

Low Back Pain Data Collection Form Operational Definitions

DEMOGRAPHICS

- Fill out this section at the initial visit only
- **Status:** Licensed PT or Student PT – check only one box based on who is the primary therapist for the patient
- **Date:** Fill out date in the following format: dd / mm / year (for example, 25/03/2008)
- **Age:** Fill in the patient's age in years
- **Gender:** Check either male or female for the patient's sex

HISTORY

- **Location:** You must check only 1 of the 3 boxes.
 - o **LBP** – This represents symptoms that can extend from T 12 down to the lumbo-sacral junction (L5/S1).
 - o **LBP and buttock/thigh symptoms** –Symptoms extend below the lumbo-sacral junction, as far as the popliteal crease of the knee.
 - o **LBP and leg symptoms distal to the knee** – Symptoms extend below the popliteal crease of the knee.
- **Duration**
 - o You must check only one box: "< 15 days" or "> 15 days".
 - o This represents the duration of symptoms for this episode of LBP.
- **Location of other symptoms**
 - o Check boxes representing all areas where the patient is currently experiencing symptoms, even if unrelated to his/her LBP.
- **FABQ**
 - o This is where you will report the scores of the Fear Avoidance Beliefs Questionnaire.
 - o Insert the score from the Physical Activity subscale after the letters "PA" (the range of scores is 0-24)
 - o Insert the score from the Work subscale after the letters "WK" (the range of scores is 0-42)
- **Post-Surgical**
 - o Check "Yes" if the patient has had surgery to the lumbar spine. Do not check "yes" if he/she has had surgery to the thoracic or cervical spine regions.
- **Sought medical care for this same episode in the past?**
 - o You must check only one box. Check yes only if the medical care was for THIS EPISODE of LBP. If care was sought for a prior episode only, you should check "no".
- **Previous episodes of LBP**
 - o The patient is asked about the number of prior episodes of LBP that have caused him/her to miss work or reduce his functional activity level. Check the appropriate box to represent this number.
- **Frequency Increasing**
 - o You must check only one box. Check "yes" if the frequency of episodes of LBP (that cause the patient to miss work or reduce functional activity levels) are increasing.

Co-Morbidities:

BP = blood pressure recorded as systolic/diastolic mmHg; needs to be measured and recorded on each data collection form. If a patient has more than one form, the recorded value needs to be carried over to each form. You only need to record BP once for the patient, as close to their first visit as possible. Check the box for either Student/CI or patient report measurement.

Height/Weight: Record for each patient on the form and check the box for either student/CI or patient report measurement.

Smoker: please ask the patient if they currently smoke, smoked in the past or have never smoked and record on the form. Past smoker according to ACSM is the person has not smoked in 6 months. If the person quit within the last 6 months than you must mark them as a current smoker.

CVD: please ask the patient or obtain from patient history any current, past CV conditions or family history of CVD. If the patient reports yes, you must check the box and circle whether it is the patient or family history. If the patient is taking any CV Meds (hypertension drugs, diuretics, beta blockers, platelet medications, Aspirin, Plavix, etc) you will need to check that box.

Diabetes Mellitus (DM): same protocol as listed for CVD. Any diabetic medication, including oral medications or insulin, would result in you marking the DM Meds box.

Pulm Disease: same protocol as listed for CVD and DM above. Any pulmonary medication, including the use of inhalers would result in you marking the Pulm Disease Meds box.

No Comorbidities: if the patient reports no meds, conditions, or family history of any of the conditions (CVD/meds, DM/meds, Pulm Disease/Meds) then you must check the box next to the no comorbidities line.

Physical Activity: according to the Surgeon General recommendations, an individual meets the physical activity recommendations if they have aerobic activity for a minimum of 30 minutes moderate-intensity physical activity/day most days of the week OR a minimum of 20 minutes vigorous activity 3 days a week. An individual does not meet the recommendations if they do not have either of the above.

Balance Assessments:

Routine for Diagnosis: Ask the PT whether he/she routinely examines balance in an individual with this diagnosis.

Degree of Patient perceived balance problem: Ask the patient, "On a scale of 0-10, where 0 is no balance difficulties, and 10 would be balance problems so severe you could not stand, where would you place your balance abilities?"

