

UNIT-3

Yoga as Preventive measure for lifestyle Disease

Asana in a body posture, originally a sitting pose for meditation, and later in Hath yoga and modern yoga adding standing (Trikonasana), sitting (Padmasana), Reclining (Shavasana), inverted (Shirsasana) Balancing, (Paschimotasana) and Backward (Dhanurasana), The Yoga Sutras of Patanjali define Asana as a position that is steady and comfortable.

As a preventive measure, more recently, studies have provided evidence that asana improves flexibility, strength, and balance, reduces stress and conditions related to it, and specifically alleviates some diseases such as asthma, and diabetes, one remarkable aspect of asana is anyone can practice in it. One can adjust the level, and the intensity depending on age and capacity.

Regular Asana practice create mental clarity and calmness increase body awareness relieves chronic stress pattern, relaxes the mind, centers attention, and sharpens concentration and self-awareness, Whenever Individual roll out their yoga mat and twist their bodies in different poses they are also reaping countless health benefits. Physiological Psychological Bio-chemical benefits, which ultimately help us in avoiding various lifestyle diseases such as diabetes, obesity, and cardiovascular diseases.

Benefits of Asana for the prevention of Diseases:

- Bones and joints become strong
- Muscles become strong
- Circulation of blood becomes normal
- Respiratory organs become efficient
- Efficiency of digestive system increases
- Nervous system strengthens
- Glandular activity is stimulated and regulated properly
- Efficiency of excretory system enhances
- Immune system is strengthened

Lifestyle-related diseases are:

- Obesity
- Diabetes
- Asthma
- Hypertension
- Back pain

Asana plays an important role to prevent lifestyle-related diseases. They are as follows:

- Maintain Weight: Nowadays, obesity has become a challenging problem for society. By doing asana daily, we exercise the entire organs of our body. Practicing asana regularly

burns the excess fat of the body, and hence maintains a healthy weight.

- Endocrine function normalizes: Diabetes is one of the most common lifestyle-related diseases. Diabetes occurs due to either the pancreas not producing enough insulin or the cell of the body not responding properly to the insulin produced. The asana like Bhujangasana, Paschimottanasana, Pavanmuktasana, Ardh-matsyendrasana, etc, Help to stimulate and regulate the pancreas to produce insulin which helps to maintain the glucose level in the body.
- Respiratory efficiency increases: Asthma is a common lifestyle-related disease. It occurs due to the narrowing of trachea, due to which oxygen supply to the lungs and body is compromised. Asana help in maintaining the trachea wide open, and increase the lung's capacity and blood flow to the lungs. Thus oxygen supply is maintained and asthmatic episodes are reduced and respiratory efficiency is increased.
- Regulates Blood Flow: Yoga/Asana regulates blood flow in the body and helps maintain constant blood pressure. They help the body to relax and thus reduce high blood pressure. Yoga calms down the body and the mind and thus blood pressure is normalized.
- Proper Alignment of Spine: Asanas, such as Tadasana, Ardhmatsyendrasana, Vakrasana, etc. correct the alignment of the spine and thus improve posture and help in reducing back pain. More often back pain occurs due to incorrect posture, in which muscles get the strain and start aching. Correct posture relieves the back pain as the spine straightens up.

Obesity

Nowadays obesity has become a problem for the whole world obesity is a condition in which the amount of fat in the body increases to a very large extent. If a person is having BMI ≥ 30 he/she would be considered obese. In other words, we can say obesity is when a person's weight is 20% or more than the ideal weight. There are two main reasons for obesity bad habits eating and deterioration of the digestive system. In such a person's life, there is no physical activity at all.

Due to the many health risks of obesity, it has been given the status of a disease. Due to obesity, diseases like diabetes, high blood pressure, cancer, arthritis, etc. are caused. There are many causes of obesity such as overeating, lack of physical exercise, and thyroid. Genetics, a diet high in carbohydrate frequency of eating, medications, psychological factors, and social issues. Hormones changes (pregnancy, Menopause) to remove obesity, these postures should be done.

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many causes of obesity such as excessive food, hard work, thyroid, and hereditary.

To remove obesity, these postures should be practiced.

