

## MPCC-103: YOGIC SCIENCE

### UNIT 2 – Methods of Yoga:

#### 2.3 Meaning, types and techniques of Pranayama.

**"Pranayama is control of Breath". "Prana" is Breath or vital energy in the body. On subtle levels prana represents the pranic energy responsible for life or life force, and "ayama" means control. So Pranayama is "Control of Breath".**

**Pranayama is the fourth Limb of Ashtanga Yoga, following after the Yamas, Niyamas and Asanas. Pranayama is the regulation of the breath through certain techniques and exercises.**

Prana is vital energy, and ayama is control and extension of the Pranic energy. Swami Swatmarama in Hatha Yoga Pradipika talks about Pranayama as the way to awaken the kundalini, regular practice of Pranayama can lead to spiritual awakening and self-realization. He describes various types of Pranayama, which has different effects on the body, mind and spirit.

Considering the physiology of Pranayama, Swami Niranjananda of Bihar School of Yoga has classified Pranayama as hyperventilation and hypoventilation. Mainly Kapalbhathi, & Bhastrika Pranayama are considered as Hyperventilation type of Pranayama, this type of Pranayama revitalizes body. Bharamari, Shitali, Sitkari, Ujjayi etc are considered as hypoventilation. Though kapalbhathi is described as cleansing technique in Hatha Yoga, it reduces the carbon dioxide (CO<sub>2</sub>) percentage in blood so it can be classified as hyperventilation Pranayama.

Kumbhaka (Retention of air) along with Bandhas (energy locks) is very important in Pranayama, it has long lasting effects on nervous system, brain and other parts of the body. So guidance of Guru is essential for practicing Pranayama. The practice of Kumbhaka increases the CO<sub>2</sub> in the blood, which stresses the nervous system, and continuous practice results in nervous system becoming tolerant. Some of the Yogis have displayed unique capacity to survive without O<sub>2</sub>, with regular practice of Pranayama.

Swami Swatmarama in Hatha Yoga Pradipika talks about 8 Pranayama's. These are as follows-

#### **1. SURYABHEDA PRANAYAMA: (vitality stimulating breath)**

Surya is 'the sun' and it also refers to pingala nadi. Bheda has three meanings: 'secret,' 'discrimination' and 'to pierce.' In this pranayama pingala nadi is activated by breathing in through the right nostril. Suryabheda pierces pingala and activates prana shakti in this nadi.

#### **Technique:**

Sit in a comfortable meditative pose, preferably siddhasana/siddha yoni asana. Relax the body and Perform nasikagra mudra, closing the left nostril and leaving the right open. Inhale slowly and deeply through the right nostril. At the end of inhalation hold both the nostrils closed and lower the head to perform jalandhara bandha. Retaining the breath inside, perform moola bandha. Hold for as long as possible. Release moola bandha then jalandhara and raise the head. Keep the right nostril closed, open the left and slowly exhale through the left. If necessary a few normal breaths can be taken between rounds while the hands remain relaxed on the knees, the eyes remain closed and you concentrate on the space in front of the closed eyes. Then commence

another round. Breathe in through the right nostril, hold and breathe out through the left nostril. Practice up to ten rounds.

## **2. UJJAYI PRANAYAMA: (Victorious Breathe)**

Ujjayi means ‘victorious;’ ujjī is the root which means ‘to conquer’ or ‘acquire by conquest.’ In English ujjayi is known as the ‘psychic breath’ because of its effect on the mind. Though it is described here as a specific practice, this pranayama occurs spontaneously when concentration becomes deep and intense. The practice of ujjayi is so simple that it can be done in any position and anywhere.

### **Technique:**

Sit in a comfortable meditative pose or lie in shavasana. Closing the mouth, inhale with control and concentration through Ida and Pingala (via left and right nostrils), so that the breath is felt from the throat to the heart and produces a sonorous sound. Do kumbhaka, then performing Bandhas and exhaling through ida (left nostrils). Make the inhalation and exhalation long, deep and controlled. Practice full yogic breathing and concentrate on the sound. Continue for as long as you can, maintaining full awareness.

