

TRAINING LETTER 02-04
(ALSO saved as Training_Letter_IDS_VA.doc)

Training letter on intervertebral disc syndrome

October 24, 2002

Director (00/21) 211A
All VBA Regional Offices and Centers Training Letter 02-04

SUBJECT: Training letter on intervertebral disc syndrome

1. Enclosed is training material that includes both medical information and an explanation of the revised evaluation criteria for intervertebral disc syndrome.
2. A revised examination worksheet for diseases of the spine is also enclosed and should be used immediately (by faxing or mailing to medical facilities when requesting an examination), pending incorporation into the AMIE system. You will be notified when a patch incorporating the revised spine worksheet is made available for installation at medical facilities.
3. If you have any questions or comments about the content of this letter, or note any errors, please check the appropriate Calendar pages at: <http://vbaw.vba.va.gov/ar/calendar.htm>.

/s/
Ronald J. Henke, Director
Compensation and Pension Service

Enclosure

Training Letter for Intervertebral Disc Syndrome

1. What is Intervertebral Disc Syndrome (IVDS)?

Definition: IVDS is a group of signs and symptoms resulting from displacement of an intervertebral disc or disc fragments at any level of the spine. There are usually pain and other signs and symptoms at or near the site of the disc, and

there may be pain referred to more remote areas, plus neurologic abnormalities due to irritation or pressure on adjacent nerves or nerve roots.

Other names: IVDS may also be referred to as slipped, herniated, ruptured, prolapsed, bulging, or protruded disc, degenerative disc disease (DDD), sciatica, discogenic pain syndrome, herniated nucleus pulposus, pinched nerve, etc. There may be some differences, but these terms are not well-defined and are often used interchangeably.

Components: IVDS commonly includes back pain and sciatica (pain along the course of the sciatic nerve) in the case of lumbar disc disease, and neck plus arm or hand pain in the case of cervical disc disease. It may also include scoliosis, paravertebral muscle spasm, limitation of motion of the spine, tenderness over the spine, limitation of straight leg raising, and neurologic findings corresponding to the level of the disc. If the disc compresses the cauda equina (the collection of nerve roots extending from the lower end of the spinal cord), bowel or bladder sphincter functions or sexual function may also be affected.

Frequency of location:

- Lumbar IVDS accounts for 62% of all disc disease.

All but 10% of lumbar IVDS is at the L4-L5 or L5-S1 level.

- Cervical IVDS accounts for 36% of all disc disease.

The C6-C7 level is the most common, and the C5-C6 level the next most common level for cervical IVDS.

- IVDS is uncommon in the thoracic area, where the spine is less mobile.

1. What is the pertinent anatomy for IVDS?

Two anatomic areas are of importance in IVDS: the spine itself and the area(s) innervated by any nerves that are affected due to compression of the nerve roots, spinal nerves, or spinal cord by a displaced disc or disc fragments.

Spine

- The vertebral column is made up of 33 bony vertebrae: 7 cervical, 12 thoracic, 5 lumbar, 5 sacral (fused into one bone, the sacrum), and 4 coccygeal (fused into one bone, the coccyx).

- The vertebral bodies are separated from one another by intervertebral discs, which are spongy circular cushions made up of cartilage and fibrous tissue. Each disc consists of a tough outer ring called the annulus fibrosis and an inner softer, jelly-like, core called the nucleus pulposus. The upper and lower surfaces of a disc are the cartilaginous endplates.

- Discs, or intervertebral discs, are named according to the number of the vertebrae above and below. Therefore, the disc between the second and third

lumbar vertebrae is called the L2-L3 disc, and the disc between the fifth lumbar and first sacral vertebrae is called the L5-S1 disc.