Vajarasana: (Thunderbolt Pose)

Procedure: Sit and keep both legs straight.

Fold the right leg and place it under the right butt.

Fold the left leg and place it under the left butt.

Keep your spine, neck, and head straight, interlock your toes, open your ankle and sit on it.

Knees should be touching the ground each other.

Keep both hands on your knees and look straight.

Benefits:

This asana is for meditation.

- Strengthens pelvic muscles.
- It can be practiced after having food. It enhances the digestion process.
- Stabilizes mind and body.
- Helps in sciatica
- It cures indigestion and improves metabolism.
- Improves flexibility in ankles.
- It gives strength to the tight muscles.
- Improve blood circulation.

Contraindications:

- Vajrasana should not be practiced by people who have severe arthritis of the knees.
- Runners should avoid this if they have an injury in their hamstrings or the calves.
- This pose may bring unwanted pressure to the intestine so those suffering from Hernia or ulcers should avoid it.
- This pose should not be practiced if one is suffering from an injured ligament at the ankles or knees.

Hastasana:

Procedure: Standing erects and keeps the legs together. Lock the fingers together, keeping the palms facing up. Raise the arms straight up, and keep them close to your ears. While releasing the breath bend the waist to the right, exhale, and come to the central position. Repeat it to the left side also. Be in a bent position for 5 to 10 seconds.

Benefits:

- Gives rest to the whole body.
- In children, helps in increasing their height.
- Increase flexibility in the waist.

- Reduce belly fat.
- Also helps in reducing constipation.
- Improve pulmonary functions
- Stimulates the nervous system.

Contraindications:

- One should avoid this pose if having neck pain.
- One should avoid this pose if having shoulder pain.
- One should avoid this pose if having spinal injury or pain.

Trikonasan (Triangle pose)

While inhaling stretch your right hand towards the sky, your arm should touch the ear. Bend left side slowly while exhaling, till it comes horizontal to the earth. The left hand should touch the ground or touch the left leg, the knee should be straight. Inhale, come back to starting position. Change hand position and repeat it from another side.

Benefits:

- Trikonasana helps in digestion.
- Therapeutics for stress, anxiety, infertility, neck pain, sciatica.
- Heals Backache (in initial stage)
- Help women during their menstrual cycle.
- Improve flexibility of vest and spine.

Contraindication:

- Avoid having low or high blood pressure.
- Avoid this pose if having any kind of neck injury.
- Avoid having a back injury.
- Avoid if an athlete has a hamstring injury.

Ardhamatsyendrasana : (Half Lord of the fishes pose)

Procedure: Sit and keep both legs straight. Bending the knee of the right foot and putting the right heel below the left hip. Bend the left leg and placed the left foot on the right side of the right knee. Left knee closed to the chest. Exhale from the right nostril and turns towards the left, and touch the toe of the left leg from the right hand. Body and head move towards the left. Repeat while changing the position of the legs.

Benefits:

- Helps the nervous system and strengthens the backbone, stretching improves flexibility and tones of muscles.
- Controls menstrual cycle in women and brings shine to face.

- Also controls secretion from the pancreas gland.
- Reduces fat and helps in controlling obesity.
- This pose flexes the lower part of the body making the hip stronger and toned.
- Releases excess heat toxins from organs and tissues.

Contraindications:

- Avoid while suffering from severe back or neck pain.
- Avoid this pose completely, if having a slip disc problem.
- Those with internal organ issues may find this pose difficult and painful.
- It should be avoided while pregnant.

Diabetes

Diabetes is commonly known as a metabolic disorder characterized by high blood sugar levels over a prolonged period. Diabetes is due to either the pancreas not producing enough insulin or the cell of the body not responding properly to the insulin produced, Due to diabetes the individual has fatigue, frequent urination, increased thirst, and increased Hunger. It may cause blurred vision. Kidney failure, cardiovascular disease, loss of weight, etc.

The main reason for diabetes is a sedentary lifestyle. By doing bhujangasan, paschimottanasana, pavanmuktasana, and ardhmatsyandrasana, one can get rid of this disease.

Symptoms of Diabetes

- Fatigue
- Increased Thirst
- Increased Hungers Blurred Vision
- Kidney Failure
- Cardiovascular Disease
- Loss of Weight
- Frequent Urination

Diabetes is a metabolic disorder in which the level of sugar in the blood rises from its normal reference value.

