CASE PRESENTATION

DR ZEIBA KHAN
ROGA NIDAN EVAM VIKRITI VIGYAN

DEMOGRAPHIC DETAILS

Name : Amarchand

Gender: Male

Age : 40 years

Occupation : Driver

Marital Status: Married

Religion : Hindu

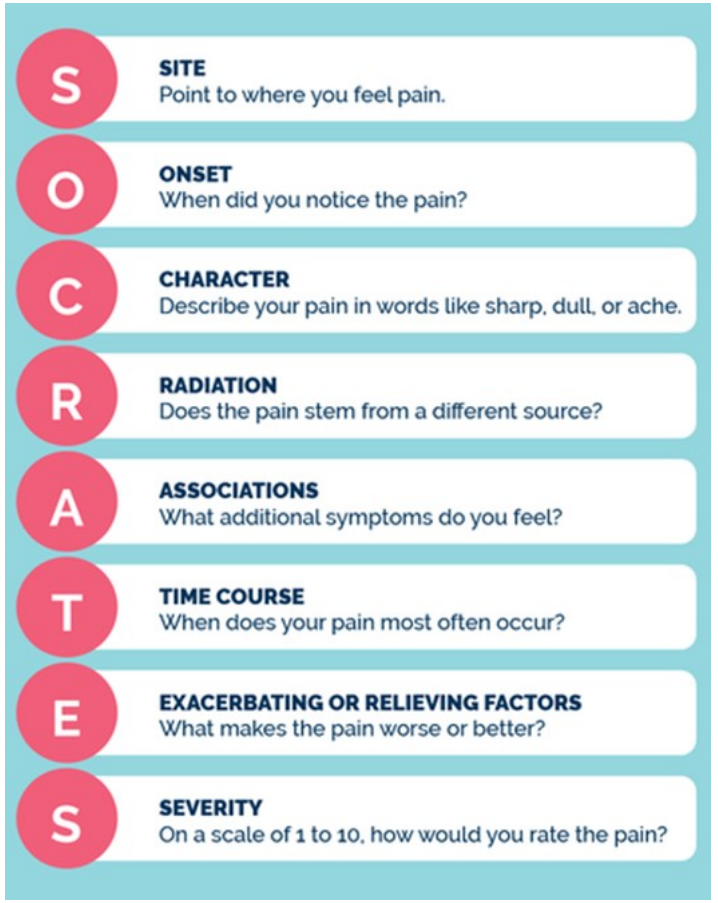
Residential Address: Ambamata, Udaipur

CHIEF COMPLAINTS WITH DURATION

- Low back pain radiating to right leg – since 3 months
- Pain over right chest region – since 3 months
- Numbness in right feet – 3 months
- Pain over both wrist joints – since 3 days
- Myalgia over right hand while flexing – since 3 days

HISTORY OF PRESENT ILLNESS

Patient had a history of fall 8 years back. He got injured in his low back and right hand and had pain over these regions. 3 months ago, due to weight lifting during construction works, the pain in low back region got aggravated. It also started radiating to the right leg. There was difficulty to stand up after sitting and difficulty to walk. He took allopathic medication for 2 months and got some considerable relief. He is unable to drive since 1.5 months. He is here for further management.



HISTORY OF PAST ILLNESS

H/O Fall – 8 years ago

TREATMENT HISTORY

Allopathic Medication for 2 months

FAMILY HISTORY

No relevant family history

PERSONAL HISTORY

Appetite: Madhyama

Koshta : Krura

Addiction : Nil

Nidra : Vishama due to pain , 5-6 hrs/ night, no day sleep

Exercise : Nil

Ahara : Veg

ASHTAVIDHA PARIKSHA

- Nadi : VP, Niyamita
- Mutra : 5-6 times/ day, 1-2 times/ night, no pain or burning sensation, color and odor is normal
- Mala: 2 times/ day, irregular, hard
- Jihva : Sama(coated), Swetabha
- Sabda : Spashta
- Sparsha: Sama seethoshna
- Drik: Swetabha
- Akriti : Madhyama

DASAVIDHA PARIKSHA

- Prakriti: Vata Kapha
- Manasika : Rajasika
- Vikriti: Hetu – Abhighata, Vishama Cheshta, Bhara Vahana

  Dosha - Vata

  Dhatu – Rakta, Mamasa, Asthi, Meda, Majja

  Kala – Hemanta, Nava

  Bala – Madhyama

  Desha – Anupa

  Kati, prshta, uru, janu, jangha

- Sara : Asthi Sara
- Samhanana: Madhyama
- Satva: Pravara
- Satmya: Sarvarasa
- Ahara sakti : Madhyama
- Vyayamasakti: Avara
- Vaya : Madhyama

GENERAL EXAMINATION

- Temperature: 98.6 F
- BP: 138/68 mm Hg
- Pulse Rate : 68/minute
- Respiratory Rate: 16/minute
- Height : 160cm
- Weight : 65 kg
- Built : Well-built
- Nourishment : Well nourished
- Pallor, Icterus, Clubbing, Cyanosis, Lymphadenopathy, Edema : Absent

SYSTEM EXAMINATION

Affected System : Locomotor System

- Inspection : Difficulty in walking due to pain
- Palpation : Tenderness over the lumbosacral region, No tenderness over knee joint, No crepitus on both knee joint
- Range of Movements : Flexion, Extension and Lateral flexion of Lumbar Spine – Painful and restricted
- Other tests : SLR – positive at 60 degree on right side

LABORATORY INVESTIGATIONS & RADIOLOGY

MRI (5/11/2024)

At L3-L4 – Diffuse disc bulge causing indentation over ventral thecal sac without central canal stenosis

At L4 – L5 level – Diffuse disc bugle causing indentation over ventral thecal sac without central canal stenosis

At L5 – S1 - Diffuse disc bulge with central as well as right paracentral disc protrusion

NIDANA PANCHAKA

Nidana: Abhigata, Bhara vahana, Vishama Cheshta

Purvarupa: Sula, Alpa Cheshta

Rupa: Kati prishta uru janu jangha sula, supti, stambha

Upashaya : Ushna, laghu, snigdhahara, snehana, swedana

Anupasaya: Ativyayama, seetha ahara

SAMPRAPTI GHATAKA

- Dosha: Vata
- Dushya : Rakta,Mamsa, Meda, Asthi, Majja, Purisha
- Agni: Vishama
- Srotas : Mamsavaha, Majjavaha, Purishavaha
- Srotas Dushti: Sanga
- Rogamarga: Marma-Asthi-Sandhi
- Vyadhyavastha: Chirakari
- Sadhya Asadhyata: Krichrasadya
- Upadrava: Difficulty in walking

