LTPAQ-D, please see the published paper freely available at <https://www.mdpi.com/2673-7272/4/2/21> Gee, C.M., Neely, A., Jevdjevic, A., Olsen, K., & Martin Ginis, K.A. (2024). The Leisure Time Physical Activity Questionnaire for People with Disabilities: Validity and Reliability. *Disabilities*, 4, 321-331.

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LEISURE TIME PHYSICAL ACTIVITY QUESTIONNAIRE FOR PEOPLE WITH DISABILITIES

I am going to ask you about the time you spent engaging in mild, moderate, and vigorous intensity leisure-time physical activity over the **LAST 7 DAYS**. Leisure-time physical activity is physical activity that you **CHOOSE** to do during your free time, such as exercising, playing sports, swimming, gardening, dancing or taking the dog for a walk. Activities that are not counted as leisure-time physical activity include activities of daily living, chores, and other activities that you **HAVE** to do. Some examples of these activities include grocery shopping, cooking and cleaning.

AEROBIC ACTIVITIES

Aerobic activities are physical activities that are done continuously and that increase your heart rate and breathing rate, such as walking, wheeling, swimming, hand cycling, dancing or sports.

In the past **7 days**, how many **days** did you do aerobic activities at each intensity level?

On average, for how many **minutes per day**?

MILD INTENSITY

Requires very light physical effort. Mild intensity activities make you feel like you are working a little bit, but you can keep doing them for a long time without getting tired.

MODERATE INTENSITY

Requires some physical effort. Moderate intensity activities make you feel like you are working somewhat hard, but you can keep doing them for a while without getting tired.

VIGOROUS INTENSITY

Requires a lot of physical effort. These activities make you feel like you are working really hard, almost at maximum. You cannot do these activities for long without getting tired. These activities may be exhausting.

STRENGTH TRAINING ACTIVITIES

Strength-training activities are activities that increase muscle strength, such as exercises using resistance bands, lifting weights or your own body weight (i.e., push-ups or triceps dips). These activities do not include manual therapy, stretching, or range of motion activities.

In the past **7 days**, how many **days** did you do strength-training activities at least at a moderate intensity?

On average, for how many **minutes per day**?

On average, how many minutes did you spend resting during these activities?