

# ASSESSMENT OF PHYSICAL FUNCTIONING

## 1 Background and Rationale

This questionnaire is designed to assess the spectrum of physical functioning in CHS participants at baseline, at annual follow-up visits and as an outcome measure. This form was modified from the National Center for Health Statistic Supplement on Aging and the NIA EPESE Study. The form assesses:

- General level of physical functioning and mobility.
- Ability to carry out instrumental activities of daily living.
- Ability to carry out activities of daily living.

The method of assessing physical functioning is self report. The questions assess the degree of difficulty that a person has performing a specific activity and asks the participant to identify both the main symptom(s) and disease(s) which cause difficulty or inability to do a specific task. This form has several important purposes:

- These data will enable us to assess the level of independence and function in the study population.
- It is hypothesized that impairments of physical function may be a risk factor for cardiovascular end points and progression of disease.
- It will measure loss of physical functioning as a consequence of cardiovascular disease. A major cost and burden of disease in the elderly is inability to self-care and loss of independence.
- This questionnaire goes beyond previous assessments of physical functioning in asking the participant to identify the specific diseases and symptoms which limit their activity. This is important in determining which specific activities of self-care are impaired by specific diseases, especially heart disease and stroke.

## 2 Definitions

This section contains definitions of the activities, symptoms, and diseases included in the Assessment of Physical Functioning Form.

2.1 **Difficulty in performing tasks** Performing the task requires more than a minimal amount of effort, or causes symptoms such as shortness of breath, emotional stress, etc.

### 2.2 **Activities**

- **Walking one half mile or five to six city blocks** Participant walks this distance without stopping for more than five minutes.

- Walking around your home Walking from room to room or within one room of the person's principal residence.
- Getting out of a bed or chair Arising from a sitting or lying position to a standing position or transferring from bed to chair.
- Walking up ten steps Ascending from one story of a building to another without stopping for more than one minute.
- Heavy house work Scrubbing floors, washing windows, raking leaves, mowing the lawn.
- Light housework Making beds, doing dishes, dusting, light vacuuming.
- Shopping for personal items Walking through a store, buying groceries or personal care items such as detergent, soap, deodorant, and paying for these items.
- Preparing meals Mixing, cooking and serving food for oneself.
- Managing money and paying bills Balancing a checkbook, paying bills in a timely fashion.
- Use of the telephone Dialing the telephone and talking with friends or relatives, calling for help on the telephone, answering the telephone.
- Feeding oneself Getting food to the mouth and chewing and swallowing it after food is placed in front of the participant.
- Carrying something as heavy as ten pounds Carrying something such as a bag of groceries or a baby, in one or both arms from one room to another.
- Reaching out Extending the arm parallel and perpendicular to the floor.
- Grasping with the hand Grasping an object, such as a fork, pencil, pen, and holding and using it appropriately.
- Ability to use the toilet Rising from a chair or bed when the urge for urination or bowel movement is noted and using the toilet appropriately without wetting or soiling oneself.
- Bathing Getting water, soap, towel and other necessary items and washing oneself.
- Dressing Picking out clothes, dressing oneself including buttoning, fastening, etc.

### 2.3 **Symptoms**

- **Chest pain or discomfort** Intermittent or constant pain (heaviness) in the anterior chest with exertion.
- **Shortness of breath** Short winded, cannot breathe sufficiently during a specific activity.
- **Pain or discomfort in the joints** Pain in the region of the hip joints, knee joints, ankles, feet or toes.
- **Pain in the calves or thighs** Calf: muscle pain between knee and ankle. Thigh: muscle pain between hip and knee.
- **Pain in the back** Pain over the neck, mid back, lower back, or sacroiliac region.
- **Weakness or paralysis** Inability to move or impairment of movement in any part of the lower extremity or upper extremity (specify right, left or both).
- **General fatigue or weakness** A feeling of malaise or tiredness that is not due specifically to chest pain, shortness of breath, pain or paralysis.
- **Poor vision** An inability to see objects.

### 2.4 **Diseases**

- **Heart disease** Angina, heart attack, congestive heart failure, cardiomyopathy, bypass surgery, valvular heart disease.
- **Stroke** Cerebral vascular accident, subarachnoid hemorrhage, intraventricular bleed.
- **Lung disease** Emphysema, asthma, bronchitis, interstitial lung disease, black lung disease, etc.
- **Diabetes** High blood sugar requiring insulin, oral medication or diet therapy with/without complications such as neuropathy, peripheral vascular disease, amputation, etc.
- **High blood pressure** Current history of elevated blood pressure, leading to headaches, dizziness etc.
- **Arthritis or other musculoskeletal diseases** Osteoarthritis, rheumatoid arthritis, arthritis of the back unspecified type, arthritis of the hip, knees, ankles, feet.

- Cancer Any solid tumor such as lung, breasts, or prostate cancer or hematologic malignancies such as leukemia or lymphoma.
- Injury Dysfunction due to recognized trauma such as a fall, fractured hip, fractured leg, compression fracture, loss of limb.
- Old age When participants identify "old age," ask if it is just their age or a specific disease. Old age is indicated if the participant sees this as a significant contributor to their difficulty or as the sole reason.
- Dementia or other dementing illness Alzheimer's disease, multi-infarct dementia, agoraphobia, etc.
- Nervous or mental illness Schizophrenia, depression, nervousness, etc.
- Eye disease Glaucoma, cataracts, diseases of retina, macular degeneration
- Kidney disease Glomerulonephritis, kidney failure, hydronephrosis, pyelonephritis, kidney stones, nephritis
- Other diseases Diseases not categorized elsewhere which are mentioned by the participant; for example, osteoporosis or degenerative neurologic diseases such as Parkinson's disease.

