



# DIABETES YOGA PROTOCOL



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Propagated by:

CCRYN- Collaborative Centre for Mind  
Body Intervention through Yoga,  
PGIMER, Chandigarh

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# Diabetes Yoga Protocol

(**Note:** Please consult with the Doctor and Yoga Therapist before practice)

## 1. Starting Prayer: *Asatoma Sat Gamaya*

Sit in any comfortable position, adopt *Namaskar* Mudra, and chant the prayer.



## 2. Preparatory Practices: *Sukshma Vayayamas* and *Shithilakarana Vayayama*

### a. *Urdhva-hasta Shavasna* (Hand stretch Breathing)

#### Practice:

- Stand erect with feet together.
- Interlock the fingers and place the palms on the chest.
- Relax your shoulders.

#### Stage 1: (90°)

- With inhalation stretch the arms in front of your chest, palms face outwards.
- With exhalation bring your palms back and keep it on the chest.



### Stage II: (135°)

- Repeat the same movements (stage 1) above the forehead at an angle of 135°.



### Stage III: (180°)

- Repeat the same movements (stage 1) above the head at an angle of 180°.



### Benefits of Hand Stretch Breathing:

- Regulates breathing.
- Slow down the breath.
- Improve lung functions.
- Good for Asthma patients (1).

### *b. Kati-Shakti Vikasaka*

#### **i. Forward and Backward Bending**

- With inhale stretch your arms above the head and bend back.
- While exhaling bend forward as much as possible by keeping your knees straight.



**Benefits of Forward and Backward Bending:**

- Improve spinal flexibility (2).
- Helps in reducing abdominal fats.

**ii. Twisting**

- Spread the legs around shoulder level distance and stretch both arms in front of the chest with inhalation.
- While exhaling twist your body to the right side.
- Inhale bring back your arms in front of the chest and with an exhale twist towards the left.



**Benefits of Twisting:**

- Give rotational movement to the spine and improve spinal flexibility.
- Good for back pain (3).

**c. Sarvanga Pushti / Sarvanga gati:**

- Stand with feet wide open just double of shoulder width.
- Close the fists with the thumb inside and hold the wrist with another palm.
- Raise the arms over the head touching the ears.
- Pull the upper part of the body upward while inhaling and bend forward while exhaling circularly.





**Benefits of *Sarvangasana*:**

- Improve flexibility.
- Reduce abdominal fats.
- Strengthen the muscles.

**3. *Suryanamaskar* (Sun Salutation)**

***Suryanamaskar* (12 Steps)**

Stand straight with palms together at the chest level.



**Position 1: *Hasta Utthanasana***

With inhale raise your hands up and bend back from the waist. Keep the elbows and legs straight.



**Position 2: *Padahastasana***

While exhaling bend forward and keep the palms on the ground. Keep the legs straight.



**Position 3: *Asvasancalanasana***

While inhaling take the right leg back, Right knee on the ground, bend the left leg, and look up.



**Position 4: *Dandasana or Tulasana***

While exhaling take your left leg back and keep the whole body straight in plank position.



**Position 5: *Sasankasana***

Inhale and while exhaling bend both knees and sit on your heels. Forehead resting on the ground.



**Position 6: *Asthanga Namashkarasana***

Inhale and while exhaling place your chest and chin on the ground. Lift the buttocks. Eight parts of the body are on the ground (Both toes, both knees, both palms, chest, and chin).



**Position 7: *Bhujangasana***

While inhaling raise your chest and head up. Look upwards. Keep both the legs straight.





**Position 8: *Parvatasana***

While exhaling, raise your hip, place your heels on the ground, and keep your knees straight. Look at the navel.



**Position 9: *Sasankasana***

Inhale and while exhaling bend both knees and sit on your heels. Forehead resting on the ground.



**Position 10: *Asvasancalanasana***

While inhaling keep the right leg between the palms. Left knee on the ground, and look up.



### **Position 11: *Padahastasana***

While exhaling bring your another leg in between your palms. Bend forward and keep the knees straight.



### **Position 12: *Hasta Utthanasana***

While inhaling raise your hands up and bend back. Keep the elbows and legs straight.



### ***Suryanamaskar (10 Steps)***

All steps of 12 steps *Suryanamaskara* will remain the same except steps 5 and 9.

#### **Benefits of *Suryanamaskar*:**

- Improve cardio-respiratory fitness, flexibility and endurance (4).
- Reduce stress and increase emotional intelligence (5).
- Improve neuro-muscular abilities and pulmonary functions (6, 7).
- Increase blood circulation throughout the body and reduce cholesterol (8).
- Helps in detoxification of the body.

## **4. *Asana***

### **STANDING *ASANA***

#### ***Trikonasana (Triangle pose)***

- Spread the legs around one-meter distance.
- With inhale raise both arms side-wise to the shoulder level.
- Turn the right foot towards the right and bend to the right side with an exhale.
- With inhale come to the center and repeat it to another side.



**Benefits of *Trikonasana*:**

- Stimulates the nervous system and alleviates nervous depression.
- Improves digestion.
- Strengthens the pelvic area and tones the reproductive organs (3).

