Options for Documenting Functional Improvement in Conservative Care

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PRACTICAL APPLICATION POINTS

- Outcomes assessment scales provide a concise, valid way to track changes in function. Meaningful change usually has a minimum 30% improvement in score. Improvement of 50% is typically considered substantial.
- Anchored numerical scales are recommended to track routine progress; particularly pain interference with important activities.
- Regional or condition specific functional outcome scales should be routinely used at baseline and periodic follow-ups. More frequent follow-up is recommended with higher frequency care.
- Psychosocial scales help identify those at higher risk of chronicity; improvement in fear avoidance scales may predict future recovery.
- Several physical performance outcomes also have substantial reported reliability and clinical utility.

This and other practice resources are available for download at the State of Washington Department of Labor & Industries IICAC website. Contact information for public input and submission of studies for future revisions is available there.

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Functional Improvement

Ideally, health care should contribute to more gains for improvement in function and return-to-work than natural progression. To determine the degree of improvement, specific function and activity levels should be documented before care begins and at periodic intervals as care is provided. Examples of valid and reliable patient self-report strategies and tools are included in this resource.

Curative & Rehabilitative Care

Washington State workers' compensation law mandates that the care workers receive is curative and/or rehabilitative (WAC 296-20-01002). In non-catastrophic cases, clinical documentation should demonstrate improved physical function is occurring (including return-to-work).

Maximal Medical Improvement (MMI)

MMI occurs when no marked change in the workers' condition is expected, with or without treatment. Fluctuations in pain and function may occur once MMI is reached. Over time, improvement or deterioration may occur after MMI. Treatment that results only in temporary or transient changes is not considered proper and necessary. (WAC 296-20-01002)

Purpose and Intended Use

This document updates a 2014 resource developed by the Industrial Insurance Chiropractic Advisory Committee (IICAC) of the Washington State Department of Labor and Industries. It provides concise summaries of published clinical and scientific literature regarding functional scales and outcome measures pertinent to workers' compensation and musculoskeletal care. It is intended to inform care options and shared decision-making. It is not a standard of care, claim management standard, or a substitute for clinical judgment in an individual case. This practice resource does not change L&I coverage or payment.

Typical Functional Measurement Thresholds

Baseline	2-4 wks	4-8 wks	Beyond 8 wks
• Patient-specific function and/or regional or conditional musculoskeletal scales should be considered for baseline and follow-up • Numerical pain interference scale is recommended at every visit (at least weekly) • If care may be prolonged or return-to-work delayed, psychosocial scales and performance testing is recommended.	• Musculoskeletal, regional, or condition-specific scales should typically be re-administered every 2-4 weeks. • If improvement is not evident within 2 weeks of care, psychosocial scales—particularly fear avoidance behaviors—should be assessed and tracked.	• Strongly recommended to re-administer initial scales at discharge. This provides both patient management value and baseline for future adjudication issues if worsening of the condition occurs. • If adequate return to work or improvement is lacking by 4-6 weeks of care, physical performance tests can assess a "baseline level" of conditioning to help target rehabilitation options. Repeat follow-up at 4-6 weeks may assess progress. If not yet included, a psychosocial scale may be considered.	

FUNCTIONAL PROGRESS CHECKLIST *Voluntary educational / practice aid – Not an L&I documentation requirement*

Baseline	2-4 wks	4-8 wks	Beyond 8 wks

Assessment / Progress

Baseline	2-4 wks	4-8 wks	Beyond 8 wks
Date:	Date:	Date:	Date:
Baseline Function Score: ________	Function Score: ___________	Function Score: ___________	Function Score: ___________
Pain Interference* 0 1 2 3 4 5 6 7 8 9 10 *None* … *Unable to do any activities*	Pain Interference 0 1 2 3 4 5 6 7 8 9 10 *None* … *Unable to do any activities*	Pain Interference 0 1 2 3 4 5 6 7 8 9 10 *None* … *Unable to do any activities*	Pain Interference 0 1 2 3 4 5 6 7 8 9 10 *None* … *Unable to do any activities*
Self-control of pain** 0 1 2 3 4 5 6 7 8 9 10 *Complete control* … *No control of pain on any activities*	Self-control of pain 0 1 2 3 4 5 6 7 8 9 10 *Complete control* … *No control of pain*	Self-control of pain 0 1 2 3 4 5 6 7 8 9 10 *Complete control* … *No control of pain*	Self-control of pain 0 1 2 3 4 5 6 7 8 9 10 *Complete control* … *No control of pain*
Work Status ☐ Full Duty ☐ Modified ☐ None	Work Status ☐ Full Duty ☐ Modified ☐ None	Work Status ☐ Full Duty ☐ Modified ☐ None	Work Status ☐ Full Duty ☐ Modified ☐ None

Outcome Scales / Tracking

Date	Baseline Scale	Score
_____	_________________	_______
_____	_________________	_______
_____	_________________	_______

Musculoskeletal Questionnaires/Scales:

☐ Patient Specific Function (PSFS)
☐ Regional/conditional scale
Ex: ODI, QDASH, LEFS

☐ Other:

Date	Follow up Scale	Score
______	________________	_______
______	________________	_______
______	________________	_______

Psychosocial Questionnaires/Scales:

☐ STarT Back-9 (SBST-9)
☐ Patient Health (PHQ-9)
☐ Fear-Avoidance Belief (FABQ)
☐ Kinesiophobia (TSK-11)
☐ Yellow Flags Disability (YFDQ)

☐ Other:

Date	Follow up Scale	Score
______	________________	_______
______	________________	_______
______	________________	_______

Physical Performance Tests:

☐ Short Physical Performance Battery (SPPB) for older patients
☐ Back Physical Peformance Battery (BPPB)
☐ Static Neck Endurance

☐ Other:

Patient's Name: ____

***Pain Interference**: "In the past week, how much did pain interfere with your daily activities?"

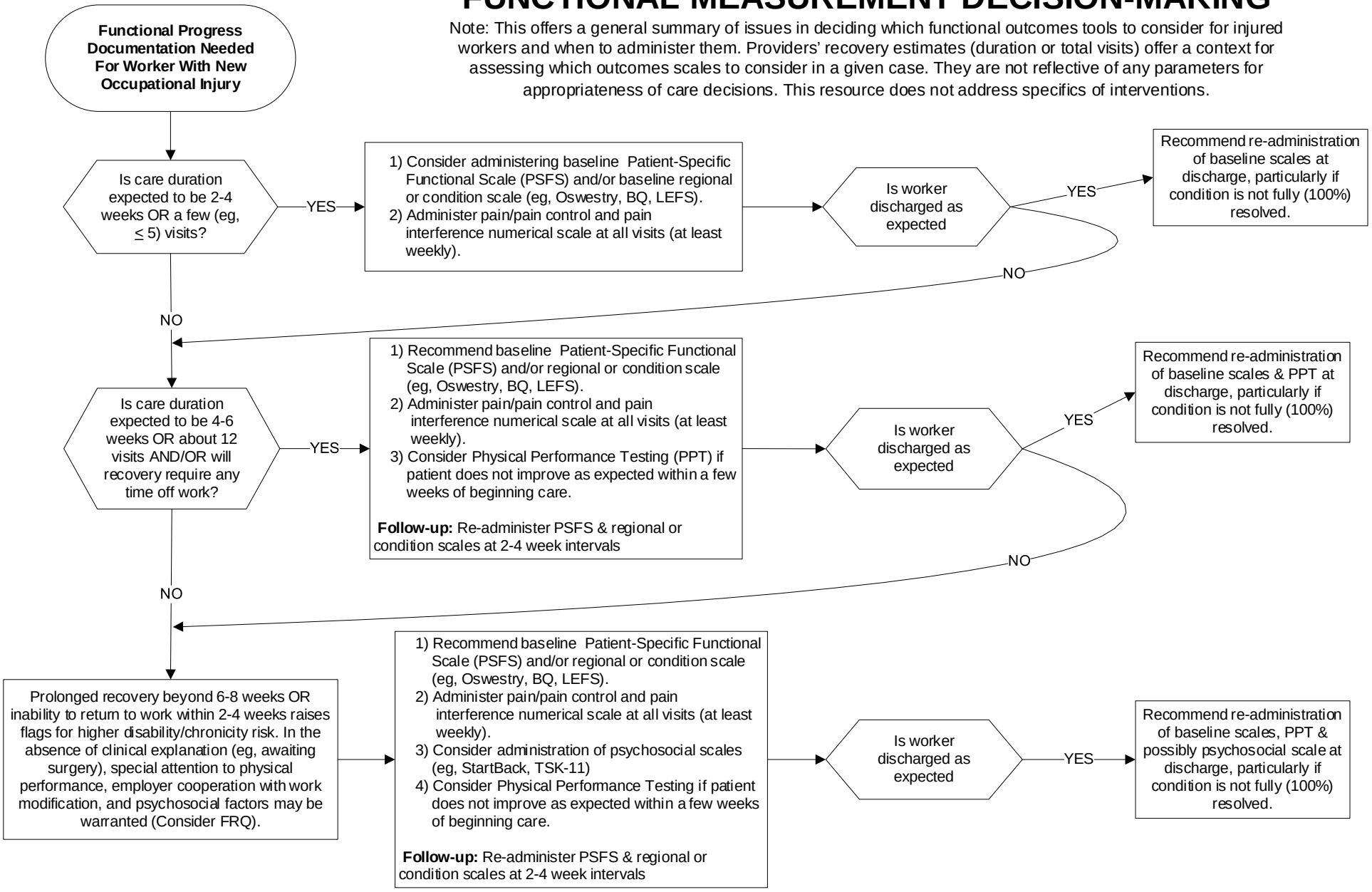
****Self-control**: "In the past week, how much control were you able to have over your pain?"

Algorithm for Functional Measurement Options

Voluntary educational / practice aid – Not an L&I practice or documentation requirement

FUNCTIONAL MEASUREMENT DECISION-MAKING

Note: This offers a general summary of issues in deciding which functional outcomes tools to consider for injured workers and when to administer them. Providers' recovery estimates (duration or total visits) offer a context for assessing which outcomes scales to consider in a given case. They are not reflective of any parameters for appropriateness of care decisions. This resource does not address specifics of interventions.



FUNCTIONAL MEASUREMENT DISCUSSION

General Considerations

There are many considerations when tracking and reporting functional improvement of injured workers. Validity and responsiveness of specific measures are most commonly addressed in the literature. If a questionnaire does not accurately measure or respond to change in the condition, it is not worth using in a practice setting. Tracking functional improvement using validated scales is becoming a best practice because it provides important information regarding the patient's progress over time. Other important factors include how meaningful the change scores are to patients, if functional improvement scores reflect the patient's ability to return to normal activities including work, ease of use (administration, understandability for patients), and licensing issues. All of those were weighed carefully in IICAC's selection of the below surveys to recommend in a worker's compensation practice setting.

Meaningful Clinical Change vs. Minimal Detectable Change

An instrument may display psychometric properties that are sensitive to change (minimal detectable change), even if the amount of change/improvement does not reflect any global improvement in the patient's ability to perform daily activities or the patient's perceived improvement. The concept of meaningful clinical change has become a focus of recent literature with comparisons of scale scores to patient reports of global well-being, activity capabilities, provider assessment of improvement, and international expert consensus regarding the magnitude of change.

