

HATHA YOGA THERAPY FOR VATHA STHAMBAM

[LOW BACK PAIN]

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ABSTRACT

Vatha sthambam [low back pain] (LBP) is the second most frequent reasons for hospital visits and third most common cause for surgery nowadays. Yoga therapy is the non-invasive efficacious cost effective amongst complimentary and alternative therapies (CAM). It strengthens the physic as well as mental stamina to cope up with LBP. There are various options for LBP, but no single therapy stands out as being the most effective. Yoga interventions are the most effective LBP treatment approach. The objective of this paper is to review the literature supporting the efficacy of Yoga for LBP.

KEY WORDS: Vatha sthambam, Low Back Pain (LBP), Hatha Yoga Therapy.

INTRODUCTION

Vatha sthambam [low back pain] (LBP) is the second most common ailment for the absence of duties everywhere. The commonest cause for Vatha sthambam (LBP) is due to lack of maintaining the normal posture. This is because of either weakness or tightness of the trunkal muscles and occupational hazards. Since human beings are working on the anti-gravity positions mostly the back muscles are having minimal contractions continuously, thereby fatigability of the muscle develops. A sudden unabrupt awkward moment causes disc injuries, and thereby back pain develops.

The majority of the individuals with back pain and sciatica recover from an acute episode in 4–8 weeks. 80–90% returns to work within 12 weeks post injury.

Astanga Yogam is defined as,

“Iyama Niyamame yennilla adhanam

Nayamuru piranaa yamam prathiyakaram

sayamigu dharanai thiyanam samathi

Iyamurum attanga mavathu mame”

- Tamil Moovaeiram (Thirumanthiarm)

As this poem states asanam is one among the eight steps of asttaya yogam. Written by one amidst the eighteen Siddhars the Thirmoolar. So it is clearly understood that asanam (astanga yogam) is the heritage of Siddha system of medicine.

Yogam belongs to astanga yogam which had eight foot folds for attaining Siddhi. Many varieties for Yogam has been followed in India namely Raja Yogam, Vashi Yogam, Astanga Yogam, Kundalini Yogam, Bakthi Yogam, Gnana Yogam, Karma Yogam and Hatha Yogam. Hatha Yogam means practice of asanas to strengthen the physical bodies mainly. They are infinite. Whatever a man sees wanders to transform to himself to that pose. That forms one asanam. For back pain Hatha Yoga Therapy will be very useful to reduce the pain.

Hatha Yoga Therapy is the easiest, simple and cost effective valuable therapeutic procedure for curing mechanical LBP. Most of the Yogic poses or either bending forward or backward or lateral twisting or extending the spine that implies isometric contractions of the trunkal muscles. Yoga balances and harmonizes the body and mind and influences physical, mental, emotional and spiritual levels. The psycho, immuno, neuro, and hormonal axis is well balanced by performing Yogic poses.

1. UTKATASANAM

Utkatasanam: Utkat – Wild/Fierce, Asana – Pose

Utkatasana translates into an intense or powerful pose. This asanam is called the **Chair Pose**.

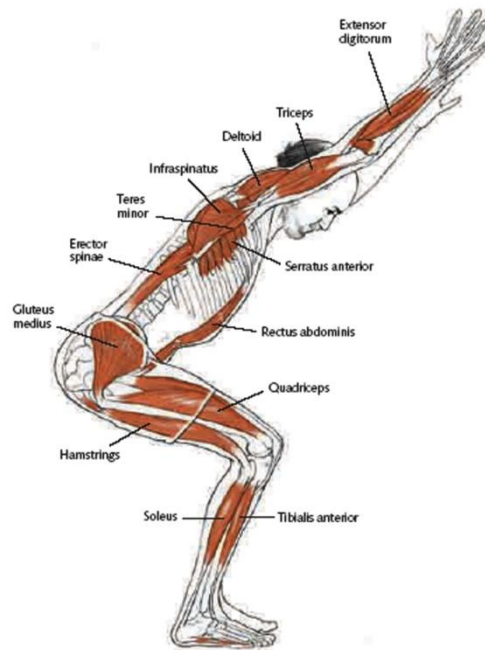


Fig No:1 Utkatasana Pose

The Benefits of the Chair Pose

- It stretches the hips, spine, and chest muscles.
- It tones the legs, especially the muscles in the knee, the ankles, and the thighs.
- Regular practice of this asana keeps the balance in the body and good determination to the mind.
- Giving massage to the abdominal organs and stimulates the diaphragm and the heart.
- It strengthens the immune system and also helps to relieve joint pains and back pains.