***Parivritta Trikonasana (Revolved Triangle Pose)***

- Spread the legs around one-meter distance.
- With inhale raise both arms side-wise to the shoulder level.
- Turn the right foot towards the right and with exhalation, using the left arm, revolve the trunk, and place the left palm on the outer side of the right foot.
- With inhale come to the center and repeat it to another side.



**Benefits of *Parivritta Trikonasana*:**

- Reduce waistline fat.
- Stimulate pancreas.
- Strengthens the pelvic area and tones the reproductive organs.

### ***Prasaritta Padahastanasana (Wide Legged Forward Bend Pose)***

- With an inhalation, jump and spread the legs around one meter and raise your hands up.
- Exhale, extend the trunk forward, and place the palms down on the floor.



### **Benefits of *Prasaritta Padahastanasana*:**

- Massages and tones the digestive organs.
- Alleviates flatulence, constipation, and indigestion (3).
- Tone and stimulate spinal nerves.
- Improve metabolism.

### ***Jatara parivartanasana (Belly twist pose)***

- Lie on the back and spread the arms in line with the shoulder.
- Fold both legs at the knee and while exhaling twist both legs towards the left and turn your head to the right side.
- With inhale come to the center and with exhale repeat it to the other side.



**Benefits of *Jataro parivartanasana*:**

- Improve spinal flexibility and eliminate back pain (3).
- Improves digestion.
- Reduce abdominal fat.

***Pawanmuktasana* (Wind releasing pose)**

- Lie on the back with the legs straight.
- Exhale, bend the legs at the knees, and bring the thighs close to the abdomen.
- Catch your thighs and shin bones with the help of your arms.



**Benefits of *Pawanmuktasana*:**

- Strengthens the lower back muscles and loosens the spinal vertebrae (9).
- It massages the abdomen, digestive, and reproductive organs (3, 10).



### ***Viparitakarani (Reversing attitude)***

- Lie on the back and bring the legs together, palms of the hands on the floor beside the body.
- Raise the legs, bringing them a little behind the head so that the back rises, and support the back with the hands.
- Raise the legs, and feet towards the ceiling, and make the back at 45° angle to the floor.



### **Benefits of *Viparitakarani*:**

- It balances the activities of the thyroid (11).
- Improve flexibility, digestion, and cardiovascular health (12).

### ***Bhujangasana (Cobra pose)***

- Lie prone on the floor with chest and abdomen resting on the floor.
- Place the palms by the side of shoulders and with inhalation lift up chest and head.



### **Benefits of *Bhujangasana*:**

- Tones the male and female reproductive organs, alleviates menstrual disorders and is an excellent post-natal *asana*.
- It tones and improves the functioning of the liver, kidneys, and other visceral organs (3).

- Releases Sciatica and back pain (13, 14).

### ***Dhanurasana (Bow pose)***

- Lie down prone on the floor with chest and abdomen resting on the floor.
- Extend the arms by the side of the trunk.
- Exhale, bend the legs at the knees and clasp the hands around the ankles.
- Inhale, lift the head, chest, and thigh up and arch back.



### **Benefits of *Dhanurasana*:**

- The pancreas and adrenal glands are toned, balancing their secretions.
- Improves functioning of the digestive, excretory, and reproductive organs and helps to remove gastrointestinal disorders, dyspepsia, and chronic constipation (3).

### ***Mandukasana (Frog pose)***

- Sit on the heels by folding the legs.
- Make the fist of both hands and place them near the naval.
- Bend backward with a deep breath and as you breath out bend forward.



### **Benefits of *Mandukasana*:**

- Helps in preventing diabetes, relieves stress and anxiety, and improves heart health (3).

### ***Ardha Matsyendrasana (Half spinal twist pose)***

- Sit with the legs stretched out in front of the body.
- Bend the right leg and place the right foot outside of the left knee.
- Bend the left leg and bring the foot around to the right buttock.
- With exhale pass the left arm through the space between the chest and the right knee, place it against the outside of the right leg, and hold the right foot or ankle.
- Place the right palm on the floor behind the right buttock keeping the trunk erect.



### **Benefits of *Ardha Matsyendrasana*:**

- It tones the nerves of the spine.
- It massages the abdominal organs, alleviating digestive ailments.
- It regulates secretions of the adrenal gland, liver, and pancreas (3, 15).

### ***Paschimottanasana (Back stretching pose)***

- Sit on the floor with the legs outstretched and feet together.
- With exhalation bend forward from the hips, sliding the hands down the legs, and try to grasp the big toes with the fingers and thumbs.



### **Benefits of *Paschimottasana*:**

- Stretches the hamstring muscles and increases the flexibility of hip joints and spine (16).
- It tones and massages the entire abdominal and pelvic region and stimulates circulation to the nerves and muscles of the spine (3).

### ***Ardha Ustrasana* (Half camel pose)**

- Sit in *vajrasana* with knees few inches apart.
- Stand on the knees and place the palms on the waist.
- With inhalation bend back by moving the dorsal region up.