Although detailed psychometrics are increasingly reported for published reports of various scales (as well as in this resource), as a general rule, based on substantial literature review and expert consensus, 30% change in most any scale can be considered to be "meaningful" and 50% change to be "substantial."[1] Greater than 65% improvement is considered supportive of long-term recovery in low back pain.[1]

Meaningful clinical change may have several factors that affect a patient's perception of improvement. Baseline values, the nature of the condition, and direction of change influence perception of change. For example, patients with a large amount of baseline functional disability may require a larger amount of change to consider it important than patients with lower baseline functional disability.[2, 3]

Workers' Compensation Specific concerns

To date, no identified research correlates magnitude of scale score improvements with a patient's ability to return to work following an occupational injury. There do not appear to be any baseline characteristics that predict if a patient will improve, although there are identified risk factors for disability.[4] However, early improvement on self-reported instruments, particularly a decline in fear avoidance scores, does correlate with future improvement.[5]

Ease of Use

Trade-offs often exist between length, simplicity and clinical utility of a questionnaire. While high reproducibility and comparability are critical in research settings, practical implementation in busy practices is rarely prioritized in published studies. Generally, the consensus of the IICAC and consultants used on this project was to select the questionnaires that represented the best compromise for validity, practicality and clinical utility. Comprehensive regional and condition-specific questionnaires typically administered at 2-4 week intervals are recommended for cases when frequent visits and/or longer treatment durations are expected. Routine visit-to-visit changes can be addressed with numerical scales; particularly when they are aimed at rating a condition/symptom's interference with the ability to do particular activities (as opposed to just capturing perceived pain levels).

As this resource illustrates, there are numerous scales that have been developed and validated. Many scales may be preferable for individual practice reasons and this resource does not intend to discourage the use of such scales. Additional instruments are included in the summaries below and relevant citations and websites are listed where possible. The most important consideration is to track functional improvement using some kind of patient reported scale. It is perhaps the most certain way to document if the patient is making functional improvement as care is provided.

For a comprehensive database of outcome measures, refer to the Shirley Ryan Ability Lab and for interactive web-fillable forms refer to Orthopaedicscores.com

OUTCOMES SCALES RECOMMENDED BY IICAC FOR ROUTINE USE

Included in this table are recommendations from IICAC regarding which functional and outcome tracking instruments and scales might be easily adopted into practice. In addition to validation for diagnostic, screening, or baseline assessments, IICAC factored in attributes including detection of meaningful clinical change, ease of administration and scoring, and ability to utilize them in clinical practice without cost or burdensome licensing requirements. A companion document that includes the recommended scales is available here.

General Health Status & Quality of Life Measurement Instruments				
Name and Bookmark	What it Measures	Availability	Time	Scoring
WHODAS 2.0 **-12 or 36 item** World Health Organization Disability Assessment Scale Further info	Informally assesses self-reported health status and disability. Administered at baseline suspicion of psychosocial or mental health issues and periodic follow-up for progress. **Includes:** How much have you been emotionally affected by your health problems? In the past 30 days, how much difficulty did you have in: Concentrating on doing something for ten minutes; Getting dressed **Domains:** Generic Screening, Disability **Similar Scales**: SF-36MH	• No cost • Registration requested • Link: WHODAS 2.0	~ 5 minutes 12 item ~20 minutes 36 item	12 or 36 items each scored 0 (none) to 4 (severe) then summed. Total score 12 item suggests: No disability risk (0-5) Mild risk (6-10); Moderate risk (over 10). Total score 36 item converted to a number on a 0-100 scale, giving a range of disability from 0 (no disability) to 100 (full disability) Meaningful change: poorly defined capability to track progress and change. Recommended as a "snapshot" evaluation of disability from multiple sources.
Short Form Questionnaire (12 item or 36 item) Further info	36 item: a general health status questionnaire that includes sections on general health and well-being, mental health, physical function and others 12 item: generic assessment of health related quality of life measured using two scales, a mental scale and a physical scale	Early versions of both scales are freely available, with newer versions requiring a license to use • Version 1 free • Version 2 licensed	~ 5 minutes 12 item ~20 minutes 36 item	12 item: Two scales, with overall scores transformed to a range from 0-100 with a higher score indicating better health. 36-item: 8 scales, with overall scores transformed to a range from 0-100, with a higher score indicating better health. Meaningful change: 6-8 is likely the smallest detectable score change, whereas 10 points likely signifies meaningful improvement in a variety of disease states.
PROMIS-10 Further Info	**Patient-Reported Outcomes Measurement Information System 10** Assesses general domains of health and functioning including overall physical, mental, and social health, as well as domains of pain, fatigue, and quality of life.	• No cost • Link: PROMIS-10	~ 5 minutes	10 items, with 9 items scored 1-5 and one item relating to pain scored 0-10. Further scoring information can be found here.
Generic Musculoskeletal Scales				

Name and Bookmark	What it Measures	Availability	Time	Scoring
PSFS **Patient Specific Functional Scale** Further info	Self-assessed ability to complete activity prior to injury and current level of ability post injury. Used to quantify activity limitation and measure functional outcome for patients with any orthopedic condition. **Includes**: Any 3 activities that the injured worker is unable to do or has difficulty doing as a result of the injury or pain level. **Domains**: Disability, Activities of Daily Living **Similar Scales**: n/a	• No cost • No restrictions • Link: PSFS • Appendix	< 5 minutes	Patients rate their current ability to complete an activity on an 11-point scale at a level experienced prior to injury or change in functional status. A score of 0 represents "unable to perform" and a score of 10 represents "able to perform at prior level" A lower score represents increased patient difficulty in completing important activities. Minimum detectable change for average score is 2 points, for a specific activity is 3 points.

Psychosocial Scales – Depression, anxiety, kinesiophobia				
Name and Bookmark	What it Measures	Availability	Time	Scoring
FRQ **Functional Recovery Questionnaire** Further info	Screens for long-term disability risk from work injury. Administered at about 2 weeks of time loss due to work injury. **Includes:** Do you have persistent bothersome pain? In the past week how much has pain interfered with your ability to work, including housework? **Domains:** Generic Screening, Disability **Similar Scales:** STarTBack	• No cost or licensing • Link: FRQ	< 5 minutes	Items 1-3 determine positive risk: FRQ + means person has not worked for pay due to injury **and** pain interference ≥ 5/10, **and** pain in 2 or more body areas. Items 4-6 identify vocational connection, fear-avoidance, and recovery expectations, which strongly correlate with risk.

FABQ **Fear Avoidance Beliefs Questionnaire** Further info	Measures fear avoidance beliefs relating to physical activity and work, focusing on the effect and contribution to low back pain. **Includes**: I cannot do physical activities which (might) make my pain worse And My work aggravated my pain **Domains**: Fear-avoidance, Catastrophizing, Disability **Similar Scales**: FRQ, STarTBACK	• No cost • No restrictions • Link: **FABQ** • Appendix	5-10 minutes	Scored using 2 subscales; one relating to physical activity and the other to work. Some items do not contribute to the overall score. A higher score represents elevated fear avoidance beliefs. MDC and MCI validated in pelvic girdle pain population at 6.1 points and 25% respectively
STarT Back Screening Tool Further info	A nine-item tool to assess disability risk with low back pain patients. Assesses presentation, fear-avoidance and disability beliefs. Used for baseline and follow-up. **Includes**: It's not really safe for a person with a condition like mine to be physically active; I feel that my pain is terrible and will get any better **Domains**: Fear-Avoidance, Disability. **Similar Scales**: FRQ, Pain catastrophizing scale (PCS), Fear avoidance belief questionnaire (FABQ).	• No Cost • No restrictions • Link: STartBack	< 5 minutes	Nine items scored 0 or 1. Total score ≤ 3 reflects low risk. Total score ≥ 4 is sub stratified based on subscore of Q5-9 ≤ 3 being medium risk and ≥ 4 being high risk for developing disability.
PHQ-9 **Patient Health Questionnaire 9** Further info	A 9-item tool to assess the presence and intensity of depressive symptoms. **Includes**: Little interest or pleasure in doing things; Trouble concentrating on things, such as reading the newspaper or watching television. **Domains**: Depression **Similar Scales**: GAD-7, WHODAS II	• No Cost • No restrictions • Link: PHQ-9	<5 minutes	Nine items scored 0-3. Scores of 10 or greater are an indication for referral. Scores of 5, 10, 15, and 20 represents mild, moderate, moderately severe, and severe depression. Meaningful change validated in older primary care patients at 5 points
GAD-7 **Generalized Anxiety Disorder 7** Further info	A 7-item tool to screen for the presence and intensity of generalized anxiety disorder. **Includes**: Little interest or pleasure in doing things; Trouble concentrating on things, such as reading the newspaper or watching television. **Domains**: Anxiety, PTSD **Similar Scales**: GAD-7, WHODAS II	• No Cost • No restrictions • Link: GAD-7	<5 minutes	Seven items scored 0-3. Scores of 5, 10, and 15 represents mild, moderate, and severe levels of anxiety. Scores of 10 or greater are considered an indication for referral. Meaningful change is 5 or more points

Regional Scales - Spine				
Name and Bookmark	What it Measures	Availability	Time	Scoring
NDI **Neck Disability Index** Further info	Assesses symptoms and severity of neck pain related to its impact on functional activities. Administered: baseline; 2-4 week follow-ups. **Includes**: I need help every day in most aspects of self-care and I cannot lift or carry anything at all **Domains**: Disability, Self-Efficacy, Activities of Daily Living **Similar Scales**: Bournemouth Neck Questionnaire	• No cost • No registration • Link: NDI • Appendix	5-10 minutes	Consists of 10 sections regarding various aspects of life, with 6 questions scored 0 to 5 in each section. Total points divided by 50, then multiplied by 100 will give you the percentage disability. MCD depends on the pain/disorder, but seems to range from 8-14 points on a 50 point scale
ODI **Oswestry Disability Index** Further info	Assesses symptoms and severity of low back pain related to its impact on functional activities. Administered: baseline; 2-4 week follow-ups. **Includes**: I need help every day in most aspects of self-care and I cannot lift or carry anything at all **Domains**: Disability, Self-Efficacy, Activities of Daily Living **Similar Scales**: RMDQ, Bournemouth Back Questionnaire	• No cost • No restrictions • Link: ODI • Appendix	5-10 minutes	Consists of 10 sections regarding various aspects of life, with 6 questions scored 0 to 5 in each section. Total points divided by 50, then multiplied by 100 will give you the percentage disability. MCD is about 30% or 12.8 points
RMDQ **Roland-Morris Disability Questionnaire** Further info	Assesses self-rated physical disability caused by low back pain. Baseline and 2-4 week intervals **Includes:** I stay at home most of the time because of my back and my back is painful almost all the time **Domains:** Disability, Functional Limitations **Similar Scales**: ODI	• No cost • No restrictions • Link: RMDQ	10 minutes	Consists of 24 questions, with scoring based on response to a sentence that describes the patient at that moment, with final score a measure of disability. Score ranges from 0 (no disability) to 24 (max. disability) MDC is about 5 points

Bournemouth Questionnaire – (BQ-Back)[6] (BQ-Neck)[7] Further info	**Neck scale:** assesses pain in patients suffering from non-specific neck pain **Back scale:** measures different dimensions in patients with low back pain	• No cost • Appendix: **Back scale** **Neck scale**	< 5 minutes	Seven functional items scored on a 0-10 point scale with a total of 70 points possible. A lower score reflects less disability. **Meaningful change:** A change of 17 pts for back or 13 pts for neck correlates with patient's sense of global improvement

Regional Scales—Upper Extremity

Name and Bookmark	What it Measures	Availability	Time	Scoring
QuickDASH Quick Disabilities of Arm, Shoulder, and Hand Further info	Measures physical function and symptoms in people with any or multiple upper extremity musculoskeletal disorders. Includes: Ability to do following activities in the last week, And To what extent has your arm, shoulder, or hand problem interfered with your normal social activities Domains: ADL, Pain Management Similar Scales: SMFA	• No cost • Link: QDASH	10 minutes	11 items scored 1-5, summed and averaged to produce a score out of 100. Minimal clinically important difference reported to be 19 points with minimal detectable change being 11 points.
SPADI Shoulder Pain & Disability Index Further info	Measures pain and disability in community-based patients reporting shoulder pain due to musculoskeletal pathology Includes: How severe is your pain at its worst And How much difficulty do you have washing your back Domains: Pain, Function Similar Scales: SMFA	• No cost • Link: SPADI • Appendix	5-10 minutes	13 items across two sections, scored by averaging the total scores of the two sections. Not used for diagnosis, but for tracking pain and function across treatment.