Nerves

- Each segment of the spinal cord gives off a ventral or anterior motor nerve root and a dorsal or posterior sensory nerve root. These two roots join to form a spinal nerve at each segment of the spine. The nerve roots themselves may be damaged by disc disease, but they are particularly vulnerable to pressure from disc disease at the point at which the two roots unite. Irritation or compression of a nerve root by disc disease may lead to pain and other symptoms.
- Nerve root damage from any cause is called radiculopathy. Radiculitis means inflammation of a nerve root and is sometimes used interchangeably with radiculopathy. Radicular refers to the nerve root (or radicle) of a nerve.
- Disc disease may affect either the nerve root that is above the level of the disc or the one below, or both, depending on the site and extent of the disc herniation. This means that an L4-L5 herniated disc, for example, may cause radicular pain and other findings in the area innervated by the L4 spinal nerve, the L5 spinal nerve, or both. Therefore, clinical findings due to IVDS at any given level may vary from individual to individual.

3. What causes IVDS?

With aging, the disc tends to dry out and shrink, causing the annulus fibrosis to deteriorate and bulge outward. This is a bulging disc. With continued degeneration due to mechanical stress, wear and tear, or trauma, the annulus may tear and allow the nucleus pulposus to extrude or rupture through the tear into the spinal canal. This is a ruptured or herniated disc.

With advancing age, degenerative disc disease (DDD) is very common. However, not everyone with DDD is symptomatic. Most symptomatic lumbar disc disease occurs between ages 40-55. Cervical disc disease is more common at an older age. A person who had one disc herniation is at increased risk for another.

Risk factors for IVDS include genetic factors, being a male, having a smoking history, and having a job that involves heavy lifting, bending and twisting into awkward positions, or prolonged whole body vibration. Occupations at risk include long distance truck drivers, soccer players, golf players, and competitive weight lifters.

1. What are the signs and symptoms of IVDS?

The signs and symptoms depend on the level of the spine where the disc is located, the specific location of the disc herniation or protrusion (anterior, posterior, or central), and whether spinal nerve roots, spinal nerves, or the spinal cord are affected.

Although specific nerve roots supply motor branches to certain muscles and sensory branches to certain areas of the skin (or dermatomes), two or more nerve roots may overlap in function.

a. Onset of symptoms varies, but commonly begins either as gradual, progressive back pain; sudden back pain after significant trauma; or back pain after minor trauma.

b. Lumbar IVDS

Pain

- Back pain may be the primary symptom, but pain in the distribution of the irritated or compressed nerve root may also be primary. However, some people have no back pain at all.
- There may also be "referred" pain in the buttocks, sacroiliac joints, and thighs. Referred pain is pain perceived in an area of the body that is far away from the site of pathology.
- May be sciatica, which is sharp, burning, or stabbing pain radiating from the low back down the posterior thigh and posterolateral lower leg, and possibly into the side of the foot. It is due to S1 or L5 radiculopathy.
- Pain is worse when sitting and standing than when lying down, and coughing, sneezing, bending, or heavy lifting may aggravate the pain.

Sensory abnormality - The exact area of numbness or other abnormal sensations, if any, is determined by the particular nerve root affected, and may be in the inner ankle, the great toe, the heel, the outer ankle, the outer leg, or a combination.

Motor abnormality - Weakness or paralysis depends on the particular nerve root affected, and may affect ankle upward or downward motion or dorsiflexion of the great toe on the affected side.

Reflexes - There may be abnormal deep tendon reflexes of knee (patellar) or ankle (Achilles tendon).

Other - There may be bowel or bladder or sexual dysfunction. This is most common with cauda equina syndrome, which is compression of the collection of nerves below the termination of the spinal cord.

Neurological findings - All signs and symptoms not directly in the local area of the back at the disc level, such as motor loss (weakness, paralysis, muscle atrophy), sensory loss (numbness, pain, tingling or other abnormal sensations of the leg or foot), abnormal reflexes, and bowel, bladder, or sexual impairment) represent neurological findings.

Orthopedic findings - Signs and symptoms related to the back at or near the level of the disc, such as pain, tenderness, muscle spasm, limitation of motion, scoliosis, etc., represent orthopedic, but not neurologic, findings.

Common, but not universally present, findings for most frequent levels of lumbar IVDS

- L4-5 IVDS may include pain in posterior or posterolateral thigh radiating to top of foot; weakness of dorsiflexion of the great toe or the ankle; sensory change of great toe, numbness and pain of dorsal surface of lower leg and foot. No reflex abnormalities.

