

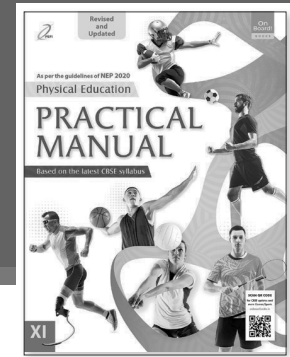
# — SUPPLEMENT —

(As per the CBSE Curriculum for the Academic Year 2023–24)

## Physical Education PRACTICAL MANUAL

Classes XI

As per the  
guidelines of  
NEP 2020



### Part E – Asanas

## 18 ASANAS FOR LIFESTYLE DISEASES

Lifestyle diseases like obesity, diabetes, asthma, hypertension, back pain and arthritis result from poor diet, inactivity, environmental influences and genetic problems. Asanas offer a cost-effective and healthy way to alleviate their symptoms.

### ASANAS FOR OBESITY //

Obesity is a physical condition in which a person has accumulated so much body fat that it might have a negative effect on her/his health. Obesity can result from genetic factors, overeating, eating frequently, physical inactivity, and also psychological factors.

Asanas like Katichakrasana, Pavanmuktasana, Matsyasana, Paschimottasana, Ardha Matsyendrasana and Ushtrasana are useful for the prevention of obesity.

#### Katichakrasana

‘Kati’ in Sanskrit means ‘waist’ and ‘Chakra’ means ‘wheel’. This asana is also called waist rotating pose or lumbar twist pose. It is a simple and basic-level yoga pose suitable for beginners.

#### Procedure

1. Stand straight with both legs 12 inches apart, keeping the arms sideways.
2. Now, bring your hands in front of the chest, with palms facing each other. Exhale and twist the body towards left.
3. While inhaling, take the hands slowly towards the left side of your body. Simultaneously, twist your body from the waist to the left side and take your arms back as far as possible. Turn the head towards the right side and look over the right shoulder.
4. While swinging towards the left side, keep the left

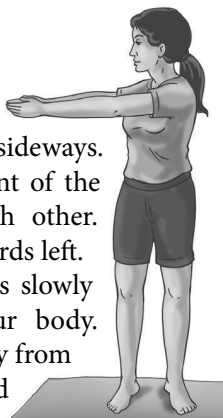


FIGURE 18.1  
Katichakrasana

arm straight and right arm bent. Look in the back. Inhale and come back to the original position.

5. Repeat towards the right side.

#### Benefits

- ◆ It stretches the waist region and thus, tones up the lower back region.
- ◆ It strengthens shoulders, neck, arms, abdomen, back and thighs.
- ◆ It helps to burn extra calories and fat, and thus reduces body weight.
- ◆ It relieves constipation.
- ◆ Beneficial for those who have sedentary or desk jobs.

#### Contraindications

1. People suffering from spinal problems should avoid this pose.
2. Pregnant women should not perform this pose.

### ASANAS FOR DIABETES //

Diabetes, or diabetes mellitus, raises blood sugar levels due to insufficient insulin production or function. Symptoms include high blood sugar (hyperglycaemia), glucose in urine (glucosuria), excessive thirst (polydipsia), and increased appetite (polyphagia). It also causes fatigue, blurred vision, weak immunity, slow wound healing, and weight fluctuations.

Asanas like Katichakrasana, Pavanmuktasana, Bhujangasana, Shalabhasana, Dhanurasana, Paschimottasana, Mandukasana, Gomukhasana and Ushtrasana are beneficial in diabetes.

#### Pavanmuktasana

*Pavanmuktasana* (‘pavan’ meaning ‘wind’, and ‘mukta’ meaning ‘free’), also known as wind removing pose or wind liberating pose, is a bending pose in which the practitioner lies supine to release tension in the abdomen and back area.



FIGURE 18.2 Pawanmuktasana

#### Procedure

1. Lie on your back on a smooth and flat surface and keep the legs straight and relax.
2. Inhaling slowly, raise your legs and bend the knees. Bring them gradually towards the chest till your thighs touch the stomach.
3. Clasp your hands around your legs to hug your knees. Lock your fingers to secure the position.
4. Next, try to touch the knee with the nose tip.
5. Hold this position for 20 to 30 seconds.
6. Exhale slowly and undo the pose after you roll from side to side about three to five times. Relax.
7. Practise 3 to 5 cycles daily.

#### Benefits

- ◆ It strengthens the abdominal muscles and massages the intestines and internal organs of the digestive system. Consequently, trapped gases are released and digestion is enhanced.
- ◆ It helps burn fat in the thighs, buttocks, and abdominal area, thereby reduces contributing to loss of weight.
- ◆ It also brings relief from menstrual cramps and pain in the lower back.
- ◆ It boosts blood circulation in the hip areas.

