Title 8: California Code of Regulations
Division 1: Department of Industrial Relations

Chapter 1: Industrial Medical Council
Article 4: Evaluation Methodology

Section 46: Method of Evaluation of Neuromusculoskeletal Disability

GUIDELINES FOR EVALUATION OF NEUROMUSCULOSKELETAL DISABILITY

I. INTRODUCTION

A. BASIC PURPOSE OF THE GUIDELINES

The purpose of these evaluation guidelines is to develop a more uniform method of evaluating musculoskeletal injuries without diminishing the individual expertise of the participating evaluator. This method will allow involved parties (particularly the WCAB) to review evaluator's reports which employ a more standardized format.

B. GENERAL APPROACH

The evaluator shall personally take the history from the injured worker and perform the examination. The evaluator may have an assistant make an initial outline of the injured worker's history or take excerpts from prior medical records, however the evaluator must review the excerpts and/or outline with the injured worker. Occupational and medical questionnaires may be useful to assist the injured worker in compiling the details of the injury prior to the consultation with the evaluator. Any discrepancies in the various sources of information should be identified and clarified by the evaluator.

The injured worker shall at all times be evaluated in a compassionate and respectful manner.

The evaluator will introduce him/herself, and explain to the injured worker the purpose and scope of the evaluation.

The evaluator must inform the injured worker of any significant medical findings which could impact on his or her health. These findings may not be directly related to the work injury.

II. COMPONENTS OF THE REPORT

A. INITIAL PAGE

Address the report to the referring party(ies) or the DEU office noted on the Request for Summary Rating form. Report on factors influencing the complexity of the examination, being aware that complexity factors may be medical in nature or medical-legal, such as

apportionment. Give an explanation if the face to face time of the examination was less than the required twenty minutes.

Give names and professional description of any persons assisting with the report or performing diagnostic or consultative services. Note if there were communication difficulties (e.g. aphasia) or translation services required for the evaluation.

B. HISTORY OF INJURY

Report on the details of the injury, subsequent treatment, injured worker's response to treatment, general description of the injured worker's medical history and any previous injuries or symptoms involving that area of injury.

Note the relevant work history including previous and current jobs. Review and comment on the formal job analysis if it is available.

C. CURRENT SYMPTOMS

Include detailed information concerning abnormal sensations, especially 'pain', since it is the major symptom which results in limitation of activity and associated disability.

Using the patient's own words, describe the pain in terms of: (1) location, (2) frequency, (3) intensity, (4) quality and (5) radiation into the extremities. Report pain radiating into other areas such as the abdomen, groin or genitals, particularly if this results in a separate physical impairment.

When appropriate, mention symptoms such as muscle spasm, cramps, swelling, atrophy, or limping.

State whether or not the injured worker has weakness, stiffness, or numbness.

Do not simply state that the injured worker has "no symptoms". Document the injured worker's responses to your specific questions.

Report on symptom which may indicate serious, underlying pathology. These findings may require that you make timely referral arrangements for evaluation and treatment by an appropriate specialist.

NOTE: The description of symptoms shall be 'translated' later by the evaluator into ratable language in the "Subjective Factors of Disability" as defined by Packard Thurber.

Describe whether the symptoms are increasing, decreasing or have plateaued. Indicate the period of time over which there have been improvement or deterioration and the injured worker's explanation for any change such as returning to repetitive bending activities.

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Give a description of any treatment or self-administered procedures (rest, ice, heat, or medication) and any benefit realized.

D. RELATIONSHIP OF IMPAIRMENT TO SYMPTOMS

Assess and report on the effect of the following activities on the injured worker's symptoms:

- 1. standard work activities;
- 2. activities specific to the injured worker's job:
- 3. activities specific to daily living.

Consult Appendix A for a list and description of the various activities to be considered.

Describe the patient's pre-injury capacity, the current functional limitations, and the reason for the limitations for example: pain, weakness, or stiffness.

E. PAST MEDICAL HISTORY

Record significant aspects of the injured worker's past medical history, previous injuries, illnesses, and physical conditions or symptoms that are similar or related to the present complaints.

F. PHYSICAL EXAMINATION

See Section 1 for physical examination of specific body parts.

G. REVIEW OF MEDICAL RECORDS

List the medical records that were reviewed with a brief synopsis of relevant information.

H. DIAGNOSTIC TESTING:

List any diagnostic procedures performed, as well as the dates and the results of the procedures. Provide the name, specialty, qualifications and opinion of any consultants.

Order diagnostic studies only when the studies may alter the recommended plan or the evaluator's opinion regarding factors of disability. The evaluator must document the need for these additional studies.

