



Vidhyayana - ISSN 2454-8596

An International Multidisciplinary Peer-Reviewed E-
Journal

www.j.vidhyayanaejournal.org

Indexed in: ROAD & Google Scholar

YOGIC MANAGEMENT IN LUMBAR SPINE STENOSIS

SACHIN AGGARWAL

Research Scholar

The Maharaja Bhupinder Singh Punjab Sports University, Patiala

DR. Chandra Kant Mishra

Chief Coach Yoga

SAI: NSNIS-Patiala

CONFERENCE PROCEEDING

An International Multidisciplinary Multilingual E-Conference on
"INTERROGATING THE IDEA OF DEVELOPMENT: A 360 DEGREE
INVESTIGATION"

Special Issue - Volume.6 Issue 6, June – 2021

Page No. 1



ABSTRACT:

Lumbar spinal stenosis, the results of congenital and degenerative constriction of the neural canal and foramina leading to lumbosacral nerve root or cauda equina compression, is a common cause of disability. There are so many other causes (Bulging Disc , Thickened Ligaments around the lumbar region, Spinal Tumors, Osteoarthritis , Spinal Fracture).It **symptoms** can include pain, cramping, numbness or weakness in the legs (especially in hamstring muscle), groin, hips, buttocks, and **lower back**. Symptoms usually worsen when walking or standing and might decrease when lying down, sitting, or leaning slightly forward. Asanas which help to alleviate the pain and decompresses the spine include Tadasana (The Mountain Pose), Vrikshasana (Tree Pose), The Cat/Cow Pose, Parsva Balasana (Bird Dog Pose), Adho Mukha Svasana (Downward Dog Pose), Salamba Bhujangasana (Sphinx Pose), Staff pose or Dandasana, Baddhakonasana (Bound Angle Pose). Yogic therapy functioning as a intermodal treatment by addressing Weak Muscles, Poor posture and lack in flexibility in order to improve biomechanical imbalances which contributing to pain. Moreover, Yoga focus on mindfulness, pranayama (breathing exercises) and meditation which ease relaxation of both muscle and mind and may contribute to decreased perception of pain. Tratak kriya is one of the most considerable kriya to reduce in the level of stress and anxiety and these both are the hidden factors in Lumbar Spine Stenosis.

KEYWORDS: ASANAS, LUMBAR SPINE, PRANAYAMA

INTRODUCTION:

Spinal stenosis can happen in any part of our spine but is most common in the lower back. This part of the spine is called lumbar RegionThe lumbar spine (lower back) consists of five vertebrae in the lower part of the spine, between the Ribs and the Pelvis. Lumbar spinal stenosis (LSS) is a condition in which lumbar spine become narrowing that causes compression of the spinal cord, as the inadequate space in the spinal canal or the side canals that protect the nerves often results in a pinching of the nerve root of the spinal cord.

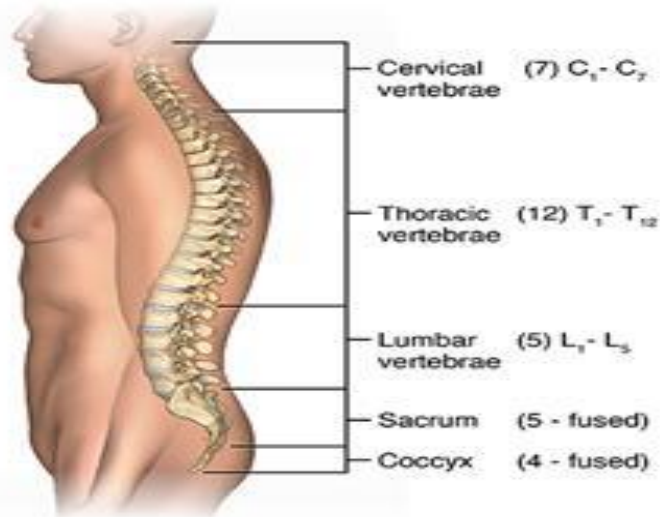
CONFERENCE PROCEEDING

An International Multidisciplinary Multilingual E-Conference on
"INTERROGATING THE IDEA OF DEVELOPMENT: A 360 DEGREE
INVESTIGATION"