- L5-S1 IVDS may include pain along posterior thigh with radiation to heel, and lateral calf, lateral aspect of foot; weakness or absence of ankle plantar flexion and eversion of foot; sensory loss of lateral foot and heel; and decreased or absent Achilles (ankle jerk) reflex.

a. Cervical IVDS

Pain

- Neck pain
- Pain radiating down the arm (brachialgia). The pain may be sharp, burning, stinging, or stabbing in the arm, elbow, wrist or fingers, depending on the disc site. It is the upper extremity equivalent of sciatica in the lower extremity.
- May be referred pain in the upper middle of the back.

Sensory abnormality - May be numbness, burning, or weakness in the arm and hand.

Motor abnormality - If there is pressure on the spinal cord, there may be weakness in the legs, shock-like pain down the spine, numbness, or poor coordination.

Other - Headache is common. Cervical problems tend to be less debilitating than lumbar problems.

Common, but not universally present, findings for most frequent levels of cervical IVDS

- C5-C6 IVDS may include weakness of elbow flexion and wrist extension and sensory loss of lateral forearm, thumb, and lateral part of index finger.

- C6-C7 IVDS may include pain in the lateral forearm, thumb, and index finger; weakness of elbow and wrist extension; sensory loss of the long finger; and a decreased triceps reflex.

d. Nerve root tension signs

- Straight leg raising (SLR) test is done by gently lifting the relaxed, extended lower extremity to approximately 90 degrees, with the patient lying supine. This stretches the sciatic nerve and reproduces sciatic pain. The normal limit without pain when there is no sciatic nerve abnormality is between 60 and 120 degrees, depending on the patient's age, habitus, and physical condition. The amount of pain-free flexion is less important than variation between the legs. SLR, while sensitive, is non-specific because it may be limited or painful because of tight hamstring muscles, sacro-iliac joint pathology, or radiculitis.

- Lasegue's sign is worsening of the pain in a SLR test by dorsiflexing the foot.

e. Characteristics of nerve root compression.

- The hallmark is pain. This may be associated with abnormal sensations (paresthesias) such as tingling or increased sensitivity, or with sensory loss in a dermatomal distribution.

- There may be weakness of muscles innervated by the nerve root.

f. Signs to identify nonorganic back pain that may accompany back problems, and that may indicate the need to consider psychological factors.

Waddell signs are 8 reliable and reproducible signs that suggest nonstructural problems in individuals with back pain. Some patients with physical back problems may have one or two positive Waddell signs on the basis of anxiety or the desire to please the examiner. However, three or more positive signs have a greater predictive value that psychological factors also need to be considered.

- Superficial (skin) tenderness on light palpation.

Positive when the skin is tender to light touch.

- Nonanatomic pain or tenderness

Positive when there is pain or tenderness extending over a wide area involving more than one structure unless there is a reasonable explanation.

- Axial loading that increases pain

Positive if pressing down on the top of the head of a standing patient produces low back pain. It could cause neck pain but should not cause low back pain.

- Rotation

Positive if passive rotation of shoulders and pelvis to 30 degrees in a standing position causes back pain.

- Distracted straight-leg raise

Patient may complain of pain or limitation of motion in a normal SLR test but not when examiner extends the knee with the patient seated, while examining the foot, etc. Such inconsistency is a positive sign.

- Regional sensory change

Positive if does not correspond to a neuroanatomic or dermatomal distribution, e.g., "stocking" or global distribution of numbness.

- Regional weakness

With true muscle weakness, there should be a smooth, non-jerky motion when range of motion is resisted. Positive if there is a sudden letting go of the muscle with "cogwheeling," "give-way," or "breakaway" weakness.

- Overreaction

Positive if there is inconsistent hypersensitivity to light touch or an exaggerated, nonreproducible response, such as excessive grimacing, tremors, etc. But cultural and individual differences, as well as observer bias, must be taken into consideration.

Other

- McBride's test: Patient stands on one leg while raising the opposite knee to the chest. Because the knee is bent, no sciatic stretch occurs, and the spine is flexed, which removes pressure, so this should lessen low back pain. A reported increase in pain, or a refusal to do the test, is a positive sign.