### 3 **Methods**

3.1 This form is completed during the Year 5 Clinic Visit by a CHS Interviewer.

Script: I am now going to ask you questions about your ability to take care of yourself and to function independently. The reason we are asking you these questions is that we are trying to better understand the consequences of heart disease and other conditions to the older individual. We also hope to better understand to what extent people like you require help in their self care activities.

Read question to participant.

Each question on the Assessment of Physical Function Form consists of several subquestions. The responses to these subquestions are summarized below.

#### ■ Subquestion A

If the participant answers "No" to subquestion A, check " No" and continue to the next question.

Note:

- When the participant answers "No" to subquestion A in question 1, the next question asked is question 4.
- When the participant answers "No" to subquestion A in question 5, the next question asked is question 7.

If the participant states that they don't do the activity, but could do it if asked, check "Could do it, but don't for other reason" and continue with the next question.

This would occur when the participant:

- has no opportunity to walk a specific distance,
- lives in a single story home and has no opportunity to walk up steps,
- has someone else do the heavy housework,

If the participant is unable or refuses to respond, check "Don't know/refused" and continue with the next question.

If the participant states that s/he has difficulty performing a specific activity, check "Yes" and continue with subquestions B through D for each question.

#### ■ Subquestion B

This subquestion is designed to report the degree of difficulty that an individual perceives s/he has in doing a particular activity.

Script: You said that you have difficulty (state specific activity). Do you have some difficulty, a lot of difficulty, or are you unable to do this activity at all?"

- Check participant's response.

#### ■ Subquestion C (Questions 1 to 14)

This subquestion assesses what symptom causes the participant to have difficulty or prevents him/her from doing the activity.

Script: What is the main symptom that causes you to have difficulty or prevents you from doing the activity?

- Record the code number of the symptom using Card 14-S for reference.

NOTE: The codes for this section of the Physical Functioning form have been modified since the data collected at the Baseline Home Visit. Please use card 14-S which uses codes 11 through 25 rather than the original card 14 which uses codes 1 through 11.

If the participant identifies more than one symptoms:

Script: You have given me more than one symptom. Can you tell me the main symptom that causes you to have difficulty or prevents you from doing (indicate the specific activity)?

If the participant does not respond spontaneously, hand the participant Card 14-S.

NOTE: This should not be done routinely. The interviewer should wait for a spontaneous response and only when the participant needs prompting for the specific symptom should they be handed the card.

Script: Look at this card and tell me whether one of these symptoms causes you to have difficulty or prevents you from doing (specific activity).

- Record the code number for the appropriate symptom.

■ Subquestion C (Questions 15 to 17)

This subquestion assesses which extremity causes him/her to have difficulty or prevents him/her from doing the activity.

Script: Which extremity causes the problem?

Record the code number for the extremity(s) which causes the difficulty.

■ Subquestion D (Questions 1 to 14)

[These are the same responses for Subquestion E for Questions 15 to 17]

This subquestion assesses the disease(s) which the participant perceives causes him/her to have difficulty or prevents him/her from doing the activity.

Script: What is the main condition that causes you to have difficulty or prevents you from doing the activity?

Record the code number of the disease using Card 15-S for reference.

NOTE: The responses to this question have been modified since the administration of the Physical Functioning form used at the Baseline Home Visit. Be sure to use card 15-S which lists codes 11 through 24 instead of the old card 15 using codes 1 through 11.

If the participant identifies more than one disease:

Script: You have given me more than one disease. Can you tell me the main disease or the major disease that causes you to have difficulty or prevents you from doing (indicate the specific activity)?

– If the participant is unable to identify one disease, record all spontaneous responses.

If the participant does not respond spontaneously, hand the participant Card 15-S.

NOTE: This should not be done routinely. The interviewer should wait for a spontaneous response and only when the participant needs prompting for the specific disease should they be handed the card.

Script: Look at this card and tell me whether one of these diseases causes you to have difficulty or prevents you from doing (specific activity).

- Record the code number for the appropriate symptom.

■ Subsection D (Questions 15 to 17)

This subquestion assesses what symptom causes difficulty carrying, reaching or gripping.

\_\_\_\_\_ Script: What causes the difficulty?

Record the code number for the nature of the difficulty from the responses offered on the form.

■ Subquestion E (Questions 15 to 17)

[These are the same responses for Subquestion D for Questions 1 to 14]

This subquestion assesses the disease(s) which the participant perceives causes him/her to have difficulty or prevents him/her from doing the activity.

\_\_\_\_\_ Script: What is the main condition that causes you to have difficulty or prevents you from doing the activity?

Record the code number of the disease using Card 15-S for reference.

NOTE: The responses to this question have been modified since the administration of the Physical Functioning form used at the Baseline Home Visit. Be sure to use card 15-S which lists codes 11 through 24 instead of the old card

15 using codes 1 through 11.

If the participant identifies more than one disease:

Script: You have given me more than one disease. Can you tell me the main disease or the major disease that causes you to have difficulty or prevents you from doing (indicate the specific activity)?

— If the participant is unable to indicate one disease, record all spontaneous responses.

If the participant does not respond spontaneously, hand the participant Card 15-S.

NOTE: This should not be done routinely. The interviewer should wait for a spontaneous response and only when the participant needs prompting for the specific disease should they be handed the card.

Script: Look at this card and tell me whether one of these diseases causes you to have difficulty or prevents you from doing (specific activity).

- Record the code number for the appropriate symptom.