

## UNIT – 3

### YOGA AS PREVENTIVE MEASURE FOR LIFESTYLE DISEASE



#### CONTENT:-

- **Obesity:** Steps To Perform The Asana, Benefits & contraindications for Tadasana, Katichakrasana, Pavanmuktasana, Matsayasana, Halasana, Paschimottasana, Ardh Matsyendrasana, Dhanurasana, Ushtrasana, Suryabedhan pranayama.
- **Diabetes:** Steps To Perform The Asana, Benefits & contraindications for Ktichakrasana, Pavanmuktasana, Bhujangasana, Shalabhasana, Dhanurasana, Supta-vajarasana, Paschimottasana, Ardh Matsyendrasana, Mandukasana, Yogmudra, Gomukhasana, Ushtrasana, Kapalbhathi
- **Asthma:** Steps To Perform The Asana, Benefits & contraindications for Tadasana, Urdhwahastottasana, Uttan Mandukasana, Bhujangasana, Dhanurasana, Ushtrasana, Vakrasana, Kapalbhathi, Gomukhasana, Mtsyaasana, Anulom- Vilom.
- **Hypertension:** Steps To Perform The Asana, Benefits & contraindications for Tadasana, Katichakrasana, Uttanpadasana, Ardha Halasana, Sarla Matyasana, Gomukhasana, Uttan Mandukasana, Vakrasana, Bhujangasana, Makarasana, Shavasana, Nadi-Shodhanapranayam, Sitlipranayam.
- **Back Pain and Arthritis:** Steps To Perform The Asana, Benefits & Contraindications of Tadasan, Urdhawahastootansana, Ardh-Chakrasana, Ushtrasana, Vakrasana, Sarala Maysyendrsana, Bhujandgasana, Gomukhasana, Bhadrasana, Makarasana, Nadi-Shodhana pranayama.

## LEARNING OBJECTIVES

- The child should be able to identify the benefits of the asana for different types of lifestyle diseases and health problems.
- Recognize the importance of various asanas for preventive measures against obesity, diabetes, asthma, hypertension and back pain.
- Understanding the Steps To Perform The Asana which will help the child reap maximum benefits from them.
- Knowledge of contradictions associated with the performing of different asanas is vital.
- Children should inculcate Yogic practices with daily life in order to counter diseases and enjoy a healthy life style.