Single Limb Stance Test: Eyes Open (EO)—patient selects stance leg

Instructions to patient:

Lift your right/left leg from the floor by bending your knee; stay standing on one leg as long as you can. Keep your arms across your chest and don't touch your raised leg against your other leg. Hold this position until I tell you to stop. (max of 30 sec)

Standing on one leg/ Eyes Closed (EC)

Instructions to patient:

Lift your right/left leg from the floor by bending your knee; stay standing on one leg as long as you can. Keep your arms across your chest and don't touch your raised leg against your other leg. Close your eyes and hold this position until I tell you to stop. (max of 30 sec)

Examiner instructions:

Subject will stand with eyes open (prior to eyes closed) on a flat surface with no external support. Timing will begin when one foot is raised off the floor. Allow the patient two attempts and record the best time. Record number of seconds the person can hold this posture up to a maximum of 30 seconds. Stop timing when the subject moves their hands from chest, touches foot against stance leg, moves stance foot around, or touches foot/toe down. Subject is allowed to use preferred stance leg for test. Allow two attempts and record the best trial for each condition.

Strategy: record your assessment of ankle sway strategy/ hip strategy

Tandem Stance -EO (Sharpened Romberg)

Instructions to patient:

Place one foot directly in front of the other so that the toes of one foot are touching the heel of the other. Place your arms across your chest. Stand like this until I tell you to stop (max 30 sec).

Tandem Stance -EC

Instructions to patient:

Place one foot directly in front of the other so that the toes of one foot are touching the heel of the other. Place your arms across your chest and close your eyes. Stand like this until I tell you to stop (max 30 sec).

Examiner instructions:

Do the tests in order (EO then EC). Record the time the patient was able to stand in each condition up to a maximum of 30 seconds and average both times. If patient is unable to assume tandem stance position, record as unable.

Forward Reach

Instructions to patient:

Stand normally. Lift your arm straight in front of you. Stretch your fingers and reach forward as far as you can. Please do not touch the ruler. Once you have reached as far forward as you can, return to a normal standing position. I will ask you to do this twice. Do not lift your heels from the floor.

Examiner instructions:

Place a ruler at shoulder height at the end of the fingertips when the arm is out at 90 degrees. The fingers should not make contact with the ruler. The patient may not lift heels, rotate trunk, or protract scapula excessively. The patient must keep their arm parallel to ruler and may use the less involved arm. The recorded measure is the maximum horizontal distance reached by the patient. Record best reach and strategy used (ankle or hip).

Walking VOR Test- with horizontal head turns

Instructions to patient:

Begin walking at your normal speed, when I say "right", turn your head and look to the right; when I say "left" turn your head and look to the left. Try to keep yourself walking in a straight line.

Examiner instructions:

Allow the patient to reach their normal gait speed, and call the commands, "right, left" every 3-5 steps. Record the most appropriate score:

- (3) Normal, performs head turns smoothly with no change in gait.
- (2) Mild, performs head turns smoothly with slight change in gait speed, minor disruption to smooth gait path, veering right or left.
- (1) Moderate, performs head turns, but slows down OR staggers, but recovers and continues to walk.
- (0) Severe impairment, performs task with severe disruption of gait, OR staggers outside a 15" path, loses balance, stops, reaches for assistance and needs assistance to prevent a fall.

To grade: mark the lowest category that applies.

Balance Problem Identified? Mark Yes or No, by your or PT's assessment.

Balance Problem Treated? Make Yes or No, whether you/PT believe treatment was oriented to improving balance.

PHYSICAL EXAM

– Fill this section out at the initial visit and at follow-up visits. For follow-up visits, enter the date of the visit (in dd / mm / year format), and the visit number.

– **Visit number:**

○ You fill out the actual visit number for the patient. Include the initial visit. For example, if a patient has been to your clinic for an initial visit and 3 followup visits, you would enter "4" for the visit number. If there was ever an occasion where the patient came to your clinic and was billed for care, but you did not see the patient, this would still count as a visit.