DIFFERENTIAL DIAGNOSIS

Kateesoola

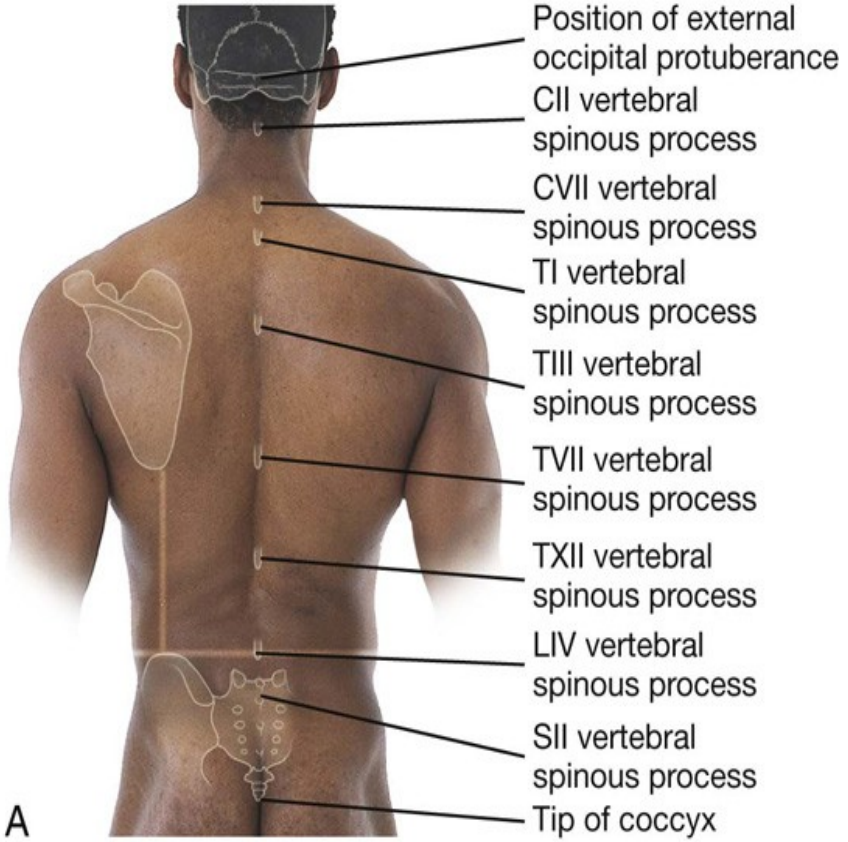
PROVISIONAL DIAGNOSIS

Gridhrasi

LUMBAR SPINE

- The surface markings are the spinous process of L4, which is level with the pelvic brim, and the ‘dimples of Venus’, which overlie the sacroiliac joints.
- The normal lordosis may be lost in disorders such as ankylosing spondylitis and lumbar disc protrusion.

- In the adult, the spinal cord ends at L2. Below this, only the spinal nerve roots may be injured by disc protrusion.



LOW BACK PAIN - HISTORY

Low back pain is extremely common. Most is ‘mechanical’, and caused by degenerative changes in discs and facet joints (spondylosis).

Analyse the symptoms using ‘SOCRATES’.

For back pain, ask specifically about:

- ❑occupational or recreational activity that may strain the back
- ❑red flag features suggesting significant spinal pathology
- ❑prior treatment with glucocorticoids.

‘Red flag’ features
Features that may indicate serious pathology and require urgent referral

History

- Age <20 years or >55 years
- Recent significant trauma (fracture)
- Pain:
  - Thoracic (dissecting aneurysm)
  - Non-mechanical (infection/ tumour/pathological fracture)
- Fever (infection)
- Difficulty in micturition
- Faecal incontinence
- Motor weakness
- Sensory changes in the perineum (saddle anaesthesia)
- Sexual dysfunction, e.g. erectile/ejaculatory failure
- Gait change (cauda equina syndrome)
- Bilateral ‘sciatica’

Past medical history

- Cancer (metastases)
- Previous glucocorticoid use (osteoporotic collapse)

System review

- Weight loss/malaise without obvious cause, e.g. cancer

CAUSES OR DIFFERENT PATHOLOGY OF LOW BACK PAIN

- Radicular pain caused by sciatic nerve root compression radiates down the posterior aspect of the leg to the lower leg or ankle (sciatica).
- Groin and thigh pain in the absence of hip abnormality suggests referred pain from L1–2.
- Mechanical low back pain is common after standing for too long or sitting in a poor position. Symptoms worsen as the day progresses and improve after resting or on rising in the morning.
- Insidious onset of back or buttock ache and stiffness in an adolescent or young adult suggests inflammatory disease of the sacroiliac joints and lumbar spine. Symptoms are worse in the morning or after inactivity, and ease with movement.
- Morning stiffness is more marked than in osteoarthritis, lasting at least 30 minutes.

- Acute onset of low back pain in a young adult, often associated with bending or lifting, is typical of acute disc protrusion (slipped disc). Coughing or straining to open the bowels exacerbates the pain.

- There may be symptoms of lumbar or sacral nerve root compression. Cauda equina syndrome occurs when a central disc prolapse, or other space-occupying lesion, compresses the cauda equina. There are features of sensory and motor disturbance, including diminished perianal sensation and bladder function disturbance. The motor disturbance may be profound, as in paraplegia. Cauda equina syndrome and spinal cord compression are neurosurgical emergencies.

- Acute back pain in the middle-aged, elderly or those with risk factors, such as glucocorticoid therapy, may be due to osteoporotic fracture. This is eased by lying, exacerbated by spinal flexion and not usually associated with neurological symptoms.

- Acute onset of severe progressive pain, especially when associated with malaise, weight loss or night sweats, may indicate pyogenic or tuberculous infection of the lumbar spine or sacroiliac joint. The infection may involve the intervertebral discs and adjacent vertebrae, and may track into the psoas muscle sheath, presenting as a painful flexed hip or a groin swelling.

- Consider malignant disease involving a vertebral body in patients with unremitting spinal pain of recent onset that disturbs sleep. Other clues are a previous history of cancer, and systemic symptoms or weight loss.

- Chronic intermittent pain in the lumbar spine is typical of degenerative disc disease. There is stiffness in the morning or after immobility. Pain and stiffness are relieved by gentle activity but recur with, or after, excessive activity.

- Diffuse pain in the buttocks or thighs brought on by standing too long or walking is the presenting symptom of lumbosacral spinal stenosis. The pain may be accompanied by tingling and numbness. Typically, it is relieved by rest or spinal flexion. Stooping or holding on to a supermarket trolley may increase exercise tolerance.

THE PHYSICAL EXAMINATION

Ask the patient to stand with their back fully exposed.

LOOK

Look for obvious deformity (decreased/increased lordosis, scoliosis) and soft-tissue abnormalities such as a hairy patch or lipoma that might overlie a congenital abnormality: for example, spina bifida.

FEEL

- Palpate the spinous processes and paraspinal tissues. Note overall alignment and focal tenderness.
- After warning the patient, lightly percuss the spine with your closed fist and note any tenderness

MOVE

Flexion: ask the patient to try to touch their toes with their legs straight. Record how far down the legs they can reach. Some of this movement depends on hip flexion. Usually, the upper segments flex before the lower ones, and this progression should be smooth.

Extension: ask the patient to straighten up and lean back as far as possible (normal 10–20 degrees from a neutral erect posture).

Lateral flexion: ask them to reach down to each side, touching the outside of their leg as far down as possible while keeping their legs straight.

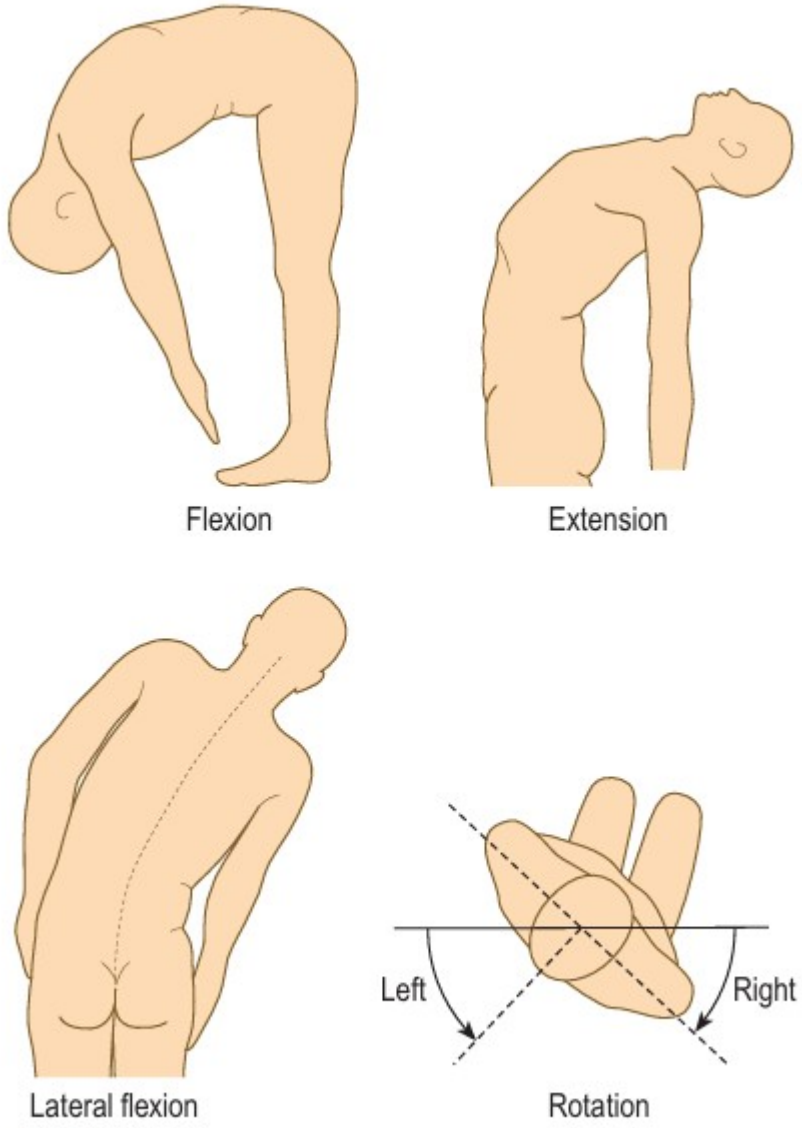


Fig. 13.14 Movements of the lumbar and dorsal spine.

SPECIAL TESTS

Schober's Test For Forward Flexion

- Mark the skin in the midline at the level of the posterior iliac spines (L5) (mark A)
- Use a tape measure to draw two more marks: one 10 cm above (mark B) and one 5 cm below this (mark C).
- Place the end of the tape measure on the upper mark (B). Ask the patient to touch their toes. The distance from B to C should increase from 15 to more than 20 cm.