Precautions and Contraindications

This pose must be avoided in the following problems:

- ❖ Insomnia
- ❖ Low blood pressure
- ❖ Arthritis
- ❖ A sprained ankle
- ❖ Chronic knee pain
- ❖ Damaged ligaments

Bio mechanism of the Utkatasanam

When we deepen the squat in this pose, our body will need to overcome gravity's resistance. When quadriceps muscle become strong, knee problems are significantly reduced.

2. PADMASANAM

Padmam = Lotus, asana = posture or pose or position Padmasanam or **Lotus position** is helps to deepen meditation by calming the mind and alleviating various physical ailments.



Fig No: 2 Padmasanam Pose

Benefits of the Padmasanam (Lotus Position)

- Improves digestion
- Reduces muscular tension and controls blood pressure
- Relaxes the mind
- Helps to pregnant womens during childbirth
- Reduces menstrual discomfort

Contraindications of the Padmasanam (Lotus Position)

- ❖ Ankle or knee injury

Bio mechanism behind the Padmasanam

Padmasanam allows the body to be held completely steady for long periods of time. As the body is steadied the mind becomes calm. Padmasanam directs the flow of prana from mooladhara chakra in the perineum to sahasrara chakra in the head, through heightening the experience of meditation.

3. JANU SHIRASANAM {Head to Knee Pose}

Janushirasanam is a Sanskrit word. The meaning of “**Janu**” is knee or Knee joint and “**Shirsa**” stands for head. The Pose is done by keeping our head with the knee joints. Janushirasanam is otherwise called as **Head to knee Pose**.

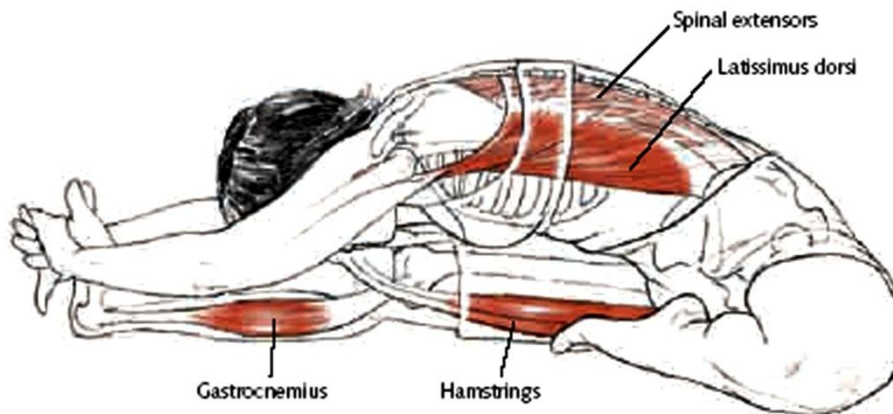


Fig No:3 Janu Shirasasanam Pose

Benefits of Janushirasanam

- It reduces belly fat.
- It strengthens the hip bone and pingala nerves. So the hip and leg pains will be diminished.
- It strengthens the stomach muscles, and also removes flatulence, abdominal bloating..
- Stretching of the left leg accelerates the pancreas.
- Stretching of the right leg stimulates the spleen and the gall bladder.
- Semen quality becomes improved.
- Enriches the blood flow in the abdominal area.
- It makes the spinal cord and muscles more flexible.

Precautions and Contraindications

It must be avoided in the following problems:

- ❖ Diarrhoea
- ❖ Asthma
- ❖ Knee injury
- ❖ Lumbar disc herniation or a serious lower back injury.

Biomechanism of the Janu Sirsasanam

This asana will increase the flexibility of the thighs, hamstrings, hip joints, back, arms, and shoulders. It refreshes the mind and stretches the entire body. It prepares the body for deeper forward bending poses.

4. PASCHIMOTTANASANAM

It stimulates the center of the solar plexus. The name comes from the Sanskrit words **Paschima**, meaning west or back, **uttana**, meaning intense stretch, and **asanam**, meaning posture.