- Burn's test: Patient is asked to kneel on a chair and touch the floor. Since the knees are bent, patients with true back pain or sciatica should be able to do the test without much difficulty. Those with nonorganic back pain usually cannot.

g. Deep tendon reflexes (DTR's)

Various grading scales are used to assess DTR's. Here is one commonly used scale:

0: absent reflex

1+: low normal, or hyporeflexive (or seen only with reinforcement)

2+: normal

3+: brisk

4+: very brisk, or hyperreflexive, with nonsustained clonus (i.e., repetitive vibratory movements)

5+: sustained clonus

- DTR's under this scale are considered normal if they are 1+, 2+, or 3+ unless they are asymmetric (not the same on both left and right sides) or there is a dramatic difference between the arms and the legs.

- Reflexes rated as 0, 4+, or 5+ are usually considered abnormal.
- Reinforcement consists of having patients clench their teeth, or for lower extremity reflexes, hook together their flexed fingers and pull apart.

Another DTR rating scale runs from zero to four, with zero being absent, 1 being hypoactive, 2 being normal, 3 being slightly hyperactive, and 4 being maximally hyperactive with clonus.

1. How is IVDS diagnosed?

- a. Clinical findings are always a significant factor in diagnosis because neurodiagnostic imaging studies show positive findings in at least one-third of patients who are free of symptoms.
- b. X rays: Can demonstrate bony alignment and may show decreased disc height, but do not show a disc fragment compressing a nerve. Have limited value because degenerative changes are age-related and are equally present in asymptomatic and symptomatic persons. However, they help rule out tumors, infections, and fractures.
- c. Magnetic Resonance Imaging (MRI): Is the gold standard for visualizing a herniated disc. It can show annular tears and other anatomic details. Does not require an injection.
- d. Computed Tomography/ Myelogram (CT Myelogram): A myelogram is an x-ray taken after contrast material is injected into the spinal canal to outline the spinal cord and nerves. Herniated disc fragments or bone spurs compressing the nerves are well visualized but it is inferior to MRI in soft tissue detail. Largely replaced by MRI, which does not require injection.
- e. Electromyogram and Nerve Conduction Studies (EMG/NCS): Done in selected cases to assess function of a compressed nerve.
- f. Discography: Injection of contrast material directly into a disc. Usually done with CT.

1. How is IVDS treated?

Conservative therapy - the first line of treatment unless there is severe nerve involvement. May include any or all of the following:

- limited bed rest (2-7 days generally, but rarely up to 2 to 4 weeks)
- education on proper body mechanics
- physical therapy, such as ultrasound, heat or ice, massage, conditioning, and exercise programs
- traction
- electric nerve stimulation
- trigger point injections
- weight control

- lumbosacral back support - braces or corsets
- medications, such as analgesics, anti-inflammatory drugs, and muscle relaxants

Most patients recover within four weeks of onset of symptoms, regardless of type of treatment. Sciatica resolves in 75% of patients within six months. When conservative therapy fails (which occurs in about 10%), surgery may be needed.

Indications for surgery:

- progressive neurologic deficit
- profound neurologic deficit
- severe and disabling pain refractory to 4 to 6 weeks of conservative treatment.
- cauda equina syndrome

Common types of surgery

- Laminectomy: traditional surgery performed for lumbar IVDS to relieve pressure on one or more nerve roots. The posterior arch of the spine (lamina) is removed to create more space for the nerve root, in order to relieve compression. Part of the disc may be removed, as may bony spurs and scar tissue.
- Laminotomy: newer, less invasive type of surgery for lumbar IVDS, in which only the small area of the lamina directly surrounding the affected disk, instead of the whole back of the lamina, is removed. This keeps the spine more stable.
- Anterior cervical decompression, with or without fusion: surgery for cervical IVDS, in which the disc material is removed and the spine may be fused at the level of the abnormal disc.

After successful surgery, 80-85% of patients do extremely well and are able to return to work in about six weeks. Small areas of leg numbness may remain. Mild flare-ups of sciatic type pain occasionally develop.