### **Benefits of *Ardha Ushtrasana*:**

- Stimulates digestive and abdominal organs.
- Improves respiratory function and stimulates the thyroid gland (3, 17).
- Strengthens back muscles.

## Relaxation with abdominal breathing

Bring your attention to the abdomen, without changing anything. Observe the movements of the abdomen. Observe the synchronization of breathing with the movements of the abdominal wall. Now, inhale deeply and bulge the abdomen up. While exhaling drop down the abdomen.



## 5) KRIYAS

### A. *Agnisara Kriya* (The abdomen contraction)

- Stand comfortably with feet about shoulder distance apart and bend the knees slightly.
- Lean forward and place both hands over the knees.
- Take a deep breath in and exhale the lungs completely.
- Push the knee down and suck in the abdomen then contract and expand the stomach rapidly while holding the breath as long as comfortable.



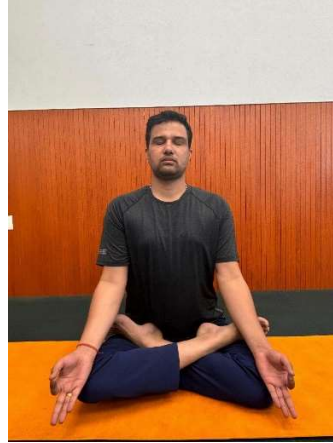
### Benefits of *Agnisara Kriya*

- Activates appetite and improves digestion (18).
- Message to the abdominal organs and maintain their optimal health (3)
- Activate the cortical region of the brain (19).



### ***B. Kapalabhati Kriya (Frontal brain cleansing)***

- Sit in any meditative posture like *Padmasana*, *Siddhasana*, and *Vajrasana*, etc.
- Inhale deeply and start rapid exhalation by taking your abdominal muscles in.
- Passive inhalation will happen automatically.



### **Benefits of *Kapalabhati***

- Purifies the frontal sinuses.
- It is useful in treating cold and respiratory disorders.
- Strengthens the nervous system and tones up the digestive organs (3).
- Increase Diastolic blood pressure, oxygen saturation and reduce pulse rate and respiratory rate (20, 21).
- Modulate vagal tone or parasympathetic activity and improve working memory (22).

## **6) Pranayama**

### ***A. Nadishodhana Pranayama (Alternate nostril breathing)***

- Sit in any comfortable meditative posture.
- Adopt chin mudra (the tips of your thumb and index finger should contact) in left hand and keep it on your left knee.
- Adopt *Nasikagra Mudra* in the right hand (folding index and middle finger towards the palms)
- Now gently close your right nostril and exhale through the left nostril.
- Then inhale through the left nostril, close the left nostril with the help of ring and little fingers, open the right nostril and exhale.
- Now inhale through the right nostril and exhale through the left nostril. This is one round of *Nadishodhana* pranayama.



### **Benefits of *Nadishodhana Pranayama*:**

- Increases parasympathetic activity and cardiorespiratory functions (23).
- Improve cardiovascular health by lowering blood pressure and heart rate (24).
- Improve cognitive functions (25).

### ***B. Bhramari Pranayama***

- Sit in any comfortable meditative pose and gently close the ears by pressing the ear ligament into the ear hole with thumb close your ears and keep your fingers on the eyes. Keep the tongue touched on hard palate with closed mouth.
- Inhale deeply through the nose, on exhalation make humming sound in low pitch and observe the sound with in you.



### **Benefits of *Bhramari Pranayama*:**

- Improves cognition, and memory (26).
- Reduce heart rate, blood pressure and calm down the mind (27).
- Reduce stress, anxiety, and depression and improve sleep quality and quality of life (28).

## 7) Meditation (Cyclic Meditation)

**Step 1:** Starting prayer



**Step 2:** Instant Relaxation Technique (IRT)



**Step 3:** (a) Linear Awareness (b) Centering



**Step 4: Standing Asana (*Ardhakati Chakrasana*)**



**Step 5: Quick Relaxation Technique (QRT)**



**Step 6: Sitting Asanas (*Vajrasana, Sasankasana, and Ustrasana*)**



### Step 7: Deep Relaxation Technique (DRT)



### Step 8: Closing Prayer



### Benefits of Cyclic Meditation:

- Increase attention and creativity (29).
- Improve sleep quality (30).
- Reduces stress, blood pressure and increases general health status (31).
- Reduce oxygen consumption and improve physiological relaxation (32).
- Reduce anxiety and improve memory (33).

### 8) Closing Prayer: *Sarvebhavantu Sukhina.....*





## **Benefits of Diabetes Yoga Protocol (DYP)**

- Diabetes risk prevention (34).
- Reduce dyslipidemia in Diabetes patients (35).
- Reduce post-prandial glucose, HbA1c, and LDL-c levels (36, 37).
- Reduce HbA1c, and stress levels in pre-diabetes patients (38).
- Reduce anxiety and level of *Vatta* and *Pitta* (39).
- Improve general health, and quality of life (39).

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