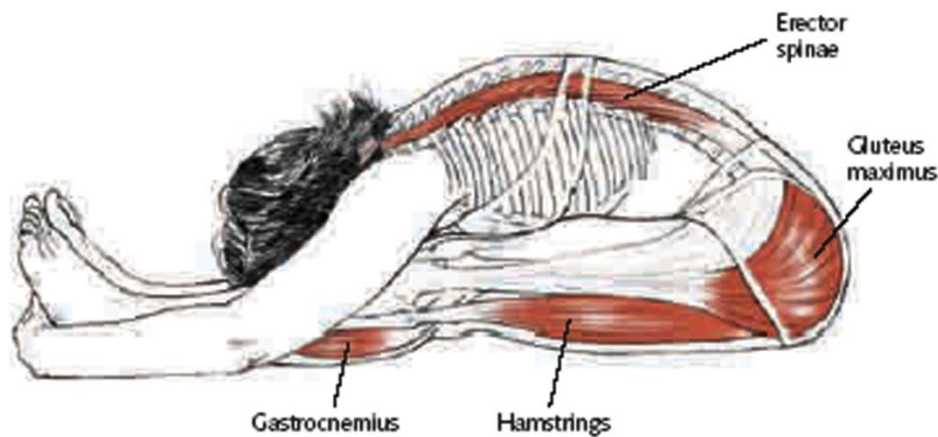


Fig No:4 Paschimottanasana Pose

The Benefits of Paschimottanasanam:

- It calms the mind and also relieves mild depression and stress.
- It stretches the shoulders, spine, and hamstrings.
- It stimulates the kidneys, liver, uterus, and ovaries.
- It helps to improve digestion
- It reduces anxiety, headaches, and fatigue.
- High blood pressure, insomnia, infertility can be cured
- It increases the appetite, and reduce obesity.

Precautions And Contraindication

It must be avoided in the following problems

- ❖ Asthma
- ❖ Diarrhoea.
- ❖ Back injury

- ❖ Pregnant women

Bio mechanism of the Paschimottanasanam

It stretches the muscles of the back part of the body from the ankles to the head. It contracts the muscles of the anterior part of the body, and this produces pressure on the abdomen and thorax, thereby, improving the functions of respiration, intra-abdominal glands, especially on secretions. It improves the flexibility of the lumbar region, the thighs, and the hips. It enhances the circulation of the blood in the back, and stimulates the nerves of the spinal cord. It helps to reduce the fat in the hips, thighs, and abdominal region. It stimulates the **Kundalini Shakti**.

5. BADHA KONASANAM

This asana is named after the Sanskrit words **Baddha** meaning bound, **kona** meaning angle or split, and **asanam** meaning posture. It is otherwise called the **Butterfly pose**.

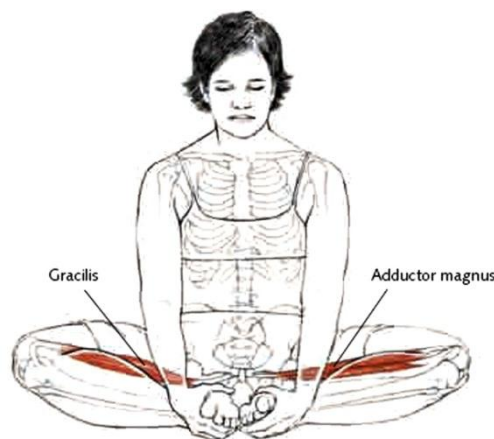


Fig No : 5 Badha Konasana Pose

The Benefits of the Cobbler Pose

- It helps the pregnant women, to have a easiest and smooth delivery.
- It enhances the functions of the reproductive system in the women.
- It helps to improve blood circulation all over the body.
- It reduces stress and fatigue.
- It helps to cure menstrual problems.
- It improves the flexibility of groin and the hip region, and also stretches the knees, inner thighs, and groin .
- It helps to stretches the spine, and relieve sciatica.
- It helps to cure flat feet, infertility, and high blood pressure.

Precautions and Contraindications

It must be avoided in the following conditions

- ❖ Knee injury.
- ❖ During menstrual cycle
- ❖ Sciatica

Bio mechanism of The Baddha Konasanam

It stretches the groin and the inner thigh. It enhances the flexibility of the feet, ankles, knees, hips and also increases the blood circulation in this area.

It is a very easiest prenatal pose and makes the labour more easier. It increases fertility and also enriches the reproductive system.

6. ABANASANAM

Abanasanam – Knees to chest pose

Abanasanam consist of two Sanskrit words. **Abana** means “**downward-flowing life force**” and Asanam means pose.

Abanasanam is a classic yoga posture, Knees to chest pose has many benefits. It can be done in the bed right after when we wake up in the morning. It is a very gentle way to restore proper blood circulation.