#### Contraindications

1. Those who have had abdominal surgery recently or are suffering from hernia or piles must avoid this asana.
2. Pregnant women must avoid this asana in order to avoid causing stress to the body or causing complications.
3. It should also be avoided by patients of heart problems, hyper-acidity, high blood pressure, slipped disc, hernia, back and neck problems, or a testicle disorder.

## ASANAS FOR ASTHMA //

Asthma is a respiratory disease in which the airways become blocked or narrowed, resulting in breathing difficulty. Symptoms include extra production of mucus, excessive coughing, wheezing and shortness of breath. Asthma tends to occur in the mornings and nights – especially during the colder hours. Genetic factors, respiratory infections, allergens, etc. are causes of asthma.

Asanas like Tadasana, Matsyasana, Urdhwahastottanasana, Dhanurasana, Ushtrasana and Gomukhasana are useful for the prevention of asthma. Pranayamas such as anuloma-viloma and kapalabhati are also beneficial in asthma.

#### Matsyasana

*Matsyasana* ('*matsya*' meaning 'fish') or the fish pose is a part of the primary series of *Ashtanga Yoga*. An empty stomach and after bowel movements are essential if you want to practise this pose.



FIGURE 18.3 Matsyasana

#### Procedure

1. Lie flat on your back, making sure your knees are straightened, and your legs and feet are together. Place your hands beside your body.
2. Place your palms beneath your hips such that the palms are facing the ground.
3. Your elbows and forearms should be near the sides of your torso and pressed against the floor. Cross your legs such that your feet cross each other.
4. Inhale and lift your chest and head away from the floor. Exhale deeply as you raise your head and torso till you are sitting halfway up.
5. The weight of your body should be supported by your forearms and elbows and not your head.
6. Breathe normally as you hold this breath until you are uncomfortable.
7. Exhale and release yourself from the position by gently lowering your torso and head to the ground.

#### Benefits

- ◆ This asana expands the chest by increasing the lungs capacity and strengthens the back muscles. It not only enhances breathing but is also beneficial for individuals suffering from depression and anxiety.
- ◆ It stretches the hip flexors and intercostals (muscles between the ribs), massages the throat and digestive organs and corrects posture.

#### Contraindications

1. Person/s suffering from high or low blood pressure, insomnia and migraine should avoid this asana.
2. Any individual with a history of back injury should avoid this pose.

## ASANAS FOR HYPERTENSION //

An increase in blood pressure beyond normal level is called hypertension. Normal blood pressure at rest should be within the range of 100–140 mm/Hg systolic (which is the top reading), and 60–90 mm/Hg diastolic (bottom reading).

Hypertension may lead to strokes, aneurysms, arterial diseases and even chronic kidney diseases. It is a major cause of death throughout the world.

Genetic causes, unhealthy lifestyle, obesity, lack of exercise etc. are causes of hypertension.

Asanas like Tadasana, Uttanpadasana, Ardha Halasana, Sarala Matsyasana, Gomukhasana, Bhujangasana, Makarasana and Shavasana are useful in hypertension.

### Uttanpadasana

In Sanskrit 'Uttana' means 'raised' and 'Pada' means 'leg'. In this asana, legs are raised. This is a traditional pose. It can be practised by raising one leg at a time or by raising both legs simultaneously.



FIGURE 18.4 Uttanpadasana

#### Procedure

1. Lie on the back (supine) with legs together, hands by the sides of the body, palms facing the floor.
2. Inhaling, slowly raise the left leg at 30°, 45° and up to 60° angle and maintain the posture for 5–10 seconds.
3. Lower down the leg slowly at 45° and 30° come back on the floor while exhaling. Practise with right leg in a similar way. This is Ek-Pada Uttanasana.
4. Now, inhaling, slowly raise both the legs at 30°, 45° and up to 60° angle and maintain the posture for 5–10 seconds.
5. While exhaling slowly lower down both the legs at 45° and 30° angle and then to the floor. This is Dvi-Pada Uttanasana. You can perform this pose 3–5 times with one or both the legs.

#### Benefits

- ◆ This asana is helpful in losing weight, especially the lower belly fat.
- ◆ It is beneficial in curing constipation, indigestion, nervous weakness and diabetes.

- ◆ It strengthens the abdominal muscles.
- ◆ It balances the navel centre (nabhimandal).
- ◆ It makes one's legs stronger.
- ◆ It helps to improve breathing and lung capacity.

#### Contraindications

1. Do not practise with both legs if suffering from backache.
2. Avoid in case of ulcer and slipped disc.
3. Pregnant women should avoid this asana.