Types of Diabetes:

- Type I Diabetes: In that type of diabetes blood sugar level rises very high due to the non-secretion of insulin hormone by the pancreas. In that diabetes-affected person has to take artificial insulin through injection.
- Type II Diabetes: In that type of diabetes blood sugar level rises but is not as high type I diabetes. In that type of diabetes, our pancreas secretes the insulin hormone but it may be insufficient to control the blood sugar level normal, or body cells are not able to respond to insulin properly.

Paschimottanasana:

Procedure:

Sit down with your legs stretching straight in front of you. Keep your head, neck, and spine erect, and stretch your hands upwards with a deep breath. Now, exhale and bend your head and trunk slowly forward to catch the toes with the thumb. Try to touch the head, chest, and stomach to the legs and elbows to the floor.

Benefits:

- It improves the digestive system and much-blocked gas gets released.
- Improves the respiratory system.
- Improve the alignment of the vertebral column.
- Helps as a therapy for diabetic patients, with weak liver and kidneys.
- Benefits women during menstrual disorders.

Contraindications:

- Avoid having slipped disc problems.
- Someone who is suffering from a hernia should avoid this pose.
- Pregnant women should avoid this pose.
- A person having a back or spinal problem should avoid this pose.

Pavanmuktasana:

Procedure:

Lie flat on your back and keep the legs straight. Inhale slowly and lift the legs and bend the knees. Bring your knee upwards to the chest till your thigh touches the stomach. Hug your knees and lock your fingers, touch your chin to the knee while exhaling. Repeat it with another leg.

Benefits:

- Strengthen the back and abdominal muscle, leg, and hip.
- Intestine gets massaged; also bring fresh blood to the lower abdomen.
- Helps in spondylitis.

- Remove excess fat around the lower abdomen.
- Release excess heat and toxins from organs and tissues.

Contraindications:

- Avoid while suffering from severe back or neck pain.
- Avoid this pose completely, if having a slip disc problem.
- Those with internal organ issues may find this pose difficult and painful.
- It should be avoided while pregnant.

Bhujangasana : (Cobra position)

Procedure:

Lie down on your stomach. Join the legs and stretch as much as possible. Place the palm near the chest facing the ground. Take a deep breath and lift your upper body upwards. Elbow should be slight, touch the ground, weight should be on the pelvic region. Move your head and neck backward as much as possible. Exhale and slightly bring the body to starting position.

Benefits:

- By doing this, digestion improves.
- A sluggish liver is also taken care of
- The thyroid gland improves.
- Kidney function improves.
- Tones the ovaries which help to remove any disorder in connection with a uterus.
- Therapeutic benefits: Relieves backache, neck pain, and stress purifies blood, relieves constipation, and addresses gynecological disorders.

Contraindications:

- Avoid a spinal problem

- Avoid if neck problem
- Do not do it if having an ulcer
- Pregnant women should avoid it.

Asthma:

Asthma is a disease of the lungs in which the airways become blocked or narrowed causing difficulty in breathing. The airways also swell up and produce extra mucus. It may be due to genetic factors. These reactions cause contraction in the tubes which reduces the amount of air in the lungs. Due to this, it becomes difficult to breathe. Common symptoms of asthma are coughing and heavy breathing. Chest tightness, fatigue, pain in hands, feet, shoulders, and back. The reasons are dust, smoke, air pollution, pollen grains, animal skin, hair or feather, etc. are the main reasons. Asthma may be controlled by sukhasana, chakrasana, Gomukhasana, Bhujangasana, paschimo-ttāsana, matsyasana.

Gomukhasana:

This asana gets its name because while doing this asana's body resembles a cow face pose. In English, it is called the cow face pose.

Procedure:

Sit in sukhasana or dandasana pose. Place the ankle of the left leg near the right but under the anus. Place the right leg over the left leg so that the knees should place over the left knee. Sweep your left hand behind your back, facing palms upwards. Sweep your right hand over the right shoulder, bend your elbow and place it behind your back. Now interlock fingers of both hands behind your back. Now stretch both hands in their respective directions. Look straight. Repeat with changing leg position.