Regional Scales—Lower Extremity				
Name and Bookmark	What it Measures	Availability	Time	Scoring
Lower Extremity Functional Scale (LEFS) Further info	Assesses functional limitation of everyday activities and positions with the lower extremity Includes: Do you or would you have difficulty walking a mile, And do you or would you have difficulty hopping Domains: Pain, Function, ADL Similar Scales: SF-36, Anterior Knee Pain Scale, WOMAC hip/OA	• No cost • Link: LEFS • Appendix	5 minutes	20 questions, scored 0 (extreme difficulty) to 4 (no difficulty). Total score indicates functional limitations, with a lower score indicating worse function. MDC between 7 and 9 points
Foot and Ankle Ability Measure (FAAM) Further info	Assess the physical function of people with lower leg, foot, and ankle musculoskeletal disorders. Includes: Difficulty standing, And Difficulty walking on uneven ground Domains: ADL, pain, Function Similar Scales:	• No cost • Link: FAAM	<10 minutes	21 questions on the ADL form, scored from 0 (unable to do) to 4 (no difficulty). Total score calculated as a percentage of 100 based on number of questions answered. A higher percentage indicates a higher level of function. MDC between 8 and 9%

Pain and Pain interference Scales				
Name and Bookmark	What it Measures	Availability	Time	Scoring
MPQ **McGill Pain Questionnaire** Further info	Measures current pain severity and character **Includes**: Sensory-Flickering/beating, sharp/lacerating; Evaluative-Annoying, troublesome **Domains**: Pain **Similar Scales**: Visual Analog Scale	• No cost • No restrictions • Link: MPQ	10-30 minutes	Composed of 78 words, respondents choose those that best describe their experience of pain. Scores are calculated by summing values associated with each word; scores range from 0 (no pain) to 78 (severe pain) Uses normative data for comparisons

PDI **Pain-Disability Index** Further info	Assesses degree of perceived disability in 7 categories of life activities that are disrupted by chronic pain. **Includes**: Occupation and self-care categories **Domains**: Disability **Similar Scales**: FRQ, Pain Interference Scale, Québec Pain Disability Scale (QPDS)	• No cost • No restrictions • Link: PDI	< 5 minutes	Scoring for each question is from 0 (No disability) to 10 (Worst disability). Scale based on overall impact of pain on life. The higher the overall score (out of 70), the higher the worker's disability due to pain. MDC is 8.5 to 9.5 points
Graded Chronic Pain Scale Further info	Two-item version of the Graded Chronic Pain Scale is intended for brief and simple assessment of pain severity in primary care settings Includes: Pain severity and Pain Interference Domains: Pain Similar scales: VAS, NRS, Anchored Pain interference	• No cost • No restrictions • Link: GCPS	<5 minutes	Patient scored 0-10 scale, with a higher number indicating more pain or more pain interference. Scores are grouped by mild, moderate, severe. Reduction in pain intensity and pain-related interference with activities of 2 points is considered moderate but clinically significant improvement

EVIDENCE SUMMARY FOR FUNCTIONAL MEASUREMENT & ADDITIONAL SCALES

Our selection criteria leaned heavily towards tools that are widely used across multiple health-care systems, payers and standards. Among those, we preferentially recommended tools that evaluate components applicable to workers' compensation's specific needs (e.g., return to work, fear avoidance, pain interference).

Weight was also given toward freely available tools over licensed versions. Outcome measures that have greater practicality in clinical practice versus research settings had priority for inclusion in the table recommendations, but tools for more thorough impairment assessment are included in the summary sections.

Each description gives a brief overview of the tool, a link is provided when available to an online resource for obtaining the tool.

GENERAL HEALTH STATUS & QUALITY OF LIFE MEASUREMENT INSTRUMENTS

General Health Status, Quality of Life Scales

General physical function scales and subscales are useful for tracking general health and health status in occupational health settings. Several of these general instruments are also useful for assessing level of disability. These general instruments typically include elements related to physical abilities, but also capture information related to mental health and general activities. However, condition specific instruments with scales and activities related to an injured area may be more responsive to change during treatment.

- **Ambulatory Care Experiences Survey (ACES) (link) –** Purposed similarly to the PCAS (below), but shorter, the ACES is designed to evaluate sustained clinical relationships. Domains addressed include the quality of doctor-patient relationship (communication, care integration, patient's understanding, health promotion) and organization of care (access, continuity, staff).[8]

- **Health Status Questionnaire aka RAND-36 or Short Form-v1 (12, 20 or 36 item versions) (link) –** Originally developed as part of the MOS, these scales include sections on physical and mental functioning as well as general health and well-being. The subscale components on physical and mental portions (PCS and MCS) allow for some differentiation between the source of a patient's health status. These scales remain free of licensing restrictions and are similar in questions and scoring to the commercial version of SF-36v2 and SF-12v2 scales (below). HSQs have the same utility and limitations, although lack updated normative data and some modifications to certain questions. On-line calculators (example link) are available to streamline collection and interpretation of the survey.

- **Short Form version 2; -36, -12, and -8 question versions (link) –** The SF-36 is similar to the HSQ (above) and is a general health status questionnaire that includes sections on mental health, physical function and others. It is somewhat lengthy and cumbersome to score by hand and requires licensing. Additionally, such scales are geared toward primary care practice and longer term changes in health. Although physical function and mental health subscales are responsive to change, other questionnaires and scales are preferred for routine outcomes tracking in occupational health and musculoskeletal practice settings. Overall, these scales might be most useful to establish a general health baseline once a patient's acute problem stabilizes and it is anticipated the patient will be seen in the practice over multiple episodes and disorders.

- **World Health Organization Disability Assessment Schedule 2.0 (WHODAS 2.0) (link) –** Developed by WHO to measure function and disability in a standardized fashion. Available in multiple versions (36, 12 questions, self or interview administered) and in several languages. It has been validated and is reported to have good scaling properties across different populations along with strong sensitivity to change.[9] It currently has no identified meaningful clinical change score and may be difficult to use as a rehabilitation tracking metric.[10] It is easily administered and has been validated for both impacts of musculoskeletal and mental disorders. It may be used without cost but requires registration including completion of a user agreement.

- **Patient-Reported Outcomes Measurement Information System 10 (PROMIS-10) (link)**
  Developed as part of the Patient-Reported Outcomes Measurement Information System for the US Department of Health and Human Services for both research and clinical settings.[11] It is similar in function to the SF-36 and is freely available. This tool is validated to be psychometrically sound and relevant across all conditions for the assessment of symptoms and function. It is translated into many languages and has online scoring calculators, as well as computer assisted and paper versions.

GENERIC MUSCULOSKELETAL SCALES

Musculoskeletal Scales

- **Bournemouth Questionnaire (BQ) (link) –** The full BQ includes a baseline and follow-up version to assess how pain and the patient's condition interfere with particular common activities, as well as identifying psychosocial elements. Function questions use a numerical scale approach for pain and pain interference. Theoretically, the scale could apply to a variety of musculoskeletal conditions, but two versions are tailored for neck and back conditions. The initial version (with 27 questions) and follow-up version (with 16 questions) are validated in neck and back conditions.[6, 12, 13] Changes of 47% and 37% in the Bournemouth Questionnaires (BQ) in back and neck pain patients respectively correlated with Patient's Global Impression of Change (PGIC) for improvement.[13]

- **Örebro Musculoskeletal Pain Questionnaire (ÖMPQ) (link) –** OMPQ is a 25-item self-administered questionnaire applicable to any musculoskeletal complaint. Elements address basic intake information (complaint location, duration) along with numerical scales for usual work activity, pain over previous periods, psychosocial elements, and impact on ADLs. It has been validated as a predictor of failure for return-to-work and has been utilized frequently in research setting but seems to be somewhat cumbersome compared to regional alternatives.[14-17]

- **Pain Disability Questionnaire (PDQ) (link) –** The PDI is a 15-item scale (derived from questions used in other scales) that primarily addresses how pain interferes or affects numerous activities of daily living. Nine questions focus on functional status with six emphasizing psychosocial aspects. Total the responses for scoring. Subscales scores are derived from totals for the items that make up that subscale. The instrument has been validated for chronic musculoskeletal disorders[18, 19] and is recommended in the American Medical Association's Guides to the Evaluation of Permanent Impairment for determining "functional history adjustment for the cervical, thoracic, and lumbar spine when rating permanent impairment.[20]

- **Patient Specific Functional Scale (PSFS) (link) –** The patient self-selects activities of daily living that are most impacted by their injury or limitation. This scale has the advantage of having a single scale within a practice that can be tailored to the majority of musculoskeletal conditions and is consistently scored. Its utility and psychometric properties have been documented in moderate quality studies. Some provider guidance may help identify activities, usually 3, that will provide meaningful progress.[21-24]

PSYCHOSOCIAL SCALES

Psychosocial Scales

Increasing evidence has emerged that fear of activity and low recovery expectations are associated with poor outcomes from common musculoskeletal conditions. Increasing attention to assessing and tracking certain mental health and psychosocial health status elements has resulted in using instruments (e.g., SBST-9, TSK-11, FABQ) to help determine which interventions should be considered and to assess improvement. Consider these scales in any worker that is not progressing as expected in the first 6 weeks, if not earlier. For more information on psychosocial assessment, see our resource: PDIR

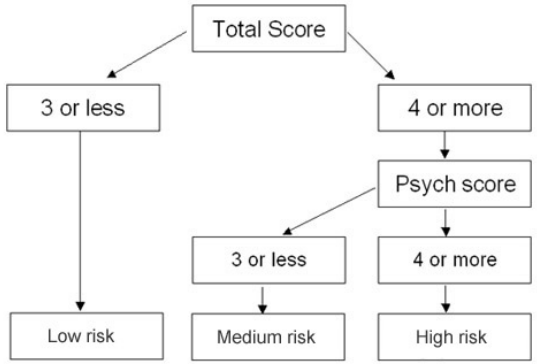
- **Fear-Avoidance Belief Questionnaire (FABQ) (link)** – A 16-item questionnaire validated for chronic low back pain in an injured worker population[25] but may help identify acute back patients at risk of poor outcome.[26] May be used for other conditions by modifying Items 3 and 11 from back pain to the condition the patient has. Includes two sections: Physical Activity (PA-5 questions) and Work Activity (WA-11 questions). Each item has an agreement response scale (0 -6). The FABQ has a total score (sum all marked items -96 possible) and two subscales PA (Items 2, 3, 4, 5; -24 possible) and WA (Items 6,7,9,10,11,12,15; -42 possible). Higher scores reflect higher fear avoidance beliefs and has been reported to better predict 6-month outcomes with physical therapy than the ODI.[27] The FABQ was not designed as a tracking instrument but it has been shown to correlate with TSK-11 scores (Woby 2004). If used for tracking, it is recommended to use 30-50% improvement as meaningful.

- **Functional Recovery Questionnaire (FRQ) (link)** – Currently under development and testing in the Department of Labor and Industries' (L&I) Centers for Occupational Health and Education (COHE) program, the FRQ is based on research specifically in Washington's injured worker population.[4, 28] It is 6 questions of which the first 3 have been shown to be predictive of being off of work one year post-injury. The remaining questions cover work accommodation, recovery expectation and fear-avoidance, which may help target specific interventions. It has only been used as a screening tool and has not been validated to track improvement.

