

Pranayama, Yoga, and Ayurveda

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Abstract

With the growing awareness of Ayurveda in the West, a more complete picture of the yogic path is beginning to emerge. This path reconnects the knowledge of two of India's greatest ancient sciences. Together, they comprise a whole whose two sides, like those of a coin, are really inseparable. Ayurveda brings to Yoga an understanding of how to remain physically and emotionally healthy while on the path to enlightenment. Yoga brings to Ayurveda a deeper purpose for remaining healthy, that purpose being to attain enlightenment.

Definition

Pranayama, the yogic art of breathing, comes from the root words prana and ayama. Prana means "life force" and ayama means "expansion, manifestation, or prolongation." The practice of pranayama therefore is the practice of expanding our own prana so that it harmonizes with the universal prana. This results in oneness or merging of a person's own consciousness with universal consciousness. It is in this union that we realize we are not simply a limited physical body, but are, in fact, an immortal spirit.

Pranayama is breath control on the physical level and prana (life force) control on the subtle level. This is achieved through conscious inhalation (puraka), exhalation (recaka), and retention (kumbhaka) of breath along with focused attention on some particular part or area of the physical or subtle body, such as the heart or sixth chakra (the so-called "third eye") at the middle of the forehead.

Historical Context in Yoga

An early extant text of Hatha-Yoga (which includes pranayama) is the Hatha-Yoga-Pradipika, written by Svatanmarama. Later important texts include the Shiva-Samhita and the Gherandha-Samhita. The Yoga-Sutra of Patanjali, the most famous of all Yoga texts, was written over a thousand years before the Hatha-Yoga-Pradipika. While describing the eightfold path of Raja-Yoga (which includes Hatha-Yoga), it does not go into great detail on either pranayama or asana, but instead explores the philosophy of Yoga and gives an overview of its methodology. The Hatha-Yoga-Pradipika, on the other hand, contains detailed descriptions of proper preparation for pranayama, along with instruction on its practice and warnings against its improper use.

The mastery of prana is one of the main goals of the yogi or yogini on his or her way to enlightenment. Control over pranic flow opens the door to higher consciousness and mastery of the illusion of time and space within the physical body.

The Historical Context of Pranayama in Ayurveda

Classical Ayurvedic texts such as the Caraka-Samhita do not specifically mention pranayama. However, these texts deal extensively with the subject of prana and its functions in both health and disease. Modern Ayurvedic practitioners approach the yogic pranayama techniques from the perspective of health maintenance and disease management, and not as much from the spiritual perspective.

Writings on the functions of the subtle body have been produced by many great yogis and sages throughout the ages. The most prolific modern author to research and recommunicate these ideas is David Frawley, author of Tantric Yoga and the Wisdom Goddesses, Ayurveda and the Mind, and Yoga and Ayurveda. These three texts are recommended for deeper exploration of this subject.

Cautions Regarding the Practice of Pranayama

The practice of pranayama has always been surrounded by an air of mystery. Since such practice is a gateway to yogic powers (siddhis), gurus have traditionally been hesitant to teach it until the disciple was able to prove his or

her readiness. Readiness meant achieving a significant degree of success with the yamas and niyamas as well as asana. These practices prepare the body and mind to manage the increased vibratory energy that comes with heightened prana. Inappropriate or immature use of pranayama has been stated to cause great harm both to the body and the mind.¹ In addition, the reckless sharing of the knowledge of pranayama is understood to dissipate its potency.²

Many great yogis have known of the dangers of pranayama when performed incorrectly: “. . . faulty practice puts undue stress on the lungs and diaphragm. The respiratory system suffers and the nervous system is adversely affected. The very foundation of a healthy body and a sound mind is shaken by faulty practice of Pranayama.”³ Imbalances caused by the improper practice of pranayama have been observed by both yogis and Ayurvedic practitioners alike. When a person begins to practice prematurely, before diet and lifestyle have been properly regulated, a person is in danger of heightening the prana while the energy channels (nadis) are still obstructed. This results in the prana charging recklessly through the body causing both physical and psychological imbalances.⁴

A common cause of imbalance is attempting to progress too quickly. By aggressively practicing pranayama without the proper preparation, the well-being of the student is at great risk—even death is possible.⁵ Hence, gradual, slow progress is recommended.