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– **Avg SLR**

○ The patient is supine with the head relaxed. The examiner holds the foot with one hand to maintain the hip in neutral rotation. The inclinometer is positioned on the tibial crest just below the tibial tubercle. The leg is raised passively by the examiner, whose other hand maintains the knee in extension. The leg is raised slowly to the maximum tolerated straight leg raise (not the onset of pain). The maximum straight leg raise is recorded in degrees. The opposite leg is then tested in the same manner. Average straight leg raise is computed by adding the maximum straight leg raise of the left and right legs and dividing by two.

– **Prone Instability Test**

- The patient lies prone with the body on the examining table and legs over the edge and feet resting on the floor. While the patient rests in this position, the examiner applies posterior to anterior pressure (PA) to the lumbar spine. Any provocation of pain is noted. Then the patient lifts the legs off the floor (the patient may hold table to maintain position) and posterior compression is applied again to the lumbar spine.
- Positive Test - If pain is present in the resting position but subsides substantially (either reduces in severity/intensity, or resolves) in the second position, the test is positive. Mild improvement in symptoms does not constitute a positive test.
- Negative Test – If pain is present in the resting position, but does not subside substantially in the second position, the test is negative. Further, if the patient did not have any pain provocation with PAs, then you should mark “negative”.

– Mobility Testing

- Mobility or spring testing is performed by placing the hypothenar eminence (just distal to the pisiform) of the hand over the spinous process of the segment to be tested. With the elbow and wrist extended, the examiner applies a gentle but firm, anteriorly-directed pressure on the spinous process. Interpretation of whether a segment is hypomobile, normal, or hypermobile should be based on the examiner’s anticipation of what normal mobility should feel like at that spinal level and compared to the mobility detected in the spinal segments above and below the segmental level of interest.
- The following options are available for each level tested:
 - Hypomobility – Passive mobility is judged to be hypomobile at > 1 lumbar spine segmental level
 - Normal - Passive mobility is judged to be normal throughout the lumbar spine (L1-L5)
 - Hypermobility - Passive mobility is judged to be hypermobile at > 1 lumbar spine segmental level
- Note that you are able to check both “Hypo” and “Hyper” if you find >1 lumbar spinal segment that is hypermobile and >1 lumbar spinal segment that is hypomobile. However, if you check “normal”, this implies that all segments (from L1-L5) exhibited normal mobility.

– Directional Preference

- This term focuses on selecting a particular direction of exercise that exhibits a centralization of symptoms with lumbar movement testing during the initial examination and can include extension, flexion, or no directional preference. Note that centralization is defined as when a movement or position results in the migration of symptoms from an area more distal or lateral in the buttocks and/or lower extremity to a location more proximal or closer to the midline of the lumbar spine.
- Extension – Mark this if your patient’s symptoms centralize with repeated extension movements/exercises
- Flexion – Mark this if your patient’s symptoms centralize with repeated flexion movements/exercises
- No Directional Preference – Mark this if your patient’s symptoms do not centralize with either repeated flexion or repeated extension movements/exercises

– Aberrant Movements

- Check “yes” if you observe any of the following **aberrant movement** (as defined below) during sagittal plane motion:
 - Instability catch: An instability catch is defined as any trunk movement outside of the plane of specified motion during that particular motion i.e., lateral sidebending during trunk flexion).

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- Painful arc (on descent or return): Symptoms felt during the movement at a particular point in the motion (or through a particular portion of the range) that are not present before or after this point.

Thigh climbing: Using the hands on thighs (or some other external support) to push up on when returning from flexion to the upright position.

Reversal of lumbopelvic rhythm: The trunk being extended first, followed by extension of the hips and pelvis to bring the body back to upright position.

– Hip IR ROM

○ The patient lies prone. The examiner places the opposite leg of the leg to be measured in 30° of hip abduction to enable the tested hip to be freely moved into external rotation. The lower extremity of the side to be tested is kept in line with the body (ie neutral abduction/adduction), and the knee on that side is flexed to 90° with the ankle in the neutral position, and the leg in the vertical position. The inclinometer is placed on the distal aspect of the fibula in line with the bone and zeroed. Measurement of hip IR (hip rotated in a lateral direction [leg moved toward the edge of the plinth]) is recorded at the point in which the pelvis first begins to move. The measurement should be recorded bilaterally. When measuring hip rotation, be sure that the knee

remains in the same place (does not slide inward toward the opposite knee or outward away from the opposite knee).