**MARKS WEIGHTAGE – 06 + 1b\***

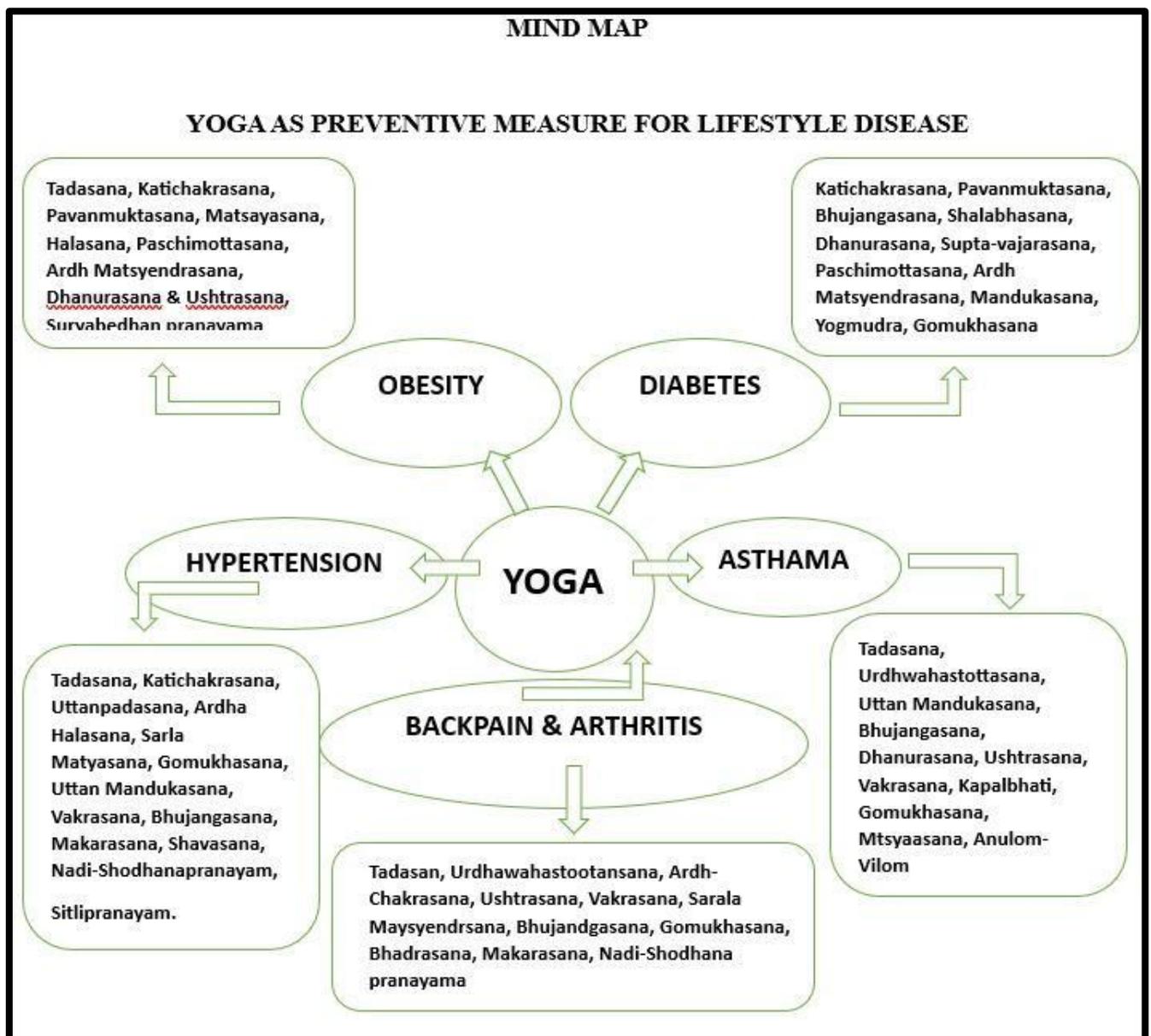


TABLE FOR PREVENTIVE ASANAS & PRANAYAMAS FOR LIFESTYLE DISEASES

SR. NO	NAME OF ASNA/PRANAYAM	OBSITY	DAIBETES	ASTHAMA	HYPERTENSION	BACKPAIN & ARTHERTIS
1	TADASANA	✓		✓	✓	✓
2	KATICHAKRASNA	✓	✓		✓	
3	PAVANMUKTASNA	✓	✓			
4	MATSAYANASANA	✓		✓		
5	HALASANA	✓				
6	PACHIMOTTANASANA	✓	✓			
7	ARDH MATSAYANASANA	✓	✓			
8	DHANURASNA	✓	✓	✓		
9	USHTRASNA	✓	✓	✓		
10	BHUJANGASANA		✓	✓	✓	✓
11	SALABHASANA		✓			
12	SUPTA VAJRASANA		✓			
13	MUNDAKASANA		✓			✓
14	GOMUKHASANA		✓	✓	✓	
15	URDHWAHASTOTASANA			✓		
16	UTTANMANDUKASANA			✓	✓	
17	ARDH HALASANA				✓	
18	SARALA MATSAYANASANA				✓	✓
19	MAKARASANA				✓	✓
20	SAVASANA				✓	
21	ARDHCHAKRASANA					✓
22	BHADRASANA					✓
23	YOGMUDRA					✓
24	SURYBHEDAN	✓				
25	KAPALBHATI		✓	✓		
26	NADISHODHAN				✓	✓
27	SITLI					
28	ANULOMA VILOMA			✓		

## OBESITY:



Obesity means weighing more than what is healthy for a given height. Obesity is a serious, chronic disease. It can lead to other health problems

BMI is calculated by dividing the subject's mass by the square of their height

$$\text{BMI} = \text{Weight in KG} / \text{Height in Metres}^2$$

OBESITY CATEGORY	BMI (kg/m <sup>2</sup> )
Underweight	< 18.5
Normal weight	18.5 – 24.9
Overweight	25.0 – 29.9
Obese (Class I)	30.0 – 34.9
Obese (Class II)	35.0 – 39.9
Obese (Class III)	≥ 40.0

## DIABETES:

Diabetes is a chronic disease where the body cannot regulate blood sugar (glucose) levels. This happens because the body doesn't produce enough insulin, or it can't effectively use the insulin it produces. Insulin is a hormone that helps glucose enter cells for energy.



### Types of Diabetes:

- Type 1: The body's immune system attacks and destroys insulin-producing cells in the pancreas.
- Type 2: The body becomes resistant to insulin, and the pancreas may not produce enough insulin.
- Gestational Diabetes: Diabetes that develops during pregnancy.



## ASTHAMA:

Asthma is a chronic respiratory condition causing inflammation and narrowing of the airways, leading to breathing difficulties. It's characterized by symptoms like wheezing, coughing, shortness of breath, and chest tightness, which can worsen during attacks. Asthma is managed with medications and strategies to avoid triggers and maintain control.

## HYPERTENSION:

Hypertension, or high blood pressure, is a condition where the force of blood against the artery walls is consistently too high. It's a major risk factor for heart disease, stroke, and other serious health problems. Hypertension is usually diagnosed when a person's blood pressure readings consistently reach 130/80 mmHg or higher.



## BACKPAIN & ARTHRITIS:

Back pain is a common ailment that can range from mild discomfort to severe, debilitating pain

Arthritis, meaning "joint inflammation," is a condition characterized by joint pain, stiffness, and inflammation. It can affect any joint, but commonly impacts hands, knees, hips, feet, shoulders, and the lower back.



## TADASANA

This is a traditional posture. The final position of this asana resembles the palm tree. Palm trees are usually erect and straight. Therefore, one should be straight and erect in this asana

### STEPS TO PERFORM THE ASANA

Starting Position: Stand with feet together or slightly apart, hands by your thighs

Key Actions:

- Raise arms overhead, interlock fingers, and turn palms up
- Stretch arms, shoulders, and chest upward while inhaling
- Lift heels and balance on toes
- Hold for a few seconds, then lower heels and arms while exhaling



Breathing Guidelines

- Synchronize breathing with movement: inhale while stretching up, exhale while lowering down
- Maintain balance and stability throughout

#### Essential Tips

- Keep eyes focused on a fixed point to maintain balance
- Lower heels slowly and smoothly to avoid losing balance

#### Benefits

- Strengthens legs, knees, ankles, arms, and chest
- Stretches hips, groins, hamstrings, calves, shoulders, chest, and spine
- Improves mental and physical balance, digestion, and reduces anxiety and stress

#### Precautions

- Avoid practicing if you have migraine, diarrhoea, low/high blood pressure, or neck/back
- **AS A PREVENTIVE ASANA AGAINST OBESITY, ASTHAMA, HYPERTENSION & BACKPAIN**

### **KATICHAKRASANA**

The name of this yoga asana comes from Kati meaning waist and chakra meaning circle. Katichakrasana, literally means rotation of the waist. It gives a nice stretch to the waist and helps in making it more flexible.