It is otherwise known as **wind-relieving pose or Energy freeing Pose**

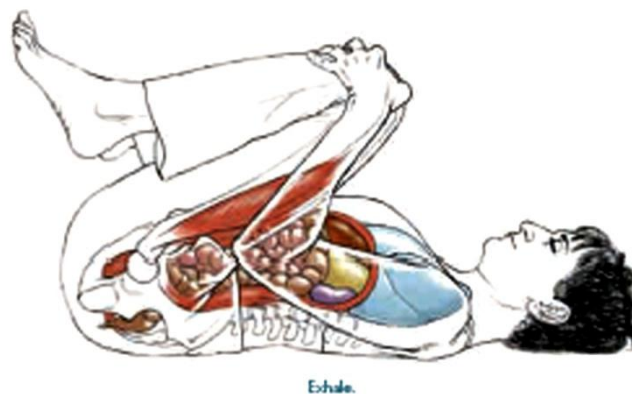


Fig No: 6 Abanasanam pose

Benefits of doing this asanam:

- It Stretches the body.
- It reduces tension in the lower back
- It improves blood circulation to the abdominal organs.
- It reduces abdominal bloating, and flatulence.
- It reduces the belly
- It relaxes the body and mind.

Precaution and contraindications:

It must be avoided in the following conditions

- ❖ Recently done abdominal surgery or hernia.
- ❖ Hip or neck injuries,
- ❖ Pregnant womens.

7. PAWANMUKTASANAM

This asanam is also referred as **Wind-Relieving Pose**. It relieves pain in the back and also helps to release digestive gases from the intestines and stomach.



Fig No : 6 Pawanmuktasana Pose

Benefits of the Wind Relieving Pose

- It strengthens the muscles of the abdomen and gives pressure to the intestines and internal organs of the abdomen, therefore releasing trapped gases.
- It strengthens the muscles of the back, arms and the legs.
- It improves the blood circulation in the hip region.

- It reduces the tension in the lower back.
- It strengthens and massages the pelvic floor muscles. It stimulates the reproductive organs thus helps to cure menstrual disorders.

It helps to reduce fat in the abdominal region, buttocks and thighs.

Precautions and Contraindications

It must be avoided in the following conditions

- ❖ Recent abdominal surgery, hernia, piles.
- ❖ Menstruating women, pregnant women.
- ❖ Reflux oesophagitis, hiatus hernia.
- ❖ Cardiac diseases, hyperacidity, high blood pressure, disc prolapsed or bulging conditions, back or neck injuries ,testicular disorders.

Bio mechanism of the Pawanmuktasanam

It relaxes the body, mind, and the spirit. It is better to do this asana in every morning just get out from bed, this should make our body functions more easier throughout the day.

8. SETU BANDHASANAM

Setu means bridge, **Bandha**, means lock and Asanam, or pose. It resembles the structure of a bridge. So it is otherwise called as **bridge pose**.

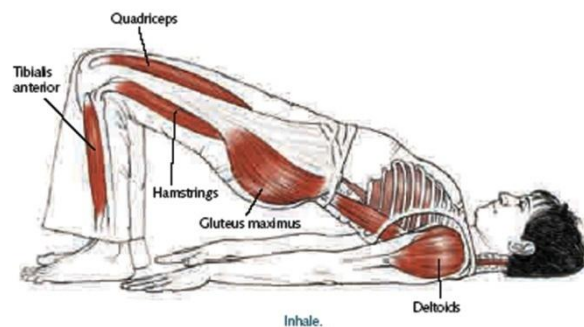


Fig No: 8 Setu Bandhasanam Pose

Benefits of Setu Bandhasanam

- It strengthens the muscles of the back, and also relieve the stress trapped in the back.
- It tones and stretches the neck, spine, and chest.
- It calms the brain by reduces depression, stress, and anxiety .
- It stimulates the thyroid gland.
- It helps to improve digestion.

- It relieves post menopausal symptoms and reduces menstrual pain.
- It reduces high blood pressure and cures sinusitis, asthma, insomnia, and osteoporosis.

Precautions and Contraindications

This asana must be avoided in the following conditions

- ❖ Neck injuries.
- ❖ Pregnant women
- ❖ Reflux oesophagitis

Bio mechanism of the Setu Banthasanam (Bridge Pose)

It Stretches the back of the neck, flexors of the hip, spine, and the thighs.

In this pose heart is placed higher than the head and therefore, it is considered a mild inversion. So it relieves anxiety, fatigue, stress, insomnia, headaches, and mild depression. It calms the mind and reduces the blood pressure. It increases the lung capacity and have a great benefits for asthma patients.

