



## UNIT-III: YOGA AND LIFESTYLE

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- Asanas as preventive measures
- Obesity: Procedure, Benefits & contraindications for Vajrasana, Hastasana, Trikonasana, Ardh Matsyendrasana
- Diabetes: Procedure, Benefits & contraindications for Bhujangasana, Paschimottasana, Pavan Muktasana, Ardh Matsyendrasana
- Asthema: Procedure, Benefits & contraindications for Sukhasana, Chakrasana, Gomukhasana, Parvatasana, Bhujangasana, Paschimottasana, Matsyasana
- Hypertension: Tadasana, Vajrasana, Pavan Muktasana, Ardha Chakrasana, Bhujangasana, Sharasana
- Back Pain: Procedure, Benefits & Contraindications Tadasana, Ardh Matsyendrasana, Vakrasana, Shalabhasana, Bhujangasana

### Learning Outcomes

At the end of the Unit, you will be able to:

- identify the *asanas* beneficial for different types of ailments and health problems.
- recognize importance of various *asanas* for preventive measures of obesity, diabetes, asthma, hypertension, back pain.
- describe the procedure for performing variety of *asanas* for maximal benefits.
- distinguish the contraindications associated with performing of different *asanas*.
- outline the role of yogic management for various health benefits and preventive measures.

### Discussion

#### Discuss in a Group

- What are the factors that have led to an increase in sedentary behaviour in our modern lifestyle?
- What prompts individuals into developing a particular lifestyle or adopting a particular occupational culture?
- In what way do their different lifestyles and occupations impact their day to day life or health?
- What do you understand by the term lifestyle diseases?
- List some lifestyle diseases.





- What is the meaning of the term “premature mortality”? How do these diseases lead to?

### 3.1.1 Yoga Asanas as a Preventive Measure

Emerging new technologies such as dependence on the internet and virtual communication networks, have led to faulty eating habits and a wrong sleeping pattern that threatens the physical and mental health of individuals. Yoga plays an important role in helping individuals adopt a healthier lifestyle for improved physical and mental health, which, in turn, results in better productivity. Yoga is therapeutic in modern lifestyle disease like stress, diabetes, hypertension, backache etc. The power of yoga lies in its simplicity, flexibility, and diversity. As a result, Yoga has been the subject of global popularity and research in the past few decades.



Picture source<sup>1</sup>

Yoga is a very ancient system of physical, mental, and spiritual practices or disciplines that originated in India. According to Patanjali, **asana** means, *Sthira sukham asanam*, or, **that position which is comfortable and steady**. In *Bhavanopanishad*, “To sit in a comfortable position or posture for everlasting period is called *Asana*”. There are different types of *asanas* Meditative *Asana*, Relaxative *Asana* and Corrective *Asana*.

The modern world is facing a pandemic of lifestyle disorders that require changes to be made consciously by individuals themselves, and *yogasanas* can be preventive measures in fending off lifestyle diseases as they provide physiological advantages. Busy schedule, long





commutes, load of study, late night work leaves little, or no, time for physical activity. This, added to the lifestyle related challenges has led to diseases such as hyperactivity, obesity, hypertension, and diabetes. The following are the blessings of *asanas* for prevention of diseases:

- 1. Strengthening of Bones and Joints:** Yoga *asanas* are performed with postural stability and complete focus on the movement of joints and elasticity of muscles. Yoga is a weight-bearing exercise, which simply means you hold the weight of your body up against gravity. This puts mild stress on the bones and keeps them strong. Unlike other weight-bearing activities, yoga does not damage cartilage or stress the joints. Instead, it helps to strengthen and maintain bone health, relieves stress, improves balance and thereby reduces the likelihood of falls. In 2011, Dr Loren Fishman, a famous Physiatrist, reported that his patients showed increased bone density in their spine and hips through Yoga. The study concluded that practising yoga for just 8-10 minutes every day would raise bone quality. Dr Fishman conducted another study with 741 elderly volunteers over a period of 10 years that concluded in 2015 which proved that yoga is safe, even for people who have suffered significant bone loss. "There are a series of anti-arthritis *asanas* for loosening every joint of the body," says Agarwala<sup>2</sup>. The *Tadasana*, *Tiryak Tadasana* and *Kati Chakrasana* involve three different movements, like upward stretching, lateral stretching and twisting of the spine. Also, the *Trikonasana* helps in developing body structure strength. Backward-bending *asanas*, such as *Bhujangasana*, *Sarpasana* and *Dhanurasana*, are excellent for relieving back pain and strengthening the spine. *Surya Namaskar*, which has 12 positions, is a complete practice for bone strengthening.

#### Do you know?

##### Difference between yoga and exercise?

- When *Yogasanas* are performed, respiration and metabolic rates slow down. As a result, consumption of oxygen and body temperature drop. However, during exercise, breathing and metabolism speed up, oxygen consumption rises, and body gets hot.
- *Yoga* postures tend to arrest catabolism whereas exercise promotes it.
- *Asanas* are designed to have specific effects on the glands and internal organs, and to alter electrochemical activity in the nervous system.
- The *asanas* are classified in to three groups- beginners, intermediate, and advanced. Regular practice of a balanced programme, tailored to individual needs is recommended for maximum benefits.

- 2. Improving Blood Circulation:** By performing Yoga regularly, cardiac muscle tissue begins working better, increasing cardiac output. Blood circulation improves and blood





stress normalizes and stabilizes. Regulated breathing oxygenates the blood and assists fresh nutrients to reach all peripheral vessels and capillaries. Improved circulation means that the brain receives more oxygen, resulting in improved alertness, memory, and mood. Other vital organs also receive a steady supply of the nutrients they need for optimal functioning. *Adho Mukha Svanasana* (Down dog), *Virabhadrasana* (warrior pose), *Utthita Trikonasana* (triangle pose), *Urdhva Dhanurasana* (Full wheel), *Ustrasana* (camel pose) are *asanas* to improve blood circulation.

3. **Bolstering Immunity:** Lack of sleep, poor nutrition, and life stress all lead to a weakened immune system and vulnerability to disease. Stress, more than anything, leads to a breakdown in the body's ability to defend itself against bacteria and viruses. When stressed, the hormone cortisol stays in the blood for extended periods of time, leading to increased inflammation. According to *Psychology Today*<sup>3</sup>, a new research published in the Journal of Behavioural Medicine suggests that yoga can be helpful in boosting the immune system and decreasing inflammation in the body as it lowers stress hormones and strengthens the nervous system, while also stimulating the lymphatic system, which removes toxins from the body. Yoga calms the mind and contributes to deeper, regulated sleep, which is crucial for wellness. *Balasana* (Child pose), *Bhujangasana* (cobra pose), *Dhanurasana* (Bow pose) and *Matsyasana* (Fish pose) are helpful in improving immunity
4. **Improving efficiency of Respiratory Organs:** Respiration is a two-way process: supplying oxygen to every cell in the body and then transporting carbon dioxide, the waste product of respiration, out of the body. Lungs have the important function of drawing in the oxygen, moving it into the blood stream, extracting the carbon dioxide from the blood stream and removing it from the body. Most people are habitual shallow breathers and do not use lungs to their full potential. *Bitilasana* (Cow pose), *Marjaryasana* (cat pose), *Padangusthasana* (Big toe pose) help improve the respiratory system. The size of lungs and chest is also enhanced. Yogic *asanas* and *pranayama* have been shown to lower the resting respiratory rate.
  - Complete breathing gives us more energy. The deeper our breath the more oxygen reaches our cells. At the cellular level oxygen is used for energy release.
  - Complete breathing helps us to think more clearly by supplying more oxygen to the brain.
  - It assists our immune system and helps to lower our heart rate.
  - Complete breathing also relaxes us, giving us a good night's sleep and is a great way to cope with stress.
5. **Complementing Performance of Excretory System:** As you know, food is digested in the digestive tract and nutrients are absorbed in the blood and waste is thrown out of the body. If the excretory system is not functioning properly the waste from the body is not thrown out completely and gets accumulated, leading to problems in the





digestive system, urinary system and excretory system. *Pawanmuktasan* and other loosening movements help in releasing toxins from the joints. All forward bend, backward bend, and twisting *asanas* create pressure and stretch in the abdominal cavity. This improves the blood supply to the organs in the abdominal cavity like stomach, intestine, liver, gall bladder, kidneys and pancreas. As a result, the waste products including lactic acid, acid phosphate, urea, uric acid etc. are excreted. This helps in reducing fatigue. Recommended *asanas* include *Pawanmuktasan*, *Dronasana*, *Bhujangasana*, *Shalabhasana*, *Dhanurasana*, *UttanaVakrasana* and *Trikonasana*. Mudras like *Ashwamudra*, *Ashwinimudra*, *Yogamudra*, *Viparitamudra*, *Sulabhatadagi mudra* have positive effect on this system.

6. **Strengthening Muscular Tissues:** The Musculo-Skeletal system consists of bones, skeletal muscles, joints, tendons, ligaments, nerves and cartilage. It provides a frame to support the body and to enable it to move. Muscles, tendons and ligaments act on the bones to give the body its shape and posture. Yoga *asanas* can help redress problems associated with poor body posture and the effects of structural decay, because they strengthen weak muscles and stretch tight ones. For example, an individual who spends long hours sitting or at a computer can develop shortness of the hip flexors and an imbalance of the hip musculature. Regular Yoga practice strengthens and increases muscle tissue. Fat does not accumulate in the body. Yoga *asanas* and *pranayama* can help by combating and helping to reverse this gradual decay of the body's structure. By taking corrective action, the person's pain, illness or disease can at least be addressed, or in other cases, even ameliorated.

I. **Tick the correct option**

1. *Yogasutra* was compiled by
  - (a) Patanjali
  - (b) Gheranda
  - (c) Shivananda
  - (d) Svatmarma
2. According to Patanjali, the definition of *Asana* is
  - (a) control of sense organs
  - (b) sitting in a cross-legged position
  - (c) sitting in a comfortable position
  - (d) control of diet and water intake.
3. How many types of *Asanas* are there in Yoga?
  - (a) 3





- (b) 4
- (c) 5
- (d) 12

4. Which *Asana* is good for the performance of the Excretory System?

- (a) *Sukhasana*
- (b) *Tadasana*
  
- (c) *Pawanmuktasana*
- (d) *Virabhadrasana*

**II. Answer the following questions briefly.**

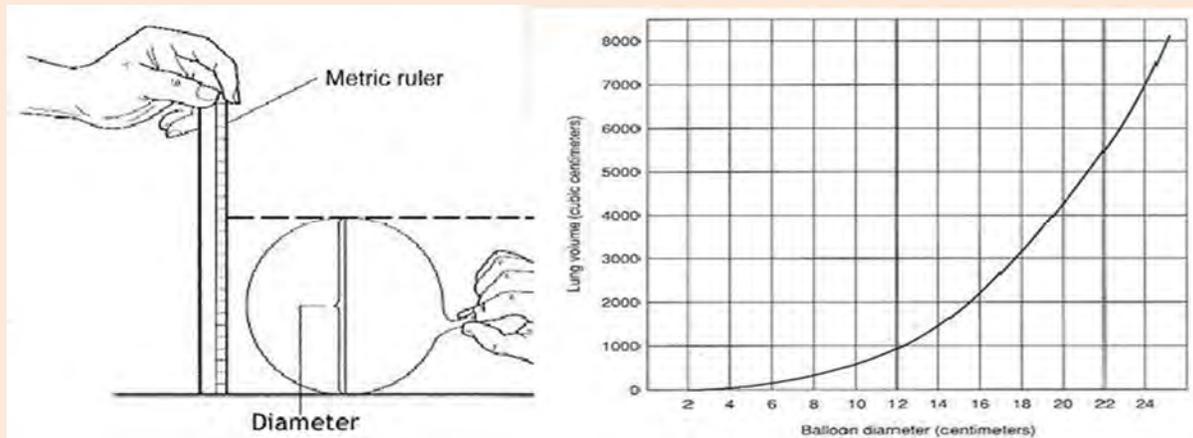
1. How is yoga helpful in improving lifestyle?
2. How do *Asanas* help bones and joint to grow stronger?

**III. Answer the following question in 150—200 words**

1. Discuss *Asanas* as a preventive measure for disease.

**Extension Activity**

Take a round balloon and stretch it out. Take a deep breath and then exhale into the balloon. Pinch the end of the balloon and measure its diameter in cm.



How did you feel after five attempts?

Picture source<sup>4</sup>

Measuring breath inhaling and exhaling capacity to understand the functioning capacity of your lungs by using a Balloon





### 3.2.1 Obesity

Obesity is not a single disorder but a heterogeneous group of conditions with multiple causes each of which is ultimately expressed as obese phenotype. Obesity involves complex etiological links between the genetic, metabolic and neural frameworks on the one hand, and behaviour, food habits, physical activity and socio-cultural factors on the other. Obesity is a condition in which excess body fat accumulates to such an extent that health may be affected. It is commonly defined as a Body Mass Index (BMI) of 30kg/m<sup>2</sup> or higher. Obesity, in absolute terms, is an increase of body adipose tissue (fat tissue) mass.

Obesity, which was once viewed as the result of lack of will power, or a lifestyle "choice" – the choice to overeat and under exercise, is now being considered more appropriately by the modern world as a chronic disease, which requires effective strategies for its management. There are different methods to measure obesity.