1. How is IVDS rated?

a. IVDS that is primarily disabling because of periods of acute symptoms that require bedrest according to the cumulative amount of time over the course of a year that the patient is incapacitated, i.e., requires bed rest and treatment by a physician, is evaluated at 60 percent if there are incapacitating episodes of at least six weeks total duration during the past 12 months; at 40 percent if there are incapacitating episodes of at least four but less than six weeks total duration during the past 12 months; at 20 percent if there are incapacitating episodes of at least two but less than four weeks total duration during the past 12 months; and at 10 percent if there are incapacitating episodes of at least one but less than two weeks total duration during the past 12 months.

b. IVDS that is disabling primarily because of chronic orthopedic manifestations (e.g., painful muscle spasm or limitation of motion), chronic neurologic manifestations (e.g., footdrop, muscle weakness or atrophy, or sensory loss), or a combination of both, is evaluated by assigning separate evaluations for the orthopedic and neurologic manifestations, using diagnostic code 5293 hyphenated with the appropriate orthopedic (musculoskeletal) or neurologic code.

c. When IVDS is disabling both because of incapacitating episodes and persistent orthopedic or neurologic manifestations, whichever alternative method of evaluation results in a higher evaluation is used.

d. The great majority of cases will be more favorably evaluated under the method in "b".

e. To determine which method results in the higher evaluation:

- Calculate the percentage evaluation based on the cumulative amount of time over the course of the past 12 months that the patient is incapacitated, and combine with the evaluation for all other service-connected disabilities.
- Calculate the percentage evaluation based on the orthopedic and neurologic manifestations, and combine with the evaluation for all other service-connected disabilities.
- Compare the two overall evaluations, and assign an evaluation for IVDS based on the method that results in the higher evaluation.

f. Sciatic nerve functions.

- Made up of nerve roots L4, L5, S1, S2, and S3.
- Supplies the muscles of the back of the knee and lower leg and sensation to the back of the thigh, part of the lower leg, and the sole of the foot.
- Incomplete damage may appear identical to damage to one of its branches (tibial or common peroneal nerve).
- Sensory abnormalities may include sensory changes of the back of the calf or the sole of the foot, such as numbness, tingling, burning, pins and needles sensation, other abnormal sensations, and any level of pain up to excruciating pain.
- Motor loss may include weakness of the knee or foot leading to difficulty walking, weakness or loss of knee flexion, and weakness or loss of foot inversion and plantar flexion.
- Reflexes may be abnormal, with weak or absent ankle-jerk reflex.

g. Common peroneal nerve functions:

- Derived from nerve roots L4, L5, S1, and S2.

- Sensory abnormalities may be loss of sensation, numbness, or tingling of the anterolateral lower leg and dorsum of foot & toes.
- Motor loss may include weakness or loss of dorsiflexion and eversion of foot, loss of extension of toes, and possibly footdrop.

h. When selecting which code to use in a particular case of lumbar IVDS, note that common peroneal nerve function is limited to the lower leg and foot, while the sciatic nerve can affect the knee and even higher areas of the leg.

Remember that sensory loss only should be rated at the mild, or at most, the moderate degree of peripheral nerve paralysis (See 38 CFR 4.124a in the paragraph introducing "Diseases of the Peripheral Nerves".)

1. How do the new evaluation criteria for IVDS compare to the old ones?

The former evaluation criteria for IVDS (DC 5293) included a 60-percent evaluation for persistent sciatic neuropathy or other neurologic findings, with little intermittent relief; a 40-percent evaluation for severe recurring attacks; a 20-percent evaluation for moderate recurring attacks; a 10-percent evaluation for a mild condition; and a zero-percent evaluation for the postoperative, cured condition.

These required a subjective determination as to whether the condition is "mild," "moderate," or "severe" and raised questions as to when a 60-percent evaluation was warranted on the basis of neurologic manifestations. There was also uncertainty about whether IVDS with neurologic manifestations could be evaluated higher or lower than 60 percent. This subjectivity has been removed.

