The Breath of Life -Pranayama

By Rama Prasad and Caroline Robertson

The empowering path to self-healing can be as simple as breathing when one learns basic yogic techniques to harness prana - the universal life force.

The Power of Prana

God formed humans from the dust of the ground, breathing into their nostrils the breath of life so they became living beings” - Genesis 2:7

Humans have been known to survive for months without water and weeks without food yet die within inutes when deprived of oxygen. Respiration represents the power of prana, the ultimate expression of energy and life. When prana flows abundantly through our beings we become aware of a special glow our skin and eyes, a spring to our step and the pulse of energy in every cell, vibrating vitality through every thought, word and deed. Conversely, an impeded or deficient flow of prana is marked by constant fatigue, dull skin and eyes and loss of enthusiasm. Breathing exercises are the easiest way to increase the flow of prana in our body and to unleash dormant prana.

What is Prana?

“As the spokes are attached to the hub, so on this life breath, all is connected”
Chandogyopanishad, Ancient Indian treatise

In the ultimate sense prana is the subtlest form of all energies that permeate and sustain life in the cosmos. It is the underlying power supplying all universal forces allowing the ocean to surge, the sun to se, flowers to bloom and the earth to revolve. The localised aspect of prana is the force uniting mind, body and spirit together known as the bio-energy field in humans. This flows from the spirit and is also absorbed from the atmosphere instantly through breathing oxygen and slowly through the colon with the transformation of food into energy.

Prana travels via etheric channels known as nadis in the body, a concept similar to Chinese medicine’s meridians. The main nadis are the central staff from the central sulcus down the spinal cord (sushumna) and the two channels, which flow vertically around this, on the left side (ida) and the right (pingala.) These nadis are represented in the medical caduceus symbol. According to the Rāva Samhita there are 350,000 secondary nadis pervading the body, governing all physiological and psychological processes.

Absorbed through the medium of breath, prana has specific actions on the respiratory, digestive, circulatory, cardiovascular, lymphatic and nervous system functions. Most importantly prana governs all mental processes including thoughts, feelings, the will and reason. Longevity, health and vitality are determined by the quality of prana flowing in our bodies. The root cause of all disease is a chaotic, locked or deficient flow of prana through the body. Healing modalities such as reiki, homoeopathy, herbalism, bodywork, midwifery, rebirthing, and relaxation therapy employ techniques that create an abundant and harmonious flow of prana through the body that eliminates disease.

Pranayama - Mastering Prana

“As wind drives away smoke and impurities from the atmosphere, pranayama is a divine fire which cleanses the organs, senses, mind, intellect and ego.”
BKS Iyengar, Hatha Yoga master
Pranayama is the art of breath control whereby the mental and physical state is brought to a harmonious state of health and serenity. It is a technique that increases, controls and frees the flow of prana throughout the entire body. The practice of pranayama brings awareness to the breath, which then connects us rapidly with our inner physical and emotional state.

Our relationship with life is mirrored in our breathing. When we’re nervous or excited our breathing becomes shallow, jerky and rapid. A relaxed, quiet state will create slow and deep breathing. Rishis of the past noted that animals with rapid rates of respiration such as mice who take 1,000 breaths a minute have a shorter life span than animals with a slow respiration rate such as the tortoise which breathes four times a minute and can live up to 300 years. In this way life span was measured in terms of the rate of respiration, slow breathing increasing life span and rapid breathing hastening death.

Humans breathe about 16-18 times a minute, inhaling about 13,000 litres of air every 24 hours. Due to exercise, anger, passion and anxiety the respiration rate increases, straining the heart and decreasing the life span. The slow, deep breathing and retention of breath in pranayama helps to compensate for the damage incurred by rapid, shallow breathing. Elizabeth Barrett Browning shared Yoga’s view of longevity stating “He lives most whoever breathes most air.” Many of India’s famous Yogis attributed their longevity, photographic memory and boundless energy to their diligent practice of pranayama. Swami Sivananda, born 1887, was a world-renowned Yogi who ascribed his “continuously bursting fountain of energy to the regular practice of pranayama.” It also endowed him with a phenomenal memory and the capacity to do many things at the same time.

Pranayama also ensures a rhythmic harmony between the left bodily channel (ida) and the right bodily channel (pingala.) This is important as these nadis govern opposite polarities in the body. Pingala which is stimulated by right nostril breathing promotes heat, masculinity, extroversion and digestion. Left nostril breathing stimulates ida which encourages cold, femininity, introspection and fertility. Roughly every hour our breathing shifts from one nostril to the other whereas pranayama encourages us to breath through both nostrils in order to maintain our bio-energetic balance.

**Experiments with Prana**

Jack Shield, Californian Lymphologist planted a minute camera in the human body to discern what stimulated cleansing of the lymphatic system. This is of particular importance as the lymphatic system doesn’t have an in-built pump like the cardiovascular system does.

He concluded that deep diaphragmatic breathing creates a vacuum that literally sucks lymph through the blood stream and accelerates the pace at which the lymph eliminates toxins. Deep breathing such as pranayama and exercise multiplies this lymphatic cleansing process at fifteen times the normal rate.

Nobel Prize winner Dr Otto Warburg, Director of the Max Plank Institute for Self Physiology studied the effect of oxygen on blood cells. Dr. Warburg transformed normal healthy cells into malignant cells by lowering the amount of oxygen available to cells. His work was followed up by Dr. Goldblack 1. His experiments involved rats that have never been known to suffer from malignant growths. He took cells from newborn rats and divided them into three groups. Over a period of weeks he deprived one group of cells of oxygen, many died, some displayed stunted growth and the others become malignant. The other two groups of cells were exposed to healthy oxygen levels. After 30 days the cells were injected into three groups of rats. All the rats who received cells deprived of oxygen developed malignant growths. This led to the theory that lack of oxygen may play a significant role in the formation of malignant tumours.

Other experiments reveal that pranayama has the positive effect of reducing bronchial asthma attacks in 76% of asthma patients 2 (Bhole 1967), decreasing blood lipids, accelerating adrenocortical functions, increasing total serum proteins3 (Udupa et al 1975a), lowering pulse rate and increasing breath retention capacity 4 (Nayar et al 1975).

“Yoga places a close link between prana and the mind, influencing one influences the other. When the breath wanders the mind is unsteady”
- Hatha Yoga Pradipika, a classical Yoga text.

"Shutting out all external senses objects, keeping the eyes and vision concentrated between the two eyebrows, suspending the inward and outward breaths between the nostrils, thus controlling the mind, senses and intelligence, the transcendentalist aiming at liberation becomes free from desire, anger and fear”
- Bhagavad Gita 8.10.
Guidelines for Pranayama
1. The best time to practice pranayama is in the morning when the air is cool and the mind and body are fresh or at dusk.
2. The bowels and bladder should be emptied.
3. It is best to practice pranayama after exercises and before meditation.
4. Wait at least two hours after eating and 30 minutes after drinking.
6. Find a secluded, quiet, clean, well-ventilated space, preferably free of insects.
7. Sit in a comfortable position on the floor or in a chair with the back erect and the head straight.
   Vajrasana or half-lotus are good positions if comfortable
8. A folded blanket, flat cushion or mat may be placed on the floor for comfort.
9. Keep all your facial and bodily muscles relaxed.
10. Close the eyes and if comfortable do Shambhavi mudra.
11. Rest the tops hands on knees or in lap in Jnana mudra unless you are using them.
12. Breathe only through the nose unless stated otherwise.

Precautions with Pranayama
Pranayama should be a pleasurable and relaxing experience, if you find it a strain you are probably trying too hard or doing it incorrectly. Be careful not to hold your breath for longer than is comfortable and stop if you feel heaviness or tightness in the chest. Don’t confuse hyperventilation or vertigo with a heightened awareness, seek the advise of a yoga teacher if this continues to occur. Those with low or high blood pressure, a heart condition (especially ischaemic heart disease), emphysema, ulcers, colitis, epilepsy, vertigo or pregnant should practice pranayama under the supervision of an Ayurvedic physician or Yoga instructor. Before attempting each pranayama read the precautions relevant for each practice.

Preparatory Practices
Few people breath to their full capacity. Respiration may be limited to the upper clavicular region, mid chest, diaphragm or abdomen. In order to practice pranayama effectively one must first learn how to breathe into all these areas by performing a full yogic breath.

Preparatory practice 1 - The full Yogic Breath
1. Lie down on your back, placing your right palm flat over your lower abdomen and your left palm at the top of your chest. The palms help to monitor the wave-like motion of the full yogic breath.
2. Exhale, emptying the air from your abdomen and chest.
3. Inhale deeply feeling your abdomen fill with air and rise then your chest up to the clavicle should fill with air and rise. Pause when you feel you have inhaled to your full capacity then inhale further.
4. Exhaling the chest will first lower as the air is expelled then the abdomen will empty and contract.
5. Continue this for 5 cycles. Once you have achieved a smooth rhythm proceed to pranayama exercises.
   The full yogic breath is to be observed whilst doing all pranayamas unless stated otherwise.

Preparatory Practice 2 - Increasing Lung Capacity.
1. Sit in a comfortable position with your back and neck straight.
2. Place both hands behind your shoulders, palms facing outwards and away from each other and elbows pointing together upwards.
3. With the chin slightly tucked down and the eyes closed, inhale for the count of 2, retain the breath for the count of 8 and exhale for the count of 4 in a full yogic breath.
   This is a very effective way to open up the bronchioles of the lungs, expanding the chest cavity and increasing the inward flow of prana. It is an optional exercise which can be done before practising pranayama.

Preparatory Practice 3- Jalandhara bandha.( Chin lock)
1. Sitting comfortably after exhalation drop your chin to fit into the notch between the clavicles.
2. Do not over strain the neck muscles rather bring the chest up to meet the chin if the stretch is a strain. A rolled up cloth may be placed on the collarbones to reduce the stretch if necessary.
3. Keep the facial muscles and throat relaxed.
4. Retain breath in this position for the count of 2. Then return to normal posture and breathing.

This exercise is often practised in conjunction with pranayama in order to magnify the benefits. The posture compresses the sinus receptors, which slows the heart rate and calms the mind. It also regulates the flow of blood to the head, heart and endocrine glands, particularly the thyroid and parathyroid glands in the neck.
Swimming is a perfect exercise to complement the deep, rhythmic breathing required in pranayama. When swimming freestyle try to start with three strokes breathing on alternate sides then work up to five strokes in order to practice retaining your breath. The greatest impediment to pranayama can be obstructed nasal passages. The yogic technique of irrigating the nasal passages with warm salted water clears the nasal passages beautifully before pranayama. (Refer “Jala Neti” WellBeing no. 63)

**Five Basic Pranayamas**

There are hundreds of different styles of pranayama from beginners to advanced. The following pranayamas are easy and safe. After trying them you may choose to do them all daily or you can select the ones that you prefer.

1. **Ujjayi Pranayama (Baby’s Snore)**
   Best time for practice: Before meditation and before bed

   **Method:**
   1. Sit in a comfortable position with a straight back and neck.
   2. Place your hands on the knees in Jnana mudra and close your eyes in Shambhavi mudra
   3. Exhale through the nostrils emptying your lungs and abdomen of air.
   4. Slightly contract the throat (glottis) and breath in deeply through the nostrils for the count of 4. This will make a ‘sa’ sound similar to the gentle snore of a baby. The abdomen and chest should fill and rise.
   5. Retain breath in Jalandhara bandha for the count of 2 then straighten head and exhale through the mouth to the count of 4. A ‘ha’ sound will be made on exhalation.
   6. Repeat this cycle five times.

   **Benefits:**
   1. Calms and focuses the mind.
   2. Useful in respiratory tract disorders, hypertension, insomnia and fatigue.
   3. Relieves nervous tension and anxiety

2. **Kapalabhati (Head Cleansing Breath)**
Kapala means skull and bhati means to cleanse. Best time for practice: In the morning and before eating.

   **Method:**
   1. Sit in a comfortable position with the back and neck straight. - Eyes closed in Shambhavi mudra and hands on knees in Jnana mudra.
   2. Release any stagnant air by exhaling through the lungs. Keeping the chest and head immobile, breath in deeply through the nostrils, filling abdomen as it expands outwards.
   3. Breath out forcefully and rapidly through the nostrils as the abdomen contracts and moves in.
   4. The inhalation is passive and the exhalation is vigorous and forceful.
   5. Without taking a pause continue to inhale and exhale in this manner for 25 breaths.
   6. Then take a deep inhalation and exhalation and relax.

   **Precautions:**
   Those with high or low blood pressure, nose bleeds, glaucoma or excess heat should practice only under the guidance of an Ayurvedic physician or yoga teacher.

   **Benefits:**
   1. Cleanses the respiratory tract, particularly purifying the throat, lungs and oxygen supply to the brain.
   2. Removes accumulated mucus in nose and throat.
   3. Increases body temperature, metabolism and digestive fire.
   4. Relaxes and revitalises the body and mind.

3. **Nadi Shodhana Pranayama (Alternate Nostril Breathing)**
Nadis are the subtle energy channels in the body and shodhana means purification. Hence this pranayama helps to purify the body’s energy channels. Best time for practice: Anytime.
Method:
1. Sit in a comfortable posture with the spine and head straight.
2. Rest the left hand on the left knee or in the lap in Jnana mudra
3. Place the index and middle finger of your right hand at the centre of the eyebrows to rest there until the practice is complete.
4. You should be able to block the right nostril with the thumb and the left nostril with the third finger of the right hand.
5. Keep the left nostril open and close the right nostril with the thumb.
6. Inhale slowly and deeply through the left nostril to the count of 4.
7. Block both nostrils and hold the breath for the count of 2.
8. Block the left nostril and unblocking the right nostril exhale to the count of 4.
9. Keeping the left nostril blocked inhale through the right nostril to the count of 4.
10. Block both nostrils and retain the breath for 2 counts.
11. Unblock the left nostril and exhale to the count of four.
12. Now you have completed one cycle.
13. Continue for at least 2 minutes at first, daily increasing the duration up to 10 minutes.

Benefits:
1. Equalises the flow of ida (left channel) and pingala (right channel) thereby balancing body’s metabolic processes
2. Mental clarity, focus and serenity.
3. Releases carbon dioxide and nourishes the body with fresh oxygen.
4. Improves general stamina, concentration and mental disposition.
5. Especially useful in psychological imbalances, endocrine disorders, anxiety, stress, insomnia, diabetes, constipation, asthma and chronic fatigue syndrome.

4. Sheetali Pranayama (Cooling breath)
Sheeta means cooling, which is exactly the effect of this pranayama. Best time for practice: Midday.

Method:
1. Sit in a comfortable position with the back and head erect, hands on the knees in Jnana mudra and eyes closed.
2. Make a puckered circle with your mouth then stick out your tongue and curl the edges inwards to form a tube.
3. Inhale slowly and deeply through the tube as if sucking air through a straw to the count of 4.
4. Fill up your abdomen and chest to full capacity.
5. Retain the breath and perform jalandhara mudra for the count of 4.
6. Straighten your head and exhale through the nostrils until all air is expelled
7. This is one cycle. Repeat up to 10 times or as many as you feel comfortable doing.

Benefits:
1. The breath moistened and cooled after passing through the wet tongue cools and rehydrates the body.
2. Eliminates thirst and refreshes mouth.
3. Helps one to control thirst, hunger and sleep.
4. Reduces excess heat hence is useful in fever, sunstroke and eye disorders.
5. Improves function of the liver, spleen, digestive system and blood purification.
7. Induces mental and physical calm and relaxation.
8. Particularly useful in halitosis, high blood pressure, mental tension and ‘heated’ conditions.

5. Bhramari Pranayama (The Bee Breath)
Bhramari is a bumble-bee that makes the buzzing sound created in this pranayama. Best time for practice: Morning and evening.
Method:
1. Sit in a comfortable position with the head and spine straight.
2. Close your eyes, placing your four fingers over each eye and your thumbs blocking your ears.
3. Inhale deeply and gently through both nostrils, practising the full yogic inhalation.
4. With the mouth closed exhale smoothly through the nostrils and produce a gentle, continuous humming sound until the exhalation has exhausted.
5. Practice this for 5 cycles.
6. Benefits:
7. Excellent exercise before mantra meditation or singing as it heightens awareness of subtle sound vibrations, especially good for singers.
8. Relieves insomnia, anxiety, anger and depression.
9. Helps one to attain inner awareness very rapidly.
10. Especially useful for women preparing for labour.

References
1. Dr. Goldblack, 1953 Journal of Experimental Medicine