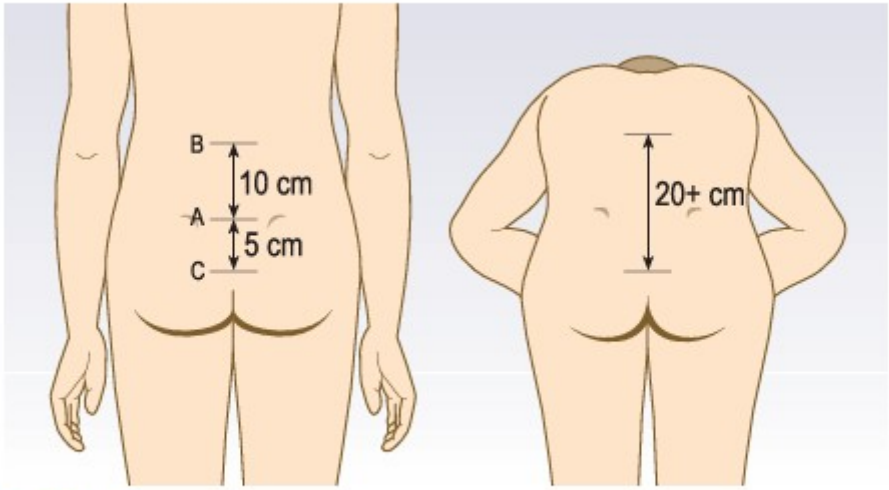
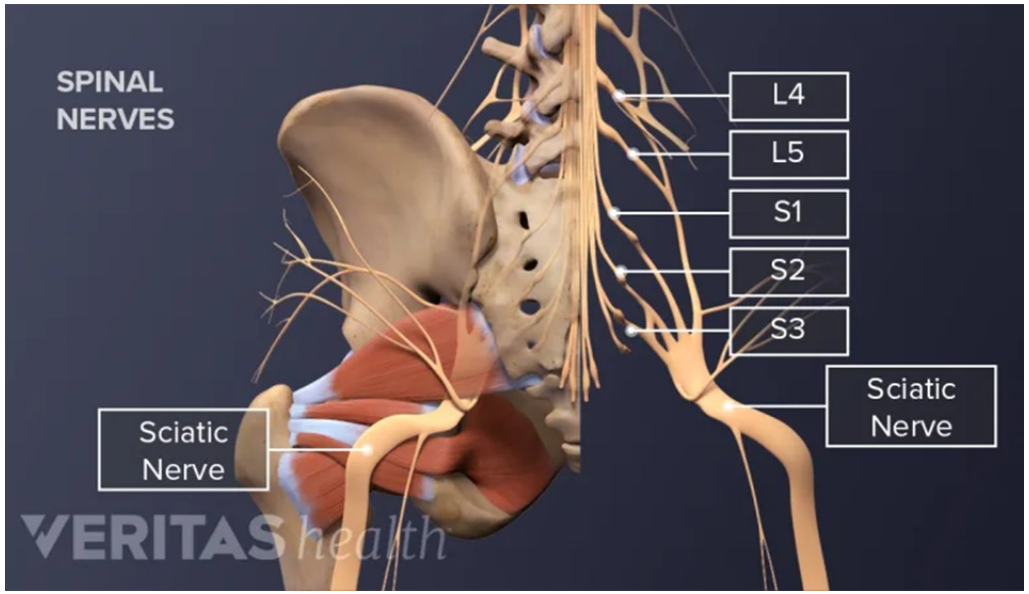
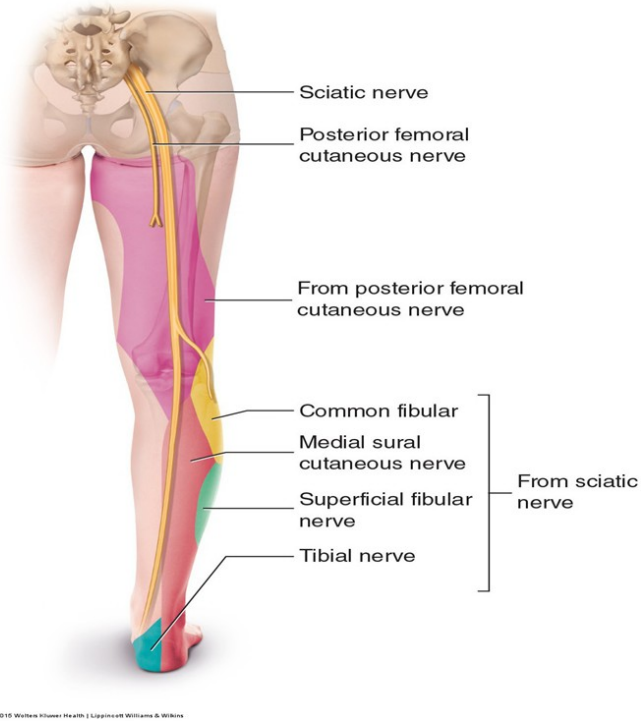


Fig. 13.15 Schober's test. When the patient bends forward maximally with the knees straight, distance BC should increase by at least 5 cm.

SCIATIC NERVE

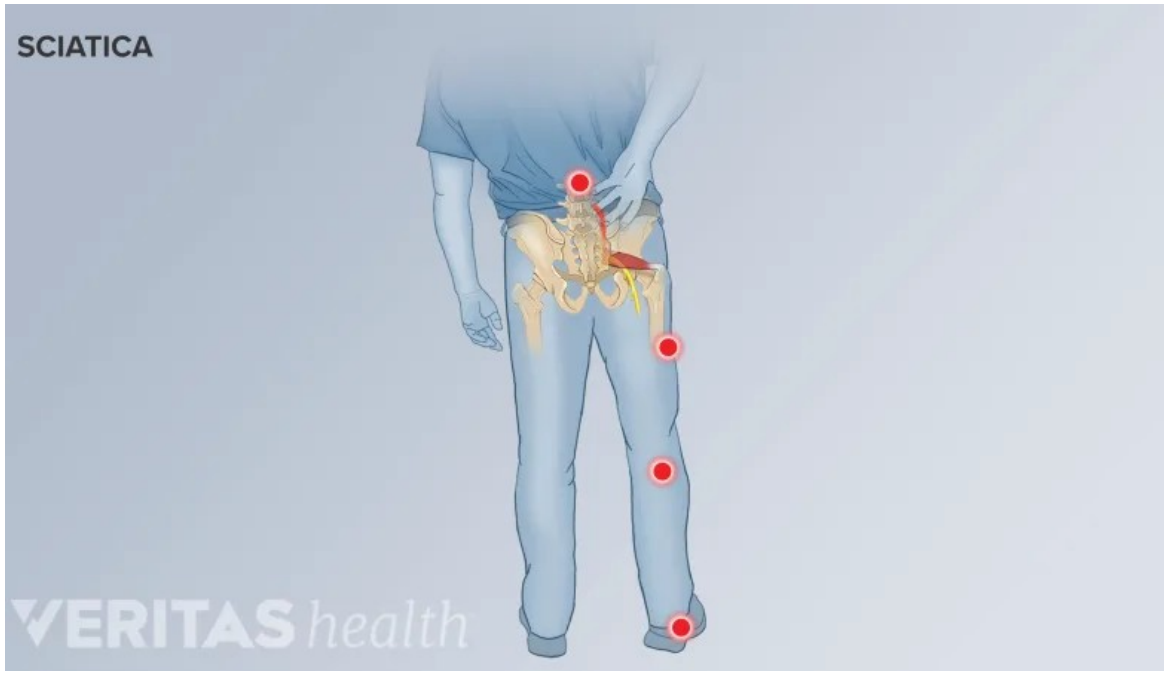
A combination of 5 nerve roots that exit from inside the lower lumbar and upper sacral spine—L4, L5, S1, S2, and S3—forms the sciatic nerve. These 5 nerves group together deep in the buttock, near the front surface of the piriformis muscle, and combine to form the single large, thick sciatic nerve.





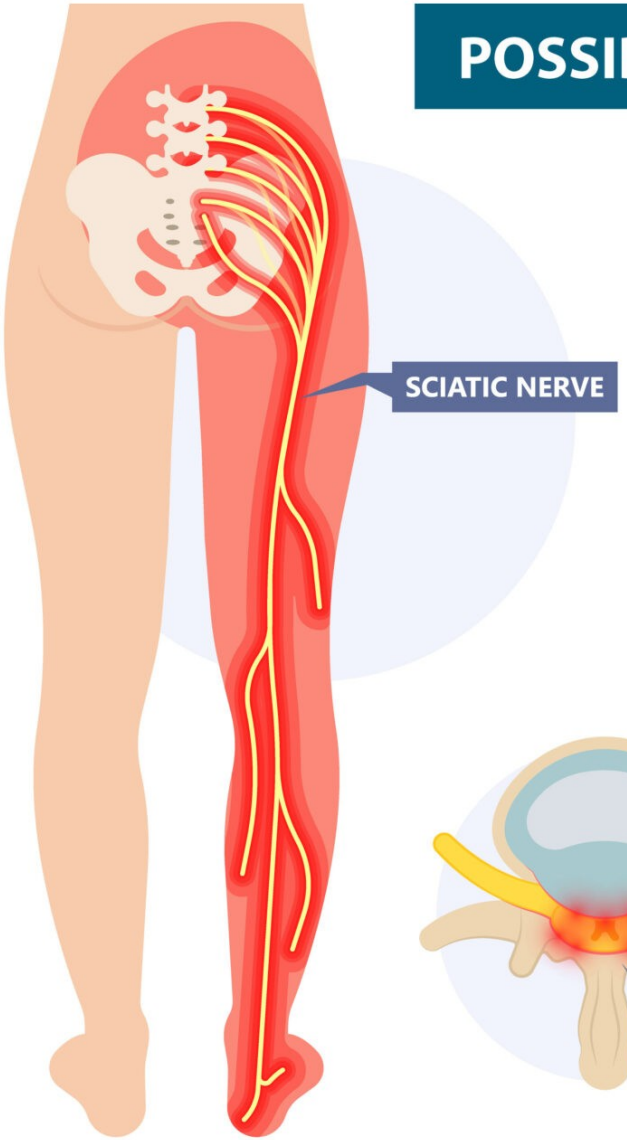
SCIATICA

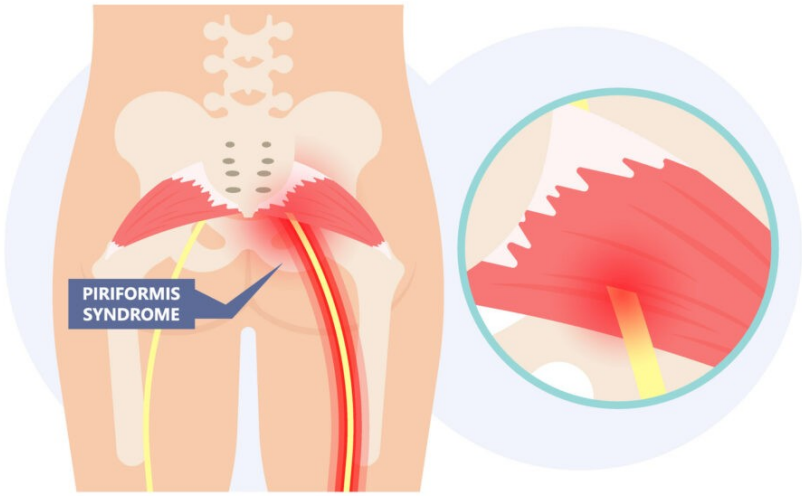
Sciatic Nerve Anatomy | Spine-health



Distribution of sciatic nerve pain.

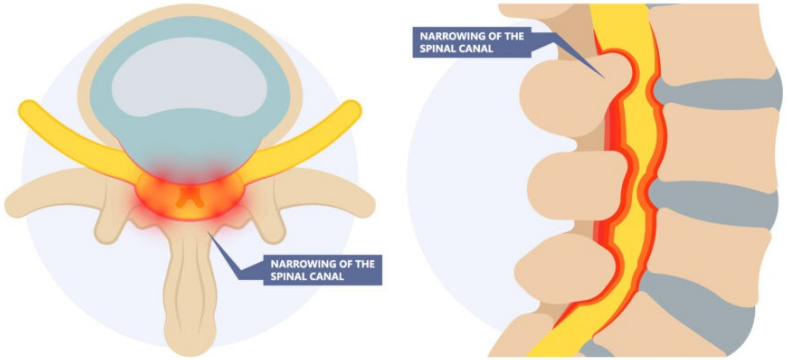
POSSIBLE CAUSES OF SCIATICA NERVE PAIN



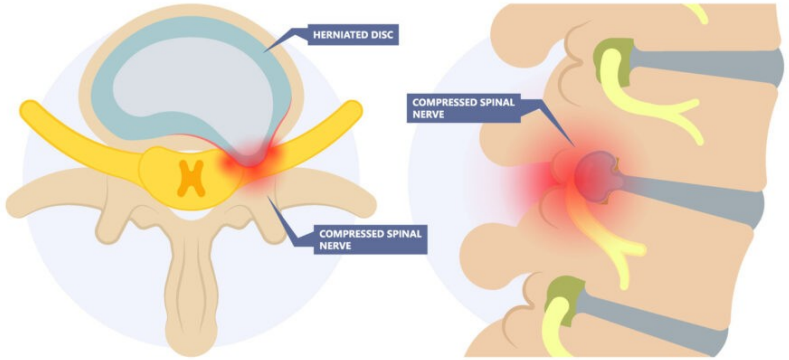


PIRIFORMIS SYNDROME

DEGENERATIVE DISC DISEASE



SPINAL STENOSIS



HERNIATED DISC

SYMPTOMS OF SCIATICA

- Sciatica pain can be almost anywhere along the nerve pathway. It's especially likely to follow a path from the low back to the buttock and the back of a thigh and calf.

- The pain can vary from a mild ache to a sharp, burning pain. Sometimes it feels like a jolt or electric shock. It can be worse when coughing or sneezing or sitting a long time. Usually, sciatica affects only one side of the body.

- Some people also have numbness, tingling, or muscle weakness in the leg or foot. One part of the leg can be in pain, while another part can feel numb.

RISK FACTORS

- **Age.** People ages 20 to 50 are most likely to have herniated disks. Bone spurs develop more commonly as people age.
- **Obesity.** Being overweight increases stress on the spine.
- **Occupation.** A job that requires twisting the back, carrying heavy loads or driving a motor vehicle for long periods might play a role in herniated disks.
- **Prolonged sitting.** People who sit a lot or don't move much are more likely to develop herniated disks than active people are.
- **Diabetes.** This condition, which affects the way the body uses blood sugar, increases the risk of nerve damage.

GRIDHRASI

पार्ष्णिप्रत्यङ्गुलीनां [१] तु कण्डरा याऽनिलार्दिता | सक्थ्नः [२] क्षेपं निगृह्णीयाद्गृध्रसीति हि सा स्मृता ||७४||

(Su. Ni 1/78)

गृध्रसीमाह- पार्ष्णीत्यादि| या कण्डरा सक्थ्नः क्षेपं निगृह्णीयात् सा गृध्रसीति स्मृतेति सम्बन्धः| पार्ष्णिर्गुल्फस्य पाश्चात्याधोभागः, प्रत्यङ्गुल्योऽङ्गुल्य एव; एतेनोपर्यधोभागगतं कण्डराद्वयं गृह्यते| कण्डरा महास्नायुः| गुल्फादिविटपान्तं सक्थि, तस्य क्षेपः प्रसारणं, तं निगृह्णीयादवरुन्ध्यादित्यर्थः| गृध्रसी 'रङ्घिणी' इति लोके| सा च वाताद् वातकफाच्च| खञ्जनवाते न सातिशया व्यथा यथा गृध्रस्याम्| केचित् 'पार्ष्णिं प्रत्यङ्गुलीनाम्' इति द्वितीयान्तं पठन्ति; तत्रापि पार्ष्णिं लक्षीकृत्य या कण्डरा, अङ्गुलीनां च या कण्डरेति कण्डराद्वयम्||७४||

He mentioned a symptom *'Sakthikshepa Nigraha'* indicates inability to lift the leg straight as pain is caused as as SLR test in modern science.

Charaka Samhita-

The primary Ayurveda source for a thorough explanation of *Gridhrasi* is the Charaka Samhita. *Gridhrasi* is listed in 80 different varieties of Nanatmaja Vatavyadhi in the twenty-first chapter of the *Sutrasthana- Maharogadhyaya*.

Ashtanga Hridaya-

Vatavyadhi Nidana's symptoms and the pathophysiology of *Gridhrasi* are discussed in the fifteenth chapter of *Nidanasthana*. The place of *Siravedha* in *Gridhrasi* has been referenced in the 27th chapter of *Sutrasthana*

पार्ष्णिं प्रत्यङ्गुलीनां या कण्डरा मारुतार्दिता|
सक्थ्युत्क्षेपं निगृह्णाति गृध्रसीं तां प्रचक्षते||५४| (A.H Nid 27/54)

स०-पार्ष्णिं प्रति-पार्ष्ण्यभिमुखं, या अङ्गुलीनां कण्डरा सा मारुतेन-वायुना, अर्दिता व्यथिता,

चरणोद्धरणावसरे यः सक्थ्युत्क्षेपः-ऊर्ध्वं प्रेरणं, तं निगृह्णाति-अवमृद्नाति सक्थ्नोर्निश्चलत्वमिवोत्पादयति|

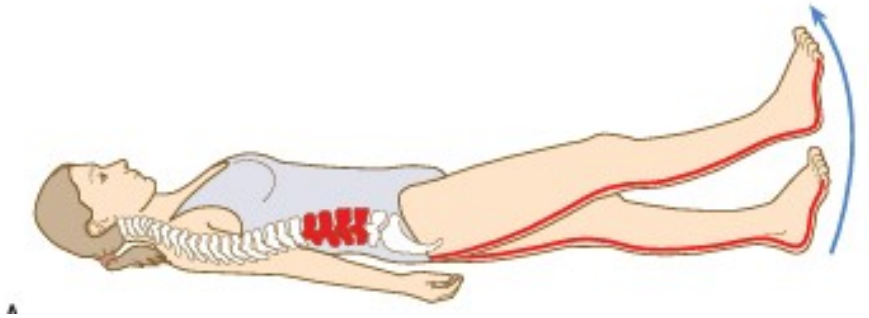
तां-कण्डरां, व्याधिविशेषसंज्ञां गृध्रसीं प्रचक्षते, तन्त्रकृत इति शेषः|

MADHAVA NIDANA

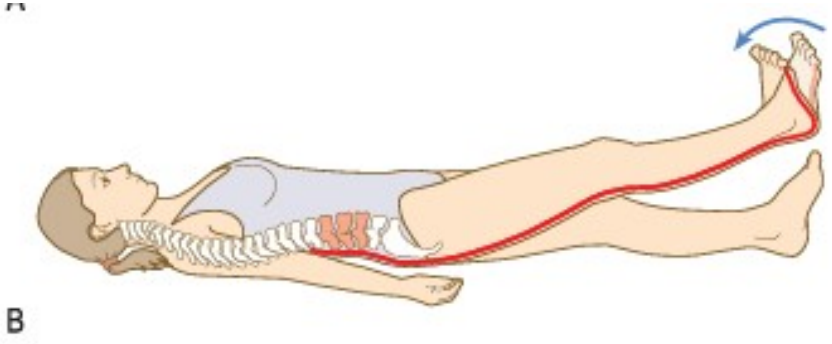
स्फिक्पूर्वा कटिपृष्ठोरुजानुजङ्घापदं क्रमात् । गृध्रसी स्तम्भरुक्तोदैर्गृह्णाति स्पन्दते मुहुः ॥ ५४ ॥
वाताद्घातकफात्तन्द्रागौरवारोचकान्विता । (च. चि. अ. २८)
(वातजायां भवेत्तोदो देहस्यापि प्रवक्रता । जानुकट्यरुसंधीनां स्फुरणं स्तब्धता भृशम् ॥ ५५ ॥
वातश्लेष्मोद्भवायां तु निमित्तं वह्निमार्दवम् । तन्द्रा मुखप्रसेकश्च भक्तद्वेषस्तथैव च ॥ ५६ ॥]

Sciatic nerve stretch test (L4–S1)

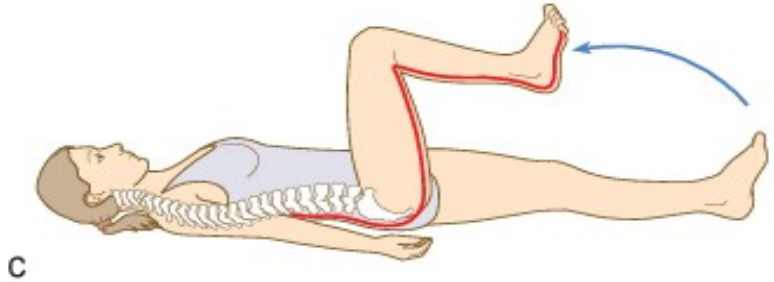
- With the patient lying supine, lift their foot to flex the hip passively, keeping the knee straight.
- When a limit is reached, raise the leg to just less than this level, and dorsiflex the foot to test for nerve root tension



A. Straight-leg raising limited by the tension of the root over a prolapsed disc.



B. Tension is increased by dorsiflexion of the foot (**Bragard's test**).



C. Root tension is relieved by flexion at the knee

D. Pressure over the center of the popliteal fossa bears on the posterior tibial nerve, which is '**bowstringing**' across the fossa, causing pain locally and radiation into the back.

SLR and BRAGARD'S SIGN

Straight Leg Raise or Lasègue's Test for Lumbar Radiculopathy

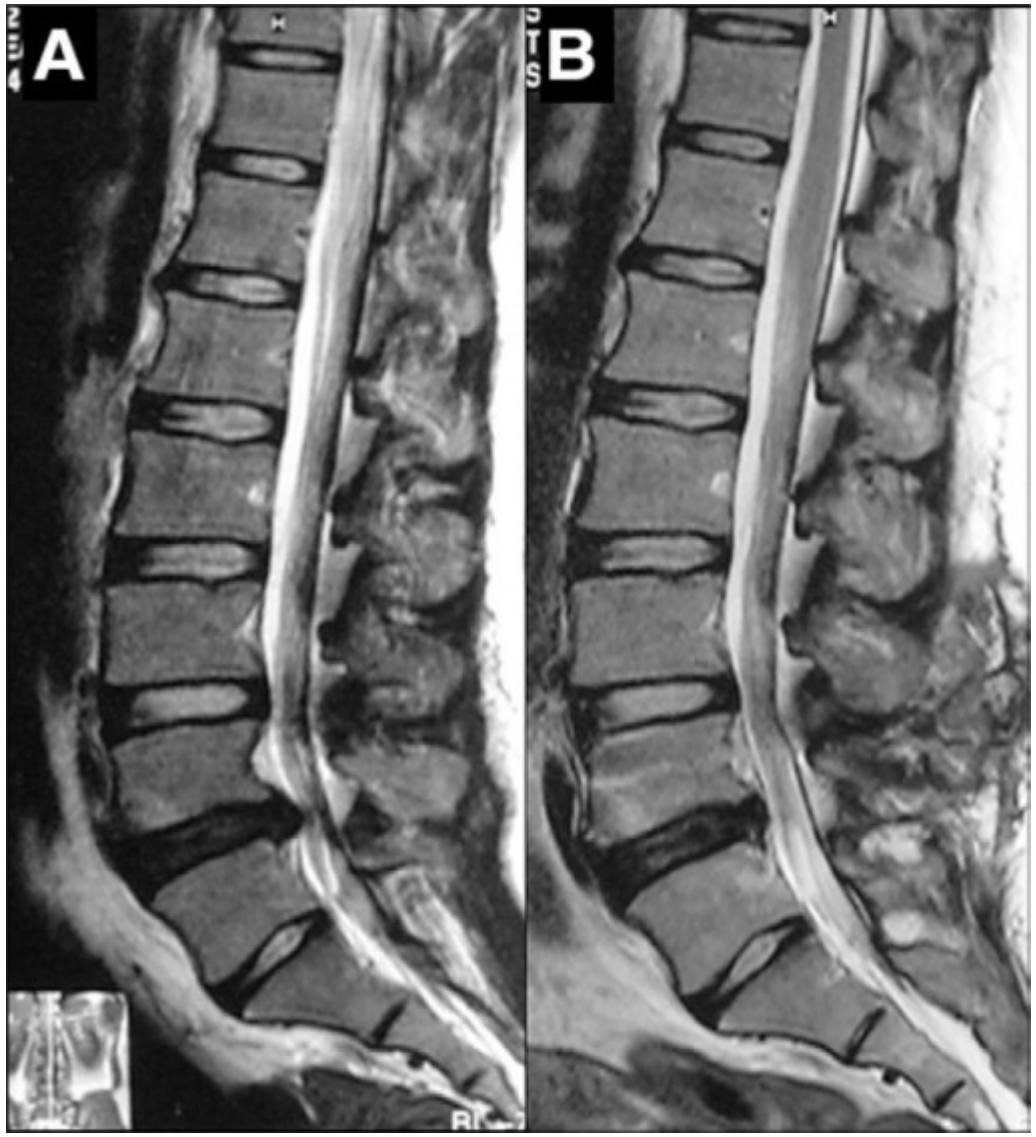
CROSSED SLR (WELL-LEG RAISING TEST/FAJERSZTAJN SIGN)