MEASURING OBESITY	DETAILS						
BODY MASS INDEX	<p>BMI is a value derived from the mass (weight) and height of a person. The BMI is defined as the body mass divided by the square of the body height, and is universally expressed in units of kg/m<sup>2</sup>, resulting from mass in kilograms, height in metres.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> <p style="text-align: center; margin: 0;">Body Mass Index Interpretation</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">BMI &lt; 18.5: Below normal weight</td> </tr> <tr> <td style="text-align: center;">BMI &gt;= 18.5 and &lt; 25: Normal weight</td> </tr> <tr> <td style="text-align: center;">BMI &gt;= 25 and &lt; 30: Overweight</td> </tr> <tr> <td style="text-align: center;">BMI &gt;= 30 and &lt; 35: Class I Obesity</td> </tr> <tr> <td style="text-align: center;">BMI &gt;= 35 and &lt; 40: Class II Obesity</td> </tr> <tr> <td style="text-align: center;">BMI &gt;= 40: Class III Obesity</td> </tr> </table> </div> <p>Do you know other methods of measuring obesity?</p>	BMI < 18.5: Below normal weight	BMI >= 18.5 and < 25: Normal weight	BMI >= 25 and < 30: Overweight	BMI >= 30 and < 35: Class I Obesity	BMI >= 35 and < 40: Class II Obesity	BMI >= 40: Class III Obesity
BMI < 18.5: Below normal weight							
BMI >= 18.5 and < 25: Normal weight							
BMI >= 25 and < 30: Overweight							
BMI >= 30 and < 35: Class I Obesity							
BMI >= 35 and < 40: Class II Obesity							
BMI >= 40: Class III Obesity							

### 3.2.2 Asanas to Prevent Obesity

#### VAJARASANA

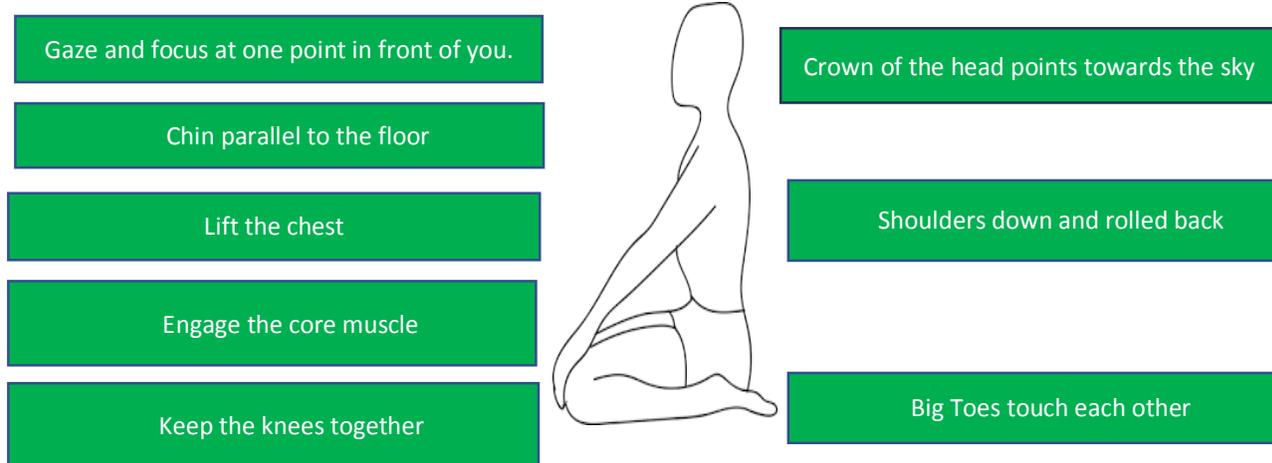
In Sanskrit Vajra means **thunderbolt** and since the final position of this asana looks like thunderbolt, it is called Vajrasana. Vajra is also the major Nadi directly connected to the Genito-Urinary system. Body parts involved in performing Vajrasana are feet, ankles and knees. Garudasana (Eagle pose) and Baddha Konasana (Butterfly pose) are preparatory asanas for Vajrasana.





### Procedure

1. Sit with legs extended together, hands by the side, palm resting on the ground, fingers together and pointing forward.
2. Fold the right leg at the knee and place the foot under the right hip.
3. Similarly fold the left foot and place it under the left hip. Feet should touch the sides of hips.



4. Now place your hands on the knees, with the palms resting on the knees.
5. Back and head should be straight but not tense, gaze in front or close your eyes and relax.
6. Avoid excessive backward arching of the spine.
7. Breathe normally and fix the attention on the flow of air passing in and out of the nostrils.
8. While returning to the original position, bend a little towards right side, take out your left leg and extend it.
9. Similarly, stretch out your right leg.

### Suggested *Asanas* to relax muscles after *Vajrasana*

*Dandasana* and *Savasana* to release the stress around the back, legs and the hips.

**Advance pose** - *Paryakasana* (Couch Pose), *Bhekkhasana* (Frog pose II), *Laghuvajrasana* (Little thunderbolt pose)

### Benefits

- (a) *Vajrasana* increases flexibility in the ankles.
- (b) Folding of knees and thighs stretches the quadriceps muscles and improves blood circulation.





- (c) Elevating the spine from the floor, alters the flow of blood in the pelvic region and pelvic muscles are strengthened.
- (d) *Vajrasana* can be practised even after a meal. In fact, it increases the efficiency of the digestive system and aids digestion.
- (e) It increases the blood circulation in the abdominal area.
- (f) This *asana* helps with people suffering from sciatica and sacral infections.
- (g) It is beneficial for those suffering from stomach ailments such as peptic ulcer or hyper acidity.
- (h) It strengthens the pelvic muscles which helps prevent hernia and aids women in childbirth.

#### Do you know?

Despite initial problems, many of the *asanas* can be performed with certain modifications till the body acquires required flexibility and proficiency.

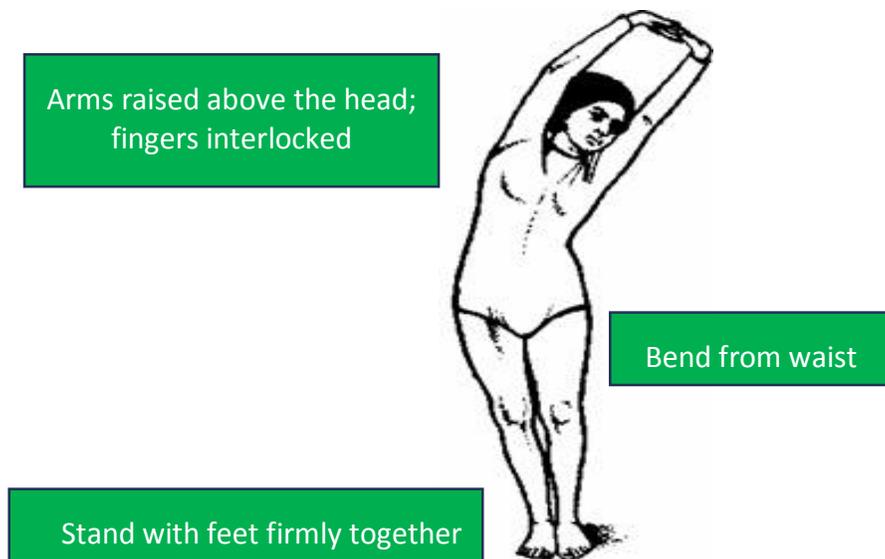
#### Contraindications

- (a) Person suffering from piles should not practice it.
- (b) This *asana* should not be practised if one is suffering from injured ligaments at the ankles or at the knees.
- (c) Those suffering from hernia or intestinal ulcers should take medical advice and guidance before practicing this *asana* and should perform it under supervision of a trained yoga teacher.
- (d) Runners should avoid this if they have injury in their hamstrings or the calves.
- (e) This *asana* is not to be practised by people who have severe arthritis and pain in the knees.

#### HASTASANA (HASTOTTANASANA)

The name comes from the Sanskrit words *Hasta* meaning **arms**, *Uttana* meaning **stretched up**, and *asana* meaning **posture**.





### Technique

1. Stand on the ground with feet together
2. Inhale and raise arms over the head; interlock the fingers.
3. While exhaling bend from the waist to the left side.
4. Hold the posture for a while and, while inhaling, come back to the centre.
5. Repeat the practice on the right side

### Benefits:

1. This *asana* improves curvature of the spine.
2. It exercises back, neck and spinal joints.
3. This *asana* relieves constipation.
4. It makes the waist slim, the chest broad and removes fatty deposits on hips. It also increase height of growing children.

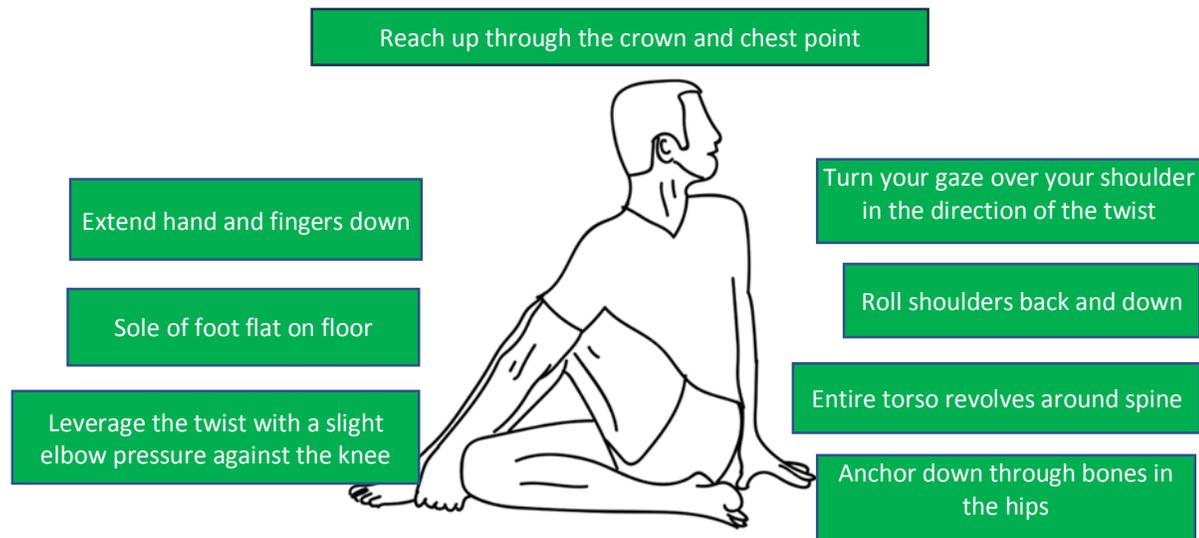
### Contraindications:

1. Avoid this *asana* if you are suffering from severe back, neck and shoulder pain.
2. Patients suffering from pain in the Sciatic nerve should also avoid practising this *asana*.





## ARDHA MATSYENDRASANA



The name comes from the Sanskrit words Ardha meaning **half**, Matsya meaning **fish**, Eendra meaning **king**, and asana meaning **posture**. The final position of this asana is just like Half-Lord of the Fish that is why it is called Ardha- Matsyendrasana. This posture is also known as “Half Spinal Twist Pose”. Body parts and organs involved in performing this asana are arms, shoulders, lower back, middle back, hamstrings, hips, psoas muscles, stomach, pancreas, small intestine, large intestine, liver, kidney and gall bladder. Dhanurasana, Bhardvajasana and the hand down variation of the Ardhamatsyendrasana are the preparatory asanas which can be practised before. In this position there is a strong twist on the abdomen and spine. The right arm is pressed against the left knee and the left arm is wrapped behind the back, leading to an increased twist on the body. The chest is open and the spine is erect. One side of the abdomen is compressed, and the other side is stretched. The right leg and knee remain on the floor. The left knee should be close to right armpit.

### Procedure

1. Sit extending both the legs stretched out. Make sure that your feet are placed together and your spine is absolutely erect. Place your hands by the side, palms resting on the ground, fingers together pointing forward.
2. Bend the right leg at knee such that the heel of the right foot lies next to the left hip.
3. Now folding the left leg, bringing it from above the right knee, placing the left foot on the ground beside the right knee. The left knee should point upwards.
4. Now place the right hand on the left side of the left knee. The left knee should remain at the left side of the right armpit.
5. Straighten the right hand and hold the toe or ankle of the left leg.
6. Twisting the body to the left side, look backwards. Place the left hand bringing it from the back on the right thigh. Gaze should be towards the back.





7. While returning to the original position first release the hand from the thigh and turn head forward.
8. Now bring the back to normal position after loosening the right hand.
9. Bring the left leg to its original position.
10. Bring the right leg also to original position.
11. Repeat it similarly from the other side by folding the left leg first.

#### **Advance Asanas – Full Matsyendrasana**

##### **Benefits**

1. *Ardh Matsyendrasana* increases lung capacity and improves oxygen supply to the lungs
2. This *asana* increases purification of the blood as well as of the internal organs.
3. It is an *asana* that is useful for diabetics (b-cells and t -cells), with concentration on the pancreas.
4. This *asana* regulates the secretion of bile and adrenaline.
5. It stimulates functioning of the liver and kidneys.
6. *Ardh Matsyendrasana* increases the elasticity of the spine, tones the spinal nerves and improves the functioning of the spinal cord. It also benefits the muscles of shoulder and back.
7. It is an *asana* that is helpful for those suffering from constipation and dyspepsia.
8. This *Asana* improves liver efficiency and removes debility of kidney

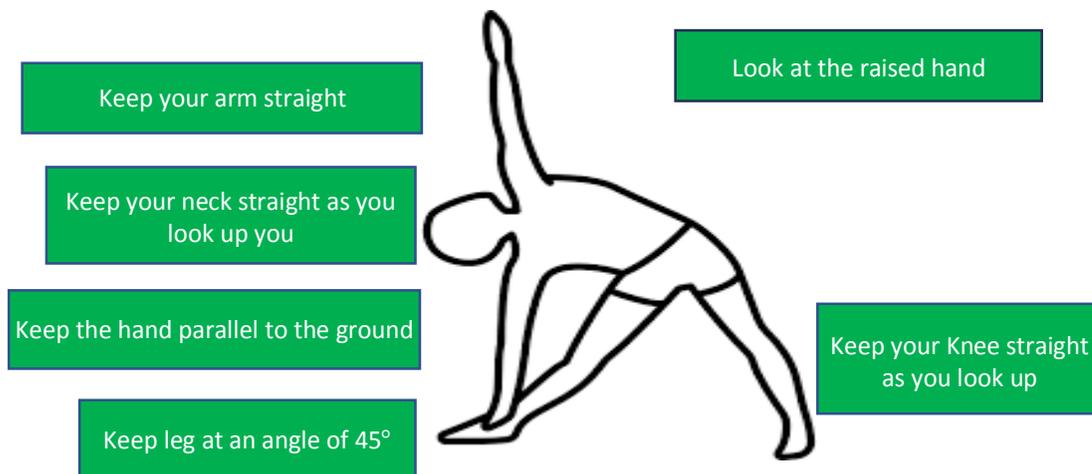
##### **Contraindications**

1. This *asana* should be avoided during pregnancy and menstruation due to the strong twist in the abdomen.
2. People who have undergone heart, abdominal or brain surgeries should not practice this *asana*.
3. Care should be taken by those with peptic ulcer or hernia while performing this *asana*.
4. Those with severe spinal problems should avoid the *asana*. While those suffering from mild slipped disc may benefit from it, but in severe cases it should be avoided.