Alternative criteria allow evaluation under the method most beneficial to the veteran, and the revised criteria can all be applied to either the pre-operative or post-operative state.

2. What are some problems related to examinations for IVDS?

Unless done by an orthopedic or neurologic specialist, examinations for IVDS have often been less than adequate, but nonetheless have been accepted for rating purposes. The neurological component of the examination (assessing motor loss, sensory loss, and reflexes) in particular has often been incomplete or lacking. However, it is not necessary for rating purposes that all examinations for IVDS be conducted by a specialist.

A revised spine examination worksheet is included with this letter. Note the detailed information and examination findings that it calls for.

3. Is there a revised spine examination worksheet?

A revised examination worksheet for the spine is included with this letter. It is now being programmed into AMIE. Until that is completed, you should fax the revised worksheet to examiners.

4. What are some problems related to rating IVDS?

a. Some raters seem unaware of what the possible neurological findings in IVDS are.

Example: A veteran was evaluated at 40% for lumbar IVDS. A reexamination showed decreased sensation of the arch of the foot and decreased strength of plantar flexion and dorsiflexion of the foot. The rating continued 40% "in the absence of neurological findings". However, decreased sensation of the foot and muscle weakness of the foot are both neurological abnormalities, and the rating should have taken that into account.

In the same case, a later examination showed deep tendon reflexes, motor strength, and sensation normal (meaning there were no longer any abnormal neurological findings). The diagnosis was osteoarthritis with chronic pain syndrome. However, the rating following that examination erroneously increased the evaluation to 60% because "there were findings of neurological pathology".

This letter discusses many neurological findings that may be seen with IVDS at various levels. In general, neurological abnormalities consist of:

- motor abnormalities, such as muscle weakness, paralysis, and atrophy;
- sensory abnormalities, such as numbness, tingling, and pain (in areas other than the area of the neck or back at or near the disc site)
- abnormal reflexes, depending on the site of the IVDS.
- SLR and Lasegue's sign may confirm sciatic nerve involvement.

b. Raters do not always insist on an adequate examination.

Example: One veteran was suspected by the examiner of malingering. An inadequate examination, which was the only examination of record, was performed. It did not include any of the tests described under #4d or f. Nevertheless, the veteran was assigned 60%.

Example: WWII POW had DDD diagnosis. Examination showed lumbar spine flexion of 60 degrees, left and right bending of 20 degrees. Neurological examination was called "grossly normal". However, a separate examination for cold injury residuals found sensory and motor neuropathy of lower extremities.

This discrepancy called for reconciliation of the strikingly different neurologic findings, and an opinion as to whether the findings are all due to cold injury or whether any may be due to DDD, but this was not requested. DDD was rated at 40% without further examination.

c. Overevaluations

Some raters have overevaluated IVDS by assigning 60% under diagnostic code 5293 and a separate 40% or 60% for sciatic or common peroneal nerve dysfunction based in part on the same signs and symptoms. This represents pyramiding (per § 4.14), since some of the same signs and symptoms (leg or foot weakness or sensory loss) were used to support two separate evaluations. The revised evaluation criteria, where the (orthopedic) neck or back problems and the (neurologic) sensory or motor abnormalities remote from the disc site are evaluated separately should eliminate this problem.

Example: Vietnam veteran had low back pain radiating down his right leg. He had 2 back surgeries but had recurrence of the same pain. He was rated at 40%. Later, the evaluation for the back was increased to 60%, and 40% was assigned for peripheral neuropathy of each leg based on an exam that showed lumbar flexion to 40 degrees, right and left lateral flexion to 15, and extension to 15; 50% decrease in sensation (pinprick and light touch) from knees to toes; and motor strength of both legs of 4+/5. 40% for each leg seems appropriate for the neuropathy, but the same findings can not also be used to support an increase under 5293. The leg pain, weakness, and sensory changes should be used to support the evaluation of one or the other, but not both.