Ujjayi Pranayama has therapy applications, especially useful in insomnia, tensions, and heart diseases. This should not be practiced in Low blood pressure, as the practice of this Pranayama puts pressure on carotid sinus which further reduces blood pressure.

## **3. SEETKARI PRANAYAMA: (hissing breath)**

In seetkari pranayama the sound ‘see’ or ‘seet’ is made during inhalation. The Sanskrit word kari means ‘that which produces.’ The practice produces the sound ‘see’ and it also produces coolness. In English this practice is usually called ‘the hissing breath’.

### **Technique:**

Sit in a comfortable meditative pose, preferably siddhasana/siddha yoni asana and close your eyes. Keep the hands on the knees throughout the practice in either jnana or chin mudra. Press the lower and upper teeth together and separate the lips as much as is comfortable. Breathe in slowly through the gaps in the teeth. Listen to the sound of the breath as the air is being drawn in. Close the mouth at the end of inhalation then performing kumbhaka with bandhas and slowly exhale through the nostrils. Repeat the same process up to twenty times.

It cools the blood, lowering the temperature of the blood. This type of Pranayama removes excess heat in the body. Also the diseases like acidity, hypertension etc. This Pranayama harmonizes the secretions of reproductive organs and all the endocrine system. Also it improves digestion, lowers High Blood pressure, purifies the blood.

#### **4. SHEETALI PRANAYAMA: (cooling breath)**

Sheetali means 'the cooling breath' and it also means calm, passionless, unemotional. Like seetkari, this pranayama was specifically designed to reduce the body temperature. However, these practices not only cool and calm the physical body, they also affect the mind in the same way.

##### **Technique:**

Sit in a comfortable meditative posture, preferably siddhasana/siddha yoni asana and close your eyes. Keep the hands on the knees in either jnana or chin mudra. Protrude the tongue from the mouth and extend it to a comfortable distance. Roll the sides up so that it forms a tube. Then breathe in slowly and deeply through the tube like tongue. At the end of inhalation close the mouth and practice jalandhara and moola bandhas and hold the breath for as long as comfortable. Release moola bandha then jalandhara bandha, and when the head is erect, breathe out through the nose in a controlled manner. Practice nine rounds initially. Later on you can practice for up to ten minutes. Count the duration of the inhalation, retention and exhalation, practice to a ratio of 1:4:2.

When you breathe through the teeth or tongue the air is cooled by the saliva and this cools the blood vessels in the mouth, throat and lungs. In turn, the stomach, liver and whole body are cooled. Because sheetali and seetkari soothe away mental tension, they are useful techniques for alleviating psychosomatic disease such as high blood pressure. They also purify the blood and, of course, improve digestion. There are also minor differences which affect different parts of the nervous system, but ultimately the impulses are sent to the central nervous system and brain.

#### **5. BHASTRIKA PRANAYAMA: (bellows breath)**

Bhastrika is the name of the pranayama which imitates the action of the bhastra or 'bellows' and fans the internal fire, heating the physical and subtle bodies. Bhastrika pranayama is similar to vatakrma kapalbhati, but in bhastrika, inhalation and exhalation are equal and are the result of systematic and equal lung movements. The breath has to be sucked in and pushed out with a little force.

##### **Technique:**

Sit comfortably in your meditative posture with the hands on the knees and the eyes closed. Take a slow deep breath in. Breathe out quickly and forcefully through the nose, but do not strain, and immediately afterwards breathe in with the same force. When you breathe out the abdomen comes in and the diaphragm contracts. When you breathe in the diaphragm relaxes and the abdomen moves out. These movements should be slightly exaggerated. Continue to breathe in this manner counting ten breaths. At the end of ten breaths, take a deep breath in and out slowly. This is one round. Practice three to five rounds. As you become accustomed to this style of breathing, gradually increase the speed but keep the breath rhythmical. Inhalation and exhalation must be equal.

This is vitalizing type of Pranayama. This rhythmic inhalation and exhalation stimulates the circulation of cerebral fluid, creating compression and decompression in the brain. Rhythmic diaphragm movements stimulate heart & lung muscles improving blood circulation. Accelerated blood circulation and rate of gas exchange in each cell produces heat and washes out gases. Those people with high blood pressure, heart disease, brain tumor, vertigo, stomach or intestinal ulcers, glaucoma, dysentery or diarrhea must not attempt this practice. If dizziness is experienced during the practice it means it is being performed incorrectly. Bhastrika must always be done in a relaxed manner with full awareness and the mind should not be allowed to wander.

## **6. BHRAMARI PRANAYAMA: (humming bee breath)**

This is bhamari, 'the humming bee' pranayama, so called because the sound you make during respiration imitates that of a black bee.

### **Technique:**

Sit in any comfortable meditative pose, relax the body and practice kaya sthairyam. Keep the eyes closed throughout the practice. Inhale slowly and deeply through the nose, listening to the sound of the breath. Close the ears with the index and middle fingers by pressing the middle outer part of the ear ligament into the ear hole. Keep the ears closed and exhale, making a deep soft humming sound. Concentrate on the sound, keeping it low pitched. When exhalation is complete, lower the hands to the knees and breathe in slowly. Continue to practice in the same way, performing ten to twenty rounds. When finished, keep the eyes closed and listen for any subtle sounds.

This Pranayama increases psychic sensitivity and awareness of subtle sound vibrations, this proves to be useful for Nada Meditation. This is useful in removing stress and mental problems like anxiety, depression, anger etc.

## **7. MOORCHHA PRANAYAMA: (Swooning breath)**

Moorchha is 'to faint' or 'swoon.' Through this pranayama the experience of conscious unconsciousness is meant to arise, but it must be learned under expert guidance. The other root word, moorchha, means 'to expand,' 'pervade and congeal.' Thus the purpose of this pranayama is to expand the consciousness and store prana. Moorchha pranayama is only to be done by advanced practitioners who have purified their bodies and who have a good capacity to retain the breath.

### **Technique:**

Sit in padmasana or siddhasana/siddha yoni asana and prepare yourself for pranayama. Place the palms of the hands on the knees and close the eyes. Inhale slowly and deeply through the nose. Practice antar kumbhaka with jalandhara bandha and shambhavi mudra. Keep holding the breath for even longer than is comfortable. Close the eyes, release jalandhara, raise the chin slightly and exhale in a very controlled manner. Breathe normally for a minute or two before commencing the next round. Concentrate on the void sensation.

## **8. PLAVINI PRANAYAMA: (Gulping breath)**

Plavana means 'to float.' According to the hatha yoga texts, plavini pranayama enables one to float on water. It is an unusual form of pranayama which is similar to vatsara dhauti, except the air is retained in the stomach and intestines and not expelled immediately.

### **Technique:**

Sit in any meditative pose and prepare yourself for pranayama. Inhalation can be done in one of two ways. Either inhale slowly through both nostrils and gulp the air into the stomach, or inhale through the mouth in kaki mudra, i.e. pursing the lips in the shape of a crow's beak. After inhalation the air has to be swallowed as you swallow food, retained inside and not belched out. Practice as many times as possible without expelling the air. While retaining the air inside the stomach there should be absolutely no physical movement or the air will escape. Try to retain the air in the stomach for at least thirty to ninety minutes.

Plavini should be practiced after asana and all other pranayama techniques, or it can be practiced during the day if you are fasting. This will keep the stomach full and prevent hunger pangs and the desire to eat. Plavini is useful in cases of gastritis and stomach acidity. Some yogis practice plavini before going into samadhi for days together so that the stomach remains full during their natural fast.

Floating on water is traditionally done in shavasana. If you can reach this stage of perfection it means there has been a pranic awakening and that swadhisthana chakra is awakened, because swadhisthana controls the water element.

This Pranayama helps remove most of the ailments of stomach or digestive system.

### **• 3.3 Effects of Pranayama on various systems of human body:**

#### **1. Effects on Digestive System:**

- i. Control over hunger and thirst (Sheetali & Sheetkari)
- ii. Keeps teeth and gum healthy (Seetkari)
- iii. Stimulation of the metabolic rate (Bhastrika)
- iv. Massage on inner organs and toning digestive system (Bhast.)
- v. Removal of intestinal wind (Bhast. & Kap.)
- vi. Removes acidity from stomach ((S&S)
- vii. Ulcers (N.S., Ujjayi, S&S, Bhram.)
- viii. It increases the efficiency of nasal passages.
- ix. Increase the efficiency of pancreas, so best practise to prevent and overcome from diabetes.
- x. Remove Diarrhea and Constipation Problem.

#### **2. Effects on Respiratory System:**

- i. Using the whole lung capacity, expanding lungs and increasing efficiency
- ii. Eliminates phlegm, Removes throat disorders and inflammations (Ujjayi, Sheetali & Sheetkari pranayama, Bhram.)
- iii. Therapy for lung disorders: Bronchitis, Asthma, Tuberculosis (Bhastrika Pranayama)
- iv. Increases the lungs capacity, makes the lungs strong, expanding lungs and increasing efficiency,
- v. It makes the breathing easier, which leads to improved intake of O<sub>2</sub> and removal of CO<sub>2</sub>.

#### **3. Effects on Muscular System:**

- i. Pranayama relaxes the facial muscles and nerves.

- ii. It activates all organs of the abdominal region, makes abdominal muscles stronger, so very good to maintain health.
  - iii. Induces muscular relaxation (S&S, Ujjayi)
  - iv. Increasing healing powers for tissues (Bhram.)
  - v. Removes Fatigue (N.S., Bram., Bhast.)
4. **Effects on Nervous System:**
- i. It is also effective in removing stress and fatigue.
  - ii. Stimulating, toning, balancing, strengthening and soothing effects on the Nervous System; Brain centers will be toned, so they can work close to the optimum capacity.
  - iii. Cerebral tension, stress and anxiety will be relieved, Insomnia, Removes sleepiness, Vertigo, Head ache (N.S., Bhram.,Ujjayi)
5. **Effects on Cardiovascular System:**
- i. Connection between breath and heartbeat: Extra supply of oxygen.
  - ii. Purification of blood: extra supply of oxygen, removing carbon dioxide and toxins.
  - iii. Removing disorders from blood (Ujjayi)
  - iv. High blood pressure (Nadi.Sodhan,Sheetali & Sheetkari pranayama, Bhramari).
  - v. Slowing down heart rate (Ujjayi)
  - vi. Low blood pressure: (Surya Bheda)
6. **Effects on Skeletal System:**
- i. Ujjayi is supposed to remove disorders from the bone and marrow.
  - ii. Those suffering from slipped disc, shall practice Ujjayi Pranayama.
7. **Others Effects on Human body:**
- i. Pranayama helps for all kinds of skin diseases, healing power of tissues is stimulated.
  - ii. Ujjayi removes diseases from fat, skin and muscles. The reproductive Organs will be toned. For Menstruation Problems and Cramps, Abdominal Breathing and Ujjai help.
  - iii. During and after pregnancy, Ujjayi,light Bhastrika, N.S., Bhramari can be helpful (stop Bhast. & Kap. After 3. month of pregnancy)
  - iv. Helps to increase general vitality of the body.
8. **Effects of Yoga on the Human Mind and Psyche:**
- i. Calming effect on the mind and thoughts.
  - ii. Cooling the mind, and mental and emotional excitation (S&S)
  - iii. Tranquility of thought, tranquilized before going to sleep (S&S)
  - iv. Preparation for mental work, concentration and meditation
  - v. Relieves stress and anxiety
  - vi. Directs awareness inward, brings peace of mind and one pointed focus
  - vii. Leads to deep state of meditation
  - viii. Helps when suffering from Depression, Lethargy, dullness and sleepiness

➤ **Reference:**

- Swami Muktibodhananda and Swami Satyananda Saraswati,(1985)** “Hatha Yoga Pradipika”, Published by Bihar School of Yoga First edition 1985, ISBN: 81-85787-38-7, Page:185-223. Website: [www.yogavision.net](http://www.yogavision.net)
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