Special Issue - Volume.6 Issue 6, June – 2021

Page No. 2

Spinal column vertebrae



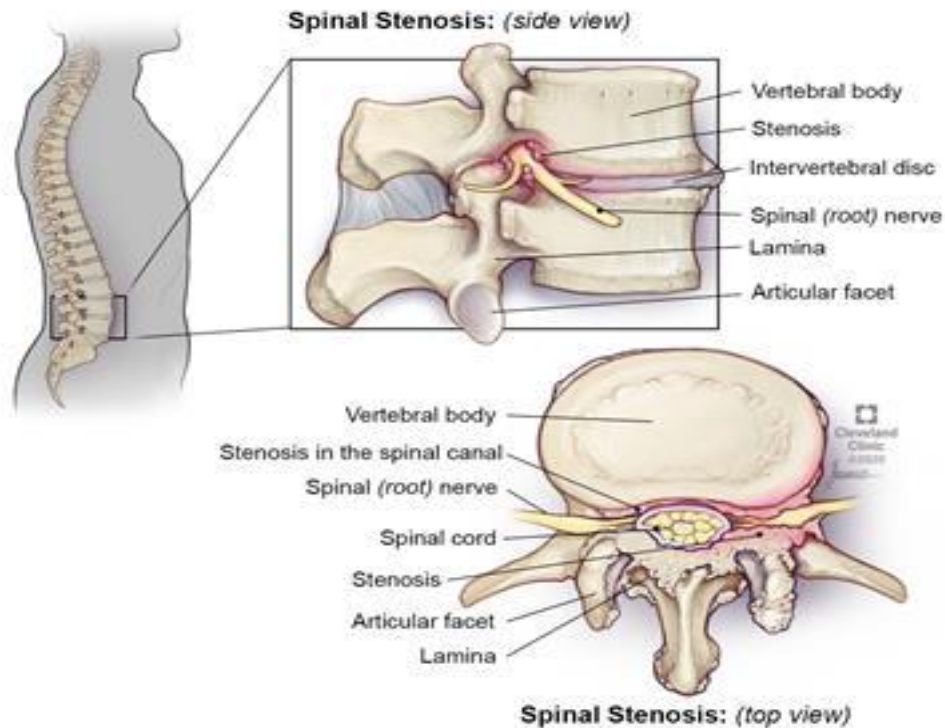
The nerves become increasingly irritated as the diameter of the canal becomes narrower. These normal wear-and-tear effects of aging can lead to narrowing of the spinal canal. The lumbar spinal stenosis is a common cause of low back and leg pain.

This is increasingly common and Degenerative changes of the spine are seen in up to 95% of people by the age of 50. Spinal stenosis most often occurs in adults over 60 years old.

CONFERENCE PROCEEDING

An International Multidisciplinary Multilingual E-Conference on
"INTERROGATING THE IDEA OF DEVELOPMENT: A 360 DEGREE
INVESTIGATION"

Special Issue - Volume.6 Issue 6, June – 2021



While some people with the condition will experience no symptoms, [symptoms](#) can include pain, cramping, numbness or weakness in the legs (especially in hamstring muscle), groin, hips, buttocks, and [lower back](#). Symptoms usually worsen when walking or standing and might decrease when lying down, sitting, or leaning slightly forward. Back pain is the most common symptom in the lumbar spinal stenosis (LSS). Most people who have spinal stenosis in their low back have developed it during their lives. This is known as *acquired spinal stenosis*. A few people are born with lumbar spinal stenosis also called *primary* or *congenital spinal stenosis*. Pressure on nerves in the lumbar region can also cause more serious symptoms known as Cauda Equine Syndrome in which an individual may feel Severe pain and weakness that spreads into one or both legs. This makes it hard to walk or get out of a chair and loss of bladder and bowel function. Moreover, those who are surviving with lumbar spine stenosis are [3 times more likely](#) to experience it than those who have only back pain due strain or excessive sitting jobs. There are other symptoms which demonstrate that an individual has lumbar spine stenosis

CONFERENCE PROCEEDING

An International Multidisciplinary Multilingual E-Conference on
 "INTERROGATING THE IDEA OF DEVELOPMENT: A 360 DEGREE
 INVESTIGATION"

Special Issue - Volume.6 Issue 6, June – 2021



1. Unbearable pain as you sleep at night. The lower back keeps throbbing with pain.
2. Your thighs and legs start to pain if you stand for too long.
3. The muscles in your body feel stiff.
4. Any sort of movement starts causing pain.

Lumbar Spinal Stenosis has many causes but one common thing is that they change the structure of the spine which result a narrowing of the space around your spinal cord and nerves roots that exit through the spine.

1) **Bulging disc:** Between each vertebra is a flat, round cushioning pad (vertebral disk) that acts as shock absorbers along the spine. Age-related drying out and flattening of vertebral disks and cracking in the outer edge of the disks cause the gel-like center of these discs to break through a weak or torn outer layer. The bulging disk then press on the nerves near the disc.