Some of the dangers of pranayama lie in the bandhas and kumbhakas, which, if performed improperly, cause pranic disturbances. Bandha means “bondage” or “holding,” referring to the contraction and holding of a body part. This is the method by which yogis control and channel the flow of prana, ultimately guiding it into the central canal, sushumna-nadi. Kumbhaka is the restraint of the breath. Both of these practices powerfully interact with the pranic energy and when performed improperly can lead to catastrophic consequences. The three major bandhas are:

- (1) Jalandhara-bandha: Here the chin is brought down to the notch at the top of the sternum. This regulates pranic flow to the brain, lungs, and heart. It is performed at the end of inhalation and during retention. This pushes prana-vayu downward toward the chest.
- (2) Uddiyana-bandha: Here the abdomen is contracted and drawn in, which lifts the diaphragm up into the chest. It is performed at the end of exhalation, during bahya-kumbhaka (retention following exhalation).⁶ (Brahmananda’s commentary on the Hatha-Yoga-Pradipika states that this is the natural experience of exhalation and does not have to be consciously practiced.)⁷
- (3) Mula-bandha: Here the perineum is contracted. This increases the upward flow of udana-vayu and decreases apana-vayu.

With proper practice and combination of these three bandhas, the energy of apana-vayu moves upward to unite with prana-vayu in the chest, which has been forced downward. Their unification pushes the fused energies into the sushumna-nadi where the ultimate benefits of pranayama are realized.

The Right Environment for Yogic Pranayama Practice

The ideal environment for yogic practices in general is one that is bug free, clean, quiet, and safe with provisions and a moderate climate. Cleanliness aids healthfulness. Quietude assists the inward journey of the practitioner. Safety dissipates fear. Provisions negate the need for gathering or earning. A moderate climate that is bug free assures comfort. The yogi or yogini, free of concerns, is now able to focus on his or her practices. While historically a yogi might have had to build a hut in a non-populous area, today ashramas provide the ideal setting.

Effects on the Subtle Body

Pranayama serves several purposes in Yoga. First, it is the method by which the nadis, particularly the ida-nadi and pingala-nadi are purified, allowing prana to flow into the central channel, the sushumna-nadi.

In the ordinary state, prana flows with regularly alternating dominance through the ida-nadi and the pingala-nadi. The effect of this back-and-forth fluctuation is mental activity. Prana-vayu (one of the five major modalities of prana) functions within the superficial mind (manas), which processes the world in which we live. Attached to the five senses and dominated by the superficial mind, which is filled with idle chatter, prana-vayu carries the energy of emotion.

When the nadis become purified through proper lifestyle and the practice of pranayama, prana is drawn into the sushumna-nadi and is carried upward by udana-vayu (the upward moving modality of prana). Then prana becomes the energy of immortality and guides the unfolding of our consciousness. Breathing and metabolic rates are extraordinarily slow, mental chatter stops, and the yogi experiences bliss or “that” which has no words. Pranayama is also a preparatory practice for the deeper stages of meditation. Toward this end, pranayama begins the process of balancing the flow of energy through the ida-nadi and pingala-nadi, which relate to activity in the right and left sides of the brain.⁸ Pranic energy normally resides in these channels, but when they become pure and their flow balanced, the prana moves into the sushumna-nadi. Once there, the mind of the yogi becomes still, the fluctuations of thought disappear, and consciousness expands. The further stages of dharana (concentration on a single point) and dhyana (sustained concentration or meditation) focus and hold the yogi’s attention within the void of the sushumna-nadi.

Through pranayama performed properly along with appropriate bandhas, kundalini, the “serpent fire,” which usually lies dormant at the base of the spine, awakens. Then it rises through the sushumna-nadi and the yogi’s consciousness is liberated.

A third purpose of pranayama is the extension of life.⁹ Prana is life, and its mastery through pranayama prolongs life. With proper practice the yogi is able to control prana in such a way that there is no dispersion of the life force. Ayurveda teaches that one fundamental cause of disease and death is parinama, or time in relation to motion. In other words, the faster we move the faster biological time moves forward. This motion is not only physical but mental as well. The result is aging, decay, and death. Through pranayama and meditation, the motion of the mind slows and can even be stopped. The result is the elongation and possible suspension of biological time. In the stillness created, the body is relaxed and prana flows freely without obstruction through the physical body to heal and repair any damaged areas.