- **Generalized Anxiety Disorder-7 (GAD-7) (link)** – A brief anxiety screening tool developed similarly to PHQ. Includes 7 items scored 0-3 for a possible 24. A higher score indicates greater anxiety and typically this scale is used to rank mild, moderate and severe at scores of 5, 10, 15 respectively.[29] A score higher than 10 suggests further evaluation is needed for moderate anxiety. Usually, reducing a score to less than 8 is considered a successful treatment.

- **Patient Health Questionnaire (PHQ-9) (link) –** A brief 9-question scale aimed at primary care screening for depression and rating severity. Depressive episode is typically indicated by a score higher than 10 (+/- 2 pts). Five points of movement indicates clinically meaningful change. In addition to assisting in the diagnosis of depression, it may be of use in occupational health settings in slow responders as an indicator for risk of chronic pain. The central mental health orientation of questions may be off-putting to some patients in acute care for musculoskeletal complaints.[30-32] It has also been validated as a brief 2 question screen (PHQ-2) to flag for depressed mood in the previous 2 weeks, primarily useful if positive to target who should receive the PHQ-9.[33]

- **STarT Back Screening Tool-9 (SBST-9) (link) –** (**S**ubgrouping for **Tar**geted **T**reatment) A brief 9-item questionnaire increasingly used in primary care for triaging non-specific back pain where chronicity is a potential or current concern. Domains addressed include referred leg pain and comorbid pain, disability, catastrophizing, fear avoidance, anxiety and depression. Wording of psychosocial elements are particularly tolerable for acute care settings. It functions well as a screening tool, but has not been assessed as a progress-tracking tool, although its questions have been drawn from other tools validated for that purpose.[34-36] Eight of the 9 items are agree/disagree with agree being a positive response. One question is a 5-point scale for which either of 2 responses are positive (very much and extremely). Summing all positive responses generates an overall score. Three or fewer positives represent a low chronicity risk. Four or more positives require looking at the psychological distress subscale (last 5 items). Three or less positives in the distress subscale represents medium chronicity risk while 4 or more reflect a high chronicity risk.



- **Tampa Scale for Kinesiophobia (TSK-11) (link) –** Motivated by the conundrum of uncomplicated back pain patients becoming chronic, the TSK-11 scale has been developed and tested to determine the role that fear-avoidance (avoiding activities for fear of aggravation or re-injury) might play in the transition from acute injury to chronic pain behavior.[37-41] This is a shortened version of the TSK-17 and 13, using only the questions with best psychometrics. Appears useful in spine care settings and rehabilitation clinics.

- **Yellow Flag Questionnaire (link) –** A 13-item numerical scale questionnaire, based on several elements (consisting of questions drawn from other validated instruments), that captures pain, self-perception of health, anxiety, depression, function, sleep, and fear avoidance. The purpose of the questionnaire is to assess and track risk factors for chronic disability.[42] Scored by adding the circled number on each item's scale (except item 3 which has anchors reversed and is scored as 10 minus the circled number). Includes score sheet with space for recoding all items' numeric responses at baseline and five follow-ups for easy reference for each item, domain, and entire score.

REGIONAL SCALES

Many anatomic regional area instruments have been developed for the neck, back, and upper and lower limbs. These have the advantage of assessing the impact of multiple affected sites with a single instrument. Examples include the QuickDASH, NDI, ODI, and LEFS.

Instruments addressing a specific joint or condition (e.g., SST for shoulder, FAAM for foot and ankle) have also been validated and sometimes offer more specificity and sensitivity to monitor response to interventions.

Cervical

- **Bournemouth Questionnaire – Neck (BQ-Neck) (link)** – Based on the function questions of the BQ, this questionnaire was modified specifically for neck complaints. The BQ-Neck includes seven items: one for pain, 3 for pain-interference on ADLs, and 3 for psychosocial factors (anxiety, depression, and locus of control).[12, 13] See below

- **Functional Rating Index (FRI) (link) –** The FRI is a 10 item scale (based on elements from the NDI and ODI) that has been validated for neck and low back conditions. Eight of the items address activities of daily living typically impacted by spinal conditions with 2 items addressing pain. Each item asks the patient to rate their perceived ability to perform a function 'right now' ranked on a 5 point scale anchored as 0 = full ability to function/no pain and 4 = unable to perform function at all/worst possible pain. The scale is scored by summing all items/40 x 100 to obtain a percent functional disability.[43]

- **Headache Disability Inventory (HDI) (link) –** The HDI is a 25-item tool with 2 subscales including 12 emotion and 13 functional questions. There are 3 possible responses: "always" (4 points each), "sometimes" (2 points), and "never" (0 points).[44]

- **Neck Disability Index (NDI) (link) –** Templated on the ODI, the NDI includes 10 questions addressing pain and pain interference on common ADLs. It is scored similarly to ODI and has been validated for common neck problems.[45, 46] Each question has 6 responses scored on an ascending scale (0, 1, 2, 3, 4, 5). The 10 questions are totaled, and then divided by the number of points possible (50 if all questions are answered). This score is expressed as a percentage (by multiplying by 100) See below for scoring

- **Whiplash Disability Questionnaire/Index (WDQ) (link) –** Includes 13 numerical scale questions that address functional limitation following neck whiplash injury. The WDI addresses pain level, abilities with personal care, work, home and leisure activities, transportation, sleep, fatigue, and psychosocial factors (depression, anger, anxiety, and concentration). Each question's numerical answer (0-10) is summed for a total of up to 130 points, with a higher score indicating greater disability. Minimal detectable change is about 15 points, but 30-50% change is considered clinically meaningful.[47] An on-line source for the scale could not be found, but numerous sources for the instrument and information can be found by searching online using the term Whiplash Disability Index. [48]

Thoracic/Chest

- **Bournemouth Questionnaire – Back (BQ-Back) (link)** – Although not yet specifically validated for the thoracic and/or chest wall region, the BQ-back is readily tailored to assessing problems in these areas better than ODI and RMQ, which are tailored to low back. **Other:** Based on the function questions of the Bournemouth Questionnaire (BQ). Addresses pain, pain interference on ADLs and psychosocial factors (anxiety, depression, locus of control). Each of the seven functional items is scored on a 0-10 point numerical rating scale with a total of 70 points possible. A lower score reflects less disability. In addition, the versions of the BQ available from the developing institution include several additional questions on change in medication use, bothersomeness of complaint in the past few days, and global assessment of improvement. **Meaningful change:** A change of 17 points or 47% (follow-up score/baseline score x 100) on the BQ correlated significantly with the patient's sense of global improvement.[13] In addition, the versions of the BQ available from the developing institution include several additional questions on change in medication use, bothersomeness of complaint in the past few days, and global assessment of improvement.

Low Back

- **Bournemouth Questionnaire – Back (BQ-Back) (link) –** Based on the function questions of the BQ, the BQ-Back was modified specifically for back complaints. The BQ-Back includes seven items: one for pain, 3 for pain-interference on ADLs, and 3 for psychosocial factors (anxiety, depression, and locus of control.[6, 13]

- **Functional Rating Index (FRI) –** see above

Modified Oswestry Low Back Disability Index (ODI) (link) – The ODI measures disability and functional limitation related to back pain. It includes 10 questions addressing pain level, pain interference with ADL, sleep, etc. The original version includes a question on sex life which has been replaced in the modified version by a question on employment and homemaking. The ODI has been validated and is commonly used in clinical and research settings.[49-51] Several studies have compared various outcomes scales to patient self-report of global ratings of change. A change of 50% on the Modified Oswestry Disability Index (ODI) correlated with global ratings of successful outcome by low back patients seeking PT care.[52] Minimal detectable change (MDC) was reported to be 10% (approx. 5 points).[53] Expert consensus considers clinically meaningful change to be 30-50% (approx. 15 points).[1]

Each question has 6 responses scored on an ascending scale (0, 1, 2, 3, 4, 5). The 10 questions are totaled, and then divided by the number of points possible (50 if all questions are answered). This score is expressed as a percentage (by multiplying by 100)

Scores range from 0-100% with higher being worse. Typical 'global' interpretation. A higher score means worse disability.

- 0-20% minimal
- 20-40% moderate
- 40-60% severe
- 60-80% housebound
- 80-100% bedbound or exaggerating (indicates need for further assessment)

- **Roland Morris Low Back Disability Index (RMQ) (link) –** The RMQ has 24 statements regarding activities that are limited by the patient's low back pain. The patient marks each statement that describes their limitation. Positive statements are summed. A higher score indicates greater disability with scores over 13 points considered "high disability" and a worse prognosis. It has been validated in numerous studies, but meaningful change requires larger differences in those with higher initial scores for patients to consider changes important. [2, 3, 50, 54-57]

General Upper Extremity

- **Disability of Arm, Shoulder, and Hand (DASH) Scale (link)** – A 30-item, self-report scale addressing physical function and symptoms associated with common upper extremity disorders. It has good clinometric properties and includes a work component. It has been used increasingly as an outcome measure for upper limb pathology, especially in research studies. It assesses entire upper limb function including elbow and hand. Reliability and reproducibility have been demonstrated in several studies and it is preferred over the QuickDASH as a reporting measure.[58]

- **QuickDASH (link)** – The QuickDASH is an easier-to-use, 11-question version of the full DASH that measures somewhat different content. It includes 4 additional questions on work and 4 questions on sports. The QuickDASH is a validated measure of arm function, but is reported to be less specific than the DASH in the subdomains, especially in symptoms. It has also been reported to underestimate symptoms and overestimate disabilities. The QuickDASH can be recommended to save time to obtain a summary assessment of arm symptoms and function based on the score for clinical use.[59]

- **Upper Extremity Functional Index (UEFI) (link)** – A validated, one-page form that addresses general arm function with specific incorporation of activities that involve the elbow and wrist extensors and flexors.[60]

	• **Upper Limb Functional Index (ULFI) (link)** – A validated, one-page form that has been compared to the UEFI as well as the DASH questionnaire and is considered by the developers to be more practical in clinical settings.[61]
Shoulder	• **Shoulder Pain and Disability Index (SPADI) (link) –** The SPADI is a valid and comparatively rapid measure to assess pain and disability in community-based patients reporting shoulder pain due to musculoskeletal pathology. It is not useful for initial differential diagnosis but appears sensitive to change especially for range of motion with adhesive capsulitis. Therefore, like the SST, its primary utility is to measure improvement over time with care and is more responsive to change than ROM and other instruments. This instrument is not validated for diagnostic purposes nor comparing severity between different individuals; only for how a patient's pain and function changes over time. SPADI has the ability to distinguish change in pain and function separately. Results for test-retest reproducibility indicated a small detectable difference of 17 points on the 1-100 scale. • **Simple Shoulder Test (SST) (link) –** A 12-question shoulder activity scale developed at the University of Washington that has high patient utility. It is highly reliable across age groups and is sensitive to change. This instrument captures the patient's perception of how well they function. Its primary utility is to measure improvement over time with care. It also has the advantage of being free of licensing fees.
Elbow	• **Patient-Rated Elbow Evaluation (PREE) (link)** – A 20-item questionnaire using numerical scales (0=no pain or difficulty – 10=worst pain, unable to do) to assess pain (5 items) and function (11 specific activities and 4 usual activities). The scales are scored as a pain subscale (sum the 5 items up to 50 points); a function subscale (sum the 15 function items and divide by 3 for up to 50 points). The total score can be reported as a 100 point scale. The tool has been validated in both surgical and non-surgical settings.[62, 63]
Wrist/Hand	• **Patient-Rated Wrist Evaluation (PRWE) (link)** – A 15-item numerical scale (0=no pain or difficulty – 10=worst pain, unable to do) including 5 questions on pain frequency & intensity and 10 addressing function with specific and usual activities. The scales are scored as a pain subscale (sum the 5 items up to 50 points); a function subscale (sum the 10 function items and divide by 2 for up to 50 points). The total score can be reported as a 100 point scale. The tool has been validated.
General Lower Extremity	• **Lower Extremity Functional Scale (LEFS) (link) –** A 20-question numerical scale (0= extreme difficulty – 4=no difficulty) addressing functional limitation of everyday activities and positions with the lower extremity. Activities include sitting, standing, walking, squatting, running, hopping, stair-climbing, moving in bed, bathing, and dressing. The indicated values of each item are summed for a total of up to 80 points (higher being less difficulty). The scale has been validated against the SF-36 with minimal detectable change reported as 9 points.[64] The LEFS appears to correlate with the Anterior Knee Pain Scale and the WOMAC hip osteoarthritis questionnaire.[65] Meaningful change may be considered similar for other instruments at 30-50%.[1] Each of the 20 question's 5 possible responses are scored on an ascending scale (0 = Extreme Difficulty, 4= No Difficulty). Points are summed for a maximum possible score of 80. Lower score means worse function. • **Lower Limb Outcome Questionnaire (LLOQ) (link) –** The LLOQ was developed by the American Academy of Orthopedic Surgeons and numerous other orthopedic organizations. It is made up of 7 items addressing symptoms and activities related to the lower extremity over the previous week. Test-retest reliability within 24 hours of re-administration has been reported as well as comparability to SF-36 measures. [66] The instrument and a scoring worksheet is available online.
Hip & Knee	• No universal disability scales appear to be validated for multiple different hip or knee conditions; however, several condition-specific scales for each joint (see below) have been reported to have good clinometric properties.[67, 68]