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I. DIAGNOSIS

List the relevant diagnosis(es). When appropriate, state if the injury is right or left sided or bilateral. If the diagnosis involves the upper extremity, state whether the dominant or non-dominant limb is involved.

J. OPINIONS & DISCUSSION

State that the report represents your opinions and how those opinions were derived after carefully reviewing the forwarded medical information, the injured worker's subjective statements offered during consultation, and examination findings.

K. CAUSATION

State an opinion as to whether the injury or illness that led to the disability arose out of the employment.

L. PERMANENT and STATIONARY

State whether the injured worker is permanent and stationary and reasons for that opinion. The term permanent and stationary means that the injured worker has reached maximal improvement or his condition has been stationary for a reasonable period of time.

M. TEMPORARY DISABILITY

If the injured worker is not permanent and stationary, describe the work restrictions, any additional treatment and the anticipated length of time necessary to achieve permanent and stationary status.

N. FACTORS OF DISABILITY

Do not provide a "rating" but describe the medical information in such a way as to be used by raters, judges and other concerned parties. The evaluator will describe the subjective and objective components of disability. The following information shall be included:

1. Subjective Factors of Disability

Translate the injured worker's symptoms into ratable language using the terminology found in Appendix A.

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2. Objective Factors of Disability

Note those finding which can be measured, observed or demonstrated on testing. They include, but are not limited to: range of motion, strength, sensation, reflexes, anatomical measurements, disfigurement, and radiographic or diagnostic results.

Note if assistive devices, prosthetics, or orthotics are required. Note if the device causes any limitation in motion.

3. Loss of Pre-Injury Capacity

Describe the loss of pre-injury capacity for activities. Report loss of pre-injury capacity for the work activities the injured worker was performing at the time of the injury and for potential activities in the open labor market.

The evaluator will estimate the total or partial loss of the injured worker's pre-injury capacity to lift, bend, stoop, push, pull, climb or other activities involving comparable physical strength. The best means is to describe the injured worker's loss of capacity, such as loss of one-quarter of his ability to lift.

Use of job history and/or description as well as other activities of daily living to estimate the pre-injury capacity, should be noted in the report to substantiate the evaluator's opinion on loss.

4. Work Restrictions

Describe all permanent work restrictions. Be as specific as possible, incorporating the injured worker's history, the RU-90, the DEU Form 100, and a formal job analysis, if it is available.

O. APPORTIONMENT

State if apportionment is indicated and provide reasons for the statement. See the Physicians Guide Chapter 3 for more information on apportionment.

P. FUTURE MEDICAL CARE

Give reasons for your opinion as to whether further medical treatment is indicated or not. Describe the treatment that you deem necessary including length and frequency.

Q. VOCATIONAL REHABILITATION

If requested, state if the injured employee is a qualified injured worker (QIW).

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R. AFFIRMATIONS AND SIGNATURE

The following paragraph must be included and signed and dated by the evaluator. The report must contain an original signature by the evaluator.

"I declare under penalty of perjury that the information contained in this report and its attachments, if any, is true and correct to the best of my knowledge and belief, except as to information that I have indicated I received from others. As to that information, I declare under penalty of perjury that the information accurately describes the information provided to me and except as noted herein, that I believe it to be true."

I have not violated Labor Code Section 139.3 and the contents of the report and bill are true and correct to the best of my knowledge.		
The foregoing declaration was signed in on (date).	County, California	
EVALUATOR'S SIGNATURE		

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SECTION I

LOW BACK INJURIES WITH OR WITHOUT RADIATING SYMPTOMS

I. PHYSICAL EXAMINATION

A. OBSERVATION & INSPECTION

The physical examination shall include relevant description of body habitus such as height and weight and any general observation such as limp or deformities, obvious discomfort when standing or sitting, difficulty in transferring or changing position, or thigh climbing when arising from a seated position. Note any assistive devices, prothestics or orthotics that the injured worker uses and describe those devices. Note any loss of normal contours of the body or abnormal symmetry in the trunk, rib cage, spine or bony prominences such as the posterior superior iliac spine.

Inspect the soft tissues for surgical scars, abrasions, discoloration, birthmarks, swelling or similar abnormalities. Also inspect for obvious atrophy or skeletal deformities such as angulation of healed fractures, varus or valgus joint deformities or amputation.

B. PALPATION

Palpate both bony and soft tissue structures throughout the area of complaint and any other commonly associated areas. The contact should be gentle but firm. As you palpate, gauge skin temperature and take note of any tenderness elicited. Palpate both sides to facilitate bilateral comparison. Any painful areas, fibrosis, swelling, hypertrophy or abnormality should be noted. It is not adequate for the evaluator to state that the palpation was essentially normal without indicating what areas were palpated.