Example: DDD was diagnosed in service. One year later, the veteran was rated at 60% following post op surgery for DDD at 2 levels. After an auto accident many years later, the rating was increased to 60% for the back, 60% for the bladder, and 60% for footdrop (under 8520). This veteran declined to leave his wheelchair for the exam, so his back was not actually examined. There seems no justification to continue the 60% evaluation for the back and add 60% for the leg without an adequate examination. This represents both pyramiding and failure to require an adequate examination.

12. What are some important rating points under the revised evaluation criteria?

- First, the alternative methods of evaluation must always be considered and the method more favorable to the veteran (after combining all evaluations for SC conditions) applied.

- Second, insisting upon a comprehensive and adequate examination that follows the examination worksheet guidelines and includes assessments of both the back or neck area and a neurologic assessment of affected extremities (and other areas, such as bladder, when indicated) is the best way to assure that an evaluation accurately reflects the veteran's disability. Accepting an examination that is less than complete may shortchange the veteran and make the evaluation inaccurate.
- Third, the neurologic and orthopedic evaluation criteria used must be carefully selected to make sure they are the most appropriate. (Both the neurologic and spine sections of the rating schedule are in the process of being revised, so the available evaluation criteria will be changing.)

Example: Veteran was diagnosed with L4-L5 IVDS in service based on an MRI. His initial post-service examination noted history of intermittent, but severe, sharp low back pain with radiation down the back of the left leg and more persistent milder low back pain. He had also noted some left foot burning and numbness. His records documented 12 days of prescribed bedrest and treatment for his back during the past 12 months.

On examination he had 75 degrees of forward flexion of the lumbar spine, 30 degrees of extension, 25 degrees of left and right rotation, and 25 degrees of left and right lateral flexion. He had tenderness to deep palpation at the L4-L5 level and slight paraspinal muscle spasm in the lower lumbar area. His deep tendon reflexes showed 1+ ankle reflex on the left and 2+ on the right. He had mild weakness of dorsiflexion of the left great toe and numbness of the great toe and part of the top of the foot. His gait was essentially normal. His SLR test was positive at 40 degrees on the left and at 60 degrees on the right. Lasegue's sign was positive on the left but negative on the right. The examiner estimated, based on the veteran's history, that back motion was essentially lost during the periods when bedrest was required, because of pain and muscle spasm. The veteran said the acute episodes of back and leg pain appeared suddenly and eased off after 2 to 3 days of bedrest, analgesics, and muscle relaxants. The diagnosis was IVDS at L4-L5 with left sciatic neuropathy. He was also service-connected for arteriosclerotic heart disease evaluated at 30%, bilateral hearing loss evaluated at 20%, and a tender scar on his right arm evaluated at 10%.

Evaluating on the basis of incapacitating episodes, the evaluation would be 10% (12 days is at least one week but less than two weeks during the past 12 months). Combining that with the evaluations for other conditions would result in a combined evaluation of 60%.

Separately evaluating the orthopedic and neurologic manifestations, the limitation of motion of the back is currently mild, but since he has had several episodes during the past year when the pain was severe, and limitation of motion was estimated to be severe during those episodes, a 20% evaluation would be more appropriate. His neurological problems of sciatic pain, mild toe weakness, and minor sensory loss of the toe and foot represent moderate, incomplete paralysis of the sciatic nerve (8520), for a 20% evaluation. Combining these 2 evaluations with his other SC conditions combines to 70%.

Most beneficial evaluation: Therefore, in this case, as will be true in the majority of cases, separately evaluating the chronic orthopedic and neurological evaluations is the method most beneficial to the veteran, and should be the basis of evaluation.

Compensation and Pension Examination

SPINE (CERVICAL, THORACIC, AND LUMBAR)

Name: SSN:

Date of Exam: C-number:

Place of Exam:

A. Review of Medical Records: Report whether done or not.

B. Present Medical History (Subjective Complaints):

1. Report complaints of pain (including any radiation), stiffness, weakness, etc.

a. Onset

b. Location and distribution

c. Duration

d. Characteristics, quality, description

e. Intensity

1. Describe treatment - type, dose, frequency, response, side effects.

2. If there are periods of flare-up:

a. State their severity, frequency, and duration.

b. Name the precipitating and alleviating factors.

c. Describe any additional limitation of motion or functional impairment during the flare-up.