Foot & Ankle	• **Foot and Ankle Ability Measure (FAAM) (link)** – A revised version of the FADI, including the sports subscale, with a few questions modified or removed to improve the survey's psychometric properties.[69, 70] Each item is scored on a five point scale with 4 being "No Difficulty" and 0 being "Unable To Do." The lowest potential score of the Activities of Daily Living (ADL) subscale of the FAAM is 0 points, the highest 84 points. The lowest potential score of the Sports subscale of the FAAM is 0 points, the highest 32 points. Total score is converted into percentage. Higher percentage indicates higher level of physical function.[71] • **Foot and Ankle Disability Index (FADI) (link) –** A one-page scale with 26 elements of routine daily activities, each rated on a 5 point difficulty or pain level scale. In addition, an optional sport module addresses 8 elements associated with common athletic activities. The scale has been validated and appears especially useful for ankle instability.[69, 70, 72] • **Foot Function Index (FFI) (link) -** Developed to measure the impact of foot pathology on function in terms of pain, disability and activity restriction. [73] Also has an online calculator available

CONDITION SPECIFIC SCALES

Instruments have also been developed and validated for a specific condition such as carpal tunnel syndrome, lateral epicondylitis, osteoarthritis, and many other conditions seen in occupational and primary care.

Lateral Epicondylitis	• **Patient-Rated Tennis Elbow Evaluation (PRTEE) (link)** – The PRTEE was validated specifically for lateral epicondylitis and is a straightforward, one-page questionnaire easily administered in clinical settings. Refer to the IICAC Work-Related Epicondylitis Practice Resource for additional information: link
Carpal Tunnel Syndrome	• **Carpal Tunnel Syndrome Assessment Questionnaire (CTSAQ); also known as the Boston Carpal Tunnel Questionnaire (link) –** A self-administered symptom severity questionnaire that has been used in population-based research trials for which psychometric properties have been validated. It includes symptom severity and function subscales. It has demonstrated sensitivity to pre- and post-surgery changes in self-reported severity of wrist symptoms and several basic activities of daily living. It does not appear to have been correlated to NCV findings and does assess typical work tasks or durations.[74, 75] • **Katz Hand Diagram (link) –** A self-administered diagram of the dorsal & palmar hand. The patient marks the locations of pain, numbness, tingling or decreased sensation. It is used primarily for diagnosis based on symptom distribution marked by the patient. Refer to the IICAC Occupational Carpal Tunnel Syndrome Practice Resource for additional information.
Knee Ligament Tears & Chondral Defects	• **Lysholm Scale (link) –** An 8-item questionnaire developed to evaluate patients following knee ligament reconstruction. It has been validated for ligament tears and chondral defects.[76-78] The 100-point scale measures knee stability (25 points), pain (25 points), locking (15 points), swelling and stair climbing (10 points each), and limping, use of support, and squatting (5 points each). Scoring: <65 Poor, 65-83 Fair, 84-90 Good, >90 Excellent.[79]

Knee Osteoarthritis

- **Knee Osteoarthritis Outcome Score (KOOS) (link)** – A 42-item scale addressing knee pain and symptoms, their impact on activities of daily living, sports & recreation, and quality of life. Various domains are scored separately and also in summation. Each section score is multiplied into a percentage and reversed so that a lower score means worse function.[80-82]

Anterior Knee Pain

- **Anterior Knee Pain Scale (AKPS) (link) –** A 13-item questionnaire in multiple choice format with simple topics such as walking, running, and jumping as well as more clinically sophisticated topics such as 'atrophy of thigh' and 'flexion deficiency.' Each response has a certain number of points that are summed to achieve the score. Lower scores mean worse pain and function. The AKPS has been compared to other scales such as the LEFS and although it is a valid and reliable measure, it does not appear to be superior.[65, 83] The LEFS may be preferable for regular use in general practice considering that it can be used for a broader range of joints and conditions.

Achilles Tendinopathy

- **Victorian Institute of Sport Assessment - Achilles Questionnaire (VISA-A) (link) –** An 8-question scale covering domains of pain, function, and activity validated for severity against two other clinical severity measures[84] and reported reliable in a well done systematic review.[85] The first 7 questions are numerical scales (0-10) scored by summing the values indicated by the patient. The last question is valued from 0 to 30 points from three different options based on the intensity of the pain as selected and filled out by the patient.

Osteoarthritis

- **WOMAC Osteoarthritis Index (link) –** The WOMAC is a disease-specific, self-administered questionnaire used with patients who have hip or knee osteoarthritis. It is most commonly used for assessing progress following total hip or knee arthroplasty. It contains a multi-dimensional scale made up of 24 items grouped into three dimensions: pain (5 items), stiffness (2 items), and physical function (17 items). Each item is scored 0-4 (none, mild, moderate, severe, extreme). Score: 0-100 (0 being best to 100 being worst).[86-93]

PAIN SCALES and ROUTINE USE ANCHORED/NUMERICAL SCALES

Pain Scales

- **Anchored Numerical Scale** – Endpoints are typically anchored to using an 11-point scale (0-10). The patient circles a number indicating their pain level with the circled number becoming the score (with higher scores reflecting more pain). Numerical scales may ask about the level of pain at the time of filling it out, or request an average over a particular time period (the past day, past week, etc).[2] Example:

  On average, how would you rate your pain during the past week?

No Pain										**Worst Possible Pain**
0	1	2	3	4	5	6	7	8	9	10

  In low back pain patients, a change of 2 points (20%) on a numerical pain-rating scale correlated with perceived improvement of both patient and therapist using the Global Rating of Change scale.[94]

- **Visual Analog Scale (VAS) –** Virtually replaced by numerical scales, analog pain scales use a fixed distance line anchored on one end by "No Pain" and the other end by a descriptor such as "Disabling Pain." The hash mark made by the patient on the scale is measured and usually reported in millimeters.

Pain Interference Scales

- **Pain in Multiple Body Sites (included in FRQ) –** Pain in multiple body sites has been shown to be a strong and consistent risk factor for chronic pain and disability.[95] A simple checklist of different body parts (arms, legs, etc.) and instructions to check if the person has had persistent bothersome pain in this body part in the past month (or 6 months) is an easy way to capture this information.

  Please check any areas where you have had persistent, bothersome pain in the past 6 months:

□ Low Back	□ Shoulder(s)
□ Head	□ Neck
□ Arms/Hands	□ Abdomen/Pelvic Area
□ Hips/Buttocks	□ Legs/Feet
□ Chest/Rib Cage	□ Upper/Mid Back

  □ No areas with persistent, bothersome pain

- **Anchored Pain Interference Scale -** Specific attention to how a patients' pain interferes with their ability to perform usual activities is useful in predicting chronicity for low back and other musculoskeletal problems, particularly in injured worker populations.[96-98] Pain interference is combined with pain severity in the Graded Chronic Pain Scale (GCPS). Numerical pain-interference scales have been reported to detect minimal clinically important change in back pain patients in the 35-50% range for subacute patients and 25-45% for chronic patients.[3]

  On average how much does your pain interfere with your ability to do your usual daily activities?

I can do all usual activities										**Unable to do any usual activities**
0	1	2	3	4	5	6	7	8	9	10

- **Anchored Symptom Scale –** Similar in concept to PSFS but for routine visit-to-visit assessment, a particular symptom associated with the patient's condition is anchored to a relevant metric or context. For example, time or distance can be an anchor and visit-to-visit change can be captured: "How many minutes can you type at a time until numbness returns?" or "How far can you walk until the pain becomes unbearable?"

- **Graded Chronic Pain Scale – Two-Item Pain Assessment (link) –** Essentially a combined numerical pain intensity and interference scale over the past month that has been validated in a chronic pain setting.[97] It has also become a standard for quickly and routinely tracking pain and function in the Washington State Agency Medical Directors Group Opioid Dosing Guideline for Chronic Non Cancer Pain:

  In the last month, on average, how would you rate your pain? Use a scale from 0 to 10, where 0 is "no pain" and 10 is "pain as bad as could be" *[That is your usual pain, at times you were in pain]*

No Pain										**Pain as bad as could be**
0	1	2	3	4	5	6	7	8	9	10

  In the last month, how much has pain interfered with your daily activities? Use a scale from 0 to 10, where 0 is "no interference" and 10 is "unable to carry on any activity

No interference										**Unable to carry on any activities**
0	1	2	3	4	5	6	7	8	9	10

Self-Control Scales

- **Self-Control of Pain Scale –** Self-control (locus of control) over pain reflects the coping capacity a patient might have with their condition. Poorer coping capacity has been associated with chronicity.[99]

  In the past week, on average, how much control were you able to have over your pain? Use a scale from 0 to 10, where 0 is "complete control of your pain" and 10 is "no control of your pain"

Complete control of your pain										**No control of your pain**
0	1	2	3	4	5	6	7	8	9	10

Function Scales

- **Anchored Function Scale –** Similar in concept to the PSFS and an Anchored Symptom Scale for routine visit-to-visit assessment. The focus of the anchors is related to activity goal setting with the patient selecting a particular activity that is impacted by the condition. A relevant anchor/context is selected by the patient capturing numbers of repetitions, minutes, or distance the activity is engaged in. This kind of scale is typically used to set incremental goals for increasing capacity, but serves to track progress as well.

Physical Performance Testing (PPT)

Physical Performance Testing (PPT) Measurement Summary

- PPT may help assess/track conditioning particularly when recovery is not evident by 4-6 weeks.

Several studies support the use of physical performance testing to evaluate functional capabilities. Consideration must be used in selecting the appropriate tasks that will represent the worker's needs and goals as related to their injury. A job analysis may be helpful in determining appropriate goals and linking PPTs to RTW goals.

Physical Performance Tests (PPT) typically include strength, coordination, and endurance tests that can be easily performed in office settings. The most important feature of these tests is the ability to assess recovery (or lack thereof) when a patient's performance improves (or stagnates/worsens) over time. Like most clinical examination procedures, very few physical performance tests have been adequately validated, thus they should not be considered precise tools. As a rule, baseline performance testing (for outcomes tracking) might be considered if recovery is not meaningfully evident. In typical work injury situations, they are considered only after at least two weeks following initiation of a care program. Generally, PPTs can help identify underlying conditioning issues that not only impede recovery but may be worth addressing to facilitate injury/aggravation-free return-to-work

Common PPTs:

- Endurance tests - Static back/neck endurance testing
- Trunk stability tests - Side bridge, repetitive squat, repetitive sit up
- Joint mobility tests – straight leg raise, squat, finger-to-floor distance
- Balance tests – single leg stance, tandem gait, chair stand, gait speed

This resource does not specifically address treatment issues; however, activity is important in nearly all musculoskeletal injury recovery. Active care should include incrementally increasing daily activities as soon as tolerable with more emphasis on specific exercises as recovery occurs. Referral for more structured exercise/conditioning programs typically would not be considered before 4-6 weeks of home-based exercises and/or, when clinically meaningful improvement in outcomes assessment measures is not obtained. An IICAC Conservative Care Practice Resource is available for rehabilitation of work-related low back conditions which reviews and summarizes relevant evidence and methods for Physical Performance Testing of the back linked here.

EVIDENCE & METHODOLOGY

Our methods and criteria

A comprehensive search of available scientific literature on instruments and strategies for documenting and tracking functional status was conducted by the Policy, Practice, and Quality (PPQ) Subcommittee of the IICAC and department staff during Summer 2018. Literature was reviewed then assessed for relevance and quality. Summaries were drafted by consensus of the subcommittee and departmental staff with expert content input from consultants and reviewers, including the Industrial Insurance Medical Committee and selected relevant professional societies in October 2018. The updated resource was posted for public comment and revision, and approved for distribution by the IICAC in January 2019. This resource is expected to be updated periodically by the IICAC. Interested parties may submit new published scientific reports for consideration for future revisions.

Literature Retrieval and Review

1. **Initial literature searches** of electronic databases (e.g. PubMed). Search terms used typically included MeSH terms for tests and interventions with anatomical regions or specific conditions. Follow-up searches also included population attributes (e.g., workers compensation, occupational).
2. **Abstract screening** for relevance
3. **Original paper retrieval** with review for relevance to workers' compensation, quality, outcome meaningfulness, and effect magnitude.
4. **Additional studies identified** through clinical summaries (e.g., reviews, texts), citation tracking, and feedback from public and professional groups.

Synthesizing Evidence

Consideration of study quality (class), significance (statistical precision), consistency across studies, magnitude of effect, and relevance to populations and procedures were taken into account in preparing draft summaries. Special attention was given to clarifying conclusions related to the clinical questions of interest. Evidence, particularly with low tech and highly diffused examination and conservative procedures addressed here, is rarely truly "definitive," even when multiple studies exist. Inconsistent conclusions typically reflect error (systematic, random) and/or bias in studies. Data pooling via meta-analysis is useful to reduce random error when studies are of sufficient power and methodologic strength. Larger meaningful effect size may increases confidence in findings.

About Evidence for Physical Examination and Conservative Interventions

Conservative musculoskeletal care is typically care of first resort based on long standing practices. Typically 'low tech,' low cost, with minimal and rare side effects, it is frequently delivered in primary care settings, and by various health providers. The attempt at quantifying meaningful functional improvement in a condition that may have multiple etiologies across patients is a challenge in conservative care. Thus, the committee has presented outcome measure *recommendations*, rather than explicit requirements and providers should be guided by the clinical situation and documentation requirements when selecting outcome measures. Study attributes most likely to strengthen or limit confidence are characterized in the descriptions.

Assessing Study Methodologic Quality

Attributes of study methodology quality vary according to the clinical procedure (eg, diagnostic, therapeutic intervention) looked at, and specific research questions being studied. The American Academy of Neurology's Clinical Practice Guideline Process Manual [100] offers a comprehensive guide to systematic evidence review, quality attributes and consensus process that generally serves as the approach taken by IICAC.

General attributes identified when extracting evidence from studies include identification of population, the intervention and co-interventions and outcomes addressed in each study. The clinical questions addressed such as diagnostic accuracy, therapeutic effectiveness, or causation are determined. Studies are extracted into evidence tables including quality attributes and/or ratings which are reviewed both by department staff and committee members (usually 2 per study).

Specific quality attributes include: Diagnostic Accuracy – design, spectrum of patients, validity and relevance of outcome metric; Therapeutic Interventions – comparison groups (no treatment, placebo, comparative intervention), treatment allocation, blinding/masking (method and degree: single, double, independent), follow-up (period and completion), and analysis (statistical power, intent-to-treat). Specific attention is paid to several factors including reporting of outcomes (primary vs. secondary), relevance of outcome (e.g., function vs. pain), and meaningfulness (clinically important change vs minimally detectable change).

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FUNCTIONAL SCALES APPENDIX

For ease of access and convenience, difficult to find or commonly used forms are reprinted below with permission or when freely available.

Patient Specific Functional and Pain Scales (PSFS)

Name: **Date:**

***Clinician Instructions**: Have patient complete after the history and before the exam*

Initial Assessment:
We want to know what 3 activities in your life you are unable to perform, or are having the most difficulty performing, as a result of your chief problem. Please list and score at least 3 activities that you are unable to perform, or are having the most difficulty performing, because of your chief problem

Follow Up Assessment:
When you were assessed on _____, you told us you had difficulty with the activities in the table below. Please score these activities that you told us previously you were unable to perform or were having difficulty performing because of your chief problem.

***Scoring:** Please score one number for each activity and for each date in the table below:*

Unable to Perform Activity **Able to Perform Activity At Same Level As Before Injury/Problem**

0 1 2 3 4 5 6 7 8 9 10

Activity	Date:	Date:	Date:	Date:	Date:
1.	**Score (0-10)**	**Score (0-10)**	**Score (0-10)**	**Score (0-10)**	**Score (0-10)**
2.	**Score (0-10)**	**Score (0-10)**	**Score (0-10)**	**Score (0-10)**	**Score (0-10)**
3.	**Score (0-10)**	**Score (0-10)**	**Score (0-10)**	**Score (0-10)**	**Score (0-10)**
4.	**Score (0-10)**	**Score (0-10)**	**Score (0-10)**	**Score (0-10)**	**Score (0-10)**
5.	**Score (0-10)**	**Score (0-10)**	**Score (0-10)**	**Score (0-10)**	**Score (0-10)**
Totals:					

Source: Straford P, Gill C, Westaway M, Binkley J. Assessing disability and change on individual patients: A report of a patient specific measure. Physiother Can 1995; 47:258-263.

Fear Avoidance Belief Questionnaire (FABQ)

Name: **Date:**

FABQ-PA Physical Activity: *Here are some of the things that other patients have told us about their pain. For each statement, please circle any number from 0-6 to say how much physical activities, such as bending lifting, walking, or driving affect, or would affect your back pain.*	**Completely Disagree**			**Unsure**			**Completely Agree**
1. My pain was caused by physical activity.	0	1	2	3	4	5	6
2. Physical activity makes my pain worse.	0	1	2	3	4	5	6
3. Physical activity might harm my back	0	1	2	3	4	5	6
4. I should not do physical activities which (might) make my pain worse	0	1	2	3	4	5	6
5. I cannot do physical activities which (might) make my pain worse	0	1	2	3	4	5	6

FABQ-Work: *The following statements are about how your normal work affects or would affect your back.*	**Completely Disagree**			**Unsure**			**Completely Agree**
6. My pain was caused by my work or an accident at work.	0	1	2	3	4	5	6
7. My work aggravated my pain.	0	1	2	3	4	5	6
8. I have a claim for compensation for my pain	0	1	2	3	4	5	6
9. My work is too heavy for me.	0	1	2	3	4	5	6
10. My work makes or would make my pain worse.	0	1	2	3	4	5	6
11. My work might harm my back	0	1	2	3	4	5	6
12. I should not do my regular work with my present pain.	0	1	2	3	4	5	6
13. I cannot do my normal work with my present pain.	0	1	2	3	4	5	6
14. I cannot do my normal work until my pain is treated.	0	1	2	3	4	5	6
15. I do not think I will be back to my normal work within 3 months	0	1	2	3	4	5	6
16. I do not think that I will ever be able to do my normal work.	0	1	2	3	4	5	6

SCORE: FABQ-PA _____ FABQ-Work_____

Source: Waddell G, Newton M. A fear-avoidance beliefs questionnaire (FABQ) and the role of fear-avoidance beliefs in chronic low back pain and disablity. Pain 1993;52:157-168.

Bournemouth Questionnaire
Back Pain (BQ-back)

Name: **Date:**

*Please circle **ONE** number for each of the following statements that best describes your neck pain and how it is affecting you **NOW**. Please read each question carefully before answering:*

1. Over the past few days, on average, how would you rate your back pain?	**No Pain** 0 1 2 3 4 5 6 7 8 9 10 **Worst Possible Pain**
2. Over the past few days, on average, how has your back pain interfered with your daily activities (housework, washing, dressing, lifting, reading, driving, sleeping)?	**No Interference** 0 1 2 3 4 5 6 7 8 9 10 **Unable to carry-on with normal day-to-day activities**
3. Over the past few days, on average, how has your back pain interfered with your normal social routine including recreational, social, and family activities?	**No Interference** 0 1 2 3 4 5 6 7 8 9 10 **Unable to participate in any social and recreational activities**
4. Over the past few days, on average, how anxious (uptight, tense, irritable, difficulty in relaxing/concentrating) have you been feeling?	**Not Anxious At All** 0 1 2 3 4 5 6 7 8 9 10 **Extremely Anxious**
5. Over the past few days, on average, how depressed (down-in-the-dumps, sad, in low spirits, pessimistic, lethargic) have you been feeling?	**Not Depressed At All** 0 1 2 3 4 5 6 7 8 9 10 **Extremely Depressed**
6. Over the past few days, how do you think your work (both inside the home and/or employed work) has affected your back pain?	**Makes It No Worse** 0 1 2 3 4 5 6 7 8 9 10 **Makes It Very Much Worse**
7. Over the past few days, on average, how much have you been able to control (help/reduce) and cope with your back pain on your own?	**I Can Control My Pain Completely** 0 1 2 3 4 5 6 7 8 9 10 **I Have No Control Whatsoever**

THANK YOU VERY MUCH FOR YOUR TIME IN COMPLETING THIS QUESTIONNAIRE

Source: Bolton JE, Breen AC. The Bournemouth Questionnaire: a short-form comprehensive outcome measure. I. Psychometric properties in back pain patients. J Manipulative Physiol Ther 1999;22(8):503-10.

Bournemouth Questionnaire
Neck Pain (BQ-neck)

Name: **Date:**

*Please circle **ONE** number for each of the following statements that best describes your neck pain and how it is affecting you **NOW**. Please read each question carefully before answering:*

1. Over the past few days, on average, how would you rate your neck pain?	**No Pain** 0 1 2 3 4 5 6 7 8 9 10 **Worst Possible Pain**
2. Over the past few days, on average, how has your neck pain interfered with your daily activities (housework, washing, dressing, lifting, reading, driving, sleeping)?	**No Interference** 0 1 2 3 4 5 6 7 8 9 10 **Unable to carry-on with normal day-to-day activities**
3. Over the past few days, on average, how has your neck pain interfered with your normal social routine including recreational, social, and family activities?	**No Interference** 0 1 2 3 4 5 6 7 8 9 10 **Unable to participate in any social and recreational activities**
4. Over the past few days, on average, how anxious (uptight, tense, irritable, difficulty in relaxing/concentrating) have you been feeling?	**Not Anxious At All** 0 1 2 3 4 5 6 7 8 9 10 **Extremely Anxious**
5. Over the past few days, on average, how depressed (down-in-the-dumps, sad, in low spirits, pessimistic, lethargic) have you been feeling?	**Not Depressed At All** 0 1 2 3 4 5 6 7 8 9 10 **Extremely Depressed**
6. Over the past few days, how do you think your work (both inside the home and/or employed work) has affected your neck pain?	**Makes It No Worse** 0 1 2 3 4 5 6 7 8 9 10 **Makes It Very Much Worse**
7. Over the past few days, on average, how much have you been able to control (help/reduce) and cope with your neck pain on your own?	**I Can Control My Pain Completely** 0 1 2 3 4 5 6 7 8 9 10 **I Have No Control Whatsoever**

THANK YOU VERY MUCH FOR YOUR TIME IN COMPLETING THIS QUESTIONNAIRE

Source: Bolton JE, Humphreys BK. The Bournemouth Questionnaire: a short-form comprehensive outcome measure. II. Psychometric properties in neck pain patients. J Manipulative Physiol Ther 2002;25(3):141-8.

Revised Oswestry Disability Index (ODI)

Name: **Date:**

*This questionnaire is designed to enable us to understand how much your neck pain has affected your ability to manage everyday activities. Please answer each Section by circling the **ONE CHOICE** that most applies to you. We realize that you may feel that more than one statement may relate to you, but* **Please just circle the one choice which closely describes your problem right now.**

SECTION 1 – Pain Intensity
A. The pain comes and goes and is very mild
B. The pain is mild and does not vary much.
C. The pain comes and goes and is moderate.
D. The pain is moderate and does not vary much.
E. The pain is severe but comes and goes.
F. The pain is severe and does not vary much.

SECTION 2 – Personal Care
A. I would not have to change my way of washing or dressing in order to avoid pain.
B. I do not normally change my way of washing or dressing even though it causes some pain.
C. Washing and dressing increases the pain, but I manage not to change my way of doing it.
D. Washing and dressing increases the pain, and I find it necessary to change my way of doing it.
E. Because of the pain, I am unable to do some washing or dressing without help.
F. Because of the pain, I am unable to do any washing and dressing without help.

SECTION 3 – Lifting
A. I can lift heavy weights without extra pain.
B. I can lift heavy weights, but it causes extra pain.
C. Pain prevents me from lifting heavy weights off the floor but I can if they are conveniently positioned, for example on a table.
D. Pain prevents me from lifting heavy weights off of the floor.
E. Pain prevents me from lifting heavy weights, but I can manage light to medium weights if they are conveniently positioned
F. I can only lift very light weights at the most.

SECTION 4 – Walking
A. I have no pain walking.
B. I have some pain walking, but I can still walk my required normal distances.
C. Pain prevents me from walking long distances.
D. Pain prevents me from walking intermediate distances.
E. Pain prevents me from walking even short distances.
F. Pain prevents me from walking at all.

SECTION 5 – Sitting
A. Sitting does not cause me any pain.
B. I can sit as long as I need provided I have my choice of sitting surfaces.
C. Pain prevents me from sitting more than one hour.
D. Pain prevents me from sitting more than 1/2 hour.
E. Pain prevents me from sitting more than 10 minutes
F. Pain prevents me from sitting at all.

SECTION 6 – Standing
A. I can stand as long as I want without pain.
B. I have some pain while standing, but it does not increase with time.
C. I cannot stand for more than one hour without increasing pain.
D. I cannot stand for more than ½ hour without increasing pain.
E. I cannot stand for more than 10 minutes without increasing pain.
F. I avoid standing because it increases my pain right away.

SECTION 7 – Sleeping
A. I have no pain in bed.
B. I have pain in bed but it does not prevent me from sleeping well.
C. Because of pain I only sleep ¾ of normal time.
D. Because of pain I only sleep ½ of normal time.
E. Because of pain I only sleep ¼ of normal time.
F. Pain prevents me from sleeping at all.

SECTION 8 –Social Life
A. My social life is normal and gives me no pain.
B. My social life is normal, but increases the degree of pain.
C. Pain prevents me from participating in more energetic activities, eg sports, dancing.
D. Pain prevents me from going out very often.
E. Pain has restricted my social life to home.
F. I hardly have any social life because of pain.

SECTION 9 – Traveling
A. I get no pain while traveling.
B. I get some pain while traveling but none of my usual forms of travel make it any worse.
C. I get some pain while traveling, but it does not cause me to seek alternative forms of travel.
D. I get extra pain from travel that causes me to seek alternative forms of travel.
E. Pain restricts me from all forms of travel.
F. Pain restricts me from all forms of travel, except that done lying down.

SECTION 10 – Employment / Homemaking
A. My normal job/homemaking activities do not cause me pain.
B. My normal job/homemaking activities cause me extra pain, but I can still perform all that is required of me.
C. I can perform most of my job/homemaking duties, but pain prevents me from performing more physically stressful activities eg, lifting, vacuuming.
D. Pain prevents me from doing anything but light duties.
E. Pain prevents me from doing even light duties.
F. Pain prevents me from performing any job or homemaking chore.

DISABILITY INDEX SCORE: _____ %

Source: Fairbank JC, Couper J, Davies JB, O'Brien JP. The Oswestry low back pain disability questionnaire. Physiotherapy 1980;66(8):271-3.

Neck Disability Index Questionnaire (NDI)

Name: **Date:**

*This questionnaire is designed to enable us to understand how much your neck pain has affected your ability to manage everyday activities. Please answer each Section by circling the **ONE CHOICE** that most applies to you. We realize that you may feel that more than one statement may relate to you, but* **Please just circle the one choice which closely describes your problem right now.**

SECTION 1--Pain Intensity
A. I have no pain at the moment
B. The pain is mild at the moment.
C. The pain comes and goes and is moderate.
D. The pain is moderate and does not vary much.
E. The pain is severe but comes and goes.
F. The pain is severe and does not vary much.

SECTION 2--Personal Care (Washing, Dressing etc.)
A. I can look after myself without causing extra pain.
B. I can look after myself normally but it causes extra pain.
C. It is painful to look after myself and I am slow and careful.
D. I need some help, but manage most of my personal care.
E. I need help every day in most aspects of self-care.
F. I do not get dressed, I wash with difficulty and stay in bed.

SECTION 3--Lifting
A. I can lift heavy weights without extra pain.
B. I can lift heavy weights, but it causes extra pain.
C. Pain prevents me from lifting heavy weights off the floor but I can if they are conveniently positioned, for example on a table.
D. Pain prevents me from lifting heavy weights, but I can manage light to medium weights if they are conveniently positioned.
E. I can lift very light weights.
F. I cannot lift or carry anything at all.

SECTION 4 --Reading
A. I can read as much as I want to with no pain in my neck.
B. I can read as much as I want with slight pain in my neck.
C. I can read as much as I want with moderate pain in my neck.
D. I cannot read as much as I want because of moderate pain in my neck.
E. I cannot read as much as I want because of severe pain in my neck.
F. I cannot read at all.

SECTION 5--Headache
A. I have no headaches at all.
B. I have slight headaches which come infrequently.
C. I have moderate headaches which come in-frequently.
D. I have moderate headaches which come frequently.
E. I have severe headaches which come frequently.
F. I have headaches almost all the time.

SECTION 6 -- Concentration
A. I can concentrate fully when I want to with no difficulty.
B. I can concentrate fully when I want to with slight difficulty.
C. I have a fair degree of difficulty in concentrating when I want to.
D. I have a lot of difficulty in concentrating when I want to.
E. I have a great deal of difficulty in concentrating when I want to.
F. I cannot concentrate at all.

SECTION 7--Work
A. I can do as much work as I want to.
B. I can only do my usual work, but no more.
C. I can do most of my usual work, but no more.
D. I cannot do my usual work.
E. I can hardly do any work at all.
F. I cannot do any work at all.

SECTION 8--Driving
A. I can drive my car without neck pain.
B. I can drive my car as long as I want with slight pain in my neck.
C. I can drive my car as long as I want with moderate pain in my neck.
D. I cannot drive my car as long as I want because of moderate pain in my neck.
E. I can hardly drive my car at all because of severe pain in my neck.
F. I cannot drive my car at all.

SECTION 9--Sleeping
A. I have no trouble sleeping
B. My sleep is slightly disturbed (less than 1 hour sleepless).
C. My sleep is mildly disturbed (1-2 hours sleepless).
D. My sleep is moderately disturbed (2-3 hours sleepless).
E. My sleep is greatly disturbed (3-5 hours sleepless).
F. My sleep is completely disturbed (5-7 hours sleepless).

SECTION 10--Recreation
A. I am able engage in all recreational activities with no pain in my neck at all.
B. I am able engage in all recreational activities with some pain in my neck.
C. I am able engage in most, but not all recreational activities because of pain in my neck.
D. I am able engage in a few of my usual recreational activities because of pain in my neck.
E. I can hardly do any recreational activities because of pain in my neck.
F. I cannot do any recreational activities all all.

DISABILITY INDEX SCORE: % _____

Source: Vernon H, Mior S. The Neck Disability Index: a study of reliability and validity. J Manipulative Physiol Ther 1991;14(7):409-15.

Tampa Scale-11 (TSK-11)

Name: **Date:**

This is a list of phrases which other patients have used to express how the view their condition. Please circle the number that best describes how you feel about each statement.

	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
1. I'm afraid I might injure myself if I exercise.	1	2	3	4
2. If I were to try to overcome it, my pain would increase.	1	2	3	4
3. My body is telling me I have something dangerously wrong.	1	2	3	4
4. People aren't taking my medical condition serious enough.	1	2	3	4
5. My accident/problem has put my body at risk for the rest of my life.	1	2	3	4
6. Pain always means I have injured my body.	1	2	3	4
7. Simply being careful that I do not make any unnecessary movements is the safest thing I can do to prevent my pain from worsening.	1	2	3	4
8. I wouldn't have this much pain if there wasn't something potentially dangerous going on in my body.	1	2	3	4
9. Pain lets me know when to stop exercising so that I don't injure myself.	1	2	3	4
10. I can't do all the things normal people do because it's too easy for me to get injured.	1	2	3	4
11. No one should have to exercise when he/she is in pain.	1	2	3	4

Source: Woby et al. (2005), Psychometric properties of the TSK-11: A shortened version of the Tampa Scale for Kinesiophobia. Pain, 117, 137-144.