#### **STEPS TO PERFORM THE ASANA**

##### Getting into Position

- Stand with legs 2-3 feet apart
- Raise arms to shoulder level, parallel to each other, with palms facing inward

##### Movement Sequence

- Exhale, twist torso to the left, bringing right palm to left shoulder
- Inhale, return to center
- Exhale, twist torso to the right, bringing left palm to right shoulder
- Inhale, return to center
- Repeat for 2-3 rounds, then relax in Samasthiti



##### Breathing Pattern

- Inhale: Return to center
- Exhale: Twist to the side

##### Benefits

- Relieves constipation
- Strengthens and flexes spine, waist, arms, and legs
- Opens up neck and shoulders
- Tones abdominal muscles and lower back
- Suitable for those with sedentary jobs

#### Precautions

- Avoid during pregnancy, hernia, slip disc, or recent abdominal surgery
- Consult a doctor if you have chronic spinal disorders
- **AS A PREVENTIVE ASANA AGAINST OBESITY, DIABETES & HYPERTENSION**

### PAVANMUKTASANA

The name comes from the Sanskrit word pawan meaning wind and mukta meaning “free”. Thus, Pawanmuktasana is also known as the wind removing asana.

#### STEPS TO PERFORM THE ASANA

- Lie on your back with legs straight
- Bend one knee and bring it towards your abdomen, holding with your hands
- Exhale, lift your head, and try to touch your chin to your knee
- Inhale, straighten your leg, and repeat with the other leg
- Bring both knees towards your abdomen, placing your chin between your knees
- Swing your body back and forth, then left and right, 5-10 times each



#### Key Points

- Breathe normally throughout the practice
- Focus on coordinating your movements with awareness

#### Benefits

- - Stretches neck, back, and abdominal muscles
- - Improves digestion, relieves constipation, and reduces bloating
- - Strengthens lower back muscles and loosens spinal vertebrae
- - Beneficial for menstrual health and reproductive organs
- - Helps reduce fat around the abdominal area, thighs, and buttocks

#### Precautions

- - Avoid if you have had recent abdominal surgery or have hernia, piles, or are pregnant
- - Be gentle and listen to your body, especially if you're new to this asana
- **AS A PREVENTIVE ASANA AGAINST OBESITY & DIABETES**

## MATSYASANA

The Sanskrit word Matsya means fish. Hence, Matsyasana refers to the fish pose. According to the ancient Yogic texts, Matsyasana can restore spinal strength and overall body balance, consequently leading to a better physical and emotional outlook.

### STEPS TO PERFORM THE ASANA

- Lie in Savasana, stretching arms and legs out
- Place palms under hips, facing down, and bring elbows close to the waist
- Cross legs, keeping thighs and knees flat on the floor



### Lifting into the Pose

- - Inhale, lift chest and head, touching crown to the floor
- - Ensure weight is on elbows, not head
- - Hold comfortably, breathing normally

### Breathing Technique

- - Inhale, lift chest; exhale, deepen the pose
- - Relax body as you exhale, stretching back down to the floor

### Benefits

- - Opens and stretches neck, shoulders, and chest
- - Relieves respiratory disorders, strengthens back muscles
- - Regulates emotions and stress, tones glands

### Precautions

- Avoid if you have high/low blood pressure, neck/back injuries, migraine, spondylitis, heart ailments, or are pregnant
- **AS A PREVENTIVE ASANA AGAINST OBESITY & ASTHAMA**

## HALASANA

Hala means plough. This posture is known as Halasana because in its final position the shape of the body resembles the Indian plough.

### STEPS TO PERFORM THE ASANA

#### Step-by-Step Instructions

- Lie in supine position, hands by your sides
- Lift legs to 30°, 60°, and 90°, holding each position for a few seconds



- Bring legs towards your head, touching toes to the ground, then stretch legs backward
- Place palms on your head, interlocking fingers, and bring elbows to the ground
- To release, unlock fingers, stretch hands, and lower legs to 90°, then slowly return to starting position

#### Breathing Technique

- - Control your breath, inhaling deeply as you lift legs to 90°
- - Exhale completely, holding the position for a few breaths

#### Benefits

- - Relieves digestive issues like dyspepsia and constipation
- - May help with certain types of diabetes
- - Combining with Bhujangasana may enhance benefits

#### Precautions

- Avoid if you have cervical spondylitis, spinal stiffness, abdominal injuries, or hernia

### **AS A PREVENTIVE ASANA AGAINST OBESITY**

## **PACHIMOTTANASANA**

The word paschimottasana comes from the Sanskrit words paschima meaning west or back of the body and uttana meaning intense stretch or extended. In this asana one has to sit and intensely stretch the back forward.

### **STEPS TO PERFORM THE ASANA**



#### Step-by-Step Instructions

- Sit with legs straight out in front, hands by your sides
- Loosen back muscles and bend forward, placing hands where comfortable
- Practice daily, gradually increasing flexibility
- Hold big toes with forefingers, forehead on knees
- Release, raising head and returning to starting position

#### Breathing Technique

- Breathe slowly and deeply in final position
- Exhale if holding for a short duration
- Inhale while returning to starting position

#### Benefits

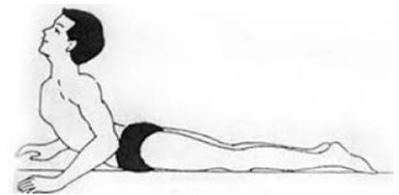
- Stretches back muscles, improves flexibility and alignment
- Tones abdominal and pelvic organs, improves digestion
- Massages and tones internal organs, improves blood circulation

#### Precautions

- Avoid if you have painful or enlarged liver/spleen, herniated discs, or acute appendicitis
  - **AS A PREVENTIVE ASANA AGAINST OBESITY & DIABETES**

### **BHUJANGASANA**

In Sanskrit the word Bhujanga means Cobra. Since the final position of this asana resembles the 'Hooded Snake' therefore it is called Bhujangasana.



#### Step-by-Step Instructions

- Lie prone, legs together, hands by shoulders
- Fold hands, place palms on ground, thumbs under armpits
- Raise chin, turn head backward, lift thorax, and spine up to navel
- Hold, then slowly lower body back to ground
- Relax hands and place them by thighs

#### Breathing Technique

- Inhale while lifting torso
- Breathe normally in final position
- Exhale while lowering torso
- Synchronize breathing and movement

#### Benefits

- Strengthens and increases flexibility of spine and back muscles
- Opens chest, shoulders, and ribcage
- Stimulates endocrine system and digestive organs
- Good for kyphosis

#### Precautions

- Avoid during pregnancy, spondylitis, spinal injuries, or weak back muscles

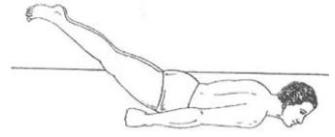
**AS A PREVENTIVE ASANA AGAINST DIABETES, ASTHAMA, HYPERTENSION & BACKPAIN**

### **SHALBHASANA**

The name Shalabhasana comes from the Sanskrit shalabh which means grasshopper or locust.

#### Step-by-Step Instructions

- Lie prone, legs together, hands by sides
- Fold hands, bring them under shoulders like Bhujangasana
- Slowly lift legs up, keeping them straight
- Hold, then slowly lower legs down
- Return to starting position



#### Breathing Technique

- Inhale deeply, retain breath while lifting legs
- Exhale while lowering legs
- Synchronize breathing and movement

#### Benefits

- - Reduces abdominal fat, tones abdomen
- - Strengthens back and neck muscles
- - Improves digestion, relieves constipation
- - Helps with menstrual problems, strengthens uterus and reproductive system

#### Precautions

- Avoid if you have acute back pain, slip disc, severe sciatica, or major menstrual problems
- Avoid during pregnancy or if you have blood pressure problems
- **AS A PREVENTIVE ASANA AGAINST OBESITY & DIABETES**

## URDHVAHASTOTTANSANA

The name for this asana comes from the Sanskrit urdhva, meaning upward, and hasta, meaning hands. Urdhvahastasana is called upward salute or upward hands pose in English

#### Step-by-Step Instructions

- Stand upright with fingers interlocked
- Inhale, stretch hands up, keeping feet flat
- Exhale, slowly bend to one side, pause, then strengthen up
- Repeat on the other side



#### Breathing Technique

- Inhale when stretching up
- Exhale when bending to the side and returning to position

#### Benefits

- Relieves back pain, improves spinal health
- Aids in weight loss, stretches waist and hips

Precaution:

- - Avoid during pregnancy, varicose veins, or headache
- - Consult a yoga therapist if you have insomnia or other health concerns
- **AS A PREVENTIVE ASANA AGAINST OBESITY & ASTHAMA**

### **DHANURASANA (BOW POSE)**

Step-by-Step Procedure:

- Lie prone with legs together.
- Bend knees and lift legs towards head.
- Hold ankles with hands and lift chest and head off ground.
- Hold for a few breaths, then release.



Benefits:

- Strengthens back muscles.
- Improves flexibility and balance.
- Tones abdominal organs.
- Relieves stress and anxiety.
- Improves digestion.

Precaution:

Avoid if you have back injuries, herniated discs, high blood pressure, or are pregnant.

**AS A PREVENTIVE ASANA AGAINST OBESITY, DIABETES & ASTHAMA**

### **GOMUKHASANA (COW FACE POSE)**

Step-by-Step Procedure:

- Sit with legs crossed, one knee on top of the other
- Bring one knee over the other, and sit on the heels.
- Hold hands behind back, stretching shoulders and chest.
- Hold for a few breaths, then switch sides.



Benefits:

- Stretches shoulders, chest, and hips.
- Improves flexibility and balance.
- Relieves stress and anxiety.
- Improves posture.

- Tones arms and shoulders.

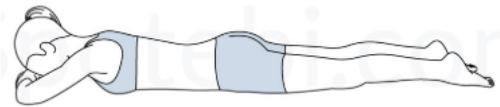
Precaution:

Avoid if you have shoulder or knee injuries.

**AS A PREVENTIVE ASANA AGAINST DIABETES, ASTHAMA & HYPERTENSION**

**MAKARASANA (CROCODILE POSE)**

Step-by-Step Procedure:



- Lie prone with forearms on ground.
- Lift chest and head off ground, stretching neck and shoulders.
- Hold for a few breaths, then release.

Benefits:

- Strengthens back muscles.
- Improves posture.
- Relieves stress and anxiety.
- Improves breathing and lung capacity.
- Tones neck and shoulder muscles.

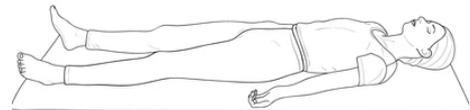
Contraindications:

Avoid if you have neck or back injuries.

**AS A PREVENTIVE ASANA AGAINST HYPERTENSION & BACKPAIN**

**SAVASANA (CORPSE POSE)**

Step-by-Step Procedure:



- Lie on back with arms and legs relaxed.
- Close eyes and focus on breath.
- Hold for 5-10 minutes, relaxing entire body.

Benefits:

- Relaxes entire body.
- Reduces stress and anxiety.
- Improves sleep.
- Lowers blood pressure.
- Improves mental clarity.

Contraindication:

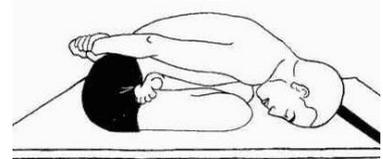
None, but be mindful of any underlying health conditions.

### **AS A PREVENTIVE ASANA AGAINST HYPERTENSION**

#### **MANDUKASANA (FROG POSE)**

Step-by-Step Procedure:

- Squat with knees wide apart.
- Place hands on ground and stretch chest forward.
- Hold for a few breaths, then release.



Benefits:

- Stretches hips, thighs, and chest.
- Improves flexibility and balance.
- Tones legs and glutes.
- Relieves stress and anxiety.
- Improves digestion.

Contraindications: Avoid if you have knee or hip injuries.

### **AS A PREVENTIVE ASANA AGAINST DIABETES & BACKPAIN**

#### **USTRASANA (CAMEL POSE)**

Step-by-Step Procedure:

- Kneel with knees hip-width apart.
- Arch back and reach hands to heels.
- Lift chest and head towards ceiling.
- Hold for a few breaths, then release.



Benefits:

- Stretches chest, shoulders, and abdomen.
- Improves flexibility and balance.
- Tones back muscles.
- Relieves stress and anxiety.
- Improves posture.

Contraindications:

Avoid if you have neck or back injuries, high blood pressure, or are pregnant.

### **AS A PREVENTIVE ASANA AGAINST OBESITY, DIABETES & ASTHAMA**

## MULTIPLE CHOICE QUESTIONS- 1 MARK

1. What is the meaning of "Asana" in Yoga?

- (A) breathing exercises (B) physical postures  
(C) meditation techniques (D) ethical practices

Answer: (B) physical postures

2. Which asana is known as the "Diamond Pose"?

- (A) Trikonasana (B) Vajrasana  
(C) Tadasana (D) Shavasana

Answer: (B) Vajrasana

3. Which asana is recommended to prevent constipation?

- (A) Vajrasana (B) Trikonasana  
(C) Ardha Matsyendrasana (D) Tadasana

Answer: (C) Ardha Matsyendrasana

4. Name the asana shown in the picture given below.



- (A) Vajrasana (B) Pachimotanasana  
(C) Trikonasana (D) Ardha Matsyendrasana

Answer: (B) Pachimotanasana

5. Asana that helps to make pelvic muscles strong is:

- A) Shavasana  
B) Trikonasana  
C) Tadasana  
D) Vajrasana

Answer: B) Trikonasana

6. What is the Sanskrit word for "Yoga"?

- (A) Yuj (B) Ananda  
(C) Atma (D) Prana

Answer: (A) Yuj

7. Who is considered the father of Yoga?

- (A) Patanjali (B) Buddha  
(C) Swami Vivekananda (D) B.K.S. Iyengar

Answer: (A) Patanjali

8. What is the meaning of "Pranayama"?

- (A) physical postures (B) meditation techniques  
(C) breathing exercises (D) ethical practices

Answer: (C) breathing exercises

9. Name the asana in the picture given below. .

- (A) Tadasana (B) Vajrasana  
(C) Trikonasana (D) Dhanurasana

Answer: (D) Dhanurasana



10. Which asana is recommended to prevent diabetes?

- (A) Tadasana (B) Shavasana  
(C) Vajrasana (D) Trikonasana

Answer: (C) Vajrasana

11. Ushtrasana pose refers to :

- a. Camel pose b. Cow pose  
c. Fish pose d. Cobra pose

Answer: a. Camel pose

12. Which asana is of side twist pose?

- a. Shavasana b. Chakrasana  
c. Ardha Mastendrasana d. Parvatasana

Answer: c. Ardha Mastendrasana

13. Causes of obesity include:

- A) Lack of physical activity B) Smoking  
C) Overeating D) All of the above

Answer: D) All of the above

14. Which gland secretes the hormone insulin, the lack of which is associated with Diabetes?

- a. Endocrine glands b. Pituitary  
c. Pancreas d. Hypothalamus

Answer: c. Pancreas

15. Katichakrasana is a

- a. standing asana b. Sitting asana  
c. Lying asana d. Balancing asana

Answer: d. Balancing asana

### **Unsolved Questions**

1. Bhujangasana is also known as

- a. Dog posture b. Child posture  
c. Cobra posture d. Reverse Boat posture

2. Which asana can be suggested as a preparatory asana for Bhujangasana?

- A) Tadasana B) Shavasana  
C) Makarasana D) Padmasana

Answer: C) Makarasana

3. What causes Hypertension?

- a. Excessive insulin secretion b. Smoke  
c. Food d. All of the above

4. In Uttanpadasana which is the correct pose?

- a. Legs raised in supine position b. Legs raised in prone position  
c. Head raised in supine position d. Head and led raised in prone position

5. Which asana is the basic asana for relaxation and mental repose?

- a. Shavasana b. Chakrasana  
c. Halasana d. Parvatasana

## VERY SHORT ANSWERS – 2 MARKS

Q.1. What is Yoga?

Ans. The word yoga is derived from Sanskrit word 'Yuj' which means 'to meet'. So, yoga is the union of body with soul.

Q.2 Write any two benefits of Vajrasana in the medical condition called obesity.

Ans Two benefits of Vajrasana are as follows

- It helps to prevent acidity and ulcers by improving the digestion.
- It is a good meditative pose for those suffering from sciatica and severe lower back problems.

Q-3 Write any two benefits of Tadasana.

**Improves Posture:** Tadasana helps align the spine and strengthens the muscles that support good posture, promoting a straight and upright stance.

**Enhances Balance and Stability:** By engaging core muscles and focusing on standing evenly on both feet, Tadasana improves body awareness and balance.

Q-4 Write any two benefits of Mandukasana.

Ans Two benefits of Mandukasana are as follows

- Mandukasana stimulates the abdominal organs and pancreas, which can help improve digestion and support better functioning of the digestive system.
- This pose is believed to stimulate the pancreas and may help regulate insulin production, making it beneficial for people managing diabetes.

Q-5 Explain the contraindication of Halasana

Ans In case of shoulder or neck injuries, experiencing dizziness while staring upwards and in case of any other medical concerns.

Q-6 What do you understand by the Ardha Matsyendrasana?

Ans Ardha Matsyendrasana or the half spinal twist pose is one the main asanas practised in hatha yoga. This yoga helps in stimulating the liver. It is also therapeutic for asthma and infertility etc.

Q-7. Discuss any two benefits of Paschimottasana.

Ans Two benefits of Paschimottasana are as follows

- It helps to remove constipation and digestive disorder.
- It reduces headache, anxiety and insomnia.

Q-8. How is Diabetes defined and what are its symptoms?

Ans: Diabetes is a common metabolic and lifestyle disorder. It is caused by high levels of sugar in blood and urine. Insulin, a hormone secreted by pancreas, control the level of sugar in blood. Insufficient production of insulin increases sugar level in blood. When this imbalance is not corrected ,it can lead to heart and kidney diseases, vision impairment and other problems. Lethargy, fatigue, slow healing of wounds, poor immunity, weight loss, frequent urination, and excessive thirst are its common symptoms.

Q-9. How is Asthma described and how can it be managed?

Ans : Asthma is a chronic respiratory condition causing inflammation and narrowing of the airways, leading to breathing difficulties. It's characterized by symptoms like wheezing, coughing, shortness of breath, and chest tightness, which can worsen during attacks. Asthma is managed with medications and strategies to avoid triggers and maintain control.

Q-10. How is Hypertension explained and when is it diagnosed?

Ans: Hypertension, or high blood pressure, is a condition where the force of blood against the artery walls is consistently too high. It's a major risk factor for heart disease, stroke, and other serious health problems. Hypertension is usually diagnosed when a person's blood pressure readings consistently reach 130/80 mmHg or higher.

#### Unsolved Questions

Q-1. Explain the meaning and common causes of back pain.

Q-2. Define obesity and mention its impact on health.

Q-3. Describe arthritis and its effects on the human body.

Q-4. Name any three meditative asanas.

Q-5. Write any three contraindications of Bhujangasana.

### **SHORT ANSWERS – 3 MARKS**

Q.1 Explain the procedure of Pawanmuktasana.

- This is done in lying position.
- Lie flat on the back and keep the legs straight, relax, breathe deeply and regularly.
- Inhale slowly and lift the legs and bend the knees. Bring upwards to the chest till the thigh touches the stomach.
- Hug the knees in place and lock the fingers.
- Place the nose tip between the knees.
- Exhale slowly and come back to the original position i.e. Shavasana.
- This is very beneficial for the stomach, for developing the abdominal muscles. The results are very impressive.

Q.2. Define the term Asana. Write about the categories of Asanas.

Ans. The term asana means sitting in a particular posture, which is comfortable and which could be maintained steadily for long time. Asana gives stability and comfort both at physical and mental level.

Asana may broadly be classified into three categories:

1. Cultural or corrective asana
2. Meditative asana
3. Relaxative asana

- Cultural asanas can further be classified into two groups, depending on the effects produced.
  - ✓ asana that work through and on the spine and visceral organs.
  - ✓ asanas that work through the skeleton, muscles, ligaments and joints.
- Meditative asana are those asanas which are aimed at quiet sitting and are used for higher practices in yoga.
- Relaxative asana are those which remove tension and bring about physical as well as mental relaxation.

Q.3. Write steps and benefits Vajrasana.

Ans. Steps

- Sit on the flat floor and fold your legs. Keep the spine straight and close the eyes.
- Keep the right palm on right knee and left palm on left knee.
- Now start to inhale slowly then exhale. When you exhale try to think that your disorders are coming out from your nose.
- Repeat these steps for 5 minutes and take a rest. You can increase the time for 15 minutes.

Benefits

- Calms the mind and bring stability in mind.
- Cures constipation, acidity, increases digestion.
- Those suffering from the problem of gas formation in the intestines can practice this immediately after lunch or dinner.
- Helps to get rid of back pain.
- Cures stomach disorder.
- Cures urinary problems.
- Strengthens the sexual organs.

Q.4. Explain briefly how Yoga helps in the medical condition of Diabetes.

Ans. Yoga postures for diabetes switch back and forth between asanas (poses) that contract specific areas of the abdomen and asanas that relax those areas. This alternation between abdominal contractions and release stimulates the pancreas thus increasing the blood and oxygen supply. As a result, the pancreatic cells, hit by nutrients and fresh blood flow, undergoes a rejuvenation that improves the organ's ability to produce insulin. Yogic breathing practices also work in a similar way to stimulate

healthy pancreatic function. In addition to this, yoga reduces blood sugar levels and helps relieve one of the main symptoms of diabetes i.e. hypoglycemia. Yogic exercise also reduces LDL ("bad") cholesterol and triglyceride levels, both of which are often accompanying symptoms for diabetes.

Q.5. Explain Hypertension and mention curative asanas of Hypertension.

Ans. Yoga and meditation play an important role in lowering high blood pressure (hypertension) thereby improving the lifestyle through mental relaxation and stress reduction. For management and control of hypertension, Yoga and Naturopathy are beneficial steps.

- Katichakrasana is a useful yoga pose to relieve from hypertension.
- Bhujangasana is quite useful in normalising blood pressure.
- Dhanurasana keeps your tiredness away.
- Shavasana may be practiced when blood pressure is to be controlled and in case of tiredness.
- Chandrabhedhi pranayama also lowers blood pressure.

Q.6. Describe the benefits and procedure of Bhujangasana.

**Procedure:**

- Lie flat on your stomach with legs straight and feet together, toes pointing outward.
- Place your palms under your shoulders and elbows close to your body.
- Inhale slowly and raise your upper body (head, chest, and abdomen) using the strength of your back muscles, with minimal support from your hands.
- Look upward and hold the posture for a few seconds while breathing normally.
- Exhale and slowly bring your body back to the floor.
- Repeat 2–3 times.

**Benefits:**

- Strengthens the spine and improves flexibility.
- Stimulates abdominal organs and improves digestion.
- Opens the chest and helps relieve stress and fatigue.
- Improves blood circulation and is beneficial for people with mild back pain.
- Useful in managing hypertension when practiced calmly.

**UNSOLVED QUESTIONS**

Q-1 Write steps and benefits of Tadasana.

Q-2 Define Dhanurasana and write 3 benefits of Dhanurasana.

Q-3 Define Mandukasana and write any 2 Contraindications of Mandukasana.

**CASE BASED QUESTIONS – 4 MARKS**

**1. A 40-year-old individual with type 2 diabetes is looking to incorporate yoga into their management plan. Create a yoga routine that includes asanas, pranayama, and relaxation techniques to improve insulin sensitivity, reduce stress, and enhance overall well-being.**

1. Which of the following yoga asanas is most effective in stimulating the pancreas and improving insulin sensitivity?

- A) Tadasana      B) Bhujangasana      C) Vajrasana      D) Shavasana

Answer: B) Bhujangasana

2. Which pranayama practice helps in reducing stress and calming the nervous system, which is beneficial for managing diabetes?

- A) Bhastrika      B) Kapalbhatai      C) Anulom Vilom      D) Surya Bhedi

Answer: C) Anulom Vilom

3. For someone managing type 2 diabetes through yoga, which of the following is a recommended relaxation technique?

- A) Vrikshasana      B) Shavasana      C) Trikonasana      D) Dhanurasana

Answer: B) Shavasana

4. What is the primary benefit of incorporating yoga into the diabetes management plan?

- A) Increases sugar cravings  
B) Raises blood pressure  
C) Improves insulin sensitivity and reduces stress  
D) Causes muscle stiffness

Answer: C) Improves insulin sensitivity and reduces stress

**2. A 25-year-old individual with asthma is seeking to manage their symptoms through yoga. Design a yoga program that includes asanas, pranayama, and relaxation techniques to improve lung function, reduce stress, and enhance overall well-being.**

1. Which of the following yoga asanas is especially helpful for expanding the chest and improving lung capacity in asthma patients?

- A) Paschimottanasana      B) Bhujangasana      C) Matsyasana      D) Padmasana

Answer: C) Matsyasana

2. Which pranayama technique is best suited for calming the respiratory system and enhancing breathing efficiency in asthma?

- A) Bhramari Pranayama      B) Surya Bhedi Pranayama  
C) Bhastrika Pranayama      D) Ujjayi Pranayama

Answer: A) Bhramari Pranayama

3. Which relaxation technique is beneficial for reducing stress and preventing asthma attacks triggered by anxiety?

- A) Tratak      B) Shavasana  
C) Dhanurasana      D) Surya Namaskar

Answer: B) Shavasana

4. What is one of the primary goals of yoga for individuals with asthma?

- A) Strengthen leg muscles
- B) Increase appetite
- C) Improve lung function and reduce stress
- D) Suppress sneezing

Answer: C) Improve lung function and reduce stress

**3. A 50-year-old individual with hypertension is looking to incorporate yoga into their management plan. Create a yoga routine that includes asanas, pranayama, and relaxation techniques to reduce blood pressure, improve cardiovascular health, and enhance overall well-being.**

1. Which yoga asana is most beneficial for calming the nervous system and reducing high blood pressure?

- A) Chakrasana      B) Shavasana      C) Trikonasana      D) Garudasana

Answer: B) Shavasana

2. Which of the following pranayama techniques is best suited for reducing blood pressure and promoting mental relaxation?

- A) Kapalbhathi      B) Bhastrika      C) Anulom Vilom      D) Surya Bhedi

Answer: C) Anulom Vilom

3. Why should fast or forceful breathing techniques be avoided in individuals with hypertension?

- A) They improve flexibility
- B) They may increase heart rate and blood pressure
- C) They help reduce cholesterol
- D) They cause dizziness

Answer: B) They may increase heart rate and blood pressure

4. Which asana is safe and effective for reducing stress and improving circulation in people with hypertension?

- A) Halasana      B) Shirshasana      C) Vajrasana      D) Dhanurasana

Answer: C) Vajrasana

**4. Ravi, a 25-year-old man, has been experiencing frequent episodes of shortness of breath, wheezing, and coughing, especially during seasonal changes and physical exertion. He was diagnosed with asthma two years ago. Recently, his doctor advised him to add yoga to his lifestyle to help manage his condition. Ravi joins a beginner-friendly yoga class that focuses on breathing techniques, gentle asanas, and relaxation. Over time, he notices that his breathing improves, his stress levels decrease, and he feels more energetic.**

1. Which of the following yoga practices is most beneficial for improving lung capacity in asthma patients?

- A) Bhramari Pranayama      B) Surya Bhedi      C) Kapalbhathi      D) Ujjayi Pranayama

Answer: A) Bhramari Pranayama

2. Which of these asanas helps open the chest and lungs, making it easier to breathe?

- A) Halasana      B) Bhujangasana      C) Paschimottanasana D) Dhanurasana

Answer: B) Bhujangasana

3. Why is yoga effective in managing asthma symptoms?

- A) It increases blood pressure  
B) It strengthens the immune system and calms the mind  
C) It blocks nasal passages  
D) It restricts lung function

Answer: B) It strengthens the immune system and calms the mind

4. Which relaxation technique is most suitable for reducing stress-related asthma triggers?

- A) Chakrasana      B) Savasana      C) Shirshasana      D) Trikonasana

Answer: B) Savasana

**5. Amit, a 30-year-old software professional, spends long hours sitting at a desk. Over the past year, he has developed chronic lower back pain due to poor posture and lack of physical activity. On the advice of a physiotherapist, Amit joins a yoga class to strengthen his back, improve flexibility, and manage pain. His instructor designs a routine including gentle backbends, spinal twists, core strengthening asanas, pranayama, and relaxation. After a few weeks, Amit experiences reduced pain and better posture, with increased flexibility and mental relaxation.**