### TRIKONASANA



The name *Trikonasana* comes from the Sanskrit words *Trikona* meaning **triangle** and *Asana* meaning **posture**. This is a standing posture using the legs to firmly ground the lower body (creating a triangle with the floor) and through the vertically extended arm stretching the upper body (creating a triangle between the front foot and grounded hand). *Trikonasana* stretches the muscles of the arms, trunk and legs. The primary muscles stretched in this posture are the front leg hamstrings and the abdominal and back muscles. The primary muscles strengthened in this posture are the quadriceps and the gluteal muscles. *Virabhadrasana* (Warrior pose I) and *Virbhadrasana II* (Warrior pose II) are preparatory *asanas* for *Trikonasana*.

#### Procedure

1. Stand straight with legs together, hands by the side.
2. Spread feet to keep two or two and half feet distance between the legs and raise both arms parallel to the shoulders.
3. Slowly bending laterally towards the right side touch the toe of the left leg with the forefinger and middle finger of the right hand and raise the left hand towards the sky. Fix your gaze towards the left hand. Inhale when you start your pose and exhale when you are going down. Once you are in the *asana* breathe in a very uniform and smooth manner.
4. After maintaining the position for 5 breaths, slowly return to the second position.
5. Now slowly start bending laterally towards the left side and touch the toe of right leg with left hand and Keep right hand pointing towards sky. Fix your gaze towards the raised hand.
6. While returning to the original position bring down your raised hand, and stand erect with legs together.





7. Perform three to five rounds of *Trikonasana*

**Relaxation pose** - *Uttanasana* (Standing Forward Bend Pose), *Tadasana* (Mountain Pose), *Dandasana* (Staff Pose)

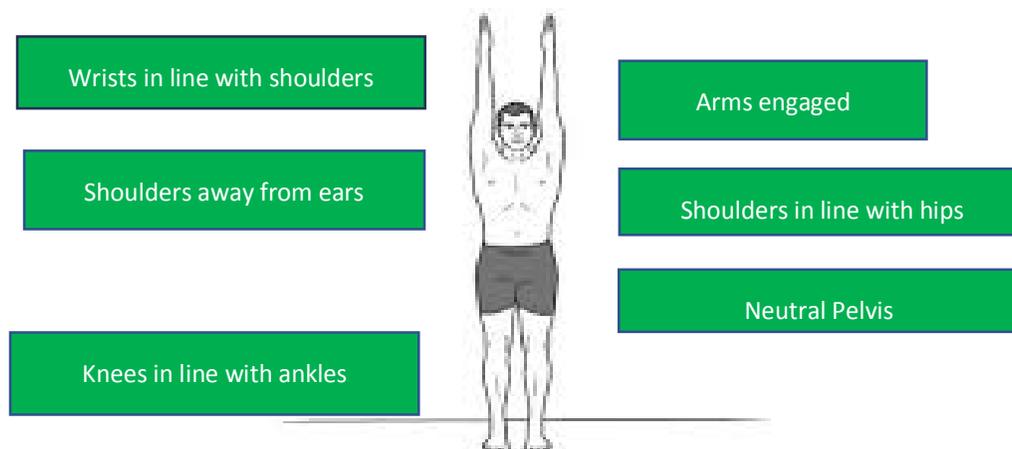
#### Benefits

1. *Trikonasana* is very important for people who practice activities like walking or cycling as it increases flexibility and movement in the hips. It helps in strengthening the pelvis and legs, and developing balance in your lower body.
2. It strengthens the back and abdominal muscles.
3. It improves the capacity of the heart and improves cardiovascular functioning.
4. *Trikonasana* improves backache and arthritis.
5. This *asana* helps burn fat and is recommended for those suffering from over-weight and obesity

#### Contraindications

1. Avoid *trikonasana* if suffering from migraine, low or high blood pressure, or neck and back injuries.
2. A person suffering from diarrhoea shouldn't perform this *asana*.
3. Those who experience dizziness shouldn't look down at the floor during the final stage.
4. Those suffering from cervical spondylosis should perform the *asana* with proper precautions.

#### URDHVA HASTOTTANASANA



The name *Urdhva Hastottanasana* comes from the Sanskrit words *Hasta* meaning **arms**, *Uttana* meaning **stretched up**, and *asana* meaning **posture**. This *asana* is also known as - Palm Tree Pose, Upward Hand Stretch Pose, Upward Salute, Raised Hands Pose, *Tadasana* and *Urdhva Baddhanguliyasana*. It is a standing posture and is considered a warm-up yoga





posture to prepare the body for more intense yoga *asanas*. Arms, shoulders, upper back, neck, psoas muscles are involved in performing *UrdhvaHastotanasana*

### Procedure

1. After relaxing the neck muscles with clockwise and anti-clockwise rotation, relax the arms and neck completely.
2. Inhaling deeply, raise arms above your shoulders and head, and interlock fingers.
3. As you exhale, go on to your toes and stretch.
4. Inhale again and stretch arms up. Stretch your legs while firmly rooting toes on the ground and feel the stretch at the shoulders and neck. Remember, the deeper the stretch upwards, the deeper the posture. Try and balance the body on the toes bringing the eyes to focus at any one point straight ahead.
5. Remain stretched upwards for about 8 breaths.
6. Release the posture by stretching the arms backwards and as you exhale bring the arms down and feet firmly on the floor

### Benefits

1. The stretch of the spinal bone promotes proper growth and clears up congestion of the spinal nerves at the points at which they emerge from the spinal column. It helps to give control over muscular movement and stimulates the entire nervous system of the body. This *asana* improves curvature of the spine and exercises back, neck and spinal joints.
2. It stretches and tones the abdominal muscles, hence improving digestion.
3. The chest is expanded, giving room for clear passage for breathing from the diaphragm. This in turn relieves asthma and heavy breathing.
4. It relieves constipation.
5. It makes the waist slim, the chest broad; removes fatty deposits on hips and also increase height of growing children.

**Advance Pose – *Garudasana* (Eagle Pose), *Anuvittasana* (Standing Back bending pose)**

### Contraindications

1. Avoid this *asana* if you are suffering from severe back, neck and shoulder pain.
2. Patients suffering from sciatica should also avoid practising this *asana*.





**I. Tick the correct option**

1. According to WHO the criteria for overweight as per BMI is
  - (a) 18.5 – 24.9
  - (b) 25 -29.9
  - (c) 30 – 34.9
  - (d) 35-39.9
2. Which *asana* improves efficiency of liver?
  - (a) *Vajrasana*
  - (b) *Makrasana*
  - (c) *Ardhamatsyendrasana*
  - (d) *Tadasana*
3. Which *asana* is suggested to relax muscles after performing *Vajarasana*?
  - (a) *Sukhasana*
  - (b) *Savasana*
  - (c) *Sarvangasana*
  - (d) *Virabhadrasana*

**II. Answer the following questions Briefly**

1. Write the procedure of practicing *Vajarasana*?
2. Explain how *Trikonasana* is helpful in management of obesity?
3. What modification can be done to learn *Ardhamatsyendrasana*

**III. Answer the following question in 150—200 words**

1. Discuss the Yogic methods to manage obesity in detail.
2. Write down benefits and contraindications of *Tadasana*.
3. Explain procedure and benefits of *Ardhmatsyendrasana*.

**Extension Activity**

Stand in straight posture on toes, close your eyes, Stretch your arms straight above your head. Maintain this position for 10 seconds. Now, open your eyes and maintain same posture for next ten seconds.

Were you able to maintain your balance?

What difference did you feel in both activities?



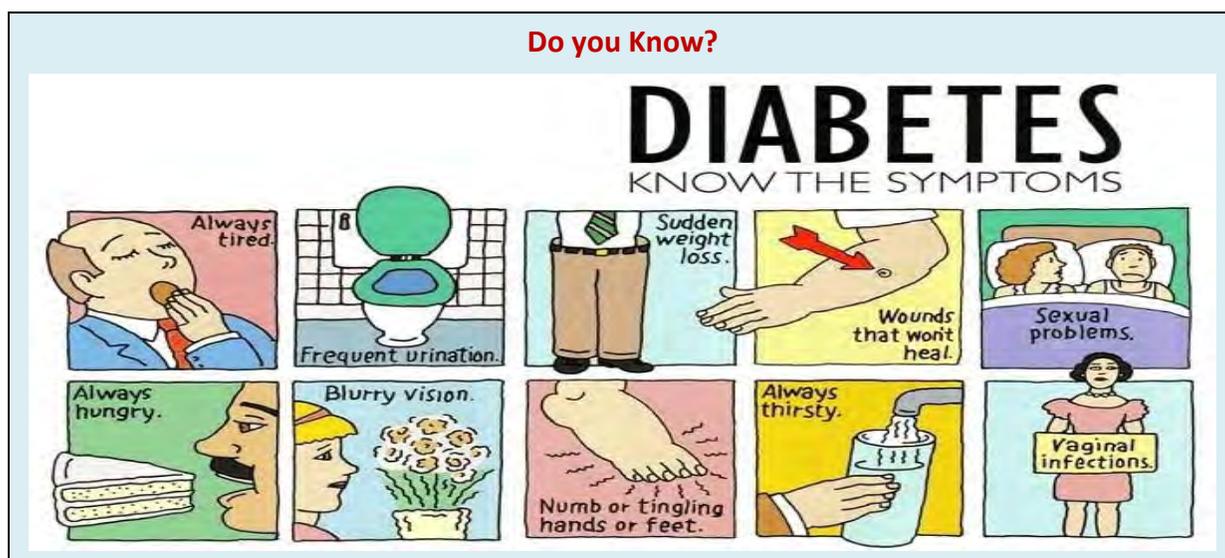


### 3.3.1 Diabetes Mellitus

Diabetes Mellitus is a metabolic disorder where there is a defect in utilization of sugar by the body. Carbohydrates from the food that we consume are turned to glucose is the main source of energy for all bodily functions. Blood level of glucose is controlled by a hormone called Insulin, which is produced by the pancreas. In some people the quantity or quality of insulin secreted by the pancreas maybe insufficient or ineffective. Hence there is an altered absorption and utilisation of glucose from the blood. This results in an increased level of blood sugar. Another reason for Diabetes mellitus is the cells not using insulin properly, which is known as Insulin resistance.

#### Clinical Symptoms

- Polyuria: Excessive urination.
- Polydipsia: Excessive thirst.
- Dehydration due to excessive urinary output.
- Polyphagia: Increased appetite.
- Loss of body weight, decreased resistance



Picture Source<sup>5</sup>





**Problems, which diabetics encounter more often:**

- Heart Attacks.
- Rapid deterioration of vision and blindness.
- Kidney diseases.

**Extension Activity**

Talk to some people suffering from Type 1 and Type 2 Diabetes. Ask them to describe what it is like to live with the problem and to demonstrate how they manage it.

How many of them are aware of Yogic *asanas* for management of the problem?

**Management of Diabetes Mellitus**

**Dietary management:** It varies according to the severity of the disease, activity and metabolic needs. There are certain general principles for all diabetic diets.

- A diabetes diet is a healthy-eating plan that is naturally rich in nutrients and low in fat and calories. Key elements are fruits, vegetables and whole grains.
- High fibre in diet helps in controlling Diabetes by preventing excessive rise in blood glucose. It also helps in decreasing blood cholesterol and triglycerides and assists in reducing weight.

Foods Allowed liberally: Green leafy vegetables, some fruits, clear soups, and lemon water.

**Yogic Management**

**Kriyas:** *Kunjal, Vastradhouti, Kapalabhati, Agnisar and Nauli. Suryanamaskara* and selected practices of Yogic *SukshmaVyayama Asanas*

**Asanas:** *Bhujangasana, Paschimottanasana, Pavanamuktasana, Ardhamateyendrasana.*

**Pranayama:** *Nadishuddi, Surabhedana, Bhastrika and Bhramari.*

**Extension Activity**

Sit on a chair comfortably. Shift towards the front of your chair. Bring the hands behind you and hold onto the seat of the chair with your hands. Start inhaling and roll the chest forward and up. Roll the shoulder back and down. Draw the shoulder toward one another. Look toward the sky.

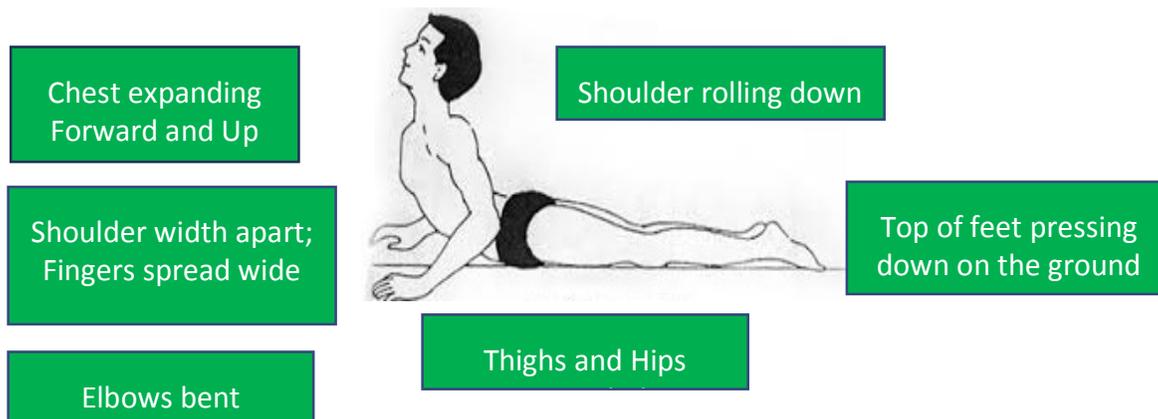
Discuss your understanding of the body muscle movement during the practice of *Asana*.