Yellow Flags Questionnaire (YFQ)

Name: **Date:**

Please circle the appropriate response for each of the following statements or questions:

1. Please indicate your usual level of pain during **the past week**:	**No Pain** 0 1 2 3 4 5 6 7 8 9 10 **Worst Possible Pain**
2. Does pain, numbness, tingling or weakness extend into your leg (from the low back) &/or arm (from the neck)?	**None Of The Time** 0 1 2 3 4 5 6 7 8 9 10 **All Of The Time**
3. How would you rate your general health?	**Poor** 0 1 2 3 4 5 6 7 8 9 10 **Excellent**
4. If you had to spend the rest of your life with your condition as it is right now, how would you feel about it?	**Delighted** 0 1 2 3 4 5 6 7 8 9 10 **Terrible**
5. How anxious (tense, uptight, irritable, fearful, difficulty in concentrating / relaxing) you have been feeling during **the past week**:	**Not At All** 0 1 2 3 4 5 6 7 8 9 10 **Extremely Anxious**
6. How much you have been able to control (reduce/help) your pain/ complaint on your own during **the past week**:	**I Can Reduce It** 0 1 2 3 4 5 6 7 8 9 10 **I Can't Reduce It At All**
7. Please indicate how depressed (eg. Down-in-the-dumps, sad, downhearted, in low spirits, pessimistic, feelings of hopelessness) you have been feeling in **the past week**:	**Not Depressed At All** 0 1 2 3 4 5 6 7 8 9 10 **Extremely Depressed**
8. On a scale of 0 to 10, how certain are you that you will be doing normal activities or working in **six months**?	**Very Certain** 0 1 2 3 4 5 6 7 8 9 10 **Not Certain At All**
9. I can do light work for an hour.	**Completely Agree** 0 1 2 3 4 5 6 7 8 9 10 **Completely Disagree**
10. I can sleep at night.	**Completely Agree** 0 1 2 3 4 5 6 7 8 9 10 **Completely Disagree**
11. An increase in pain is an indication that I should stop what I am doing until the pain decreases.	**Completely Disagree** 0 1 2 3 4 5 6 7 8 9 10 **Completely Agree**
12. Physical activity makes my pain worse.	**Completely Disagree** 0 1 2 3 4 5 6 7 8 9 10 **Completely Agree**
13. I should not do my normal activities including work with my present pain.	**Completely Disagree** 0 1 2 3 4 5 6 7 8 9 10 **Completely Agree**
	Patient Signature: _____

Yellow Flags Questionnaire (YFQ)

Name: **Date:**

Tracking & Scoring Sheet

Question		Score					
	Dates:						
	PAIN						
1	Usual level of pain (0-10) this week (score is # circled)						
2	Frequency of radiating pain (0-10) (score is # circled)						
	PSYCHO-SOCIAL						
3	Self-rated health (0-10) (score is 10 - # circled)						
4	Symptom satisfaction (0-10) (score is # circled)						
5	Anxiety (0-10) (score is # circled)						
6	Locus of control (0-10) (score is # circled)						
7	Depression (0-10) (score is # circled)						
8	Ability to work 6 mo. from now (0-10) (score is # circled)						
	FUNCTION						
9	Light work tolerant for 1 hour (0-10) (score is # circled)						
10	Can sleep at night (0-10) (score is # circled)						
	FEAR-AVOIDANCE (Psycho-social)						
11	Pain = stop activity (0-10) (score is # circled)						
12	Physical activity = worse pain (0-10) (score is # circled)						
13	Should not do normal duty? (0-10) (score is # circled)						
	TOTAL PAIN SCORE						
	TOTAL PSYCHO-SOCIAL SCORE						
	TOTAL FUNCTION SCORE						
	TOTAL FEAR-AVOIDANCE SCORE						
	CORE TOTAL SCORE						

Scoring & Risk (Core Total):
Low risk of chronic disability – under 55 points
Moderate risk of chronic disability – 55 to 65 points
High risk of chronic pain and disability – over 65 points

Source: Liebenson C, Yeomans S. Assessment of psychosocial risk factors of chronicity- "yellow flags". In: Liebenson C, ed. Rehabilitation of the Spine: A Practitioners Manual. 2nd ed. Baltimore: Lippencott Williams & Wilkins, 2007;183-202.

Pain Disability Questionnaire (PDQ)

Name: **Date:**

*These questions ask about how your pain affects how you function in everyday activities. Please answer EVERY question by circling **ONE** number on **EACH** item that best describes how you feel.*

1. Does your pain interfere with your normal work inside and outside the home?	**Work Normally**										**Unable To Work At All**
	0	1	2	3	4	5	6	7	8	9	10
2. Does your pain interfere with personal care (such as washing, dressing, etc.)?	**Take Care Of Myself Completely**										**Need Help With All My Personal Care**
	0	1	2	3	4	5	6	7	8	9	10
3. Does your pain interfere with your traveling?	**Travel Anywhere I Like**										**Only Travel To See Doctors**
	0	1	2	3	4	5	6	7	8	9	10
4. Does your pain interfere with your ability to sit or stand?	**No Problems**										**Cannot Sit/Stand At All**
	0	1	2	3	4	5	6	7	8	9	10
5. Does your pain affect your ability to lift overhead, grasp objects, or reach for things?	**No Problems**										**Cannot Do At All**
	0	1	2	3	4	5	6	7	8	9	10
6. Does your pain affect your ability to lift objects off the floor, bend, stoop, or squat?	**No Problems**										**Cannot Do At All**
	0	1	2	3	4	5	6	7	8	9	10
7. Does your pain affect your ability to walk or run?	**No Problems**										**Cannot Walk/Run At All**
	0	1	2	3	4	5	6	7	8	9	10
8. Has your income declined since your pain began?	**No Decline**										**Lost All Income**
	0	1	2	3	4	5	6	7	8	9	10
9. Do you have to take pain medication everyday to control your pain?	**No Medication Needed**										**On Pain Medication Throughout The Day**
	0	1	2	3	4	5	6	7	8	9	10
10. Does your pain force you to see doctors much more often than before your pain began?	**Never See Doctors**										**See Doctors Weekly**
	0	1	2	3	4	5	6	7	8	9	10
11. Does your pain interfere with your ability to see the people who are important to you as much as you would like?	**No Problem**										**Never See Them**
	0	1	2	3	4	5	6	7	8	9	10
12. Does your pain interfere with recreational activities and hobbies that are important to you?	**No Interference**										**Total Interference**
	0	1	2	3	4	5	6	7	8	9	10
13. Do you need the help of your family and friends to complete everyday tasks (including both work outside the home and housework) because of your pain?	**Never Need Help**										**Need Help All The Time**
	0	1	2	3	4	5	6	7	8	9	10
14. Do you now feel more depressed, tense, or anxious than before your pain began?	**No Depression/Tension**										**No Depression/Tension**
	0	1	2	3	4	5	6	7	8	9	10
15. Are there emotional problems caused by your pain that interfere with your family, social, and/or work activities?	**No Problems**										**Severe Problems**
	0	1	2	3	4	5	6	7	8	9	10

Examiner: _____

Source: Anagnostis C et al: The Pain Disability Questionnaire: A New Psychometrically Sound Measure for Chronic Musculoskeletal Disorders. *Spine* 2004; 29 (20): 2290-2302.

Shoulder Pain & Disability Index (SPADI)

Name: **Date:**

*Please circle the number that best describes your experience during **the last week** attributable to your shoulder problem:*

Pain Scale: How severe is your pain…	**0 = No Pain**										**10 = Worst Possible Pain**
At its worst?	0	1	2	3	4	5	6	7	8	9	10
When lying on the involved side ?	0	1	2	3	4	5	6	7	8	9	10
Reaching for something on a high shelf?	0	1	2	3	4	5	6	7	8	9	10
Touching the back of your neck?	0	1	2	3	4	5	6	7	8	9	10
Pushing with the involved arm?	0	1	2	3	4	5	6	7	8	9	10
Disability Scale: How much difficulty do you have…	**0 = No Difficulty**										**10 = So difficult it requires help**
Washing your hair?	0	1	2	3	4	5	6	7	8	9	10
Washing your back?	0	1	2	3	4	5	6	7	8	9	10
Putting on an undershirt or jumper?	0	1	2	3	4	5	6	7	8	9	10
Putting on a shirt that buttons down the front?	0	1	2	3	4	5	6	7	8	9	10
Putting on your pants?	0	1	2	3	4	5	6	7	8	9	10
Placing an object on a high shelf?	0	1	2	3	4	5	6	7	8	9	10
Carrying an object of 10 lbs (4.5kg)?	0	1	2	3	4	5	6	7	8	9	10
Removing something from your back pocket?	0	1	2	3	4	5	6	7	8	9	10

Total pain score: _____ / 50 x 100 = _____%
(Note: If a person does not answer all questions divide by the total possible score, eg. if 1 question missed divide by 40)

Total disability score: _____ / 80 x 100 = _____ %
(Note: If a person does not answer all questions divide by the total possible score, eg. if 1 question missed divide by 70)

Total SPADI score: _____/ 130 x 100 = _____%
(Note: If a person does not answer all questions divide by the total possible score, eg. if 1 question missed divide by 120)

The means of the two subscales are averaged to produce a total score ranging from 0 (best) to 100 (worst).

Source: Roach KE, Budiman-Mak E, Songsiridej N, Lertratanakul Y. Development of a shoulder pain and disability index. *Arthritis Care Res*. 1991 Dec;4(4):143-9.

Upper Extremity Functional Index (UEFI)

Name: **Date:**

*We are interested in knowing whether you are having any difficulty at all with activities listed below **because of your upper limb problem** for which you are seeking attention. Please provide an answer for **each** activity. Today**, do you or would you have any difficulty at all with** (circle one number on each line):*

ACTIVITY	Extreme Difficulty	Quite a bit of Difficulty	Moderate Difficulty	A little bit of Difficulty	No Difficulty
1. Any of your usual work, housework, or school activities	0	1	2	3	4
2. Your usual hobbies, recreational or sporting activities	0	1	2	3	4
3. Lifting a bag of groceries to waist level	0	1	2	3	4
4. Placing an object onto, or removing it from an overhead shelf	0	1	2	3	4
5. Washing your hair or scalp	0	1	2	3	4
6. Pushing up on your hands (from a chair or bathtub)	0	1	2	3	4
7. Preparing food (peeling, cutting, etc)	0	1	2	3	4
8. Driving	0	1	2	3	4
9. Vacuuming, sweeping or raking	0	1	2	3	4
10. Dressing	0	1	2	3	4
11. Doing up buttons	0	1	2	3	4
12. Using tools or appliances	0	1	2	3	4
13. Opening doors	0	1	2	3	4
14. Cleaning	0	1	2	3	4
15. Tying or lacing shoes	0	1	2	3	4
16. Sleeping	0	1	2	3	4
17. Laundering clothes (washing, ironing, folding, etc)	0	1	2	3	4
18. Opening a jar	0	1	2	3	4
19. Throwing a ball	0	1	2	3	4
20. Carrying a small suitcase with your affected limb	0	1	2	3	4
Column Totals:	_____	_____	_____	_____	_____

Score: _____ / 80 = _____ %

Source: Stratford P, Binkley J, Stratford D. Development and initial validation of the upper extremity functional index. Physiotherapy Canada 2001:259-266.

Lower Extremity Functional Scale (LEFS)

Name: **Date:**

*We are interested in knowing whether you are having any difficulty at all with the activities listed below **because of your lower limb problem** for which you are seeking attention. Please provide an answer for **each** activity. Today**, do you or would you have any difficulty at all with** (circle one number on each line):*

ACTIVITY	Extreme Difficulty	Quite a bit of Difficulty	Moderate Difficulty	A little bit of Difficulty	No Difficulty
1. Any of your usual work, housework, or school activities	0	1	2	3	4
2. Your usual hobbies, recreational or sporting activities	0	1	2	3	4
3. Getting into or out of the bath	0	1	2	3	4
4. Walking between rooms	0	1	2	3	4
5. Putting on your shoes or socks	0	1	2	3	4
6. Squatting	0	1	2	3	4
7. Lifting an object, like a bag of groceries, from the floor	0	1	2	3	4
8. Performing light activities around your home	0	1	2	3	4
9. Performing heavy activities around your home	0	1	2	3	4
10. Getting into or out of a car	0	1	2	3	4
11. Walking 2 blocks	0	1	2	3	4
12. Walking a mile	0	1	2	3	4
13. Going down 10 stairs (about 1 flight of stairs)	0	1	2	3	4
14. Standing for 1 hour	0	1	2	3	4
15. Sitting for 1 hour	0	1	2	3	4
16. Running on even ground	0	1	2	3	4
17. Running on uneven ground	0	1	2	3	4
18. Making sharp turns while running fast	0	1	2	3	4
19. Hopping	0	1	2	3	4
20. Rolling over in bed	0	1	2	3	4
Column Totals:	_____	_____	_____	_____	_____

Score: _____ / 80 = _____ %

Source: Binkley JM, Stratford PW, Lott SA, Riddle DL. The Lower Extremity Functional Scale (LEFS): scale development, measurement properties, and clinical application. North American Orthopaedic Rehabilitation Research Network. Phys Ther 1999;79(4):371-83.