○ Check whichever box is applicable: "> 1 hip IR > 35°" or "No hip IR > 35°".

– Pain (worst)

○ Record the worst pain the patient has experienced in the past 24 hours (0-10 scale, 0 = no pain, 10 = worst pain imaginable)

– Flexion ROM

○ Lumbar range of motion is measured with a fluid-filled inclinometer. The patient stands erect. The inclinometer is held at T₁₂-L₁ and the patient is asked to reach down as far as possible towards the toes while keeping the knees straight. The measurement of total flexion is recorded in degrees.

– Oswestry

○ Simply insert the actual percentage score (0-100). Do not enter the raw points obtained out of 50. Use the procedure below to score the Oswestry.

Scoring the Oswestry

a. Assign a score to each section. Each section can be scored from 0-5, based on the selection chosen by the subject. If the subject marks the first response, assign a score of 0, the next response a 1, the next response a 2, and so on, with the final response being assigned a score of 5. Below is

an example of the section called "Pain Intensity" with the corresponding score that should be assigned if that response is selected.

Pain Intensity

I can tolerate the pain I have without having to use pain medication. (0)

The pain is bad but I can manage without having to take pain medication. (1)

Pain medication provides me complete relief from pain. (2)

Pain medication provides me with moderate relief from pain. (3)

Pain medication provides me with little relief from pain. (4)

Pain medication has no affect on my pain. (5)

b. Add up the individual scores for each section.

c. Divide this result by 50, and report as a percentage (ex. 30/50 = 60%). In the event a subject does not complete each section adjust the denominator

accordingly. For example, if the subject does not answer the question with respect to "Social Life", divide by 45 instead of 50.

Divide by 40 if they leave

2 sections blank, 35 if they leave 3 sections blank, and so on. (Note: Therapists should always check to ensure all items are completed to

minimize having to adjust the score.)

d. Mark the score on the form and circle it.

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TREATMENT CLASSIFICATION

– Fill out at the initial visit and follow-up visits.

– **You must check:**

○ One Stage I category OR one or more stage II categories AND

○ One FABQ status (initial entry for FABQ status is mandatory, weekly entries optional)

– **Stage I – Check only one box (Thrust Manip, Non-Thrust Manip, Stabilization, Flexion Directional Preference, Extension Directional Preference, Traction)**

○ Selection of Stage I is based on the patient meeting the following criteria:

Patients with higher levels of disability (Oswestry scores generally greater than 30%) and substantial reported difficulty with basic daily

activities such as sitting, standing, and walking.

Management goals are to improve the ability to perform basic daily activities, reduce disability, and permit the patient to advance in his or her rehabilitation.

○ Thrust manipulation (Gr V) – Primary initial intervention approach is to improve mobility / decrease pain / decrease disability through the use of thrust manipulation to the lumbo-pelvic region

○ Non thrust Manipulation (Gr I – IV) - Primary initial intervention approach is to improve mobility / decrease pain / decrease disability through the use of non-thrust manipulation to the lumbo-pelvic region

○ Stabilization – Primary initial goal for therapy is to work on lumbo-pelvic stabilization / re-education / “core stability”

○ Flexion Directional Preference – Primary initial focus of intervention is to have the patient perform repeated flexion movements / exercises. For patients

in this classification, symptoms peripheralize with lumbar extension; symptoms centralize with lumbar flexion

○ Extension Directional Preference - - Primary initial focus of intervention is to have the patient perform repeated extension movements / exercises. For

patients in this classification, symptoms centralize with lumbar extension; symptoms peripheralize with lumbar flexion

○ Traction - Signs and symptoms of nerve root compression, but no movements centralize symptoms

– **Stage II – Check one or both boxes as applicable: Aerobic or General Conditioning**

○ Selection of Stage II is based on the patient meeting the following criteria:

Individuals in the Stage II Classification include those whose symptoms are not acute and who are only having moderate difficulty with ADLs or work activities

Management goals are to improve strength, flexibility, and conditioning, or with a work-reconditioning program.