Benefits:

- Helps in curing Asthma, and reducing weight make the body flexible and attractive.
- It helps to make the spine strong and erect.
- Helps to make the abdominal organ function well.
- Helps to reduce obesity.
- The diaphragm improves and keeps away from all kinds of intoxication.
- The upper body becomes flexible and strong.

- It helps to circulate blood to the entire body.

Contraindications:

- A person with stiff shoulders should avoid this.
- Any kind of hip problem or knee, hamstring, or quadriceps should be avoided.
- If one has to sciatica problem, one should avoid this pose. Avoid any neck or shoulder injury.
- Avoid performing or practicing during pregnancy.

Parvatasana :

While performing this asana body resembles a mountain that's why it's named parvatasana. It is a very easy asana.

Procedure:

Sit in padmasana pose on the ground. Raise both hands sideward while inhaling and joints together upward above the head. Exhale and come at the initial position.

Benefits:

- It helps with a spinal problems.
- Strengthens the muscles of the arms.
- If increase the blood flow to the brain.

Contraindications:

- It should not be plasticized if one has a wrist, hip, or ankle injury.
- It should not be practiced while spinal injury.

Matsyasana: If this asana is performed in a water body that can float easily that's why it is called matsyasana.

Procedure:

Sit in the padmasana pose. Take the support of your elbow and lie on your back bend your neck with the support of your hands, and try to touch your forehead to the ground. Hold the toes of the feet firmly with both hands and touch the ground with the elbows. Stretch the stomach as up as possible.

Benefit:

- This asana is very useful for asthma patients and provides relief from indigestion and other digestive problems.
- Keep the blood clean.
- Helps in curing diabetes.
- Helps with cough and respiratory problems, and makes the body and face attractive.

Contraindication:

- Avoid this posture if any kind of neck injury.
- Avoid doing this asana if you have high or low blood pressure
- People suffering from migraine and insomnia should also refrain from performing this asana.

Sukhasana :

Procedure:

Keep both feet in front and sit straight. Sukhasana is simply sitting in the normal form. Keep the left foot folded under the right leg's thigh. Fold right and placed it under the Left thigh. Keep head, neck, and waist straight. Keep both hands in the meditation (palms stacked up in lap) posture. You can use it for longer periods of meditation. One can change feet for sitting.

Benefits:

- This posture can be used for a long time during mediation and study, etc.
- Straightening the waist gives strength to the legs.
- Pain is removed and a person can perform other postures like Ardh Padmasana and Padmasana.

Contraindications:

- Avoid if arthritis

- Avoid backache.
- Avoid spinal disc problems.
- Do not practice if migraine or Anxiety occurs.
- Do not practice if weak digestive system.

Chakrasana:

Procedure: Lie down on the back and make both legs straight. Bend your knees so that the soles of your feet are on the floor. Your hands must be placed behind your shoulders and fingers pointed towards your shoulders. Then, press your feet and palms, and lift your entire body off the mat. Hands and feet are half feet apart. Head hangs gently between hands. Make the body stretch towards the top so that it becomes a circle shape.

Benefits:

- It affects the whole body, which gives flexibility to muscles and bones & increases blood circulation.
- Relieve waist pain.
- Increases the supply of oxygen in the lungs.
- The overall functioning of the body increases.

Contraindication:

- Avoid practicing if any back injury.
- Someone having a heart problem should not do this pose.
- If having high/ low blood pressure, do not try this
- Someone undergone cataract surgery, avoid this Asana.
- Do not practice if any cervical injury.

Hypertension:

Hypertension means increased blood pressure. Reasons for high blood pressure increase with age, genetics, obesity, lack of physical activity, smoking, and alcohol, more intake of salt in food, tension or mental stress, diabetes, and pregnant women are more prone to high B.P. All these factors can lead to high blood pressure. The main function of the heart is to supply pure blood to the various parts of the body through different arteries when the heart contract it pushes the blood through blood vessels

and consequently the blood pressure increase in the arteries this pressure is known as systolic blood pressure it is represented by the first number the pressure between two heartbeats is called diastolic blood pressure it is represented by bottom or second number these two number of blood pressure are measured in mm/Hg. Unit means millimeter of mercury. The normal blood pressure of an adult is considered 120/80mm/ Hg. A person whose blood pressure readings are beyond 140/90 mm/Hg is said to be having hypertension.