1. Which of the following asanas is most beneficial for strengthening the lower back muscles?

- A) Bhujangasana      B) Padmasana C) Halasana      D) Tadasana

Answer: A) Bhujangasana

2. Which pranayama technique is recommended to reduce stress and promote healing in individuals with chronic back pain?

- A) Bhastrika      B) Anulom Vilom  
C) Surya Bhedi      D) Kapalbhata

Answer: B) Anulom Vilom

3. Which asana helps in stretching the spine and relieving pressure on the vertebral discs?

- A) Vajrasana      B) Dhanurasana  
C) Marjariasana (Cat-Cow Stretch)      D) Matsyasana

Answer: C) Marjariasana (Cat-Cow Stretch)

4. Which relaxation technique is most suitable at the end of a yoga session for someone with back pain?

- A) Shirshasana
  - C) Savasana
- Answer: C) Savasana

- B) Ustrasana
- D) Trikonasana

### Unsolved Questions

Q-1 Gunjan, a Yoga instructor at XYZ School was consulted by a student of class XI with regard to her over weight. The child wants to do asanas to reduce her weight.

A. Gunjan has asked the child to practice \_\_\_\_\_

- A) Paschimottanasana
  - C) Chakrasana
- B) Gomukhasana
  - D) Vajrasana

B. While practicing this asana the child should not be suffering from \_\_\_\_\_

- A) Joint pain
  - C) Scurvy
- B) High BP
  - D) Constipation

C. This asana is a \_\_\_\_\_ asana.

- A) Standing
  - C) Meditative
- B) Relaxative
  - D) Lying

D. What is the primary benefit of practicing Paschimottanasana for an overweight student?

- A) Improves memory
- B) Enhances lung capacity
- C) Burns belly fat and tones abdominal muscles
- D) Strengthens wrist joints

Q-2 Geetha, the yoga teacher does regular yoga activities in her house with family. It helps to improve her family health. One day her neighbour, Sheela came to her house with her daughter. Sheela's daughter is 14 but has short height. Geetha advised her to do some asanas regularly to increase her height.

1. Which asana can be advised by Geeta?

- (A) Tadasana
  - (C) Sukhasana
- (B) Bhujangasana
  - (D) Both a & b

2. Vajrasana provides relief from----

- (A) Back pain
  - (C) Headache
- (B) Constipation
  - (D) Both a & b

3. Which is the asana that can be used to cure obesity?

- (A) Pawanmuktasana
  - (C) Shavasana
- (B) Matsyasana
  - (D) Trikonasana

4. What is the benefit of involving the whole family in yoga practice, as Geetha does?

- A) It increases household chores
- B) It improves family bonding and overall health
- C) It causes physical exhaustion
- D) It reduces communication among members

### **VERY LONG ANSWERS – 5 MARKS**

Q.1. Explain Gomukhasana and write steps and benefits of Gomukhasana.

Ans. Sitting by placing both the feet on the ground by the side of the buttocks and keeping the body steady is Gomukhasana, resembling the mouth of a cow.

#### Steps

- Sit erect stretching both legs together in front, hands by the side, palm resting on the ground, fingers of the hands together.
- Fold right leg at the knee and place it on the ground by the side of the left buttock.
- Similarly bring the left leg from above the right leg, place it on the ground by the side of the right buttock. Out towards left and right side.
- Place the palms on the knee one above the other and sit erect.

#### Benefits

- It helps you relax, when you feel tense or worried.
- It will help release the tension.
- It stimulates the kidneys.
- It is helpful in relieving ailments like diabetes, high blood pressure, and sexual malfunction.

Q.2. Explain Parvatasana and write steps and benefits of Parvatasana

Ans. It is one of the important yoga postures. It has immense benefits and is one among the yoga postures for weight loss. As the pose resembles a mountain, it is called parvatasana.

#### Steps

- Sit down on the floor in a cross legged position or Sukhasana (easy pose). You can also sit down by spreading the legs a little more than the hip width or in Padmasana (lotus pose).
- Bring your hand in front of you and interlock the fingers so that your palms are facing towards you.
- Breathe out and move your hands over head. Keep your fingers interlocked and hands stretched upwards.
- Put your torso in upward direction and stretch as much as much as you can.

#### Benefits

- It gives a full body stretch which improves the blood circulation around the body.

- It makes you alert and attentive if you are feeling bored, sleepy or losing interest in doing work.
- It improves your mental efficiency and makes you more optimistic.
- It strengthens the weak muscles of the body and thus prevents any injury.

Q.3. Explain Paschimottasana and write steps and benefits of Paschimottasana.

Ans. This asana is commonly known as the forward Bend Pose and it involves the whole body, stretching all vital parts from head to toe. This particular asana is recommended to many people who have been diagnosed with diabetes.

Steps

- Sit down on your yoga mat and keep your back straight. Place the legs in front and stretch them as well.
- Move your hands upwards and keep them straight and placed beside your ears. Remember to keep fingers straight and pointing upwards as well.
- Inhale as deeply as you can without bringing any your hands down.
- Bend the body forward and hold your toes with your hand's index and middle fingers. Exhale during this step.

Benefits

- It is a known anxiety buster.
- Improves the spine's ability to stretch and in the process, strengthens it.
- Toning several abdominal organs.
- Many women are recommended this asana particularly after delivery.

### **UNSOLVED QUESTIONS**

Q-1 Explain Matsynasana and write steps and benefits of Matsynasana.

Q-2 Explain Shavasana and write steps and benefits of Shavasana.