Ayurveda recognizes three bodily humors (doshas) called vata, pitta, and kapha (wind, bile, and phlegm), which are closely related to three energies prana, tejas, and ojas—life force, “fire/glow,” and subtle energy. Whereas the doshas function primarily on the anna-maya-kosha or physical body, their energetic counterparts function primarily on the mano-maya-kosha or subtle body.

Mind (manas) and intellect (buddhi) are both superficial aspects of and operate within the broader field of consciousness (citta). As I have already mentioned, manas processes the ordinary physical world. Buddhi also has two aspects, a higher and a lower. The lower aspect, which is attached to the senses, organizes the sensory input from our world and compartmentalizes our experiences so we can learn from them. The higher aspect is not attached to the senses. It draws knowledge and wisdom from atman, which is connected to the cosmic stream of knowledge, the “Great” (mahat). From this connection, a person receives “higher guidance” to act in ways that are sattvic and not sensory based (rajasic and tamasic).

Prana manifests within our mind and consciousness as enthusiasm for life. Its normal function provides motivation for living. Tejas is the aspect of fire that provides illumination. Its normal function provides motivation for knowing truth, and its outward expression manifests through our intellect. Ojas, the substance that provides the mind with stability, manifests in our consciousness and mind as contentment.

In the sushumna-nadi, tejas can be understood as dormant kundalini energy. Heightened prana is the force that raises kundalini through the central nadi, which is stabilized and supported by ojas.

Yogic practices purify the nadis and remove obstructions to the flow of kundalini. They also increase the activity of prana, which stokes the fire of kundalini. As kundalini awakens, it rises through the central channel. Ideally, this brings about peacefulness, higher consciousness, and powers (siddhi). There are, however, potential complications.

Imbalances in the Subtle Body Caused by Faulty Pranayama Practice

Whereas the ideal balance of the three doshas is determined at conception and the ordinary person strives to maintain balance, a yogi strives to steadily increase the subtle energies of prana, tejas, and ojas. As prana rises, consciousness expands, as tejas rises perception expands, and as ojas rises contentment deepens. When all three

energies rise proportionally, a person maintains health and balance physically and emotionally while gaining the benefits of practice. However, when prana or tejas rise without ojas, serious complications manifest.

As prana rises within the body, it tends to dry out ojas. This is simply a function of its dry, air-like quality. Similarly, as tejas rises, it tends to burn out ojas, a function of its fire-like nature. Ojas, being comprised primarily of water, functions to protect, though, as I have noted, it is in danger of becoming depleted as prana and tejas rise. Once depleted, the result is serious imbalance in both the physical and subtle body.

Ojas is responsible for containing prana and tejas (kundalini) as the latter rises through the sushumna-nadi. If ojas becomes depleted, kundalini energy exits the sushumna and rages like a wildfire through the body and mind causing destruction. Ayurveda understands this to be the cause of many imbalances.

Symptoms of low ojas include poor stamina, sensitivity to minor environmental, mental, or physical stresses, chronic irritability, and easily losing one's mental or emotional balance. Disturbances of prana appear as anxiety, hyperactivity, depression, and uncoordinated thought processes. Finally, tejas imbalances manifest as gullibility or cynicism. The exact nature of the imbalance can be determined by knowledgeable yogis or vaidyas (Ayurvedic practitioners), who then can administer a prescription to restore balance in the system.

It is not only the sushumna that is in danger of this imbalance. These three subtle energies also function in the manovaha-srota and the samjna-vaha-srota. These are the channels of the mind and of consciousness. If ojas becomes depleted, the mind becomes unstable and the stream of consciousness is interrupted. The result is disturbed emotions, pathological thoughts, and susceptibility to influences from the subtle worlds. Western psychologists would classify this as psychosis.

Knowledge of the subtle energies of the body, whether through Yoga or Ayurveda, teaches that proper preparation is required before an aspirant attempts to utilize yogic techniques such as pranayama. Yogic texts have clearly warned unprepared students, without going into detail to explain the physiology behind the warnings. Knowledge of the subtle energies of prana, tejas, and ojas makes clear why proper preparation is necessary.