## ASANAS FOR BACK PAIN AND ARTHRITIS //

Back pain, whether in the neck (cervical), middle (thoracic), lower (lumbar) or tailbone (coccydynia), varies in intensity and duration, sometimes radiating to the hands and feet.

Common causes include poor posture from electronic gadget use, accidents, excess weight, muscle strains, sports injuries and inactivity.

Arthritis, an inflammatory joint condition like osteoarthritis and rheumatoid arthritis, results from genetics, injury, infection, and autoimmune disorders. Risk factors encompass age, gender, obesity and previous joint injuries.

Asanas like Ardha Chakrasana, Ushtrasana, Vakrasana, Sarala Matsyendrasana, Bhujangasana, Gomukhasana, Bhadrasana, and Makarasana aid in managing back pain and arthritis.

### Bhadrasana

Bhadrasana, also known as Gracious Yoga, is derived from two Sanskrit words – Bhadra, meaning auspicious or gracious, and Asana, meaning yoga pose.



FIGURE 18.5 Bhadrasana

#### Procedure

1. Starting position: Sit on the mat with legs fully stretched forward.
2. Bring the feet, with the toes pointing outward, close to the generative organ, the heels touching the perineum very closely.
3. Clasp the feet (if required) to bring the heels as close to the body as possible.
4. Place the hands on the respective knees, pressing them down.
5. Keep the neck straight, upper body (chest) forward, stomach held in normal contour, focus eyes at one point straight ahead.

### Benefits

- ◆ This pose helps to loosen the joints by flexing and stretching the tendons. The muscles of the pelvis, knees and ankles become more flexible.
- ◆ It relieves tension from the spinal region.
- ◆ It provides relief in cases of sciatic, varicose vein and menstrual disorders.

- ◆ The practise of this pose improves posture.
- ◆ Good for those who find it difficult to sit in more classical postures like Padmasana and Vajrasana.

### Contraindications

Although beneficial for prevention from arthritis, practitioners with serious arthritis should consult yoga expert before practising this asana.



## SUMMARY

1. Obesity is a physical condition in which a person has accumulated so much body fat that it might have a negative effect on her/his health.
2. Diabetes is a disease that causes sugar to build up in our blood.
3. Asthma is a respiratory disease in which the airways become blocked or narrowed, resulting in breathing difficulty.
4. An increase in blood pressure beyond normal level is called hypertension.
5. Back pain is pain felt in the back and may be neck pain (cervical), middle back pain (thoracic), lower back pain (lumbar) or coccydynia (tailbone). Arthritis is a condition that causes inflammation and pain in the joints.



## QUESTIONS AND ANSWERS FOR VIVA

1. What causes obesity?  
Ans. Obesity can be caused by genetics, overeating, eating frequently, physical inactivity, and also psychological factors.
2. What are some asanas that can help in case of obesity?  
Ans. Katichakrasana, Pawanmuktasana, Matsyasana and Ardha Matsyendrasana.
3. What is another name for Katichakrasana? What kind of a pose is it?  
Ans. Katichakrasana is also called waist rotating pose or lumbar twist pose. It is a standing pose.
4. What are the common symptoms of diabetes?  
Ans. Tiredness, blurred vision, poor immunity, slow recovery from wounds, and excessive weight gain or loss are other common symptoms.
5. Is Pawanmuktasana a standing pose?  
Ans. No, it is a bending pose.
6. When should Pawanmuktasana be ideally performed?  
Ans. In the morning to get rid of gas inside the body.
7. How does Pawanmuktasana enhance weight loss?  
Ans. By burning the fat in the thighs, buttocks, and abdominal area.
8. What are symptoms of asthma?  
Ans. Symptoms include extra production of mucus, excessive coughing, wheezing, and shortness of breath.
9. Who should avoid Matsyasana?  
Ans. Any individual suffering from high or low blood pressure, insomnia and migraine, or having a history of back injury should avoid Matsyasana.
10. What could hypertension result in?  
Ans. Hypertension may lead to strokes, aneurysms, arterial diseases and even chronic kidney diseases.
11. What are the benefits of Uttanpadasana?  
Ans. It strengthens the abdominal muscles. It is beneficial in constipation and indigestion.
12. What are the common causes of back pain?  
Ans. The common causes of back pain are incorrect body posture, accidents, excessive weight, muscle strains, sports injuries, lack of exercise, etc.

Topics deleted:

Part E: 18. Labelled diagram of 400 m track and field with computation.

Part F: 19. Changing trends in sports and causes in terms of changes in playing surface, wearable gears and equipment, technological advancements.