2) **Thickened ligaments:** Ligaments are the fiber bands that hold the spine together. Arthritis can cause ligaments to thicken over time and bulge into the spinal canal space.

3) **Osteoarthritis:** In this type of arthritis, the cartilage that cushions joints break down. It can affect the cartilage between vertebrae and may also cause bone spurs to grow in the spine.

4) **Spinal tumors:** These abnormal tissue growths may develop in the spinal canal, trigger inflammation, and cause changes in the surrounding bone.

5) **Spinal fractures and injuries:** Broken or dislocated bones and inflammation from damage occurring near the spine can narrow the canal space and put pressure on spinal nerves.



- **Lumbar spinal stenosis facts**

Lumbar spinal stenosis is a lower back condition whereby either the spinal canal (central stenosis) or one or more of the vertebral foramina (foraminal stenosis) becomes narrowed.

Lumbar spinal stenosis is typically caused by degenerative arthritis.

- Patients can develop low back pain as well as pain, weakness and numbness or decreased sensation in the legs.
- Surgery is recommended when other nonsurgical treatments have failed and for patients with increasing weakness of the legs or loss of bowel or bladder function.
- Surgery includes a lumbar decompression with or without a lumbar fusion.
- Surgery is most reliable for the relief of leg symptoms and less reliable for the relief of back pain.

METHODOLOGY: There are so many ways to manage of Cervical spondylosis through yogic management which include (Pranayama, Asana & Yogic diet) etc. In the initial days we focused on Kriya and Asana to reduce the symptoms of Lumbar Spine Stenosis. We considered Tratak kriya for first few days after that introduce multiple asanas to prevent and cure the patients from it. **In asana** we add some specific which give safe result in a short period of time. , **Tadasana (The Mountain Pose), Vrikshasana (Tree Pose), The Cat/Cow Pose , Parsva Balasana (Bird Dog Pose), Adho Mukha Svasana (Downward Dog Pose), Salamba Bhujangasana (Sphinx Pose), Staff pose or Dandasana, Baddhakonasana (Bound Angle Pose , Ardha Matsyendrasana (Half Spin Twist Pose), Happy Baby pose or Ananda Balasana, Stupa Padangusthasana (Reclining Hand-to-big-toe Pose), Salabhasana (The Locust Pose) .**

RESULTS: We had been surprised after saw the wonderful results of Yoga in Lumbar Spinal Stenosis problem. As we gave strict instructions to individuals who was suffering with this problem and they follow in a same manner. In the initial days, their severity of pain was

CONFERENCE PROCEEDING

An International Multidisciplinary Multilingual E-Conference on
"INTERROGATING THE IDEA OF DEVELOPMENT: A 360 DEGREE
INVESTIGATION"

Special Issue - Volume.6 Issue 6, June – 2021

Page No. 6



extremely bad. As we observe Tightness in the muscle and it was limited in range of motion. So, we adopted various technique in which include (Sukshma Vyayam, Shtula vyayam and many different types of Asanas) which gave relief from pain and tightness in very short period of time as well as in very safe manner. All the patients felt energized after 8 weeks program and they have no issue with their back pain or we can say in the lumbar spine.

DISCUSSION: There are no medicines as such, that cure Lumbar Spine Stenosis. The condition however, can be control or cured through Yoga therapy or yogic management. A some uncomplicated Yogasanas and Exercises can play a important role in managing and treating of Lumbar Spine Stenosis. Yoga brings strength and mobiltiy to the spine and the complete vertebral column get benefit. It helps to stabilize our core to better support our lumbar spine.

Some Specific Asanas release the stress caused due to prolonged sitting before the computer and relaxes the entire spine. Therapeutic yoga uses gentle stretching exercises to help relieve pain. Spine is the major channel, which carries all nerve impulses from the brain to the body and vice versa. Doing yoga removes the stiffness of the neck and shoulder Yogasana is very effective in treating of lower back, neck and shoulders. Yoga is highly recommended to those who have rigid spines and chronic neck pain. Pranayama intensify the rejuvenating process of the body and helps in normalizing blood pressure and relieving tension and pain. Stress is also a huge contributor in lumbar Spine Stenosis (LSS). Yoga might enhance both the toning of muscles which surrounding the Lower back (lumbar Vertebrae) and releasing of muscle tension. Relaxation responses therefore, could reduce stress related muscle tension and modify neurobiological pain perception. With these Specific Yoga asana listed below an individual will be able to beat stress and cure Lumbar Spine Stenosis as well.