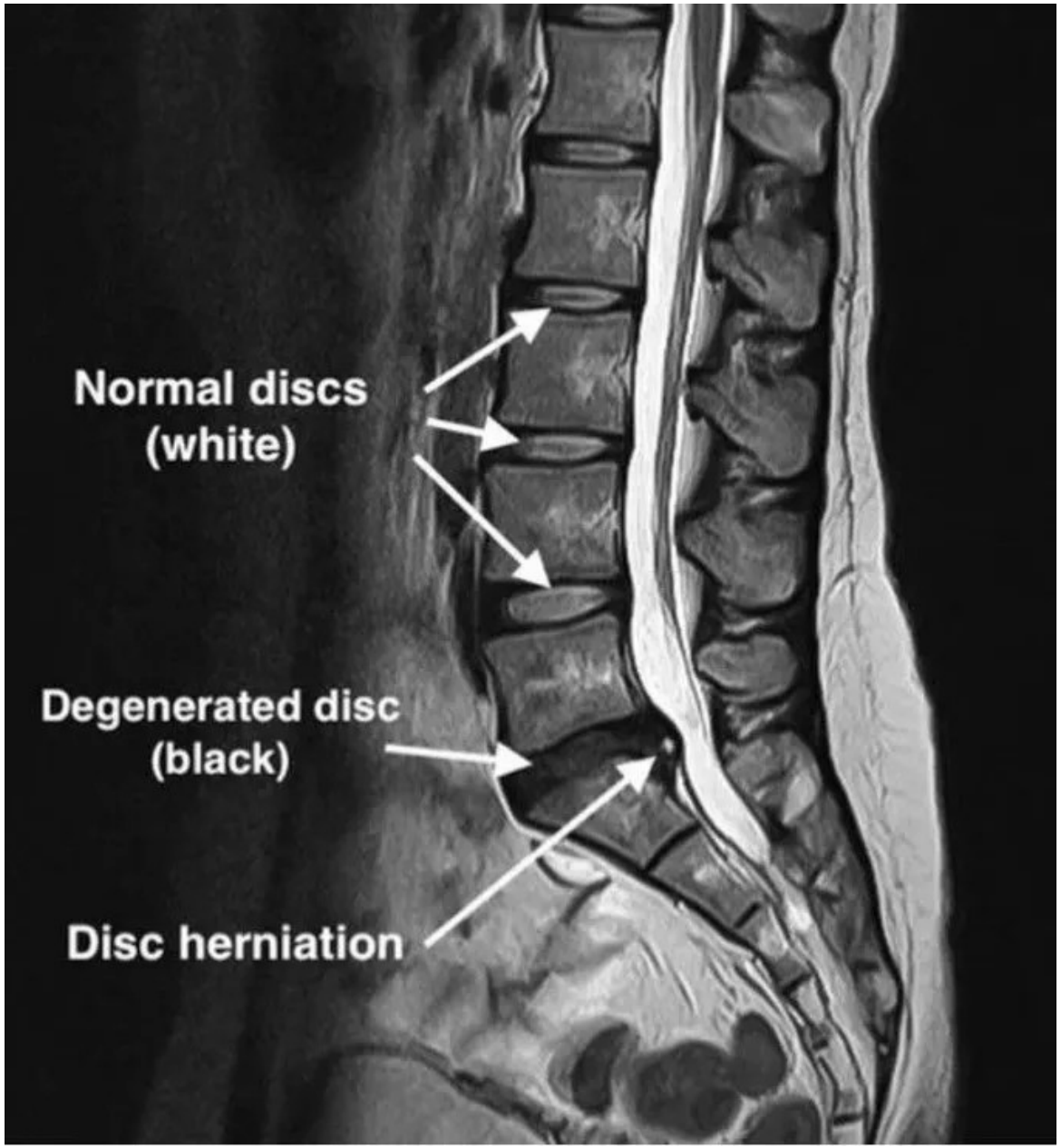
Crossed Straight Leg Raise Test | Crossed Over Lasègue

BOWSTRING TEST

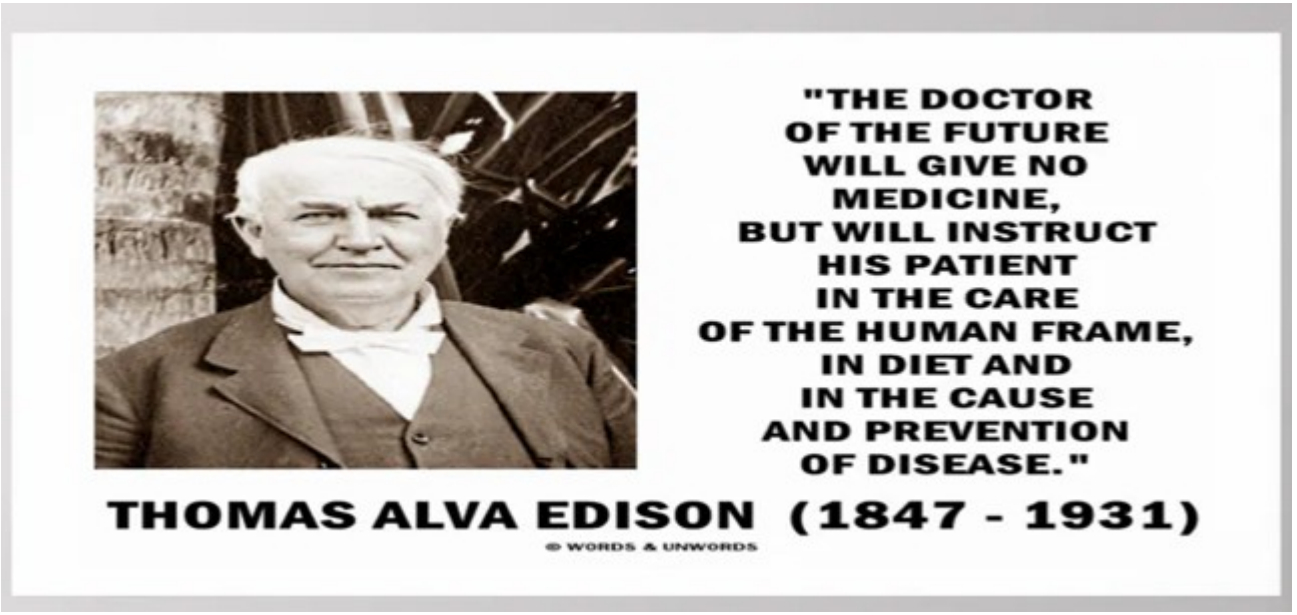
The Bowstring Test | Sciatic Nerve Tension

MRI




Normal discs
(white)
Degenerated disc
(black)
Disc herniation

THANK YOU


"THE DOCTOR
OF THE FUTURE
WILL GIVE NO
MEDICINE,
BUT WILL INSTRUCT
HIS PATIENT
IN THE CARE
OF THE HUMAN FRAME,
IN DIET AND
IN THE CAUSE
AND PREVENTION
OF DISEASE."
THOMAS ALVA EDISON (1847 - 1931)
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