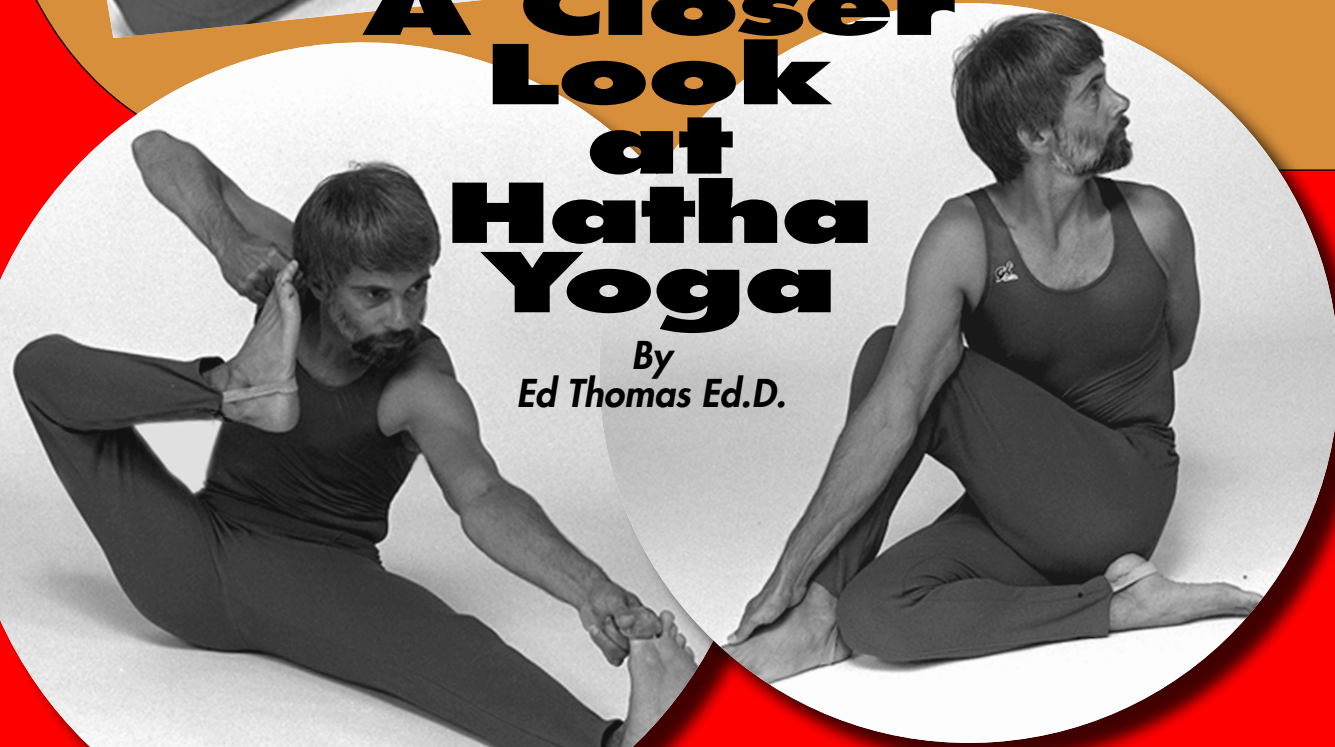


The ART And Of SCIENCE Of BREATHING

Martial artists have been discussing breath and breathing for thousands of years, and some of that ancient wisdom is still floating around for us to inhale...

A Closer Look at Hatha Yoga

By
Ed Thomas Ed.D.



Countless
cadavers
have been
dissected in
the quest to
understand
breathing.

We all breathe with some degree of efficiency without thinking about it, but we can also breathe consciously. Our ability to cultivate the breath and enhance its obvious and subtle benefits continues to intrigue martial artists who explore the frontiers within.

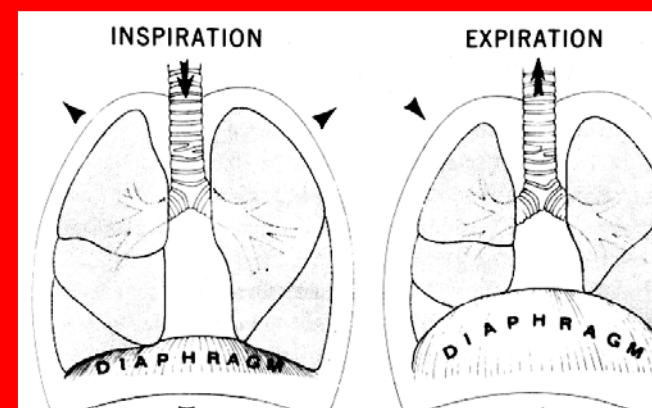
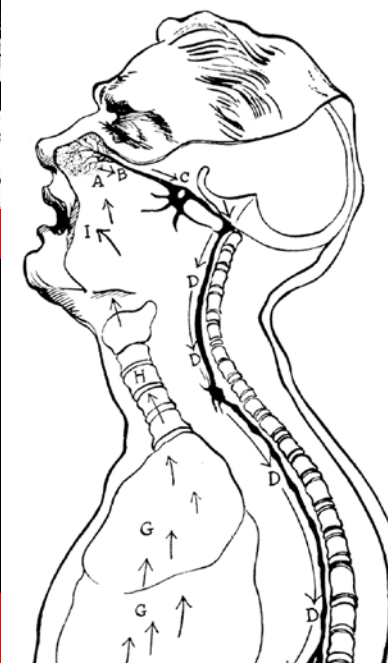
Religious traditions of many Eastern societies often include cultivation of the breath. Tibet, Japan, Korea, China, Myanmar, and India are a few examples. Even some of the ancient Egyptian cults studied breathing. For many Buddhists today in Thailand, *Anapanasati* (mindfulness with breathing) is a way of unveiling the secrets of life. Chinese *Qi Gong* (pronounced chee-kong) and Indian *Pranayama* continue to baffle Western scientists.

"Breath" is an interesting word. It comes from the Latin verb *Spirare*, which has two meanings. Respiration and expiration refer to our continuous breathing and last breath. *Spirare* also relates to our mind and soul. We still see this today in the words inspiration and spirit. The complete historical significance of breath in Eastern and Western culture may be lost to antiquity, but there are still plenty of similarities in the many remaining cultural systems to investigate.

The structure and function of the respiratory system is widely studied in our universities where respiration is often narrowly defined as "the combined activity of the various mechanisms involved in supplying oxygen to all the cells of the body and removing carbon dioxide from them." Volumes have been written about the nasal cavity, pharynx, larynx, trachea, bronchi, and lungs. For hundreds of years, in classrooms and laboratories around the world, dead animals and humans have been dissected and studied by those seeking to expand their

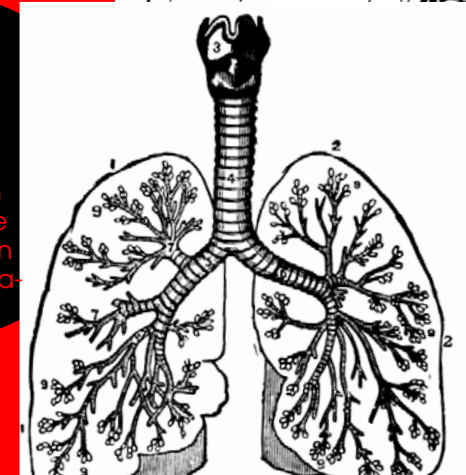


After
centuries
of study,
there is still
much to
learn about
breathing.



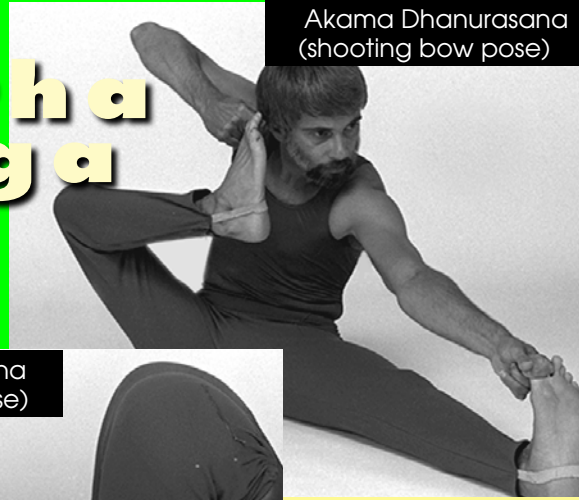
Diaphragmatic
breathing is one of the
first steps toward culti-
vating the breath.

Most
breathing
research
throughout
history has
been concerned
with the structure
and function of the respira-
tory system,

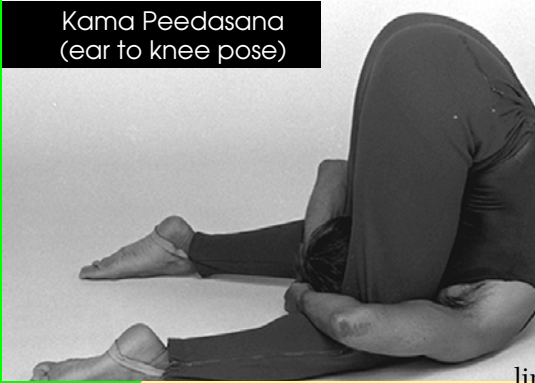


Hatha Yoga

Akama Dhanurasana
(shooting bow pose)



Kama Peedasana
(ear to knee pose)



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Savasana
(corpse pose)**



Mayoorasana
(peacock pose)



Kakasana
(crow pose)



understanding of the breath. In recent decades, research has uncovered some incredible relationships among breath, consciousness, and human performance. There is evidence that the brain hemispheres switch dominance regularly throughout the day. These changes may well alter mood and mental function. Shifts in the dominance of right and left nasal passages have been similarly linked to chemical changes in the body. There is evidence that breathing in and out of only one nostril can stimulate activity of the opposite brain hemisphere. The extraordinary power of some yogis to alter autonomic function through control of their breathing is now well documented. More recently, Chinese *Qi Gong* has attracted much attention among Western researchers. The practice of *Qi Gong* was denounced in China during the Cultural Revolution, but it is now acceptable, and Western scientists continue to be amazed by it. *Qi Gong* masters believe that the life force can be directed through one person to another. This force can destroy life or it can heal illness. In other words, the *Qi Gong* master can employ the breath to manifest powers that can be used for either restorative or martial purposes. We know little about the nature of these powers, but their existence and importance have become ever more difficult to ignore.

"...pollution, stress, ill-fitting clothing and poorly designed furniture can also limit and impair breathing."

Ironically, the time, money, and human energy spent researching the breath has not touched the lives and behaviors of many Americans. Smoking remains a serious and tragic health issue for those addicted to the powerful drug nicotine. Smokers, in turn, often victimize those around them by poisoning the air with secondhand smoke. Numerous other factors such as pollution, stress, ill-fit-

ting clothing and poorly designed furniture can also limit and impair breathing.

There are many paths that lead to an understanding of breath. *Yoga* is one of the oldest known systems of study. The word "*Yoga*" comes from an ancient and mysterious Indo-European language called Sanskrit. The Sanskrit *yuj*, means to "link or bind." It implies a state of union between the limited and cosmic self. Yogis call the individual self *jivatma* and the Universal Self *Paramatama*. *Yoga* also suggests a state of perfect harmony between thought and action.

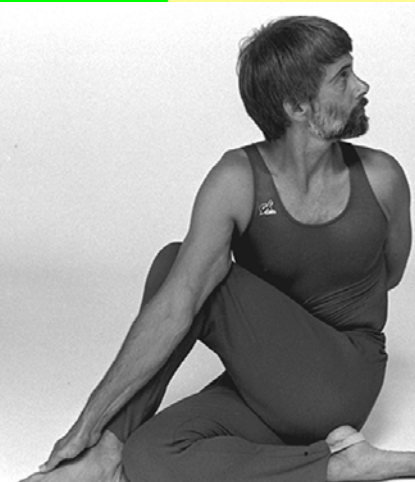
There are many systems of *yoga*. *Karma yoga* is based on the law of cause . *Jnana yoga* is the way of philosophical analysis and discrimination. It is called the *yoga* of intellect. *Raja yoga* employs mental control, constant attention to the moment, and exploration of consciousness. There are numerous other systems including *hatha yoga*, which refers to specific physical and mental practices that prepare the body and mind for the journey from common consciousness to wisdom.

Hatha is a combination of two Sanskrit words. *Ha* means sun or inhalation, and *tha* means moon or exhalation. *Hatha* has also been related to the search for balance between the right or sun side and the left or moon side of the body. *Hatha yoga* is a branch of yogic study that includes bodily disciplines and breathing. It develops first the health, balance, strength, purity, and physical stamina needed to unify mind and body. Mental and physical unity then leads to a harmonious balance between power and peace. It teaches us how to live and how to die.

Hatha yoga postures are called *asanas*, and cultivation of the breath is called *pranayama*. *Prana* is the energy of the universe expressed in physical, mental, and

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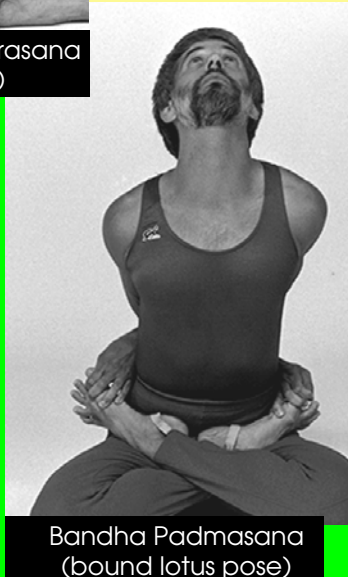
Ardha Matsendrasana
(spinal twist)



Supta Vajrasana
(thunderbolt pose)



Bandha Padmasana
(bound lotus pose)



Halasana
(plough pose)



Pada Hasthana
(hands to feet pose)



Sarvangasana
(shoulder stand)

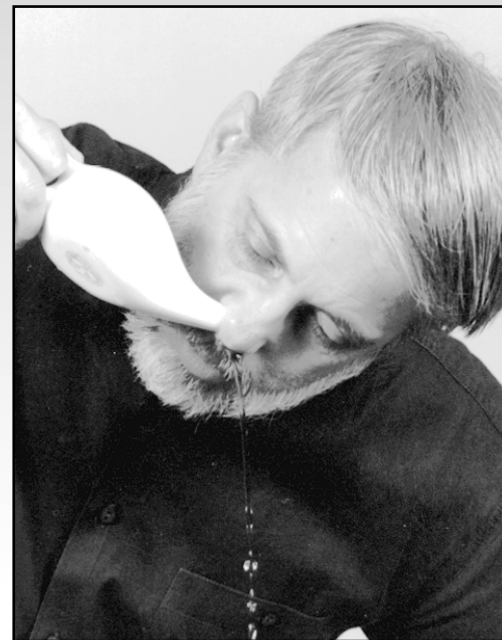


**Savasana is specifically mentioned in the article.

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The neti wash should be learned from a qualified instructor.



spiritual activity. The breath is one of *Prana's* vital manifestations. *Ayama* means expansion, extension, restraint, or control. *Pranayama* is the art and science of conscious control of inhalation, retention, and exhalation. Inhalation provides primeval energy, retention helps distribute that energy throughout the body, and exhalation expels impurities.