High blood pressure can be controlled by doing the following yoga asanas Tadasana, vajrasana, pavanmuktasana, ardha chakrasana, bhujangasana, shavasana.

Ardh Chakrasana:

Procedure:

Stand straight and keep your hand close to your body. Place your hands on your buttocks. Breathe gently, and bend backward while keeping the knees straight. Stay for some time in this position. Come back to starting position.

Benefits:

- The waist becomes flexible.
- Strengthen backbone.
- High BP comes to normal.
- Tones the arms and shoulder muscles.

Contraindication:

- Avoid doing this asana if you have a peptic ulcer and hernia.
- Avoid this asana in case of hip or spinal problems.
- Pregnants should avoid doing this asana.

Shavasana :

Procedure:

Lie flat on your back. Keep your arms at your side and your palms facing up. Legs should be separated and just relax. Start concentrating from your head to your feet and relax each part of your body and feels that you are just like a dead body.

Benefits:

- Relax the whole body.
- Release stress, fatigue, depression & tension.
- Calms the mind and improves mental health.
- Strengthen the nervous system.
- Regulates blood circulation and gives relief to various aches and pains.
- It helps to cure many cardiac problems.

Precautions: The place where Shavasana is performed should be peaceful with no noise at all.

Tadasana

Procedure:

Stand up in an attention position. Lift your arms upwards. Stretch your hands upwards. Raise your heels, and come on your toes. Also, pull up your body upwards. After some time breathe out slowly and come to the previous position.

Benefits:

- It helps develop physical and mental balance.
- It reduces obesity.
- Cures constipation.
- Improves body posture.
- It alleviates sciatica.
- It is beneficial in treating hypertension.

Contraindications:

- If you have low blood pressure you should not do this asana.
- In case of headaches or insomnia, you should avoid doing this asana.
- Those who suffer from blood circulation problems such as faulty valves, should not perform this asana.

Back Pain:

Back pain is a widespread problem people around the world are suffering from various problems due to changing habits and changing lifestyles. Back pain is one of them about 95% of the people who sit in one place and 60% of the rest of the people are upset with back pain and several women are more in them. The main reasons for this are long sittings; the habit of modern equipment, being more fashionable, lack knowledge regarding the right way of exercising, weight lifting, wrong way of sleeping, due to an accident problem can arise. Back pain can be prevented by doing these asanas Tadasana, vakrasana, bhujangasana, shalabhasana and ardh matsyendrasana.

Vakrasana: In this asana backbone is twisted, that's why it is named vakrasana. This asana increases the flexibility, and activeness of the backbone

Procedure:

Keep both feet in front and sit straight. Sit down stretching your legs forward on the ground. Bend your left leg and place it around the right knee. Keep your spine straight, and while exhaling bend towards the left. Now place the right arm by the outer side of the left knee and pull the left knee towards the body. Pull the knee so that it pressures the stomach. While exhaling, return to the initial position. Repeat it from the other side it's one complete cycle do it 3 to 5 times.

Benefits:

- It brings flexibility to the backbone and makes it healthy.
- Relieves stiffness from the back.
- Help in relieving back pain.
- It improves the function of both the spinal cord and nervous system.

- It reduces belly fat.

Contraindications:

- Avoid this asana in case of high blood pressure.
- Those who suffer from peptic ulcers should not do this asana.
- This asana should not be performed in case of a back injury.

Shalabhasana :

Procedure:

Lie down on your stomach. Place your palms under your things and keep your ankles close to one another. Breathe in and lift your legs upwards, while doing so your chin should rest on the ground. Hold this position for some time after that exhale and take down your legs in the initial position. Repeat this 3 to 5 times.

Benefits:

- This asana is very helpful in back pain.
- Increase flexibility reducing fat.
- It improves posture.
- It helps in relieving stress.
- It alleviates lower back pain.
- It helps in removing constipation.

Contraindications:

- People with a weak spine should avoid this asana.
- Individuals with a weak heart, high blood pressure, and coronary problems should avoid this asana.