1. Describe associated features or symptoms (e.g., weight loss, fevers, malaise, dizziness, visual disturbances, numbness, weakness, bladder complaints, bowel complaints, erectile dysfunction).

2. Describe walking and assistive devices.

- a. Walk unaided? Use of a cane, crutches, walker?
- b. Use of orthosis (brace)?
- c. How far and how long can the veteran walk?
- d. Unsteadiness? Falls?
 - 1. Describe details of any trauma or injury, including dates, and direction and magnitude of forces.
 - 2. Describe details of any surgery, including dates.
 - 3. Functional Assessment - Describe effects of the condition(s) on the veteran's mobility (e.g., walking, transfers, bed activities), activities of daily living (i.e., eating, grooming, bathing, toileting, dressing), usual occupation, recreational activities, driving.

C. Physical Examination (Objective Findings):

Address each of the following as appropriate to the condition being examined and fully describe current findings:

- 1. Inspection: spine, limbs, posture and gait, position of the head, curvatures of the spine, symmetry in appearance, symmetry and rhythm of spinal motion.
- 2. Range of motion
 - a. Using a goniometer, measure the range of motion, and show each measured range of motion (flexion, extension, etc.) separately rather than as a continuum. Measure active range of motion, and passive range of motion if active range of motion is not normal.
 - b. State the normal range of motion when providing spine range of motion. For example, state forward flexion of the lumbar spine is 80 out of 90 degrees, and backward extension is 20 out of 35 degrees. (See Chapter 11 of Clinician's Guide for more detailed discussion of spine range of motion.)
 - c. If the range of motion is affected by factors other than spinal injury or disease, such as the claimant's body habitus, provide an estimated normal range of motion for that particular individual.
 - d. If the spine is painful on motion, state at what point in the range of motion pain begins and ends.
 - e. State to what extent (if any), expressed in degrees if possible, the range of motion is additionally limited by pain, fatigue, weakness, or lack of endurance following repetitive use or during flare-ups. If more than one of these is present, state, if possible, which has the major functional impact.
 - 1. Describe objective evidence of painful motion, spasm, weakness, tenderness, etc.
 - 2. Describe any postural abnormalities, fixed deformity (ankylosis), or abnormality of musculature of back.
- 3. Neurological examination
 - a. Sensory examination, to include sacral segments.
 - b. Motor examination (atrophy, circumferential measurements, tone, and strength).

- c. Reflexes (deep tendon, cutaneous, and pathologic).
- d. Rectal examination (sensation, tone, volitional control, and reflexes).
- e. Lasegue's sign.
- f. If the neurologic effects are not encompassed by this part of the examination (e.g., if there are bladder problems), follow appropriate worksheet for the body system affected.
 - 1. For vertebral fractures, report the percentage of loss of height, if any, of the vertebral body.
 - 2. Non-organic physical signs (e.g., Waddell tests, others).

D. For intervertebral disc syndrome

- 1. Conduct and report a separate history and physical examination for each segment of the spine (cervical, thoracic, lumbar) affected by disc disease.
- 2. Conduct a complete history and physical examination of each affected spinal segment, whether or not there has been surgery, as described above under B and C.
- 3. Conduct a thorough neurologic history and examination, as described in C5, of all areas innervated by each affected spinal segment. Specify the peripheral nerve(s) affected. Include an evaluation of effects, if any, on bowel or bladder functioning.
- 4. Describe as precisely as possible, in number of days, the duration of each incapacitating episode during the past 12-month period. An incapacitating episode, for disability evaluation purposes, is a period of acute signs and symptoms due to intervertebral disc syndrome that requires bed rest prescribed by a physician and treatment by a physician.

E. Diagnostic and Clinical Tests:

- 1. Imaging studies, when indicated.
- 2. Electrodiagnostic tests, when indicated.
- 3. Clinical laboratory tests, when indicated.
- 4. Isotope scans, when indicated.
- 5. Include results of all diagnostic and clinical tests conducted in the examination report.

F. Diagnosis:

Signature: