

Physical Rehabilitation Outcome Measures

A Guide to Enhanced Clinical Decision Making *Second Edition*

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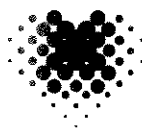
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Notice: The authors and publisher have made every effort to ensure that the patient care recommended herein is in accord with the accepted standard and practice at the time of publication. Any treatment regimen involves inherent risk that must be weighed on a case-by-case basis against the benefits anticipated. The reader is cautioned that the purpose of this book is to inform and enlighten; the information contained herein is not intended as, and should not be employed as, a substitute for individual diagnosis and treatment.

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Measures Listed by Outcome (Construct)

AMBULATION

Gait Speed
Walk Test—2 minute, 6 minute, 12 minute,
shuttle, self-paced

BALANCE/POSTURAL CONTROL

Activity-specific Balance Confidence Scale
Berg Balance Scale
Functional Reach Test
Timed Up and Go (TUG)

CLIENT-CENTRED CARE

Canadian Occupational Performance Measure
(COPM)
Patient Specific Functional Scale (PSFS)
Wascana Client-Centered Care Survey

DEVELOPMENT

Activity Scale for Kids
Alberta Infant Motor Scale
Gross Motor Function Measure (GMFM)
Gross Motor Performance Measure (GMPM)
Peabody Developmental Motor Scales
Pediatric Evaluation of Disability Inventory (PEDI)
Test of Infant Motor Performance (TIMP)
(WeeFIM)[®] Functional Independence Measure
for Children

DISABILITY/ACTIVITY

Action Research Arm Test
Activity Scale for Kids
Barthel Index
Box and Block Test
Back Pain Functional Scale
Chedoke-McMaster Stroke Assessment
(DASH) Disabilities of the Arm, Shoulder and Hand
Facial Disability Index
Frenchay Arm Test
Fugl-Meyer Assessment of Sensorimotor Recovery
After Stroke
(SMAF) Functional Autonomy Measurement System
Gait Speed
Gross Motor Function Measure (GMFM)
Gross Motor Performance Measure (GMPM)
Lower Extremity Activity Profile (LEAP)
Motor Assessment Scale (MAS)

Neck Disability Index (NDI)

OARS-IADL

Oswestry Low Back Pain Disability Questionnaire
Patient Specific Functional Scale (PSFS)

Peabody Developmental Motor Scales

Pediatric Evaluation of Disability Inventory (PEDI)

Quebec Back Pain Disability Scale

Reintegration to Normal Living Index (RNL)

Rivermead Motor Assessment (RMA)

Roland-Morris Questionnaire

(TEMPA) Test d'Évaluation des Membres Supérieurs
des Personnes Agées

Walk Test—2-Minute, 6-Minute, 12-Minute,
Self-paced, Shuttle

(WOMAC[™]) Western Ontario McMaster
Osteoarthritis Index

DYSPNEA

Dyspnea Index—Baseline/Transitional
Chronic Respiratory Disease Questionnaire
Dyspnea Scale—MRC
Oxygen Cost Diagram
St. George's Respiratory Questionnaire
Visual Analogue Scale (VAS)

FUNCTIONAL STATUS

Action Research Arm Test
Back Pain Functional Scale
Barthel Index
Bath Ankylosing Spondylitis Functional Index
(COVS) Physiotherapy Clinical Outcome
Variables Scale
Continuing Care Activity Measure (CCAM)
(DASH) Disability of the Arm Shoulder and Hand
Fibromyalgia Impact Questionnaire
Frenchay Arm Test
(SMAF) Functional Autonomy Measurement System
(FIM) Functional Independence Measure
Gross Motor Function Measure (GMFM)
Gross Motor Performance Measure (GMPM)
Gait Speed
Health Utilities Index (HUI Mark2/3)
Lower Extremity Activity Profile (LEAP)
Lower Extremity Functional Scale (LEFS)
Nottingham Health Profile
OARS-IADL

Oxygen Cost Diagram
 Patient Specific Functional Scale (PSFS)
 Quebec Back Pain Disability Scale
 Reintegration to Normal Living Index (RNL)
 Roland-Morris Questionnaire
 (SIP) Sickness Impact Profile
 (TEMPA) Test d'Évaluation des Membres Supérieurs
 des Personnes Agées
 Timed-Stands Test
 Timed Up and Go (TUG)
 Upper Extremity Functional Scale (UEFS)
 WeeFIM®
 (WOMAC™) Western Ontario McMaster
 Osteoarthritis Index

IMPAIRMENT

Chedoke-McMaster Stroke Assessment
 Fugl-Meyer Assessment of Sensorimotor Recovery
 after Stroke

MOBILITY

Action Research Arm Test
 Box and Block Test
 (COVS) Physiotherapy Clinical Outcome
 Variables Scale
 Continuing Care Activity Measure
 Frenchay Arm Test
 Fugl-Meyer Assessment of Sensorimotor Recovery
 After Stroke
 Gait speed
 Gross Motor Function Measure (GMFM)
 Gross Motor Performance Measure (GMPM)
 OARS-IADL
 Rivermead Motor Assessment (RMA)
 (STREAM) Stroke Rehabilitation Assessment
 of Movement

Timed-Stands Test
 Timed Up and Go (TUG)
 Walk Test—2-minute, 6-minute, 12-minute,
 Self-paced, Shuttle

OCCUPATIONAL PERFORMANCE

Canadian Occupational Performance Measure
 (COPM)

PAIN

Numeric Pain Rating Scale (NPRS)
 Visual Analogue Scale for Pain and Dyspnea (VAS)

PERCEIVED EXERTION

Borg's Rating Scale of Perceived Exertion
 Oxygen Cost Diagram

QUALITY OF LIFE

Arthritis Impact Measurement Scales
 Chronic Respiratory Disease Questionnaire
 Child Health Questionnaire
 Cystic Fibrosis Questionnaire
 (EuroQoL-5D) European Quality of Life Scale
 Health Utilities Index (HUI Mark2/3)
 Nottingham Health Profile
 (SA-SIP30) Stroke-Adapted Sickness Impact Profile
 SF-12®
 SF-36®
 St. George's Respiratory Questionnaire

SELF-EFFICACY/COPING

Activity-Specific Balance Confidence Scale
 Arthritis Self-Efficacy Scale
 COPD Self-Efficacy Scale
 St. George's Respiratory Questionnaire

Measures Listed by Client Population (Area of Practice)

GENERAL REHABILITATION

Activity-specific Balance Confidence Scale
 Barthel Index
 Berg Balance Scale
 Borg's Rating Scale of Perceived Exertion (RPE)
 Canadian Occupational Performance Measure (COPM)
 (COVS) Physiotherapy Clinical Outcome Variables Scale
 (EuroQoL-5D) European Quality of Life Scale
 (FIM) Functional Independence Measure
 Functional Reach Test
 Gait Speed
 Health Utilities Index (HUI Mark2/3)
 Lower Extremity Activity Profile (LEAP)
 Lower Extremity Functional Scale (LEFS)
 Nottingham Health Profile
 Numeric Pain Rating Scale (NPRS)
 OARS-IADL
 Patient Specific Functional Scale (PSFS)
 Reintegration to Normal Living Index (RNL)
 SF-12®
 SF-36®
 (SIP) Sickness Impact Profile
 (TEMPA) Test d'Évaluation des Membres Supérieurs des Personnes Agées
 Timed-Stands Test
 Timed Up and Go (TUG)
 Upper Extremity Functional Scale (UEFS)
 Visual Analogue Scale for Pain and Dyspnea (VAS)
 Walk Test—2-minute, 6-minute, 12-minute, Self-paced, Shuttle
 Wascana Client-Centered Care Survey
 (WOMAC™) Western Ontario McMaster Osteoarthritis Index

GERIATRIC

Activity-specific Balance Confidence Scale
 Barthel Index
 (EuroQoL-5D) European Quality of Life Scale
 (SMAF) Functional Autonomy Measurement System
 (FIM) Functional Independence Measure
 Functional Reach Test

Gait Speed
 Health Utilities Index (HUI Mark2/3)
 Nottingham Health Profile
 OARS-IADL
 Reintegration to Normal Living Index (RNL)
 (TEMPA) Test d'Évaluation des Membres Supérieurs des Personnes Agées
 Timed-Stands Test
 Timed Up and Go (TUG)
 Walk Test—2-Minute, 6-Minute, 12-Minute, Self-paced, Shuttle

PEDIATRIC

Activity Scale for Kids (ASK)
 Alberta Infant Motor Scale (AIMS)
 Child Health Questionnaire
 Functional Reach Test
 Gross Motor Function Measure (GMFM)
 Gross Motor Performance Measure (GMPM)
 Health Utilities Index (HUI Mark1)
 Peabody Developmental Motor Scales
 Pediatric Evaluation of Disability Inventory (PEDI)
 Test of Infant Motor Performance (TIMP)
 (WeeFIM®) Functional Independence Measure for Children

CHRONIC RESPIRATORY OR CARDIAC DISEASE

Chronic Respiratory Disease Questionnaire
 COPD Self-Efficacy Scale
 Cystic Fibrosis Questionnaire
 Dyspnea Index—Baseline/Transitional
 Dyspnea Scale—MRC
 Borg's Rating Scale of Perceived Exertion (RPE)
 Oxygen Cost Diagram
 Reintegration to Normal Living Index (RNL)
 SF-36®
 (SIP) Sickness Impact Profile
 St. George's Respiratory Questionnaire
 Visual Analogue Scale (VAS)

BACK

Back Pain Functional Scale
 (EuroQoL-5D) European Quality of Life Scale
 Numerical Pain Rating Scale (NPRS)

Nottingham Health Profile
 Oswestry Low Back Pain Disability Questionnaire
 Patient Specific Functional Scale (PSFS)
 Quebec Back Pain Disability Scale
 Roland-Morris Questionnaire
 Visual Analogue Scale for Pain and Dyspnea (VAS)

HEAD AND NECK

Facial Disability Index
 Neck Disability Index (NDI)
 Patient Specific Functional Scale (PSFS)

UPPER EXTREMITY

Action Research Arm Test
 Box and Block Test
 (DASH) Disabilities of the Arm, Shoulder and Hand
 Frenchay Arm Test
 Patient Specific Functional Scale (PSFS)
 (TEMPA) Test d'Évaluation des Membres Supérieurs
 des Personnes Agées
 Upper Extremity Functional Scale (UEFS)

LOWER EXTREMITY

Lower Extremity Activity Profile (LEAP)
 Lower Extremity Functional Scale (LEFS)
 Patient Specific Functional Scale (PSFS)
 Timed-Stands Test
 Walk Test—2-Minute, 6-Minute, 12-Minute,
 Self-paced, Shuttle
 (WOMAC™) Western Ontario McMaster
 Osteoarthritis Index

RHEUMATOLOGY

Arthritis Impact Measurement Scales
 Arthritis Self-Efficacy Scale
 Bath Ankylosing Spondylitis Functional Index
 (EuroQoL-5D) European Quality of Life Scale
 Fibromyalgia Impact Questionnaire
 (FIM) Functional Independence Measure
 Gait speed

Health Utilities Index (HUI Mark2/3)
 Nottingham Health Profile
 OARS-IADL
 Reintegration to Normal Living Index (RNL)
 Timed-Stands Test
 Timed Up and Go (TUG)

MULTIPLE SCLEROSIS

(FIM) Functional Independence Measure
 Functional Reach Test
 Gait speed
 Health Utilities Index (HUI Mark2/3)

STROKE

Action Research Arm Test
 Barthel Index
 Chedoke-McMaster Stroke Assessment
 (EuroQoL-5D) European Quality of Life Scale
 Frenchay Arm Test
 Fugl-Meyer Assessment of Sensorimotor Recovery
 After Stroke
 (FIM) Functional Independence Measure
 Functional Reach Test
 Gait Speed
 Health Utilities Index (HUI Mark2/3)
 Motor Assessment Scale (MAS)
 Nottingham Health Profile
 OARS-IADL
 Reintegration to Normal Living Index (RNL)
 Rivermead Motor Assessment (RMA)
 (SA-SIP30) Stroke-Adapted Sickness Impact Profile
 (STREAM) Stroke Rehabilitation Assessment of
 Movement
 Stroke Impact Scale (SIS)
 Timed Up and Go (TUG)
 Walk Test—6-Minute

CONTINUING CARE

Continuing Care Activity Measure

Information about Measure Reviews

Abbreviations frequently used

α	Cronbach's alpha coefficient
ANOVA	analysis of variance
CI	confidence interval
Correlations:	
	ICC = intraclass correlation
	r = Pearson product-moment correlation
CSEM	conditional standard error of measurement
ES	effect size
MCID	minimal clinically important difference
MDC	minimal detectable change
RI	Responsiveness Index
SD	standard deviation
SEM	standard error of measurement
SRM	standardized response mean

Bolded references

The bolded references following the measure review provide a starting point if you wish to explore more detailed information about the measure.

Access to measures

Access to the measures is provided in a variety of ways. Some measures can be accessed through a Website address provided which will enable you to obtain or order the most recent version of the measure. Others can be obtained through an e-mail address or Fax number provided by the developer(s). Both will also provide administration guidelines essential to the standardized application of the measure. In other cases, we have included the measure on the CD-ROM with permission of the developer. If you plan to use the measure, it is advisable to contact the developer for administration guidelines and revisions not available at the time of publication. Access information can be found following the references in each review.

Assistance in critically appraising measurement studies

The Appendix on pages 273–280 and associated material on the CD-ROM provide assistance in extracting information from, and critically appraising a measurement study. Dr. Sharon Wood-Dauphinee, McGill University, developed this material and has graciously permitted its inclusion in the text.