Some yogis focus primarily on *pranayama*, but *asanas* are also usually recommended because they tend to supple the muscles and balance the body. According to the *Yoga Shastras* (ancient manuscripts), there are 840,000 different *asanas*, of which 84 are most important. The *Asanas* can be divided roughly into two categories. The meditative *asanas* include the cross-legged and kneeling postures with which most martial artists are usually somewhat familiar. The cultural *asanas* are numerous and diverse in their effects on the body. They require varied degrees of flexibility, balance, and strength, but each contributes in its own way to bodily suppleness and poise.

Pranayama can be practiced while moving,

but most of the more intricate breathing skills are developed in a variety of steady, sustained, and still postures that are not possible when the body is unwilling or unable to position itself properly. *Asanas* facilitate greater range of joint motion and allow the *yogi's* mind and body to be alert but still. Only then is it truly possible to go within and explore the breath. *Asanas* and *Pranayama* should be learned from a highly qualified instructor, but there are also many books and videos available to complement your practice.

The study of *pranayama* often begins with a *kriya* (cleansing technique) known as *neti* (nasal wash). When properly done, it is a practical and valuable way to cleanse the nasal cavity. *Neti* flushes away excess mucus and allows the sinuses to drain, thereby restoring health and optimal function to the internal nasal passages. The nasal wash is done with a spouted porcelain container called a *neti* pot. A careful mixture of non-ionized salt and distilled water heated to body temperature is poured in one nostril, and the head is

"For thousands of years, Hatha yoga has been studied by warriors and monks. If you have the patience and intellect to study and practice, hatha yoga might be a tremendous complement to your study."

adjusted to allow the water to flow out the other nostril. Once the *neti* pot is empty, the remaining water and mucus are expelled by blowing through both nostrils. Then the procedure is repeated in the opposite direction. *Neti* has its hazards and should be learned under supervision. Properly mastered, it is an invaluable and natural way to cleanse the nasal cavity.

The next step in mastering *Pranayama* is diaphragmatic and rhythmic breathing. It is the foundation for numerous other yogic breathing techniques. The diaphragm is a muscle that forms the floor of the thoracic cage. It separates the chest and abdominal cavities. The lungs rest on top of the diaphragm, separated from it by a thin layer of tissue known as pleura. The liver, stomach, and spleen are situated immediately below. The diaphragm is attached to parts of the skeleton as well as some of the viscera (internal organs). This close connection to the skeletal system and viscera allows the diaphragm to effect them as well as be affected by them.

The ancient Greek word "*diaphragm*" was used to indicate the mind as well as breathing. The obscure but intriguing implications of this double meaning are compelling evidence that breath played a key role in early Western physical culture. During the first century A.D., the *pneuma* (breathing theory) was common in Western philosophy and the healing arts.

During rest or expiration, the diaphragm is dome shaped. During a proper inhalation, the diaphragm moves downward while the abdomen and the chest expand. This action allows air to easily enter the lungs. Chest only breathing limits this vital function and is common today among adults and even children. For many people, it is difficult at first to breath from the diaphragm in an upright position, so the posture *savasana* (corpse pose) is often recommended. As

with the nasal wash, proper instruction from a highly qualified teacher is the best and safest way to learn and practice yogic breathing.

For thousands of years, *Hatha yoga* has been studied by warriors and monks. If you have the patience and intellect to study and practice, *hatha yoga* might be a tremendous complement to your study. As for *pranayama*, you have to breathe anyway. Why not learn to do it more efficiently and profitably? *The Yoga Journal*, published by the California Yoga Teachers Association, is a good link to the American yoga network. Their address is 2054 University Ave. Berkeley, CA 94704.

Photos by Camera One, Jim Cawthorne, CPP

"According to the Yoga Shastras (ancient manuscripts), there are 840,000 different asanas, of which 84 are most important."