### 3.3.2 Asanas to Prevent Diabetes Mellitus

#### BHUJANGASANA



In Sanskrit the word *Bhujanga* means **Cobra**. Since the final position of this *asana* resembles the 'Hooded Snake' therefore it is called *Bhujangasana*. Body parts used in *Bhujangasana* are lower back, middle back, upper back, biceps and triceps, core (abs), psoas muscles. This *asana* is done in prone position. Preparatory postures for *Bhujangasana* are stretches like Standing Spinal Twists, Standing Side Bend Pose, Standing Backbend, Standing Side Stretch, Standing Pelvic Circle and Standing Forward Fold to open up the arms and lower back.

#### Procedure

1. Take prone position, legs together, toes together pointing outward, hands by the side of the body, fingers together, palm facing upward and forehead resting on the ground.
2. Fold hands at the elbows, place palms on the ground, on each side of the shoulder, thumb should be under the armpit. Bring chin forward and place it on the ground. Gaze in front.
3. Inhale and raise your body upwards while placing both palms near the upper abdomen on the floor. Exhale once you have expanded the upper body.
4. Raise chin and extend head backward as far as possible. Raise the upper body – thorax – turning spine backward. Caution, raise body only up to the navel; do not raise the navel. Remain in this position, breathing deeply. Gradually move into slow breathing. To stay in this *yoga asana* for a longer time ensure the weight of the body is spread evenly around the shoulders, lower abdomen, thighs, back and elbows. If all the weight is on the lower abdomen, then breathing becomes difficult thus causing you to lose balance.
5. Then slowly lower your body to the ground, starting from upper part of the navel region, thorax, shoulders, and chin and lastly place the forehead on the ground. Place the arms close to your sides and relax.





6. Bring the body to a relaxed stage in *Makarasana* and breathe slowly, focussing the mind on the movement of the spine. With every exhalation contract the spine and release the stress around it.

**Relaxation Posture** - *Utthita Balasana* (Wide Child's Pose), *Vajarasana*, *Savasana*, *Matsyasana*.

**Advance asana** - *Salabasana*, *Dhanurasana*, *Ustrasana*.

#### Benefits

1. The nerves along the spinal column, back and neck are toned, blood circulation is improved and the spine is supple and healthy.
2. The lower abdominal muscles are also toned and strengthened. The pressure on the abdomen aids digestion, stimulates appetite, relieves flatulence and constipation.
3. This *asana* helps burn excess fat deposits around the hips, neck, chest, arms, etc.
4. It relieves migraine.
5. This *yoga asana* is beneficial if suffering from a sluggish liver.
6. Stretching the neck while doing this *asana* improves the functioning of the thyroid gland.
7. It is also said that this *yoga asana* tones the kidneys which helps in purification of blood, removing any stagnant blood and improving the health of the whole body.
8. *Bhujangasana* tones the ovaries and the uterus and helps to remove any disorders in connection to the uterus. Thus, it is also helpful during menstruation.

#### Contradictions

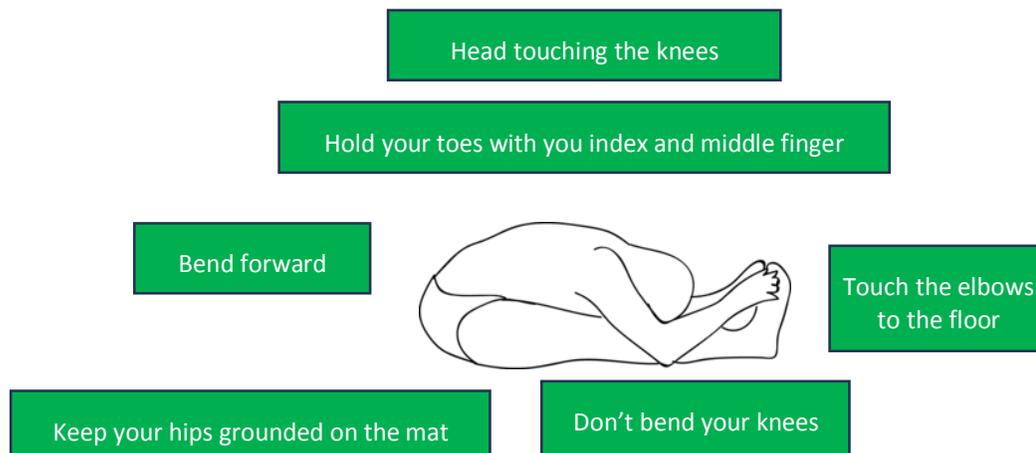
The few don'ts or contraindications for *Bhujangasana* are:

1. Those with severe back problems relating to the spine should avoid this yoga posture.
2. Someone having neck problems relating to spondylitis too should clearly avoid this yoga posture.
3. Those suffering from stomach disorders like ulcers should ensure proper guidance or avoid this yoga posture if discomfort is seen or felt.
4. Pregnant women should avoid this yoga posture as a lot of pressure is placed on the lower abdomen and can also cause injury.
5. Someone suffering from severe asthma should avoid this posture and work on breathing techniques through pranayama before attempting *Bhujangasana*.





## PASCHIMOTTASANA



The word *Paschimottasana* comes from the Sanskrit words *Paschima* meaning **west** or **back** or **back of body** and *Uttana* meaning **intense stretch** or **straight** or **extended** and *asana* meaning **posture**. In this posture one has to sit and intensely stretch the back forward. Few preparatory postures are advised before practicing *Paschimotasana* like ankle rotation in sitting position, *Balasana* (child pose) and *Janusirsasana* (Head to Toe pose). *Paschimottanasana* (Seated Forward Bend Pose) is considered as one of the best *asanas* for the overall healing of the entire body right from the head to the tip of toes. **Procedure**

1. Sit, stretching both the legs together in front, hands by the side, palms resting on the ground. Fingers should remain together pointing forward. Take few deep breaths raising the spine up.
2. Inhaling deeply, stretch your arms above your head and, exhaling slowly, bend forward keeping the back straight.
3. Loosen your back muscles and bend the body forward as far as it is possible.
4. Maintaining this position, loosen your hands and place them where they are comfortable. It would be better if they are put on the thighs.
5. After exhaling completely, reach out for your toes and relax the neck placing it between your legs.
6. Practice it daily and keep bending forward little more. Finally hold the big toes of the legs with forefingers of respective hands and place forehead on the knees.
7. After few seconds raise the head, release the big toes and come to the original position.

*AdhoMukhaVirasana*, *Uttana Shishosana* and *Dandasana* are other postures which are advised to relax the muscles after practicing *Paschimotasana*.





*Marchiyasana* can be done after getting mastery on *Paschimotasana*.

**Breathing pattern** - Consciously focussing on breathing while doing this *asana* plays a good role in improving the digestive system and upper respiratory system.

#### Benefits

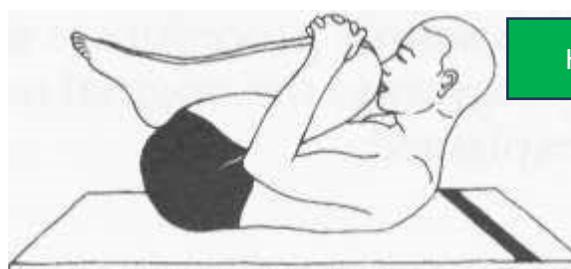
1. This yoga posture stretches the muscles around the spine, lower back and the calf muscles, thus improving blood circulation.
2. As the body moves forward, pressure is put on the digestive organs and pelvic organs thus healing them from within and toning them. Digestion improves and much blocked gas in and around the lower abdomen gets released.
3. Respiration is improved by doing this *asana* as pressure is put on the thorax and abdomen.
4. *Paschimotasana* improves the alignment of the vertebral column.
5. This *asana* is therapeutic for diabetics, or patients with weak liver and kidney.
6. *Paschimotasana* benefits women during menstrual disorders.

#### Contraindications

Since *Paschimottanasana* puts a lot of pressure on the lower back when the body is bent forward, it should be avoided by those suffering from

1. slipped disc
2. hernia
3. spondylitis
4. enlarged liver and/or spleen
5. Pregnant women should avoid this *asana*

#### PAWANMUKTASANA



Hands holding knees

Knees close to chest pressing abd

Chin to knee





The name *Pawanmuktasana* comes from the Sanskrit *pawan* or **wind** and *mukta* or **release** or **relieve**. If food is not digested well in the stomach, it can cause accumulation of gas which can bring about a lot of other ailments in our body like acidity, migraine and joint pains to name a few. As its name suggests, this *asana* helps in releasing the accumulated wind in the stomach and intestines.

### Procedure

1. Lie on your back with your feet together and arms besides your body and relax, breathing deeply.
2. With a deep inhalation raise your legs to 90° and completely exhale.
3. Now with another inhalation bring both the knees close to your chest and press on the lower abdomen, holding the knees with your hands. Exhale completely.
4. Remain with the bent knees for a few breaths. With every exhalation press the thighs and knees on the abdomen and hold them with your hands.
5. With a deep breath raise your head, neck and chest and bring them close to your knees. If possible, bring your chin in between your knees. Ensure the head moves less and the knees come closer to the face. That way the pressure on the abdominal muscles will help in releasing the unwanted gas/wind around the abdominal organs.
6. Remain in this posture for a few breaths focusing on maintaining the position of the head and neck in place. With every exhalation press the thighs closer and deeper into the chest and face deeper into the knees.
7. Try to maintain the balance while breathing slowly and keeping the body relaxed.
8. Now with an inhalation, release the neck and head and exhale completely. With another inhalation straighten the legs and bring them back to 90° and as you exhale release the leg from 90° to the relaxed posture. With complete exhalation, bring the legs stretched out on the floor and relax the neck.
9. Take a few breaths, and then continue with the next round. The longer you hold in this posture the faster the muscles around the abdomen will loosen.

For relaxation after practicing *Pawanmuktasana*, practice *Supta Baddha Konasana* (Reclining Bound Ankle Pose),

*Matsyasana* (Fish Pose), *Savasana* (Corpse Pose).

### Benefits

1. This *asana* tones the leg, arms and shoulder muscles, strengthens thigh muscles and back, firms abdominal muscles and improves the blood circulation. It helps cure acidity, digestive problems, diabetes, gastric problems, high blood pressure, and cervical spondylosis.





2. It improves digestion.
3. This *asana* helps in releasing the unwanted gas/wind accumulated at various parts around the abdomen thus relieving constipation and flatulence.
4. Joint pains are cured by doing this *asana*.
5. Blood circulation in legs is improved by this *asana*, thus providing relief to someone suffering from varicose veins.
6. Strengthening muscles around the neck and shoulders will help in easing initial stages of spondylitis.
7. Removes excess fat around the lower abdomen, hips, chest and arms.
8. Release of gas helps in healing migraine

#### Contraindications

To be avoided or performed under guidance by those suffering from

1. severe migraine
2. High or Low Blood Pressure
3. Asthma
4. slip disc
5. advanced stages of spondylitis
6. Girls/Women should avoid this *asana* or take the guidance of the teacher while practicing it during menstrual cycle.

#### ARDHA MATSYENDRASANA

See in Obesity management

#### I. Tick the correct option

1. Which gland is associated with Diabetes
  - (a) Endocrine glands
  - (b) Pituitary
  - (c) Pancreas
  - (d) Hypothalamus
2. Polyurea is associated with
  - (a) excessive sweat





- (b) less urination
  - (c) excessive saliva
  - (d) excessive urination
3. *Bhujangasana* is also known as
- (a) Dog posture
  - (b) Child posture
  - (c) Cobra posture
  - (d) Reverse Boat posture
4. Which *asana* can be suggested as preparatory *asana* for *Pawanmuktasana*
- (a) *Tadasana*
  - (b) *Bhujangasana*
  - (c) *Matsyendrasana*
  - (c) *Naukasana*

**II. Answer the following questions**

1. Draw and label the diagram of *Pawanmuktasana* correctly.
2. Explain the correct breathing pattern while performing *Paschimotasana*.
3. Write in detail the benefits of *Pashchimotasana*.

**III. Answer the following questions in 150-200 words.**

1. Discuss the technique and benefits of *Bhujangasana*.
2. Explain Diabetes and its symptoms

### 3.4.1 Bronchial Asthma

Asthma is a disease of the respiratory system where the airways get narrowed, often in response to a “trigger” such as exposure to an allergen, cold air, exercise, or emotional stress. This narrowing causes symptoms such as wheezing, shortness of breath, chest tightness, and coughing. Asthma is a chronic (recurring) inflammatory condition in which the airways develop increased responsiveness to various stimuli, and is characterized by bronchial hyper-responsiveness, inflammation, increased mucus production and intermittent airway obstruction. This broncho-constriction is episodic in character and is reversible through use of bronchodilators. The exact basis of bronchial hyper reactivity is not entirely clear. But bronchial inflammation plays an important role.





### Extension Activity

Take a plastic straw and breathe through the straw.

Then bend the straw in the middle and try to breathe through the straw while it is bent.

- What happened when you tried to breathe through the bent straw?
- Was it harder to breathe out than it was to breathe in?
- How did it make you feel?
- Do any of your classmates have asthma or do any of you know someone who has asthma?
- Discuss what it is like to have the breathing problem and how it has affected the life of the person who has the problem.

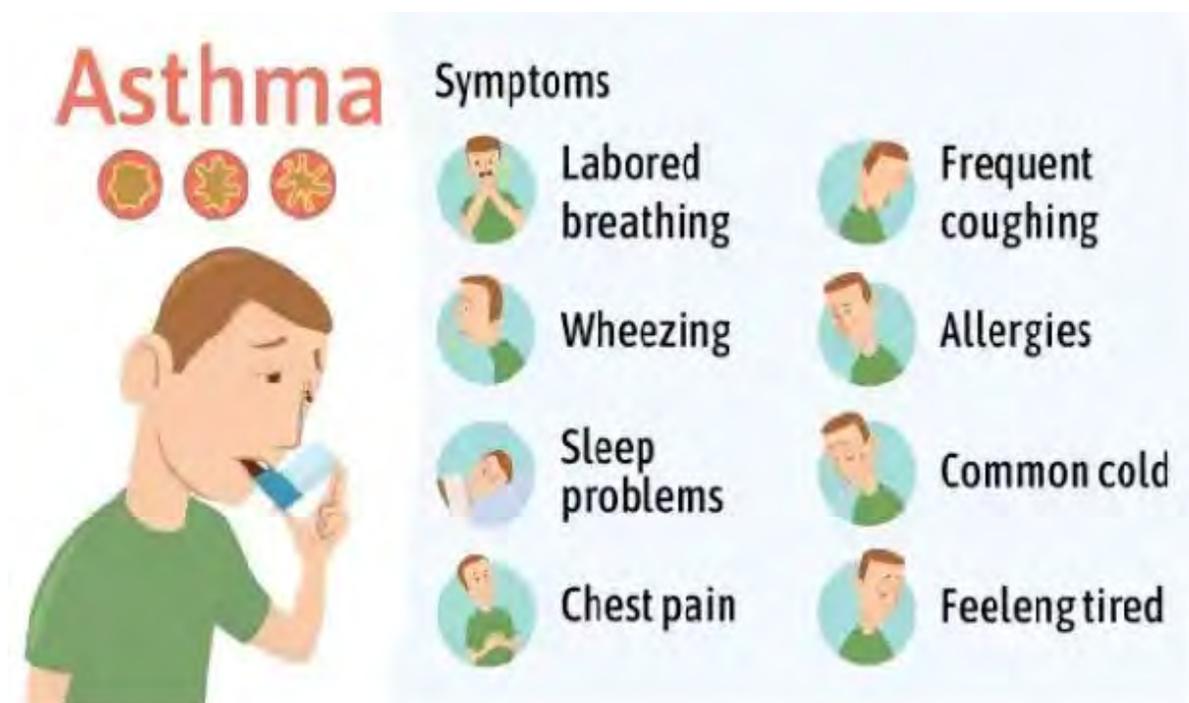
### Signs and Symptoms of Asthma

- Asthma is characterized by episodic dyspnea (difficulty in breathing), wheezing and cough.
- There is difficulty in expiration.
- Patient may experience tightness of the chest/discomfort in the chest.
- The attack may last from one to several hours.
- Severe attack, called “status asthmaticus”, is often not responsive to usual therapy. It is a medical emergency and may affect the heart and circulatory system.
- Hypercapnia (increased level of CO<sub>2</sub>), acidosis and hypoxia (decreased O<sub>2</sub> level), may occur in Asthma, though these conditions are rare.

### Yogic Management

The role of yoga in the management of Bronchial Asthma is well documented now. Aim of the treatment in Asthma should be to reduce broncho-constriction and to tackle the triggering factors.



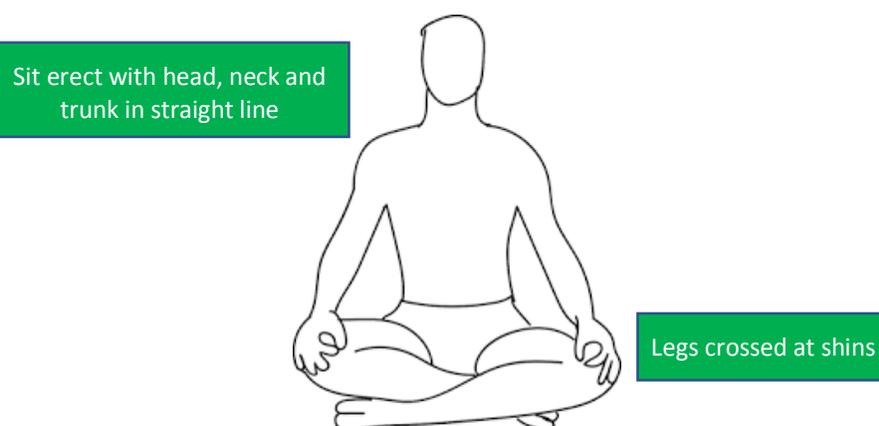


Picture Source<sup>6</sup>

1. Kriyas: *Jalaneti, Sutraneti, Kapalabhati, Kunjal, Vastradhouti*
2. *Surya Namaskara*
3. Yogasanas: *Gomukhasana, Chakrasana, Parvatasna, Bhujanasana, Sukhasana, Matsyasana, Paschimottanasana*
4. Pranayama: *Nadishodhana Pranayama, Suryabedi Pranayama, Bhramari, Bhastrika.*
5. Special Practice: *Special Practice: Yoganidra*

### 3.4.2 Asanas to Prevent Bronchial Asthma

#### SUKHASANA



*Sukhasana* is a relaxing posture which may be practised after a prolonged period of sitting in





*Siddhasana* or *Padmasana*. The name is derived from the Sanskrit, *sukha*, meaning **pleasure** or **comfort**, and *asana*, meaning **posture**. *Sukhasana* is a meditative posture and is done with sitting cross-legged in the most basic or simple form unlike other meditative postures. This posture is excellent for meditation, pranayama and the beginning of a yoga class or at the end to bring the mind and breath under control. *Sukhasana* is considered a base or a warm-up yoga posture to prepare the body for more intense yoga postures / yoga flow.

### Procedure

1. Sit on the mat with legs stretched out in front and the spine straight. Place the hands on the thighs with elbows bent. Take a few breaths, connecting the breath with the body.
2. Inhale and fold the legs. Fold the right foot under the left thigh. And fold the left foot under the right thigh.
3. Cross the legs at the mid shins, and not at the ankles. The pubic bone and the crossed shins should be in one line.
4. Keep ankles flexed a little so that the feet are on their outside edges, perpendicular to the floor. Exhale once the legs are in this position.
5. Keep the head, neck and back straight. Draw your abdomen softly inward and upward.
6. Inhale and place the hands on the knees in any mudra depending on the *pranayama* at practice, or if this posture is only to relax then place the palms one over the other close to the navel. You could place the outer wrists on the closest knee, with the thumb and the index finger joined at the tips. Have the other three fingers stretched out and pointing downwards.
7. Begin slow inhalation and with each inhalation loosen the body and as you exhale expand the spine and move upwards pushing the lower back inside and upper back upwards. Sink the legs and the knees deep into the floor without pushing them. Repeat this and slowly bring the body and mind awareness to the *Pranayama* you are practicing while in this yoga posture and relax your facial muscles.
8. Slowly relax the back and stretch the legs out in front of you and come in *Dandasana* and relax for a few breaths if required.

### Benefits

1. *Sukhasana* yoga posture facilitates meditation and *pranayama*.
2. *Sukhasana* improves awareness regarding the body's posture and keeps the spine in an ideal position.
3. If you are mentally stressed or have had a tiring day, this posture will offer peace and mental calm.



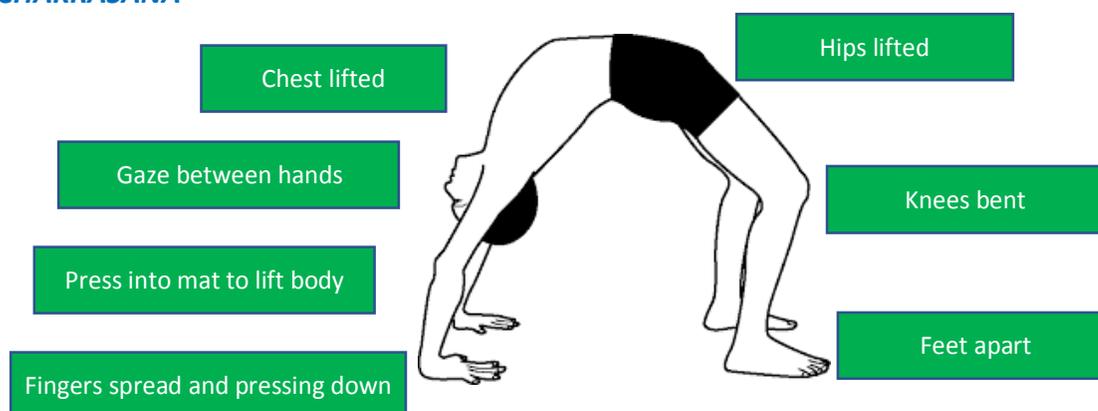


4. This posture is the standard meditative posture and is important to line up the energetic channels within the body to help the flow of *prana*.
5. This posture gives room for improving the flexibility of the waist and the lower region of the body.

#### Contradictions

1. Individuals suffering from backache shouldn't stay in this position for more than 5 mins.
2. Someone with severe arthritis would find it difficult to sit on the floor as there would be too much pressure at the knees. In such cases, this posture can be avoided or modifications tried.
3. *Sukhasana* should be avoided by individuals who have undergone knee replacement surgery, or are suffering from problems related to the spine or spinal disc problems. They should take the advice of their doctors before doing this *asana*.
4. Someone who suffers from sciatica should avoid *Sukhasana* as the sciatic nerve can get pinched.
5. This posture is practised with the eyes closed and for longer periods, hence those suffering from severe migraine or have anxiety issues may find it difficult to remain in this posture with eyes closed.

#### CHAKRASANA



The name *Chakrasana* comes from the Sanskrit words *Chakra* or **wheel**, and *asana* or **posture**. *Chakrasana* is an advance level posture and performed in supine position. This *Asana* is also known as *Urdhva Dhanurasana*. This unusual pose and movement of the body brings the energy of the body at ease and builds immense self-confidence. Body parts involved in this *asana* are arms, shoulders, chest, lower back, legs, feet and neck. This *Asana* requires specific strength to divide the weight of the body between the feet and hands equally and is acquired with practice. *Ustrasana* (Camel pose), *Matsyasana* (Fish pose),





*Paryankasana* (couch pose) and *Setu Bandhasana* (bridge pose) are preparatory poses for *Chakrasana*.

#### Procedure

1. Lie down on your back with feet stretched and arms besides you. Bring the body in rhythm with the breath and relax. Take a few breaths and focus on the lower back ensuring the entire spine is close to the floor. Follow deep inhalation and slow exhalation.
2. With another deep inhalation bend the knees and place the feet close to your hip. Exhale completely and continue to breathe deeply. Placing the palms inside out at the shoulder level with fingers pointing towards the shoulders and wrists outside. With a deep yet slow inhalation, push the palms and feet downwards towards the floor and raise the lower body upwards and then the middle and upper body upwards aiming for the sky or roof.
3. Exhale completely in this posture. Here the body will be at ease balancing on the feet and the palms which are firm and rooted on the floor while the rest of the body remains in the air. Bring the neck between the shoulders and let it fall gracefully. Bring the breath under control and ensure the body is kept light.
4. The knees and elbows are to be kept straight and strong. Ensure not to bring the ankles and the wrists at a position which may cause pull in the ligaments. The comfort of the legs and the arms gives the support for the back as it is raised up.
5. In this posture the lower back may begin to cause discomfort initially. Focus your mind on deep breathing and loosen the body. Then with exhalation rise higher by rooting the feet and the palms firmly on the floor.
6. With continuous breathing, work on the alignment of the body and its comfort. Try and bring the pelvic area deeper upwards, making it close to being parallel to the floor.
7. While releasing the posture, inhale and while you exhale loosen the upper back, neck and shoulders and bring first the head towards the floor and then the shoulders. Rest the shoulders and then the upper back, middle back and lower back in sequence and then release the arms and place them close to you. Bring the entire body down to the floor and remain with the knees bent ensuring the lower back is close to the floor. Control the breathing as it could be fast and erratic. The slow inhalation will bring this under control.
8. After relaxing in this position, stretch the legs and arms out completely in *Savasana* and relax the body before taking the body into the pose the second time. The more one practices this pose the more the body moves freely in *Chakrasana*.





**Relaxing asanas** *Supta Baddha Konasana* (Reclining Bound Angle Pose), *ArdhaHalasana* (Half Plough Pose) *Viprit- Karani* (Legs Up the Wall Pose), *Savasana* (Corpse Pose) are the *asanas* advised to relax the muscle after performing *chakarasana*.

**Advance posture** - *Eka Pada UrdhvaDhanurasana* (One Legged Wheel Pose), *DwiPada Viparita Dandasana* (Two legged Inverted Staff Pose) are advance level postures of *chakarasana*.

### Benefits

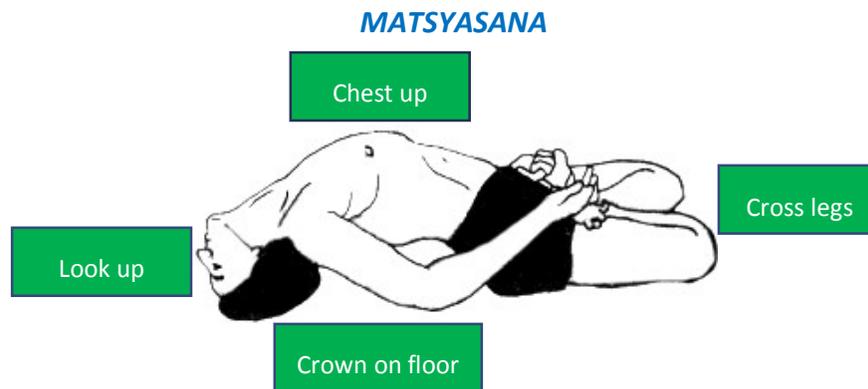
1. The entire body gets stretched with this *asana*, specially the muscles of shoulders, arms, wrists, legs, chest, entire spine and the muscles around the neck, facial muscles, abdominal muscles and thighs.
2. As the abdominal muscles are stretched, the abdominal organs like the kidneys, liver and pancreas are toned. The chest is stretched giving scope for the heart to function well and get the blood circulation going. The lungs too are stretched. The Thyroid and Pituitary glands are stimulated as the neck and head get the fresh flow of blood in this pose. The reproductive organs are strengthened, improving the balancing of the hormones.
3. The digestive system improves and indigestion is cured as a result of this *asana*.
4. Chronic headaches and shoulder pains caused by unhealthy lifestyle are cured.
5. Irritation in the calf muscles with uneasy cramps during menstrual times is healed.
6. *Chakrasana* helps in relieving asthma, back pain, migraine, stress and anxiety.

### Contraindications

*Chakrasana* should not be practised by those who are suffering from

1. a back injury as any form of jerk to the back may not be advisable.
2. Heart problems
3. either High Blood Pressure or Low Blood Pressure
4. Glaucoma or Pressure in Eyes, or has undergone a cataract surgery
5. cervical injury
6. hernia





The Sanskrit word *Matsya* means **fish** and *asana*, meaning **posture**. According to the ancient Yogic texts, *Matsyasana* can restore spinal strength and overall body balance, consequently leading to a better physical and emotional outlook. *Matsyasana* stimulates your spine, cervical muscles, thorax, rib cage, and the lungs, thus relieving your fatigue almost instantly. *Matsyasana* is also known as Fish Pose and Balancing Lotus Pose. Lower back, middle back, core (Abs), chest and neck are the body parts involved in this *asana*. *Setu Bandhasana* (Bridge pose), *Pawanmuktasana* could be performed as preparatory *asanas* for *matsyasana*.

#### Procedure

1. Begin *Matsyasana* by lying down in *Savasana* (Corpse Pose). Stretch arms and legs out, relax the body and take a few deep breaths.
2. Place your palms under your hips in a way that the palms are facing the ground. Now, bring the elbows closer to each other, placing them close to your waist.
3. Cross your legs so that your feet cross each other at your middle, and your thighs and knees are placed flat on the floor.
4. Breathe in and lift your chest up in a way that your head is also lifted, and your crown touches the floor.
5. Make sure the weight of your body is on your elbows and not on your head. As your chest is lifted, lightly pressurize your shoulder blades.
6. Hold the position only until you are comfortable. Breathe normally.
7. To release from *Matsyasana* gently raise the head up, lowering the chest and head to the floor and bring the hands back along the sides of the body.
8. Ensure the head is at complete rest and the lower spine is close to the floor. Relax in *Savasana* and take few breaths. When ready, go back into the pose again and hold it for longer time and take the pose deeper with every exhalation.
9. *Savasana* is considered a relaxing pose after practicing *Matsyasana*.





### Benefits

1. *Matsyasana* opens and stretches the neck muscles and shoulders.
2. Helps in opening the chest and corrects round shoulders too.
3. This posture provides relief from respiratory disorders by encouraging deep breathing. Hence, *Matsyasana* increases lung capacity to a great extent.
4. This posture, with the spine curved and bent backwards, provides a great way of strengthening the back muscles with the formation of the arch.
5. There is an increased supply of blood to the cervical and thoracic regions of the back that helps tone the parathyroid, pituitary and pineal glands.
6. The practice of *Matsyasana* brings down the tensions and the stiffness at the neck and the shoulders. It also helps in curing the initial stages of spondylitis with the guidance of an experienced yoga teacher.
7. The repeated practice of *Matsyasana* improves the flexibility of the neck. This flexibility in the neck helps in the practice of various other yoga poses that are of advance level.
8. This posture helps to regulate emotions and stress.

### Contraindications

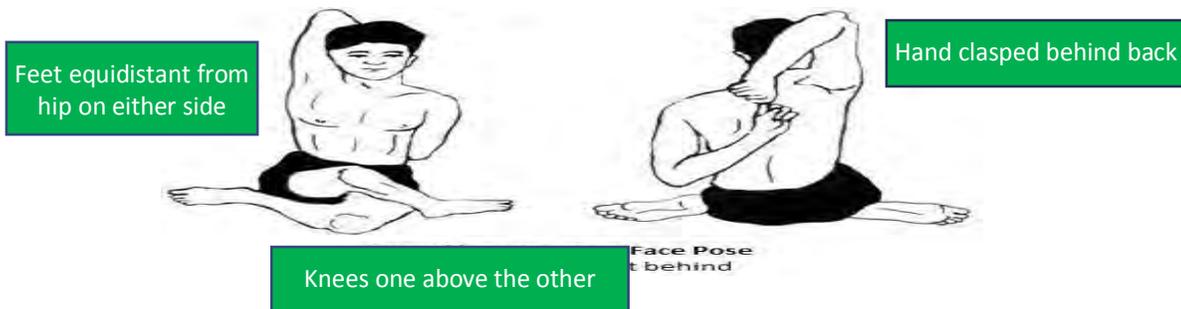
*Matsyasana* should not be practised by someone suffering from

1. high or low blood pressure
2. neck injuries or injury to any part of the lower or middle back.
3. migraine.
4. spondylitis
5. heart ailments
6. Women who are pregnant should not attempt this yoga pose.
7. If at the time of practice of *Matsyasana*, one feels any kind of tightness around the lower neck and upper back, one should immediately stop doing the *asana* and relax in *Savasana*.





### GOMUKHASANA



The name *Gomukhasana* comes from the Sanskrit words *Go*, meaning **Cow** and *Mukha*, meaning **Face** or **Mouth**. The word *Go* also means **light**, so *Gomukh* may refer to the **light in or of the head**, or **lightness of the head**. This yoga *asana* gets its name because the thighs and calves of the person performing it resemble a cow's face, wide at one end and tapering towards the other. This *asana* is a seated one and is considered as an Intermediate Level Posture, requiring a good degree of flexibility. Different body parts involved in performing this *asana* are arms and shoulder, middle back, upper back, biceps and triceps, hamstrings, hips, knees, pelvis and quadriceps. *Baddha Konasana* (Bound angle pose) and *Dhanurasana* are the suggested preparatory *asanas* before practicing this *asana*.

#### Procedure

1. Sit on the floor legs extended and spine straight.
2. Place the palms on the floor and bring the left leg bent at the knee and place the left foot below the right hip by raising the body a bit. Sit on the left foot taking the ankle and the toes deep inside.
3. Raise the right leg bent at the knee and place the right thigh over the left thigh by bringing the right foot close to the left hip on the floor. Make sure both knees are one above the other or if possible interlocked deeper trying to balance the body well.
4. Bring your left arm and stretch it above your shoulder and head. Bending it, take the left palm and place it on your back, close to the shoulder blade.
5. Now raise the right arm and from below take it behind you bending at the elbow and with the right palm try to reach for the left palm. Once comfortable, clasp the left palm and maintain the position feeling the stretch at the shoulders and the elbows.
6. Gradually, pull the palms closer and bring the chest out raising the upper body upwards. Ensure the neck does not bend forward, but remains in line with the shoulders and chest.
7. Feel the stretch at the thighs, knees, chest, abdomen, shoulders, arms, neck and the elbows.





8. Maintain this position for a few breaths and slowly release. Relax by stretching the legs out in front of you and bring the arms down beside you.
9. After taking a few breaths in the relaxed pose, bring the right leg bent at the knee and place the right foot close to the left hip and cross the left thigh over the right thigh and bring the left foot close to the right hip on the floor.
10. Raise the right arm and bring the right palm from up and behind your head and place it close to the shoulder blade behind you.
11. Stretch the left arm and take it from down and place the left palm close to the shoulder blade behind you and try to clasp the right palm. Interlock the fingers and pull the chest out and the shoulder blades closer expanding the spine upwards.
12. Remain in this posture for a few breaths, then release the arms and stretch the leg out in front of you and relax.
13. Relax the body completely and go back into the *asana* again.

#### **Relaxation *asana* – Paschimotasana**

Advance *asanas* – *Gomukhasana* with *Garudasana* (cow pose face with eagle arm), *Bharadvajasan*.

#### **Benefits**

1. The stretch at the hamstrings helps in gaining flexibility and this can be beneficial to athletes in the long run with repeated practice.
2. *Gomukhasana* enables greater flexibility of the hip joint.
3. It stretches and tones the muscles of the chest.
4. This *asana* increases blood supply to the legs and arms, making it a useful posture to counteract long periods of sitting in a chair or being hunched over a desk.
5. The flexion of the knee joint can be useful to heal certain kinds of weakness in the knees (provided there is no ligament tear).
6. The shoulders and the chest expand, thus making the upper spine strong and erect.
7. The raising of the entire body upwards to get the arms or fingers interlocked behind works with the expansion of the lower abdominal muscles thus improving the functioning of the abdominal organs and digestion.
8. Stretching the abdominal area also burns the unnecessary fat at the tummy area and tones the entire torso.
9. Breathing through the diaphragm improves the blood circulation at the chest and





helps fight allergies. 10. Biceps and triceps muscles are strengthened and there's increased flexibility of the shoulder and the upper arms. 11. The entire spine is stretched, bringing in a good flow of *prana* to the entire body.

### Contraindications

*Gomukhasana* should not be practised by those suffering from

1. shoulder pain, back ache, hip or knee pain or stiffness in the shoulders. They may have to take it slow and easy.
2. any kind of hip problems or injury at the knee, hamstrings, and quadriceps.
3. sciatica.
4. any kind of neck and shoulder injury.
6. This *asana* must be avoided when pregnant.

### PARVATASANA



*Parvatasana* or the Mountain pose is part of the *Surya Namaskar* series of *asanas*. It appears as the 4th pose and the 9th pose in the *Surya Namaskara*. In Sanskrit *Parvata* means **mountain**. The *asana* looks like a mountain from the sides and hence the name *Parvatasana*. Arms, shoulders, chest and knees are the body parts involved in this *asana*. *Balasana*, and *Tadasana* are preparatory *asanas* before doing this *asana*.

### Procedure

The correct steps to do both sitting and standing pose are:

1. Sit straight on yoga mat in the lotus position with both hands resting on knees palms down.
2. Raise your hands to the front and clasp together with palms outwards.
3. Lift your hands over your head straight with palms facing up.
4. Stretch and hold the position for few seconds. Repeat multiple times.





5. Stand straight on your yoga mat with legs together and hands to the sides.
6. Lift your hands up and bring them down. As you do this, bend from the waist.
7. Reach to the floor at an angle.
8. Let your legs be straight and firm on the floor. Make sure you do not bend knees.
9. Keep the shape of exactly 45° relative to floor.
10. Keep this position for few seconds and release.
11. Repeat multiple times.

#### **Benefits**

1. If done in the morning, *Parvatasana* keeps you alert.
2. *Parvatasana* stretches the spine. The stretch in this pose reduces extra fat in the back and waist.
3. It helps practitioners below 18 years to gain some height.
4. It tones the abdominal muscles and hence stimulates the inner organs in the abdominal region.
5. It is helpful in ameliorating respiratory disorders including asthma.
6. It helps to reduce back pain.

#### **Contraindications**

*Parvatasana* should not be attempted by those suffering from

1. knee pain
2. dizziness.





**I. Tick the correct option**

1. What causes an Asthma Attack?
  - (a) Allergy
  - (b) Smoke
  - (c) Exercise
  - (d) All of the above
2. Poor exchange of oxygen and carbon dioxide in an individual is the result of
  - (a) exercise induced Asthma
  - (b) allergy induced Asthma
  - (d) Pulmonary Hypertension
  - (d) Respiratory Failure
3. Which *asana* is base *asana* for curing Asthma?
  - (a) *Sukhasana*
  - (b) *Chakrasana*
  - (c) *Matsyasana*
  - (d) *Parvatasana*

**II. Answer the following questions**

1. Draw and label the diagram of *Parvatasana* correctly and discuss the technique for the *asana*,
2. Explain the correct breathing pattern while performing *Chakrasana*.
3. Write in detail the benefits of *Gomukhanasana*.

**III. Answer the following questions in 150-200 words.**

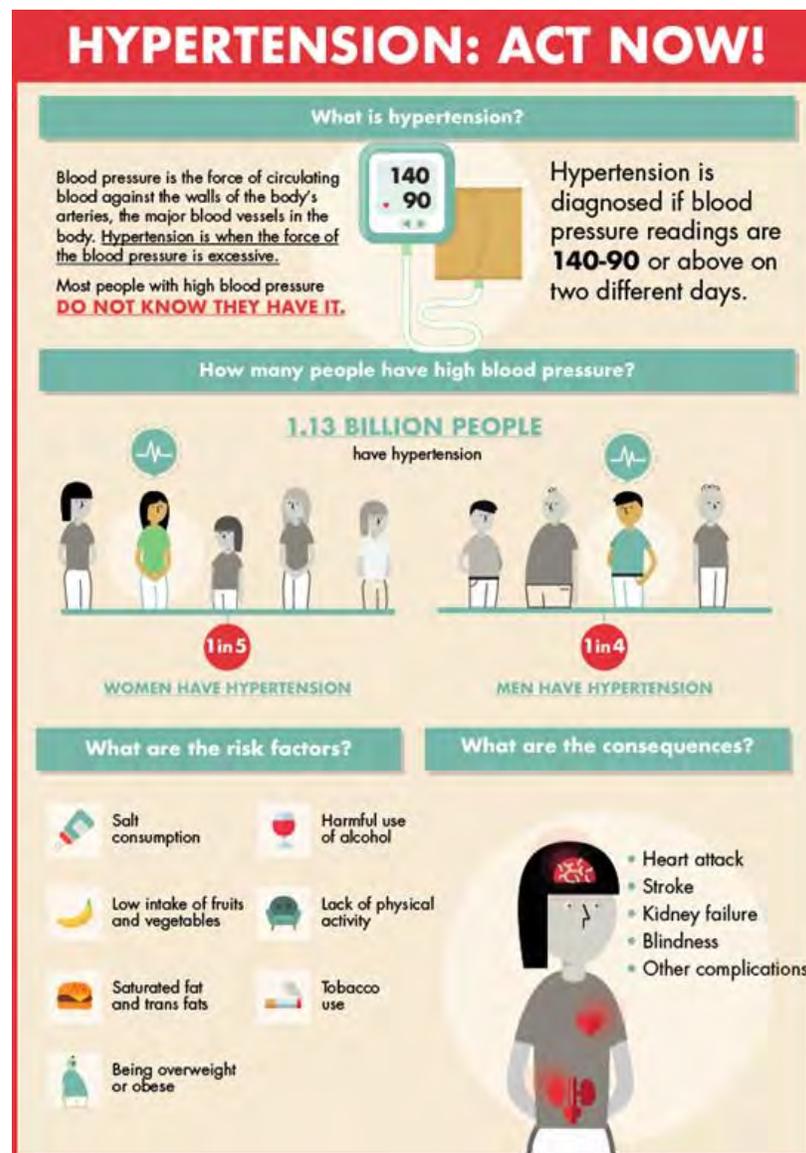
1. Discuss the *asanas* helpful for a person suffering from asthma.
2. Write down the procedure and contraindications of *Matsyasana* in detail.
3. Explain Asthma and its symptoms





### 3.5.1 Hypertension

Hypertension is the elevation of the blood pressure above normal. The levels of Systolic and Diastolic pressure are both risk factors. BP > 140 mmHg. and Diastolic Bp > 90 mmHg are generally accepted as hypertension.



Picture Source<sup>7</sup>

#### Classification of hypertension

1. Primary Hypertension is also known as essential hypertension. This is the most prevalent form of hypertension and it has no identifiable cause.
  - Benign Hypertension
  - Malignant Hypertension





2. Secondary Hypertension is high blood pressure due to some underlying disease or even medication.

- Cardiovascular Hypertension
- Endocrine Hypertension
- Renal Hypertension
- Neurogenic Hypertension
- Pregnancy-induced Hypertension

#### Do you Know?

**Blood pressure** is the pressure your blood exerts against your blood vessel walls as your heart pumps. Blood pressure comes from two physical forces. The heart creates one force as it pumps blood into the arteries and through the circulatory system. The other force comes from the arteries resisting the blood flow.

**Blood pressure** is measured in millimeters of mercury (written as mmHg). For example, normal blood pressure in adults should be less than 120/80 mmHg.

**Systolic Pressure** is the higher, or top, number and represents the pressure at the peak of each heartbeat.

**Diastolic Pressure** is the lower, or bottom number and represents the pressure when the heart is resting between beats.

**Sphygmomanometer** is the instrument used to measure blood pressure.

#### Manifestations of Hypertension:

High blood pressure is itself asymptomatic, that means there is no indication or any clear symptoms. This is the reason why high blood pressure is also referred to as 'the silent killer' since it could cause damage to the cardiovascular system without the [patient being aware of the fact that she/he is suffering from High blood pressure.

High blood pressure could also create problems in certain organs. A prolonged illness may lead to complications such as arteriosclerosis, where the production of plaques narrows the blood vessels. It may lead to

- Renal Failure
- Left Ventricular Failure
- Myocardial Infarction
- Cerebral Haemorrhage





### Yogic Management

The role of yoga in the management of Hypertension is well documented now. Aim of treatment of Hypertension should be to lower the blood pressure and to prevent further complications. In general, the practices prescribed for the Hypertension cases are:

**Kriyas:** *Jalneti, Sutraneti, Surya-*

*Namaskara* and selected practices of Yogic *SukshmaVyayama* (*Suryanamaskara* may be avoided in severe cases)

**Asanas:** *Vajrasana, Bhujangasana, Pavanamuktasana, Tadasana, Ardha-Chakrasana, Shavasana,*

**Pranayama:** *Nadishuddi, Ujjayi and Bhramari.*

**Meditation:** Breath Awareness.

### 3.5.2 Asanas to Prevent Hypertension

#### VAJRASANA

See in Obesity management

#### PAVANAMUKTASANA

See in Diabetes management

#### BHUJANGASANA

See in Diabetes management

#### Extension Activity

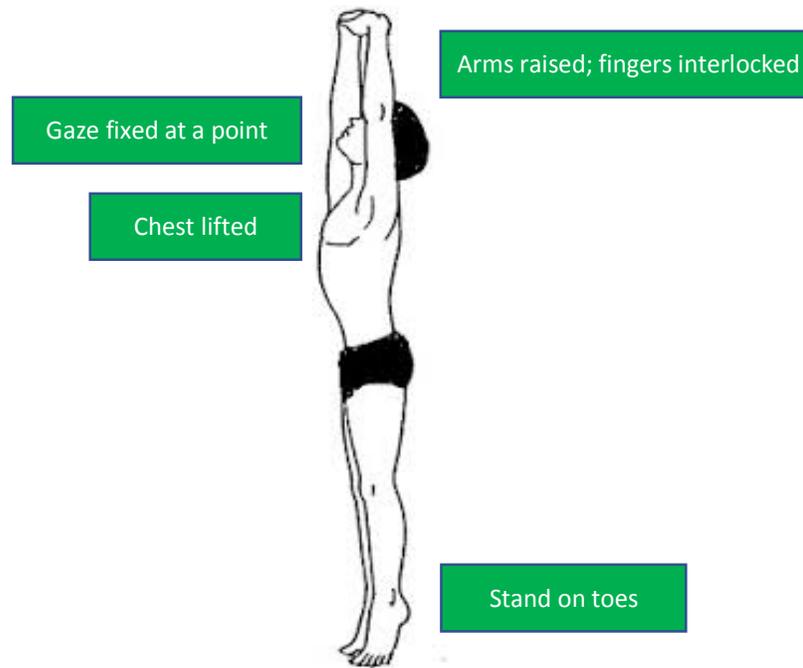
##### Find out

- Three factors that may increase blood pressure.
- Relationship between having high blood pressure and the circulatory system.
- The reason high blood pressure is called the “silent killer”.
- Five symptoms of high blood pressure?
- Three factors that could cause a decrease in blood pressure.





## TADASANA



*Tada* means **mountain**, *Sama* means **upright** or **straight** and *Sthiti* means **standing still**. *Tadasana* therefore implies an *asana* where one stands firm and erect as a mountain. *Tadasana* (Mountain Pose) is considered as a basic standing pose or the foundation pose for any other yoga pose. *Smashthiti*, Equal standing pose and Prayer pose are other names for *Tadasana*. Mastery over this *asana* with firmness of the feet, toes and the shoulders and chest will benefit in the practice of all other yoga poses. Toes, abdomen, arms and neck are the body parts involved in performing *Tadasana*.

### Procedure

1. Stand erect with feet together, heels and big toes touching each other. Expand the spine with chest out and shoulders straight. Keep the stomach tucked in, chest forward, spine stretched up and the neck straight.
2. Inhale and raise the hands and place the palms on the crown of the head with fingers interlocked and exhale completely.
3. Inhale again and raise the interlocked fingers above your head with palms facing upwards bringing the entire body on your toes, and stretch the entire body upwards exhaling completely.
4. As you lift the heels, feel as though you are being drawn upwards, and completely stretch your body.
5. Remain in this posture looking in front and gazing at any one point. Bring the body under control by keeping it relaxed through slow breathing.





6. Do not bear the weight of the body either on the heels or the toes, but distribute it evenly.
7. You could close your eyes and focus on your breath and on keeping your body steady.
8. Stand in this *asana* for as long as comfortable. With practice, the stability of the body improves along with straightening of the spine with proper breathing.
9. Inhale deeply, and when exhaling slowly bring the heels down along with the arms stretched backwards and release the *asana*.
10. Relax and repeat this again, taking the *asana* deeper by holding it longer.

**Advanced *asanas*** – *Vrikasana* (Tree pose), *Urdhava Hastasana* (Volcano pose) and *Garudasana* (Eagle pose) are advanced *asanas* after master *Tadasana*

#### **Benefits**

1. The legs become strong at the ankles and the knees. With long periods of practice in this pose, the toning of the leg muscles will help to practice all other standing *asanas* with ease. Muscles, too, are stretched giving room for expansion and strengthening of the muscles.
2. The hips are raised and this brings a good support to the entire back ensuring the spine is expanded giving room for proper flow of *prana* to the entire body.
3. Toning of the chest and the shoulders helps in improving bad posture and results in strong upper back.
4. Focus should be to keep the spine straight by pulling in the tummy. This eventually helps in toning of the abdominal muscles and lengthens the spine.
5. This *asana* helps to keep the body light which is essential for the practice of most other *asanas*.

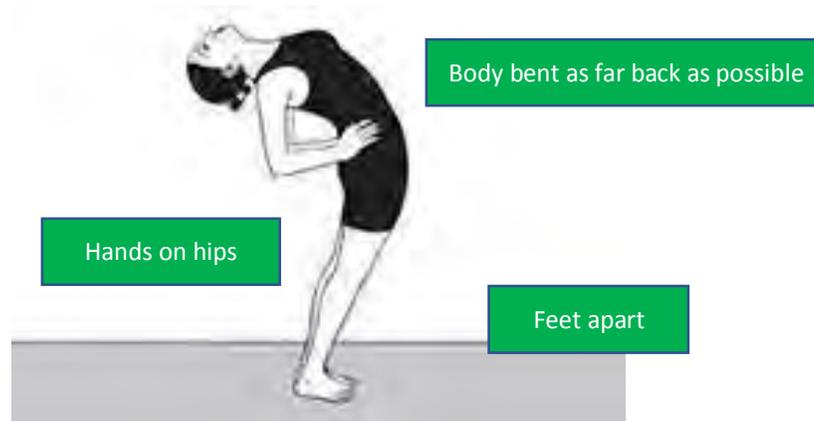
#### **Contraindications**

1. This *asana* is not beneficial for anyone whose leg muscles are weak or someone who finds it difficult to stand for long periods.
2. Someone who is suffering severe migraine or giddiness would find this *asana* a challenge.
3. Avoid putting too much strain on the spine by carrying the entire body weight. This can bring more stress to the spine.
4. Initially don't work hard on raising the body and remaining still. Only when the body is ready then move towards a little stretch.





### ARDHA- CHAKRASANA



In Sanskrit *ardha* means **half**, *chakra* means **wheel** and *asana* means **posture**. *Ardha Chakrasana* is considered a base *asana* as a number of variations can be derived from this *asana*. *Ardha Chakrasana* helps boost energy in the body and hence can be included in flow yoga sequences. *Ardha Chakrasana* is considered a warm-up yoga *asana* to prepare the body for more intense yoga *asanas*. Arms, shoulders, lower back, upper back, neck, psoas muscles are involved in performing this *asana*. *Ardha Chakrasana* is also known as Raised arm pose, *Hasta Uttanasana*, sky reaching pose.

#### Procedure

1. Stand straight and bring your hands together in a clasped position.
2. Raise and rotate your hands above the shoulders.
3. Slowly bend the upper part of your body backwards along with the hands, as far as you can go.
4. Remain in this position for few breaths, according to your capacity.
5. To release the *asana*, come back slowly to the standing position with hands by your side.
6. There is a variation of *Ardha Chakrasana*, where the hands are placed behind the hips and then bending the back is attempted

#### Benefits

1. This is one of the best yoga *asanas* to treat and cure respiratory congestion and problems related with lungs viz. asthma, bronchitis, blockage of nasal passage, clearing alveoli etc. It also helps to increase lungs capacity thereby ensures good health.
2. It is beneficial in relieving neck pain if it is performed with care.
3. This *asana* is extremely beneficial for stiff back muscles and nerves. It is useful in de-stressing and for strengthening, and suppleness of back muscles and nerves.



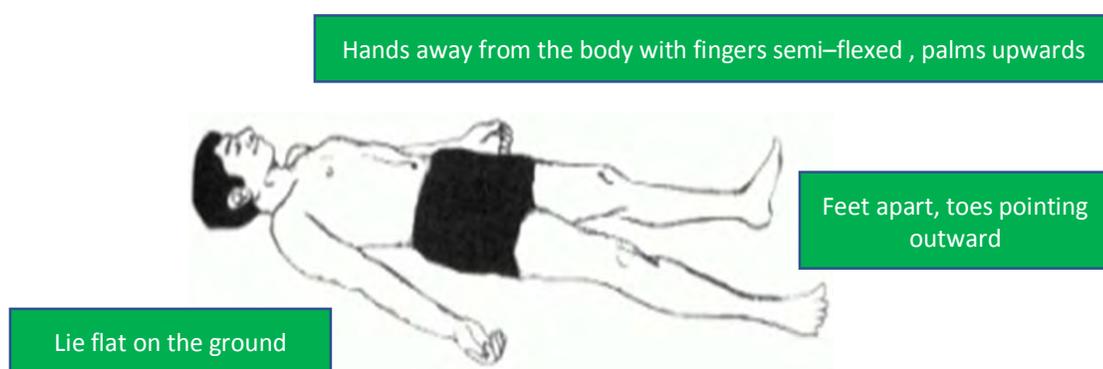


4. It can be used to shed extra fat from the abdomen. But for this, one has to perform it on regular basis and follow the steps as mentioned above.
5. This yoga pose ensures lightness and relieves the practitioners from problem of retention of gas. It also enhances the efficiency of abdominal organs.
6. The yoga pose provides soothing massage to the thyroid gland, thus controls hyperthyroidism and hypothyroidism. It also regulates metabolism and controls weight.
7. It is good for knees, hips and nerves and muscles of the leg.
8. By removing sluggishness, it energizes your body thus enhances the efficiency of various systems.
9. It is good in controlling blood sugar as the yoga pose stirs pancreas to secrete optimum level of insulin in blood.

#### Contraindications

1. Consult your doctor before practicing *Ardha Chakrasana* during pregnancy.
2. Those suffering from serious spine problems should not practice this *asana*.
3. Ulcer and hernia patient should not practice this *asana*.
4. Those suffering from high blood pressure should avoid this *asana*.

#### SAVASANA



In Sanskrit *Sava* means **dead body**. The posture is called *Savasana* as the body in this *asana* resembles a dead body. Verse 32 of the first chapter of the *Hatha Yoga Pradipika* states: 'Lying upon one's back on the ground at the full length like a corpse is called *Savasana*. This removes fatigue caused by the other yoga poses and induces calmness of mind'. The objective of this *asana* is to imitate a corpse by keeping the body still. By remaining





motionless for some time and keeping the mind still while you are fully conscious, you learn to relax. This conscious relaxation invigorates and refreshes both body and mind.

#### **Procedure**

1. Lie down on the back with the hands comfortably away from the body. Keep the head in a comfortable position.
2. Keep a distance of one to two feet between the feet with toes pointing outward.
3. Place both the hands on the ground, 10 inches away from the body with fingers in a semi-flexed position, with palms facing upwards.
4. Gently close the eyes, breathe normally or practice moderately deep abdominal breathing.
5. Focus on the flow of the breath without moving the body.
6. Try to relax the body by diffusing the tension in each part of the body.