CONFERENCE PROCEEDING

An International Multidisciplinary Multilingual E-Conference on
"INTERROGATING THE IDEA OF DEVELOPMENT: A 360 DEGREE
INVESTIGATION"

Special Issue - Volume.6 Issue 6, June – 2021

Page No. 7



Vidhyayana - ISSN 2454-8596

An International Multidisciplinary Peer-Reviewed E-Journal

www.j.vidhyayanaejournal.org

Indexed in: ROAD & Google Scholar



Tadasana (The Mountain Pose): Our body is constantly affected by the way we sit or stand. The misalignment can cause discomfort in our body that can affect our mind and diminish our ability to think clearly. A steady and right posture helps to maintain the correct posture of the spine that leads to serenity in mind and it release the compression on the lumbar spine.



CONFERENCE PROCEEDING

An International Multidisciplinary Multilingual E-Conference on
"INTERROGATING THE IDEA OF DEVELOPMENT: A 360 DEGREE
INVESTIGATION"

Special Issue - Volume.6 Issue 6, June – 2021

Page No. 8



Vrikshasana (Tree Pose): By doing the Vrikshasana, the spinal cord become strong and does not cause pain in the bones. This asana also helps to balance the body. Apart from this, it also helps to improve neuron-muscular connection.

Cat Pose (marjariasna): Marjariasana consists of two words: Marjari means Cat and asana denotes to yoga pose. It is pronounced as **mar-jar-ee-ahh-sanna**. Marjariasana is called cat stretch yoga because a cat generally stretches its spine upwards and downwards. This is one of the best yoga poses for the health of the spine. It helps to loosen up the spine. It is extremely useful for those who have a rigid spine or chronic backache or neck ache.

Parsva Balasana: *Parsva balasana* is a gentle posture which incorporates a twist through the torso while the body and mind experience the soothing benefits of a forward bend. The name is derived from the Sanskrit *parsva*, meaning "revolved," *bala*, meaning "**child**," and *asana*, meaning "**pose**." This asana relieve stress and compression on the lumbar region.

ADHO MUKHA SAVASANA (DOWNWARD FACE DOG):

This pose leaves you energized and rejuvenates the body and It lengthens the spine, strengthens the muscles of the chest increasing lung capacity. It brings strength throughout the body especially the arms, shoulders, legs, feet. Helps to tone muscles. It increases circulation to the brain and **Calms the mind** and helps relive headache, insomnia and fatigue.





STUPA PADANGUSTHASANA: With the pressure at the center and the lower back, this pose is done best while pulling in the tummy and tightening the abdominal muscles making them stronger and firm.



Ananda Balasana (Happy Baby Pose):

It gives the stomach a good massage and improves digestion by stimulating your digestive system. It is also perfect for relieving fatigue. Regular practice of this *asana* reduces the stiffness in your lower back and hips, thereby relieving back pain.

In addition to these, *Ananda Balasana* ensures that your upper and lower body remains healthy by decompressing the sacrum. The sacrum supports your spine and the weight of your upper body as it spreads across the legs and into the pelvis.

PRANAYAMA: We will now begin pranayama practice called spinal breathing. Then our deepest desires can be enlivened by systematically letting go into our inner silence. Sciatica from spinal stenosis includes sharp, stabbing pain that radiates down the leg while walking, with pain relief felt. Kapalbhathi is pranayama for lower back pain, people who are suffering severe lower back pain should perform Kapalbhathi in slow motion. The main cause is wear and tear in spinal canal. Pranayama and yoga for spinal stenosis hold the potential to improve vertebral alignment, improve chances of posture and movement.

CONFERENCE PROCEEDING

An International Multidisciplinary Multilingual E-Conference on
"INTERROGATING THE IDEA OF DEVELOPMENT: A 360 DEGREE
INVESTIGATION"

Special Issue - Volume.6 Issue 6, June – 2021



Some Nutritional information to improve the Spinal Stenosis in which include

(Staying hydrated, eat plenty of fruits and vegetables, Avoid smoking, and Reduce the intake of red meat caffeine and alcohol).

A healthy diet will help you stay at a healthy weight, reduce the body's propensity towards inflammation, and keep your spinal discs as well as all your tissues hydrated, all of which will help reduce pain from lumbar spinal stenosis.

SOME DO'S AND DON'T'S IN LUMBAR SPINE STENOSIS:

DO'S:

1. Do practice mild forward folds:

The recommendation that those with Stenosis forward fold slightly.