It stimulates the thyroid gland and helps to regulate all metabolism in our body. It stretches the knees and shoulders, therefore refreshing and rejuvenating practice for those who are spend more time in front the computer.

9. BHUJANGASANAM

Bhujanga means cobra in Sanskrit. This asana is the eighth pose of the 12 poses of the Surya Namaskar. In this asana the trunk and head raised to like the hood of a cobra, so it is also called the **Cobra Pose**, and it is one of the most important backward bending asanas in Yoga.

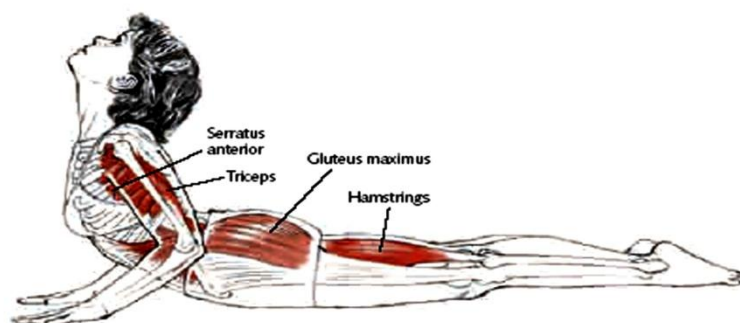


Fig No : 9 Bhujangasanam pose

The Benefits of the Cobra Pose

- It makes the spine more flexible and stronger.

- It tones the internal organs presents in the lower abdomen.
- It stimulates the digestive, reproductive, and urinary systems.
- It helps to regulate metabolism.
- It makes the buttocks firm.
- It helps to stretches the lungs, shoulders, chest, and abdomen.
- It reduces stress.
- It helps to open up the lungs and the heart.

It relieves sciatica and asthma.

Precautions and Contraindications

This asana should be avoided in the following conditions:

- Hernia
- Back injuries
- Carpal tunnel syndrome
- Headaches
- Pregnancy
- Recent abdominal surgeries

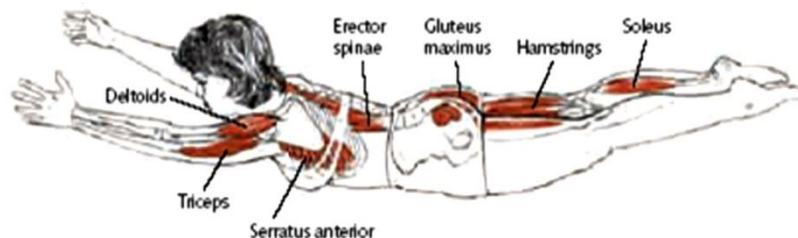
Bio mechanism of the Bhujangasanam

It is a great backbend pose that strengthens, tones, and flexes the spine. It opens up all the four chakras namely Visuddhi, Anahata, Manipuraga, Swadhistana chakra.

It makes the digestive and reproductive systems more efficient.

10. SHALABASANAM

Shalabh means **grasshopper**. It is otherwise named as the **Locust Pose**. It stretches and tones the



entire back of our body.

Fig No:10 Shalabasanam Pose

Benefits of The Locust Pose

- It stimulates the internal organs, and enhances the circulation of blood.
- It helps to regulate the acid-base balance in the body.
- It strengthens the arms, thighs, shoulders, legs, calf muscles, and hips.
- It regulates the metabolism thus helps to loose weight.
- It helps to reduce stress and tension.

Precautions And Contraindications

It must be avoided in the following conditions

- ❖ Headache or a migraine.
- ❖ Neck or spinal injuries
- ❖ Pregnant women

Biomechanism of the Salabhasanam

It's a blueprint for other backbends like Dhanurasana,Urdhya Mukha svanasana and the Chakrasana. Usually, backbends poses use the limbs to push the body against gravity. But in this asana, the hands and the legs are suspended, and therefore, our back and abdomen need to work harder to lift our body. So it strengthens the abdomen and back

11. DHANURASANAM

Dhanurasanam resembles a **bow**, and, therefore, is named so. Dhanur in Sanskrit means bow, and asanam means pose.