Proper Preparation

Yoga doctrines teach that preparation means practicing the yamas and niyamas as well as following an appropriate diet. In addition, it is stated that persons of kapha nature may need to practice the six yogic kriyas or purification practices.¹⁰ These practices include: dhauti, basti, neti, tratak, nauli, and kapalabhati.

Knowledge of the three subtle energies makes clear the importance of assuring that ojas is healthy before a person begins to practice the yogic techniques, which activate prana and tejas. Ojas is strengthened by activities that provide stability and nourishment. Hence, healthy and consistent daily routines combined with proper diet lay the foundation for building ojas.

The yamas and niyamas of Yoga articulated by Patanjali provide a living foundation for Yoga practice based on integrity, insight, discipline, and morality, which leads to the fortification of consciousness. Without this, true enlightenment becomes impossible and any apparent gains made will simply inflate the ego and bind the practitioner further to the endless cycle of life and death.

Ayurvedic regimens called dinacarya ("daily work") set forth daily routines unique for each person's constitution and are designed to protect ojas. While for the most part de-emphasizing moral and spiritual considerations, Ayurveda sets forth regimens to protect the body and mind. These regimens manage the three pillars of life: rest, digestion, and sexual energy in an effort to preserve and maintain ojas.

Hence, practice of the yamas and niyamas combined with Ayurvedic lifestyle and dietary regimens appears to offer the aspirant the most complete preparation for his or her quest. They make it less likely that complications will arise on the journey.

The Yogic and Ayurvedic Diet

Proper diet is an important part of the classic Hatha-Yoga path. However, there are some modern yogis who de-emphasize it.¹¹ Yoga traditionally emphasizes a moderate diet consisting of sweet, nourishing foods such as grains, some beans, milk, ghee, and honey, as well as fruits and vegetables. Sour, salty, and pungent foods are to be avoided. Alcohol and meat are strictly prohibited. In addition, food should be consumed only when fresh.¹²

In general, sattvic foods are preferred over rajasic or tamasic foods. Sattvic foods are foods that are fresh and pure and produce clarity in the mind and health within the body. Rajasic foods create agitation and tend to be spicy, while tamasic foods are heavy and produce mental dullness and disease. Meat, canned food, and old food fall into this category.¹³

The sweet taste is the most powerful for increasing ojas; thus the yogic diet is formulated to build ojas. Care must be taken, however, as many sattvic foods such as fruits and vegetables do not build ojas. Hence, to assure that ojas is plentiful, the aspirant should consume milk, ghee, grains, and some nuts in addition to fruits and vegetables. In order for the body to produce ojas, it is necessary for proper digestion to occur. Without proper digestion, ama (internally created toxicity) is created instead of ojas. Ayurvedic texts thus outline regimens that not only include what to eat but how to prepare food and then how to eat it in ways that protect agni (the body's internal fire that digests food). A healthy agni is essential to producing ojas. There is much Ayurvedic literature available that addresses the unique dietary needs of each person according to his or her constitution, and the student of Yoga is well advised to pursue such reading or consult with a practitioner of Ayurveda.

Physiological Effects on the Body

When practicing pranayama, the yogi observes several effects. First, sweating may occur, a sign the nadis are being purified.¹⁴ In addition the yogi may observe tremors or shaking as well as various other neurological sensations, including seeing colors and lights and hearing inner sounds.

Pranayama also has been reported to have the following physiological effects: improved circulation, purification of the lungs, physiological support for the liver, spleen, and kidney, stimulation of peristalsis improving fecal excretion, sharpening of the intellect, and improved memory.¹⁵ Pranayama is further understood to be effective in treating conditions of the respiratory, circulatory, and nervous systems, which are most directly dependent on pranic flow.¹⁶

The practice of pranayama decreases the rate of respiration and elongates the breath. As yogic texts equate breath with life, they interpret this to imply that life is elongated as well.

Pranayama cultivates the prana-agni or the fire that digests prana. It is this digestion that transmutes prana into its higher form, where it acts as a force for the transformation of consciousness. It is also this agni that is responsible for purifying the nadis.¹⁷ Inhalation feeds the fire. Retention purifies the prana. Exhalation rids the body of its waste by-product. As the prana-agni slowly builds, the body begins to lightly sweat. This aids the purification of the subtle nadis.

Prana-agni is the heat associated with the kundalini, but it is not limited to the kundalini. Prana-agni converts breath into life on the physical level and life into immortality or enlightenment on the subtle level.

Types of Pranayama and Their Effects from an Ayurvedic Perspective

Ujjayi: This pranayama is performed by inhaling through both nostrils as if drawing water up a pipe. A hissing noise is made in the back of the throat during inhalation. Inhalation is followed by retention, and exhalation is done through the left nostril, which reduces mucus in the throat, builds the digestive fire, and purifies all tissues and nadis.¹⁸ Ujjayi also aerates the lungs, decreases phlegm, and tones the nervous system. It has been recommended that those individuals suffering from hypertension or coronary artery disease perform this pranayama without retention.¹⁹

This mild form of pranayama increases prana, which secondarily increases tejas. Excessive practice increases vata and pitta in the physical body.

Surya Bhedana: Solar Breathing is performed by inhaling through the right nostril (pingala), followed by retention, and then by exhalation through the left nostril (ida).

This form of pranayama heats the body, increasing both tejas and prana. It is a moderately aggressive pranayama that pacifies kapha, increases pitta, and is neutral to vata. According to the medieval Hatha-Yoga-Pradipika, this is beneficial for diseases of vata.²⁰

Nadi-shodana: This technique, which is also called “alternate nostril breathing” or anuloma-viloma,²¹ is performed by sitting in the appropriate posture and inhaling through the left nostril (ida), followed by retention, and exhalation through the right nostril (pingala). The process is repeated beginning with inhalation through the right nostril, followed by retention and exhalation through the left nostril.²² This pranayama is often considered to be the most basic type and the most effective for purifying the nadis.

Alternate nostril breathing increases prana. Its effect on tejas is mild in the short term; however, excessive practice will still stoke the fire of tejas. It is considered the best pranayama practice for individuals of vata constitution as it is gentle and creates calm. In healthy individuals it pacifies vata and is neutral to pitta and kapha.

Bhastrika: This breathing practice is described as mimicking the action of a bellows (bhastrika) blowing on a fire.²³ As the name suggests, it consists of a series of rapid inhalations and exhalations. The exhalations are made by forcefully contracting the lower abdominal muscles and pushing air out of the lungs. The inhalations are made by releasing these contracted muscles and allowing the breath to passively flow into the lungs. Some Yoga authorities recommend against practicing this technique until the nadis are purified by alternate nostril breathing.²⁴ Several variations exist for bhastrika, including inhalation through the right nostril and exhalation through the left. This pranayama is very aggressive and requires the most preparation. It is also among the most important as it arouses kundalini and drives it through the three granthis (obstructions), located in the first, second, and sixth cakras.²⁵ This awakening occurs only with repeated practice and proper preparation and can take lifetimes to achieve. Bhastrika is very heating and is not for those with weak constitutions or eye, ear, or blood pressure pathology.²⁶

Ayurveda considers this form of pranayama to increase pitta. It is best for those of kapha constitution and may be practiced in limited amounts by those with a vata constitution.

Bhramari-Pranayama: This breath is similar to ujjayi, but instead of a hissing sound is accompanied by a humming sound, like a bee makes (bhramari). The classic texts describe the sound of the bee in great detail: The sound on inhalation resembles a female bee and on exhalation a male bee.²⁷ This form of pranayama has been reported to be beneficial in the treatment of insomnia.²⁸

A cooling breath, bhramari increases prana, pacifies pitta, and may aggravate vata and kapha. The cooling action of the pranayama prevents a rapid rise in tejas.

Sitkari: This is performed by inhaling through the tongue, which is slightly protruded from the mouth while the lips are pursed, followed by retention and then exhalation through both nostrils.²⁹

Sitkari increases prana and cools and pacifies pitta, while possibly aggravating vata and kapha. The cooling action of the pranayama prevents a rapid rise in tejas.

Shitali: Similar to the previous pranayama, shitali is performed by sticking the tongue further out between the lips and curling it into a straw. Inhalation is followed by retention and then exhalation takes place through both nostrils. Described as a cooling breath, it soothes eyes and ears and has been noted to remove illness of the spleen, liver, and gall bladder, and to eliminate fever.³⁰

This pranayama also increases prana. It is cooling and pacifies pitta while possibly aggravating vata and kapha. The cooling action of this practice prevents a rapid rise in tejas.

Proper Practice

While pranayama can be practiced in many postures, siddhasana is the most highly regarded.³¹ Still, any posture that keeps the spine erect is considered adequate for practice.³²

While different ratios of inhalation to exhalation and retention have been mentioned, it is often recommended to begin simply by equalizing the lengths of inhalation, exhalation, and retention. This is called sama-vritti pranayama.³³ In order to achieve this, a person may first have to keep retention following inhalation to a lesser amount, slowly building up over time until it is equal to inhalation and exhalation. Retaining the breath after exhalation, or bahya-kumbhaka, is not recommended for beginners. Once the student is competent in sama-vritti pranayama, bahya-kumbhaka can be added beginning with a lesser amount of time and working up to an amount equal to the other phases.

Another way to practice pranayama is with ratios that are not equal. Called vishama-vritti pranayama, the standard approach is to work toward a ratio of 1:4:2:1, that is, inhalation, inner retention, exhalation, and outer retention respectively.

Conclusion

Knowledge of the principles of Ayurveda is essential for every student who begins to walk the path of Yoga. With this knowledge, students learn the reasons behind the practices of Hatha-Yoga and are able to walk their paths in a safe and rewarding manner. If problems do arise on the path, students should consider seeing a practitioner of Ayurveda to gain the insight and direction necessary to heal themselves.

Endnotes

1. Swami Vishnu-devananda, *Hatha Yoga Pradipika, Containing the Commentary Jyotsna of Brahmananda* (Delhi: Motilal Banarsidass/Om Lotus Publications, 1987), pp. 11 and 19 and chapter 2, sutras 15–17.
2. *Ibid.*, chapter 1, sutra 11.
3. B. K. S. Iyengar, *Light on Yoga* (New York: Schocken Books, 1976), p. 434.
4. Vishnu-devananda, *op. cit.*, p. 56.
5. *Ibid.*, chapter 2, sutras 15–17.
6. Dr. K. S. Joshi, *Yogic Pranayama* (Delhi, India: Orient Paperbacks, 1983), p. 38.
7. Vishnu-devananda, *op. cit.*, p. 74.
8. *Ibid.*, p. 5.
9. *Ibid.*, chapter 2, sutra 3.
10. *Ibid.*, chapter 2, sutra 23.
11. Iyengar, *Light on Yoga*, p. 426.
12. Vishnu-devananda, *op. cit.*, chapter 1, sutras 58–60.
13. B. K. S. Iyengar, *Light on Pranayama* (New York: Crossroad, 1999), p. 43.
14. Vishnu-devananda, *op. cit.*, chapter 2, sutra 12.
15. Iyengar, *Light on Pranayama*, pp. 48–49.
16. Hans-Ulrich Rieker, *The Yoga of Light: Hatha Yoga Pradipika* (London: Georg Allen & Unwin, 1971), part 2, chapter 6, sutras 56–57.
17. David Frawley, *Yoga and Ayurveda* (Twin Lakes, Wis.: Lotus Press, 1999), p. 114.
18. Vishnu-devananda, *op. cit.*, chapter 2, sutras 52–53. [Ed.: The prescription to exhale through the left nostril is not universal.]
19. Iyengar, *Light on Yoga*, p. 443.
20. Vishnu-devananda, *op. cit.*, chapter 2, sutra 50.
21. *Ibid.*, p. 51.
22. *Ibid.*, chapter 2, sutras 7–10.
23. *Ibid.*, chapter 2, sutras 59–62.
24. *Ibid.*, p. 81.

25. Ibid., p. 83.
26. Iyengar, *Light on Yoga*, p. 450.
27. Rieker, *op cit.*, part 2, chapter 6, sutra 67.
28. Iyengar, *Light on Yoga*, p. 451.
29. Rieker, *op cit.*, part 2, chapter 6, sutras 56–57.
30. Ibid., part 2, chapter 6, sutras 53–55.
31. Vishnu-devananda, *op. cit.*, chapter 1, sutra 38.
32. Iyengar, *Light on Pranayama*, p. 55.
33. Ibid., p. 61.