○ Aerobic – Check this box if aerobic conditioning is a primary management goal

○ General Conditioning – Check this box if management goals include working on improving strength, flexibility, or work reconditioning.

– **FABQW Status (check one box only)**

○ Negative – Mark this if the FABQW subscore is < 29 pts

○ At Risk – Mark if FABQW subscore is between 29 and 34 pts

○ Positive – Mark if FABQ subscore is > 34 pts

– **FABQPA Status (check one box only)**

○ Positive – Mark if the FABQPA subscore is >14

○ Negative – Mark if the FABQPA subscore is < 14

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INTERVENTIONS

– Check all boxes that apply at the initial visit and weekly

– **Patient Education/Instruction** – Includes verbal or written education/instruction provided to the patient

- **Flexion Exercises** – Includes any exercises designed to repeatedly flex the spine, such as double-knee-to-chest and single-knee-to-chest exercises
- **Extension Exercises**– Includes any exercises designed to repeatedly extend the spine, such as prone press ups or repeated extension exercises in standing
- **Flexibility/General Mobility Exercises** – Includes any exercises designed to improve muscle length or flexibility. Also includes self-mobilization and general mobility exercises (ie, pelvic tilts, hand-heel rocks, etc).
- **Stabilization Exercises** – Includes exercises designed to specifically strengthen the trunk musculature (ie, transversus abdominus, multifidus, lateral abdominal muscles, etc.)
- **General Conditioning Exercises** – Includes general strength and conditioning exercise such as calisthenics, general resistance training (ie, lifting weights), etc.
- **Thrust Manipulation (Gr V)** – Includes only thrust, or grade V, manipulation (also called small amplitude, high velocity manipulation)
 - **Check all regions that apply:** thoracic spine, lumbo-pelvic region, hips
- **Non Thrust Manipulation (Gr I-IV)**- Includes all forms of joint mobilization/manipulation that doesn't include thrust, or high velocity, technique
 - **Check all regions that apply:** thoracic spine, lumbo-pelvic region, hips
- **Aerobic Exercise** – Exercise geared to improve the aerobic capacity of the patient (walking, jogging, running, cycling, stairstepper, etc)
- **Functional Training** – Exercises that are designed specifically to improve certain functional or job-related tasks
- **Heat Modalities** – Includes any physical modalities designed to increase the tissue temperature, such as ultrasound (include both pulsed and continuous here), moist heat packs, diathermy, etc
- **Cold Modalities** - Includes any physical modalities designed to decrease tissue temperature
- **Traction – Mechanical** – Includes traction that is performed to the lumbo-pelvic region through the use of mechanical traction device.
- **Traction – Autotraction** – An autotraction device must be used to check this box.
- **De-weighting / Unloading** – Check this box if you use some form of body-weight support / dewatering / unloading device. Typically, these devices support the patient in a harness and “unload” a portion of the patient’s body weight. These are typically arranged over a treadmill so that the patient can walk while a portion of his/her body weight is unloaded, or supported, by the unloading device.
- **Behavioral Exercise Approach** – Includes use of principles of cognitive behavioral therapy in a physical therapy setting (graded exercise approach, use of quotas for exercise, focus on function > pain, focus on remaining active during episode of LBP, practicing/confronting fearful activities, etc.
- **NMES (strengthening)** – Any form of electrical stimulation that is selected / designed for strengthening
- **NMES (Pain control)** – Any form of electrical stimulation that is selected / designed to reduce pain
- **Soft Tissue Massage** – Includes soft tissue techniques that are not myofascial release or Craniosacral therapy techniques
- **Myofascial Release** – Includes any techniques used to improve the mobility of the skin and fascia
- **Craniosacral Therapy** – Includes any techniques specifically designed to target the craniosacral system
- **Neural Mobilization** – Includes any techniques specifically designed to “mobilize” or “tension” the neural system (ie slump stretching, “neural flossing”, etc).
- **Other** – Check this box if you used a form of intervention that does not fit into any of the above categories