2. Do sit if you need to:

Standing aggravates symptoms for some people with LSS, while sitting alleviates them. If standing poses increase discomfort, feel free to take a break:

3. Do consider a side-lying or elevate your legs:

Those with LSS symptoms often find lying on their side in a fetal position or bending their knees enough for the spine to flex to be more comfortable than lying flat on their backs.

DON'T'S

1. Don't practice full inversions:

Any inversion compresses the lumbar spine because of the additional body weight from above, potentially further narrowing the space through which the nerves must pass freely," Reif says. "Additionally, inversions may make it more difficult to maintain a neutral spine for some individuals."

CONFERENCE PROCEEDING

An International Multidisciplinary Multilingual E-Conference on
"INTERROGATING THE IDEA OF DEVELOPMENT: A 360 DEGREE
INVESTIGATION"

Special Issue - Volume.6 Issue 6, June – 2021



2. Don't twist to an extreme and/or with a rounded back if it doesn't feel good:

Twists like deep versions of *janu sirsasana* (head to knee pose), revolved chair pose, and others that involve a rounding of the lower back could place uncomfortable pressure on the lower back, and should be avoided if they make any symptoms worse.

3. Don't do deep side bends if they worsen symptoms:

As is the case with twisting, side bend only to the extent that feels good, and if side bending to one side feels compressive, skip it.

In poses like gate pose or a standing side bend, stay as high as you need to in order to be comfortable.

4. Don't roll up to stand:

This movement is typically best avoided by those with LSS and other spinal problems, whether or not it produces instant symptoms, because lifting half the body's weight against gravity is a tall task for an already-vulnerable lower back.

CONCLUSION: At last, we can say that the practice of yoga can decrease pain and increase functional ability in patients who survived with Lumbar Spinal Stenosis. Yoga is a natural and holistic remedy for Lumbar Spinal Stenosis. A regular practice of this ancient science leads to a flexible body, calm mind and a positive attitude towards life. We need to take into consideration, the gender, the physical condition as well as the condition of the disorder when we are applying Yoga as a therapy. A step-by-step approach involving aspects of diet, our lifestyle, the way we think and involving Yogic counseling.



REFERENCE:

1. <https://yogainternational.com/article/view/adapting-yoga-for-lumbar-spinal-stenosis>
2. <https://orthoinfo.aaos.org/en/diseases--conditions/lumbar-spinal-stenosis>
3. <https://www.aans.org/en/Patients/Neurosurgical-Conditions-and-Treatments/Lumbar-Spinal-Stenosis>
4. <https://www.yogabasics.com/learn/yoga-therapy-for-spinal-stenosis/>
5. <https://my.clevelandclinic.org/health/diseases/17499-spinal-stenosis>
6. <https://www.healthline.com/health/spinal-stenosis#causes>
7. https://www.medicinenet.com/lumbar_stenosis/article.htm
8. https://www.physio-pedia.com/Lumbar_Spinal_Stenosis
9. <https://morningpeace.com/yoga-for-spinal-stenosis/>
10. <https://www.yoga-teacher-training.org/2011/06/14/yoga-techniques-for-spinal-stenosis/>
11. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4716725/>
12. <https://101yogastudio.com/benefits-of-vrikshasana-all-you-need-to-know/>
13. <https://www.rishikulyogshala.org/5-excellent-health-benefits-of-tadasana/>
14. <https://www.myupchar.com/en/yoga/legs/vrikshasana-tree-pose-yoga-steps-benefits-in-hindi>
15. <https://www.artofliving.org/in-en/yoga/yoga-poses/downward-facing-dog-pose-adho-mukha-svanasana>
16. <https://www.siddhiyoga.com/ananda-balasana-happy-baby-pose>
17. <http://mail.xynage.io/cms/breadcrumbs-meaning-wlqvat/pranayama-for-spinal-stenosis-0d4df5>
18. <https://www.spine-health.com/conditions/spinal-stenosis/posture-and-nutrition-adjustments-lumbar-stenosis>
19. <http://www.yogamdniy.nic.in/WriteReadData/LINKS/9-LOW%20BACK%20PAIN98960a99-2fc8-4d05-8941-b85d1c25e311>
20. <https://pubmed.ncbi.nlm.nih.gov/8434469/>

CONFERENCE PROCEEDING

An International Multidisciplinary Multilingual E-Conference on
"INTERROGATING THE IDEA OF DEVELOPMENT: A 360 DEGREE
INVESTIGATION"

Special Issue - Volume.6 Issue 6, June – 2021