C. RANGE OF MOTION

The evaluator will measure the active range of motion including flexion, extension, lateral bending and rotation of the lumbar spine. Use of goniometers or inclinometers is recommended. The means of measuring the motion shall be reported. For flexion, the distance from the fingertips to the floor will be recorded.

The range of motion will be given in degrees or the percentage of an anticipated normal value. The evaluator should list the range of motion as a ratio of the observed compared to the anticipated normal for that joint.

The reason for any limitation in range of motion, such as pain, tightness or spasm, will be reported. On occasion, gentle passive range of motion may be performed in addition to active range of motion to determine whether the restriction is due to pain or mechanical block.

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D. MEASUREMENTS

Measure the lower extremity leg length, thigh girth and calf girth. The thigh and calf measurements are taken at the same point on each extremity. Measure the thigh at a point 1/3 of the distance from the proximal pole of the patella to the umbilicus. Measure the calf circumference at the largest diameter of the calf muscles. It may be appropriate to take circumferential measurements of other areas if specific atrophy is noted.

Leg length may be measured from the anteriosuperior iliac spine to the medial malleolus, the umbilicus to the medial malleolus or the posterior superior iliac spine to the medial malleolus, when a functional leg length discrepancy is suspected.

E. TESTING

1. ORTHOPEDIC

There are multiple orthopedic tests to aid in the determination of the diagnosis of low back conditions. The appropriate tests will be determined by the evaluator based on the history and other examination findings. The evaluator will use those tests that will assist in ruling-in or ruling-out diagnostic probabilities for that injured worker. Some of the more frequently used tests are: sciatic stretch test such as straight leg raise with and without ankle dorsiflexion, hip function tests such as FABERE (Flexion Abduction External Rotation) and Laguerre as well as other tests such as Trendelenburg, Thompson, Gaenslen, Spurling, and Ely.

If systemic arthritis is a consideration, chest excursion should be reported.

2. NEUROLOGICAL

a. MOTOR EXAMINATION

- i. Atrophy of specific muscle groups of the lower extremity should be described. General muscle bulk is assessed by measurements of both calf and thigh, as noted above in D. MEASUREMENTS.
- ii. Muscle tone shall be described as increased, normal, decreased or in other appropriate terms.
- iii. Muscle strength shall be graded, using a scale such as those provided in Appendix B. If muscle weakness is noted, the evaluator should state an opinion as to the cause such as neurological deficit, pain, disuse atrophy or lack of effort.

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b. SENSORY

The sensory examination shall include response to light touch and pinprick. Response to vibration or two point discrimination may be elicited when indicated.

Pinprick examination of the perianal region and assessment of sphincter tone may be indicated in certain cases.

Any abnormalities shall be described fully and correlated with peripheral nerve or dermatomal patterns. Note if the pattern of sensory impairment is nonphysiological.

c. REFLEXES

The patellar and Achilles deep tendon reflexes shall be obtained and graded as O (absent) to 4 (hyperactive). The normal grade is 2. If a different scale is used, a description of the grading system will be included to indicate normal values. Testing with reinforcement may be indicated. Note if clonus is present. Note whether any other abnormal reflexes were elicited.

d. COORDINATION

Coordination shall be assessed if this is a presenting complaint or if there is a suspicion of spinal or lower extremity motor impairment. In this case, describe the performance of the appropriate tests such as finger to nose or heel to shin.

e. VASCULAR

Bilateral dorsalis pedis and posterior tibial pulses should be evaluated if the history or examination findings indicated vascular etiology. Report varicosities and edema if present or relevant.

f. OTHER

A digital rectal examination may be indicated in certain cases to rule out entities such as tumor.

F. FUNCTIONAL ASSESSMENT

The injured worker should be assessed for tandem (heel-toe) gait, tip-toe gait and heel gait.

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The injured worker's ability to sit should be assessed during the consultation and noted in the report.

As indicated, evaluate the injured worker's ability to squat, stand, and perform other ambulatory activities.

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APPENDIX A

DESCRIPTION OF ACTIVITIES

BALANCING: Maintaining body equilibrium

BENDING: Angulation from neutral position about a joint (e.g. elbow) or

spine (e. g. forward)

CARRYING: Transporting an object, usually holding it in the hands or arms

or on the shoulder.

CLIMBING: Ascending or descending ladders, stairs, scaffolding, ramps,

poles, etc. . . using feet and legs and/or hands and arms.

CRAWLING: Moving about on hands and knees and feet.

CROUCHING: Bending body downward and forward by bending lower limbs,

pelvis and spine.