#### **Benefits**

1. It helps reduce stress and removes physical and mental fatigue.
2. It relaxes all muscles and nerves of the body
3. It is helpful to overcome psychological disorders.
4. It is very beneficial for managing high blood pressure, cardiac diseases and anxiety disorders.

#### **Contraindications**

1. A very distracted mind is going to find it difficult to relax and by pushing the body, it will cause more irritation and bring a headache.
2. Someone with severe acidity may find lying on the back very uncomfortable as the food pipe may cause irritation.

### **3.6.1 Low Back Pain**

Low back pain is the most common cause of job-related disability and a leading contributor to missed work. Fortunately, most occurrences of low back pain go away within a few days. Others take much longer to resolve, or, may even lead to more serious conditions. Chronic back pain is a major cause of social and financial problems as it is associated with impaired quality of life, loss of productivity and huge health care expenses.

Acute short-term low back pain generally lasts from a few days to a few weeks. Most acute back pains are mechanical in nature – the result of trauma to the lower back or a disorder such as arthritis. Pain and strain may be caused by a sports injury, work around the house or





in the garden, or a sudden jerk such as a car accident or other stress on spinal bones and tissues.

### Extension Activity

#### Find out

- What structures make up the back?
- What causes lower back pain?
- What are the risk factors for developing low back pain?
- How is low back pain diagnosed?
- How is back pain treated?
- How can you prevent a back pain?

Share your answer in the form of a poster.

#### Symptoms

- Symptoms may range from muscle ache to shooting or stabbing pain, limited flexibility and/or range of motion or inability to stand straight.
- Occasionally, pain felt in one part of the body due to disorder or injury, may “radiate” elsewhere in the body.
- Chronic back pain is measured by duration – pain that persists for more than 3 months is considered chronic. It is often progressive and the cause can be difficult to determine.

**Yogic Management of Low Back Pain** -- Spinal exercise – simple spinal movements facilitate the practice of a further range of Yogic techniques by loosening the joints and muscles.

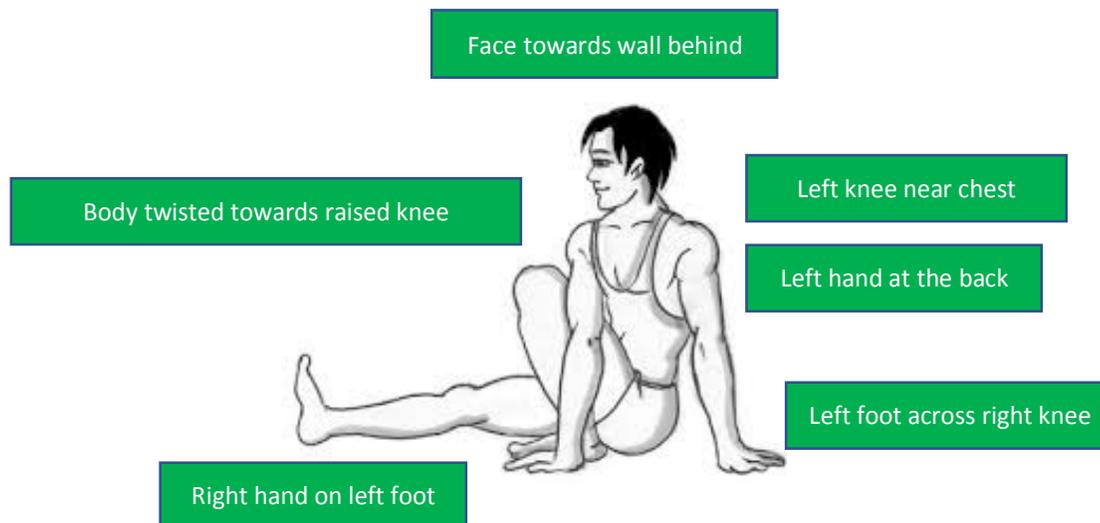
1. **Sukshma Vyayama:** *Griva-sakti-vikasaka* (Strengthening the Neck) *SkandhatathaBahumula-sakti-vikasaka* (Developing the strength of the Shoulder-Blades and Joints), *Purnabhujasakti-vikasaka* (Developing the arms) *Kati-sakti* (strengthening the Back).
2. **Yogasanas:** *Tadasana*, *Ardhamatsyaendrasana*, *Bhujangasana*, *Vakrasana*, *Shalabhasana*
3. **Pranayama:** *Nandishodhana Pranayama*, *Suryabhedana Pranayama*, *Ujjayi*, *Bhramari*
4. **Special Practices:** *YogaNidra*
5. **Dhyana:** Meditation





### 3.6.2 Asanas to Prevent Low Back Pain

#### VAKRASANA



*Vakra* means **twist** in Sanskrit. Thus the Sanskrit name of *Vakrasana* means Twisted Pose because the spine is twisted in practicing this *asana*. *Vakrasana* comes under the category of seated *asanas*. The lower back, middle back, hips, neck are involved in practicing *Vakrasana*. Easy raise arm pose, side bend pose, *Janu sirsasana* or head to knee pose are suggested as a preparatory pose for *Vakrasana*. This *asana* works on the entire spine if focus is on breathing is right. The upper body is twisted to bring the upper spine parallel to the sides of the yoga mat.

#### Procedure

1. Seated in *Dandasana*, take a few breaths and expand the spine upwards. Connect the breath with the movement of the spine and relax the entire body.
2. Bring the left knee close to your chest and take a few breaths, then pick up the left foot and place it outside of the right knee.
3. Twist your upper body towards the left while the right elbow is placed at the outside of the left knee and place the hand on the floor close to your right knee. Remember the body is twisted to the same side as the knee is bent and, in this case, because the left knee is bent, the body is twisted to the left.
4. Take a deep breath and, with the support of the right elbow, twist the upper body to the left as much as possible and face the wall behind you.
5. Place the left hand behind you as close as possible to your lower back, this should help you raise your spine up and also to balance your body.





6. With every exhalation raise the spine and twist as much as possible trying to turn your neck and shoulders to bring it parallel to the wall to your left.
7. Release the pose and take a few breaths and relax in *Dandasana*.
8. Continue the stretch with the same position of the left knee, but twist your body now to the right by placing both the palms on to the floor on the right close to your lower back and try to look behind you as much as possible.
9. Repeat the same now with the right knee and start with turning to the right and then release. Continue the pose with the upper body twisted to the Left.

**Relaxation Pose** – *Hindolasana* (Cardlepose), *Badhakonasana*, *Paschimotasana* are to relax the muscles after practicing *Vakrasana*

**Advance Pose** – *Ardhamatsyendrasana* and *Ek pada Rajakapotasana* (pigeon pose)

#### Benefits

1. As the very name suggests, the twist of the spinal cord tones the muscles of the back and thus brings stability to the spine. This pose helps a person who is tall, and has the habit of not standing or sitting with the spine straight to overcome this habit.
2. This *asana* helps straighten the upper back and brings the sagging shoulder in alignment with the spine thus making shoulders look strong.
3. It strengthens the neck muscles as the twisting of the upper body requires flexibility of the neck.
4. This *asana* tones the internal organs like the digestive system, intestines, uterus and kidneys. As the body twists, some pressure is felt at the lower part of the abdomen, thus internally working on the organs. The pressure on the abdominal muscles assists in faster toning and tightening of the muscles.
5. As this *asana* puts neck muscles to work, it activates thyroid gland. This ensures a balanced hormone level in the body.

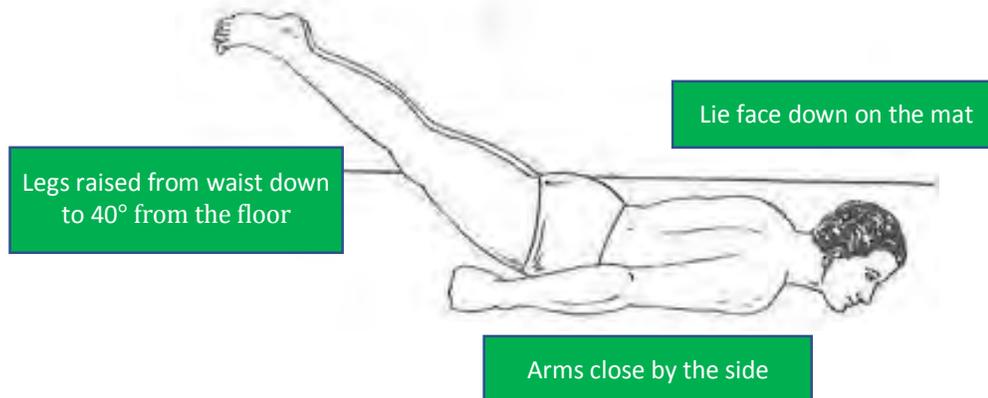
#### Contraindications

1. It may not be a good idea to practice this yoga pose if there is a back injury. Also, pressure on sciatic nerves can aggravate injury as the pressure is on the nerves while the body is twisted.
2. Pregnant women should avoid this yoga pose as it will bring discomfort to the uterus and hence this pose is not good for them.
3. Turning of the entire neck may make the muscles around the neck sore for someone suffering from weak neck muscles or upper spine.





## SALABHASANA



The name comes from the Sanskrit *Salabh* which means **grasshopper** or **locust**. So, in this pose the body looks like a grasshopper. *Salabhasana* is entered from a prone position. This *asana* brings tightness to the back and hips and stimulates the parasympathetic nerves in the lower spinal region. Lower back, upper back, core, hamstrings, chest, neck, and pelvis are involved in performing this *asana*. *Paschimottanasana* and *Bhujangasana* can be done as preparatory *asanas* before practicing *Salabhasana*.

### Procedure

1. Begin with lying down face down on tummy in *Makarasana* (Crocodile Pose). Relax the spine with few breaths and connect the breathing with the movement of the spine.
2. With feet close to each other and chin on the floor, place your arms close to your body to the side, palms facing up. You could place these palms below your upper thighs too for giving support.
3. While you take a deep breath, raise both legs from the waist, keeping the legs together and knees straight at about 40 degrees from the floor or as per your comfort. The lower body is raised from the pelvic area and balanced on the upper abdomen, chest and chin. Remain in this position with slow breathing and try and bring your mind to the lower back.
4. With every inhalation raise the legs higher by supporting the upper thighs with your palms and straighten the legs behind you as much as possible.
5. The maximum benefit from this *Asana* is derived by raising the body higher off the floor and balancing only on the chest and chin for greater flexibility of the back and abdomen.
6. With slow exhalation, bring the lower body to the floor and relax the chin and begin to come back to *Makarasana*. Here you relax the entire body for a few breaths until you are ready to take the next round of *Shalabhasana*. **Relaxing Asanas** – *Makarasana*, *Utthanashishosana*, *Adhomukhvirasana* are relaxing pose suggested after practicing *Salabhasana*.





**Advance Asanas** – *Dhanurasana*, *Ekpada Rajakapotasana* (Pigeon pose), *Naukasana* (Boat pose) are advance level *asanas*.

#### **Benefits**

1. The most important benefit is that this posture stimulates the parasympathetic nerves in the lower spinal region and improves blood circulation.
2. Removes the pressure on the sciatic nerve and gives relief from backache and slipped disc if the case is not severe.
3. Removes stiffness around the lower back, legs and neck.
4. Removes excess fat around the hips thus toning the muscles.
5. As a lot of pressure is put at the lower abdomen, women with menstrual disorders can practice this *asana* thus helping in proper functioning of the organs.
6. As the pressure is on the abdominal area, digestion is improved and the internal organs are helped in doing their functions properly thus balancing the body from within.
7. Therapeutic benefits like curing of mild sciatica, healing of mild slipped disc and improving constipation also accrue from this *asana*.

#### **Contraindications**

1. Someone with acute back pain or slip disc should avoid this *asana*.
2. Someone with severe sciatica can cause greater injury to themselves as this *asana* tightens the entire body from hips to the feet.
3. Someone with major problems with menstruation or with a prolapsed uterus should avoid this *asana*.
4. Women in their pregnancy should avoid this posture.
5. Someone suffering from Blood Pressure problems, thus should avoid this posture.

#### **TADASANA**

See in Hypertension management

#### **ARDHAMATSYAENDRASANA and BHUJANGASANA**

See in diabetes Management





**I. Tick the correct options**

1. At what point is Blood pressure considered high
  - (a) 80 over 120
  - (b) 130 over 80
  - (c) 140 over 90
  - (d) 210 over 120
2. Which *asana* suggested for low back pain is contraindicated for sciatica?
  - (a) *Vakrasana*
  - (b) *Savasana*
  - (c) *Ardhchakrasana*
  - (d) *Salabhasana*

**II. Answer the following questions**

1. Draw and label the diagram of Salabhasana correctly
2. Explain the correct breathing pattern while performing *Vakrasana*.
3. Write in detail the benefits of *Salabhasana*.

**III. Answer the following questions in 150-200 words.**

1. Write down the benefits and contraindications of *Savasana* in detail.
2. Explain Hypertension and yogic method of dealing with it.





### Art Integration

Music and yoga are both considered as parts of alternative medicine. Individually, the two possess extraordinary healing powers. It stands to reason then, that combining music and yoga together can create limitless possibilities of healing, transformation and peace.

Although yoga can be practiced in silence, its effects can be magnified if it is paired with nice, pleasant music.

Music improves meditation by calming our volatile thoughts and allowing us to find stillness in the mind which is the goal of meditation. It creates a positive mood. In one way or another, all of us have experienced being instantly lifted out of a bad mood just by listening to a favorite song. Scientifically speaking, our brain's electrical signals are strengthened or weakened depending on our mood. Therefore, altering our brain's electrical waves through music can also influence our state of mind and health in general.

Music enhances movement. When practicing *yogasanas*, you may find some *asanas* difficult or challenging. Listening to music transforms yoga into a dance than just mere posture. Transitioning from one pose to the next feels really good and effortless when it is accompanied by beautiful music.

**Keeping the above points in mind, compose music for a Yoga session.**

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