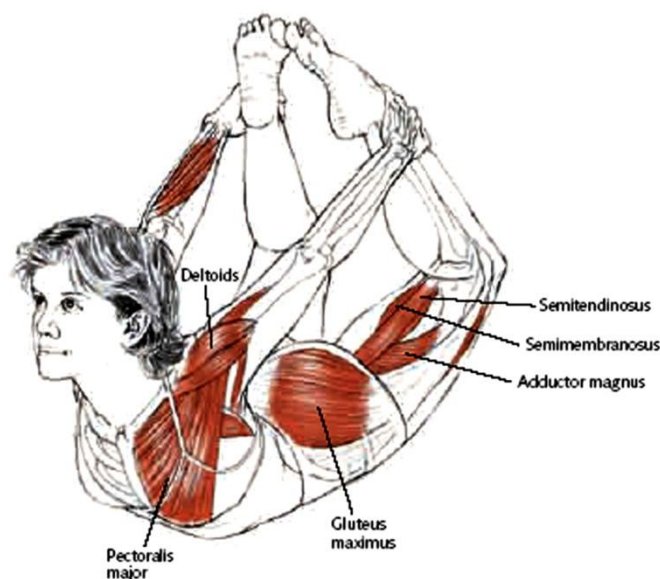


Fig No : 11 Dhanurasanam Pose

The Benefits of the Bow Pose

- It strengthens the back and the abdominal muscles.
- It helps to stimulate the reproductive organs.
- It helps to open up the neck, chest, and shoulders.
- It tones the legs and arm muscles .
- It adds flexibility to the back.
- This asana is a great stress buster.
- Regular practice relieves Menstrual discomfort.

Precautions And Contraindications

This asana must be avoided in the following conditions

- ❖ Hernia, high or low blood pressure, pain in the lower back, migraines, headaches, neck injuries, Recent abdominal surgeries.
- ❖ Pregnancy.

Bio mechanism of the Dhanurasanam

Spinal cord is the key to developing the spine, and also the most important part of the body. Most asanas involve the spinal column to enrich the root of life. It mainly focuses the spinal column, thereby strengthens and flexes the back

12. MARJARIASANAM

Marjariasanam is also called the **cat stretch**, and gives the body an amazing feline stretch.

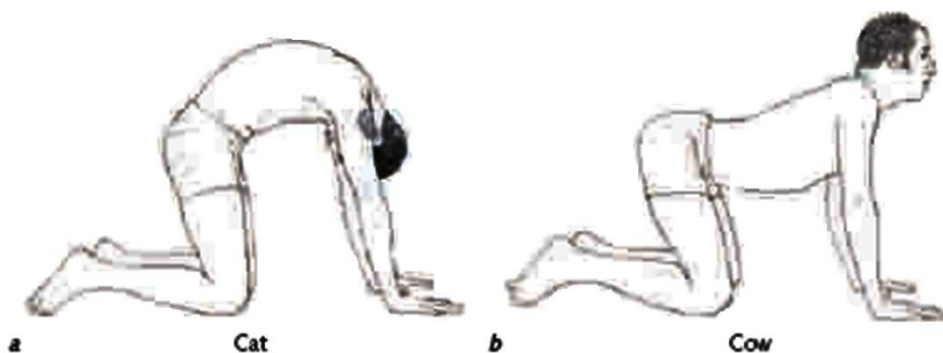


Fig No : 12 Marjariasanam Pose

The Benefits of Marjariasanam

- It stretches, strengthens the spine and adds flexibility.
- It strengthens the Shoulders and wrists.
- It activates the digestive organs.
- It helps to tone the abdomen and reducing the fat, slowly.
- It improves the circulation of blood and oxygen in our body.
- It removes the stress and strain thereby relaxes the mind

Precautions And Contraindications

Avoid this asana in the following conditions

- ❖ Severe back or neck problems.
- ❖ Head injury.

Biomechanism of the Marjariasanam

The forward and backward bends thus helps in the circulation of spinal fluids that also helps to strengthen the spine. The complete movement makes the vertebrae becomes mobile, and releases all the tensions.

13. VAJRASANA

Vajra – Diamond or Thunderbolt, Asana – Pose. Vajrasanam is a **kneeling pose**, and is also called **Adamantine Pose**. Breathing exercises are done in this sitting position, the body becomes as strong as a diamond.



Fig No:13 Vajrasanam Pose

Benefits Of Vajrasanam

- It improves digestion and relieves constipation.
- It strengthens the back, lower back problems and sciatica.
- It strengthens the pelvic muscles.
- It helps to ease out labour pains and also reduces menstrual cramps.

Precautions And Contraindications

This asana must be avoided in the following conditions

- ❖ Knee problem or undergone recent knee replacement surgery.
- ❖ Intestinal ulcers, hernia

Biomechanism of the Vajrasanam

It regulates blood circulation in the lower pelvic region. Sitting on the legs reduces the blood flow in the legs and increases the flow in the digestive region, therefore increasing the efficiency of the digestive system.

14. CHAKRASANA

It is otherwise called **Wheel Pose**. It gives great flexibility to the spine. It is so called backbridge pose.

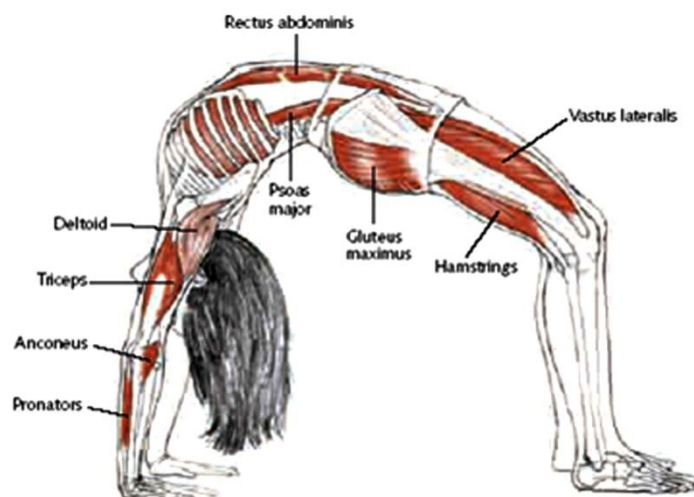


Fig No : 14 Chakrasanam Pose

The Benefits Of Wheel Pose

- It helps to make the thighs, ankles, buttocks, abdomen, and spine stronger.
- It stretches the hamstrings, calves, chest, shoulders, spine, and groin.
- It helps us to keep better coordination.
- It relieves menstrual disorders and pain in the legs.
- It helps to ease lower back problems.

Contraindications for Chakrasanam

Avoid this asana in the following conditions

- ❖ Neck, hip or spinal injury.
- ❖ Vertigo.
- ❖ High blood pressure
- ❖ Pregnant women.

Biomechanism of the Chandrasanam

Regular practice of this asana helps to become aware and cultivate balance. It helps to create stability through standing leg, tail bone, and shoulder blades, thus foundation will be strong.

15. TRIKONASANAM

Trikona means **triangle** in Sanskrit, and asana means posture. This resembles like a triangle therefore it is named so.

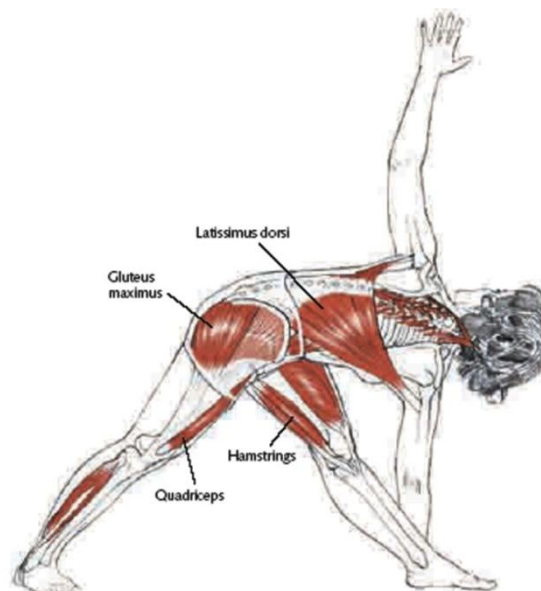


Fig No : 15. Trikonasana Pose

Benefits of Trikonasanam

- It strengthens the knees, ankles, legs, chest, and arms.
- It stretches the groins, hips, hamstrings, and calves and also the chest, spine, and shoulders.
- It increases both physical and mental stability.
- It stimulates all the abdominal organs.
- It helps to reduce back pain and sciatica.

Precautions and Contraindications

This asana must be avoided in the following conditions

- ❖ Neck injuries.
- ❖ Low blood pressure.
- ❖ Diarrhoea.

Biomechanism of the Trikonasanam

This pose gives expansion, stability, and evenness. These three are the basic principles of yoga.

It gives strength and stability to the legs and the feet and expands the torso. Arms and legs are stretched out, it creates evenness (sama) in the body. Through the balance of legs, arms, and torso, therefore mind becomes even and steady.

16. VRIKSHA SANAM

Vriksha means **Tree** in Sanskrit, **Asanam** means posture.