FEELING: Perceiving attributes of objects such as size, shape, temperature,

or texture by means of receptors in the skin, particularly those

of the finger tips.

FINGERING/ Picking, pinching or otherwise working with fingers and

PINCHING: thumb primarily (rather than with whole hand or arm as in

handling).

GRASPING/ Seizing, holding, grasping, turning or otherwise working

HANDLING: with hand or hand (fingering not involved).

JUMPING: Moving about suddenly by use of leg muscle, leaping from or

onto the ground or from one object to another.

KNEELING: Bending legs at knees to come to rest on knee or knees.

LIFTING: Raising or lowering an object from one level to another

(includes upward pulling)

OVERHEAD/ Performing work activities with arm raised and held

OVER SHOULDER: unsupported, at or above shoulder level.

PIVOTING: Planting your foot and turning about that point.

PUSHING: Exerting force upon an object so that the object moves away

from the force (includes slapping, striking, kicking and treadle

actions).

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Exerting force upon an object so that the object moves towards PULLING:

the force (includes jerking).

Extending the hand(s) and arm(s) in any direction. REACHING:

RUNNING: Moving in a fast pace, moving the legs rapidly so that for a

moment both legs are off the ground.

SITTING: Remaining in the normal seated position.

Crouching to sit on your heels, with knees bent and weight on SOUATING:

the balls of your feet.

STANDING: Remaining on one's feet in an upright position at a work station

without moving about.

Bending body downward and forward by bending spine at STOOPING:

waist.

TURNING/

TWISTING:

Moving about a central axis, revolve or rotate.

USE OF HAND OR Required to control a machine by use of controls.

FOOT CONTROLS:

Moving about at a moderate pace over even or uneven ground. WALKING:

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APPENDIX B

EXAMPLES OF MUSCLE GRADING CHARTS

Results may be reported using a verbal scale or a percentage loss of muscle strength as follows. In either case, the evaluator must still describe how a given loss of muscle strength affects the injured worker's capacity to perform work.

MUSCLE GRADATION	DESCRIPTION
5-Normal	5-complete range of motion against gravity with full resistance
4-Good	4-complete range of motion against gravity with
	some resistance
3-Fair	3-complete range of motion against gravity
2-Poor	2-complete range of motion with gravity eliminated
1-Trace	1-reads evidence of slight contractility, no joint
	motion
0 (Zero)	0-no evidence of contractility

KENDALL	LOVETT	DESCRIPTION
100 %	Normal	The ability to hold the test position against gravity
95 %	Normal -	and maximum pressure, or the ability to move the part into test position and hold against gravity and maximum pressure.
90 %	Good +	Same as above except holding against moderate
80 %_	Good	pressure.
70 %	Good –	Same as above except holding against minimum
60 %	Fair +	pressure.
50 %	Fair	The ability to hold the test position against gravity, or the ability to move the part into test position and hold against gravity.
40 %	Fair -	The gradual release from test position against gravity; or the ability to move the part toward test position against gravity almost to completion, or to completion with slight assistance or the ability to complete the arc of motion with gravity lessened.

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KENDALL	LOVETT	DESCRIPTION
30 %	Poor +	The ability to move the part through partial arc of motion with gravity lessened; moderate arc, 30% or poor +; small arc, 20% or poor. To avoid moving a patient into gravity-lessened position, these grades
20 %	Poor	may be estimated on the basis of the amount of assistance given during anti-gravity test movements: A 30% or poor + muscle requires moderate assistance, a 20% or poor muscle requires more assistance.
10 %	Poor –	In muscles that can be seen or palpated, a feeble contraction may be felt in the muscle, or the tendon may become prominent during the muscle
5 %	Trace	contraction, but there is no visible movement of the part.
0 %	Gone	No contraction felt in the muscle.

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APPENDIX C

DESCRIPTION OF SEVERITY

A *minimal* (mild) pain would constitute an annoyance but causing no handicap in the performance of the particular activity, would be considered a nonratable permanent disability.

A *slight* pain could be tolerated, but would cause some handicap in the performance of the activity precipitating the pain.

A *moderate* pain could be tolerated, but would cause marked handicap in the performance of the activity precipitating the pain.

A severe pain would preclude the activity precipitating the pain.

The evaluator must demonstrate that he/she understands that the severity levels for pain are descriptions of how the pain affects work performance and ability to work, rather than how severely the injured worker perceives the symptom.

The FREQUENCY of pain and similar symptoms must also be described as:

OCCASIONAL 25% of the time.

INTERMITTENT 50% of the time.

FREQUENT 75% of the time.

CONSTANT 90-100% of the time.

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