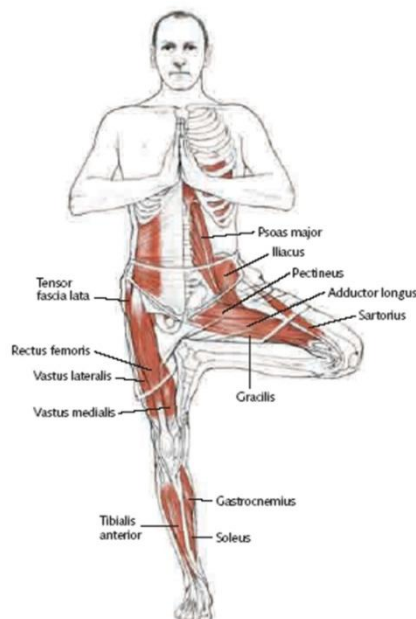


Fig No : 16. Vriksha sana Pose

Benefits Of Vrikshasanam (Tree Pose)

- It strengthens the spine.
- It improves the neuro-muscular coordination.
- It tones the leg muscles and strengthens the ligaments and tendons of the feet.
- It strengthens the knees, eyes, inner ears and shoulders and loosens the hip joint.
- It relieves the pain of sciatica and reduces flat feet.
- It enhances concentration, and also makes stable, flexible, and patient.
- It helps to deepen the thorax.

Contraindications and precautions of Vrikshasanam

- ❖ High blood pressure practitioners should not raise their arms above the head for a long period of time. Their hands will be held at the chest in the ‘anjali’ mudra.
- ❖ Avoid this pose during insomnia or migraine conditions.

Bio mechanism of the Vrikshasanam

It is a balancing posture, and it improves balance and enhancing the nervous system. Stress and tension forbid us from balancing. Through stretching it stabilizes our mind and body , and it is also strengthens our joints and bones and expands the hips and chest.

17. TADASANAM

Tadasanam is otherwise called as **Mountain pose**. It is an warm up pose. Through this pose it improves the circulation of blood.



Fig No : 17 Tadasana Pose

The Benefits Of Tadasanam (Mountain Pose)

- It helps to improve body posture.
- It strengthens the knees, thighs, and ankles.
- It tones the buttocks and abdomen.
- It helps to relieve from sciatica.
- It reduces flat feet.
- It helps to improve balance.
- It regulates the Digestive, nervous, and respiratory systems.

Precautions And Contraindications

It is best to avoid this asana in the following problems:

- ❖ Headaches
- ❖ Insomnia
- ❖ Low blood pressure

Biomechanism behind the Tadasanam

This asana is a blueprint pose. It works on the muscles and makes the posture become more better, and also pain-free in the modern sedentary life style. It works to align our skeleton and bring it into a neutral stance.

18. SHAVASANAM

Shava means **corpse**, **Asana** means **pose**. So it is otherwise called **Corpse pose**. It resembles the posture of a dead body and is, therefore, named after it. It completely relax the body and mind. It is usually practiced after all Yoga poses and also practiced whenever we were extremely tired and need to get back to work quickly. It is an refreshing and rejuvenating pose.



Fig No : 18. Shavasana Pose

Benefits Of Shavasanam (Corpse Pose)

- It relaxes and calms the body and brings to a meditative State
- It reduces blood pressure and anxiety
- It improves concentration and memory
- It increases the levels of Energy

Precautions or contraindications of Shavasanam

This pose is safe for everyone.

Bio mechanism of the Shavasanam (Corpse Pose)

It relaxes the body and mind.

After a strenuous workout like stretching, twisting, contracting, and inverting of muscles, it allows our body to rest and regroup. Even the most neglected muscles will get stress in such a short span of time. It helps the nervous system integrate all information before our mind gets busy with the regular stress of the day.

It imparts deep awareness of our mind and body.

CONCLUSION

Yoga therapy gives promising effects, not only on reducing LBP (Vatha sthambam), but strengthens and tones the trunkal and core muscles. Since it is cost effective people will follow and continue regularly with proper guidance. The Yogic posture regulates the parasympathetic nervous system which slows down the pulse rate, heart rate, blood pressure and also calms the mind. The release of dehydro epiandrosterone (DHEA), brain derived neurotrophic factor(BDNF) [1] and other neuro peptides, serotonin provides the analgesic and anti inflammatory effect from mild to severe LBP. But without proper guidance it will increase the pain and complications. So practicing Yoga therapy is the best way of alleviating LBP and best alternative for surgical interventions.

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