

It's commonly believed we can only go three weeks without food, three days without water, and three minutes without air. On average, this is true. However, there are exceptions to every rule; mystics, yogis, sages, saints, and martial artists present us with exceptions to this rule.

I had a friend who back in the 1970s went seven months, seven days, and seven hours without food. There is alleged documentation of people who apparently subsist on sunlight alone. There are people who can hold their breath for over 20 minutes underwater. Tibetan monks can sit naked in the snow and dry ice-cold wet robes on their bodies by increasing their skin temperature. These are not tricks. They're the result of training the physiology.

According to an article in *Science Watch* (2/9/82), Drs. Herbert Benson, John W.

Lehmann, Mark D. Epstein of Harvard, Ralph F. Goldman of the Army Research

Institute of Environmental Medicine, M. S. Malhotra of India's National Institute of

Sports, and Jeffrey Hopkins of the University of Virginia set out to find out how these

monks did it. What they discovered was that monks trained in a specific breathing

technique could raise the temperatures in their fingers and toes by as much as 17°F. Dr.

Herbert Benson also discovered, when he studied those who practiced advanced forms

of meditation (in Sikkim, India), that monks could lower their rate of metabolism by 64% through controlling their breath.

Let's consider the implications here. If you can alter your body temperature and your metabolism, might you also be able to impact your health and longevity? But, this wasn't the primary objective for those who practiced gtum-mo, a Buddhist/yogic breath meditation. The *Harvard University Gazette* (4/18/02) stated, "Why would anyone do this? Herbert Benson, who has been studying gtum-mo for 20 years, answers that 'Buddhists feel the reality we live in is not the ultimate one. There's another reality we can tap into that's unaffected by our emotions, by our everyday world. Buddhists believe this state of mind can be achieved by doing good for others and by meditation. The heat they generate during the process is just a byproduct of gtum-mo meditation."

In 1985, the researchers made a video of the monks on a rocky windblown ledge at an altitude of 15,000 feet in the Himalayas. This was on a full moon night in February. Wearing only cotton or wool shawls, they slept without shivering all night. In another study, monks were covered with three-by-six-foot wet sheets as they meditated in a room that was 40°F, and within an hour the sheets were dry. Actually, soon after they were placed on the monks, the sheets began giving off steam. This all serves to illustrate the point that we humans have more control over our physiology than our modern society has believed.

While it may not be of concern to the monks that such practices can be used to greatly extend life, it certainly attracts the interest of many of today's health advocates.

Considering all the research and attention devoted to organic foods, longevity herbs, and sports supplements, such breathing exercises might provide us with a very valuable clue. Why does the health-oriented consumer purchase such items? Isn't it because they believe such foods, herbs, and supplements will have a beneficial effect on their metabolism and thus extend life?

Metabolism means the digestion and absorption of foods, their circulation, changes in their composition, and their elimination from the body—in other words, how the body utilizes what we consume. Foods must be broken down into carbohydrates, proteins, fats, vitamins, salts, minerals, and water for the life of the physical body to continue.

There are two basic ways this is handled: catabolism and anabolism. Catabolism is the process of breaking down food molecules into carbon dioxide, water, nitrogen waste product, and a few other things. Keep in mind that a molecule is "the smallest particle of matter that is the same chemically as the whole mass." Basically, it's a piece of chemical energy. The structure of these energy-rich molecules allows them to quickly release energy. When energy is released, you receive heat. You can think of these chemical elements as condensed sunlight.

Firewood is a good example of this. When a piece of wood is burned on the ground and becomes ash, it "sweetens" the soil by releasing lime or calcium, which enables other

nutrients in the soil to release their energy. Plants live on the release of energy, which is the chemical interaction of elements. When minerals are balanced in the soil, that frees the soil's magnetic field to allow the release of energy, which results in fertility and sets the conditions for growth.

No one questions that sunlight is essential for most life as we know it. Plants absorb it through their leaves. It's called photosynthesis. The sun's light comes in many colors that we humans don't see. The colors are electromagnetic energy. The plant does not use all the light; it just needs red and blue wavelengths. The plant blood or chlorophyll is what actually grabs the photons or smallest particles of light found within the wavelengths of red and blue. The cells within the plant, called chloroplasts, capture these photons and convert this energy into sugar molecules and starch molecules. When these particles of light hit a chloroplast, the energy released combines with CO₂ and water to create glucose and oxygen.

The entire process is about energy exchange. Whenever you move any part of your body, you release heat. Now, here's an interesting note: molecules are made up of smaller units of energy called atoms, and atoms are constructed of even smaller bits of energy referred to as subatomic particles, which are actually not particles at all. We're actually talking about the isolation of energy bouncing back and forth between what appears to be a particle and what appears to be a wave.

It would be ridiculous to say that an electron or proton or some other subatomic particle required nourishment. They don't eat. Atoms, which are constructed of these subatomic elements, don't eat either. Well, what about molecules, which are made of atoms?

Same story: they don't require food. This logical train of reasoning now brings us to cell structure, both human and plant, and the question about self-generated growth. Do these cells eat? No!

Metabolism is how the body changes food and alters its chemistry. A chemical is an element that produces an effect. How does a chemical element produce such an effect? It must oxidize, which means combine with oxygen. What happens is that electrons are transferred from one atom or molecule to another (see: oxidation-reduction). What we are talking about is electron transport, which takes place within the mitochondria of the cell during aerobic respiration. Breathing!

The "burning" or oxidation of food is called catabolism. Without air, a fire will go out; breathing fans the flames of the internal cellular fire that creates heat in the body. Do you see where we are headed? Catabolism changes food into simpler chemical compounds like glucose, amino acids, fats, etc., which again are converted into carbon dioxide, water, nitrogen waste products, and so on. Mechanical energy is then released. Everything in the form of food that goes into the body goes out of the body. Defectation, urination, perspiration, and exhalation are all examples of how the body rids itself of food.

You are not what you eat! But what you eat determines what you are as a physical organism. Cell death will result from the accumulation of damaging waste products. This is why breathing and certain types of breathing exercises are important in their relationship to extended lifespan and vitality.

Unless catabolism is complete, no anabolism, which is the constructive part of metabolism, can take place. Anabolism utilizes the energy/heat released from the energy-rich phosphate compounds that have been oxidized. Catabolism must occur before any energy can be released to stimulate the growth of human cell structure. This is why you must breathe: to allow oxidation by catabolism to take place.

Simply put, breath releases energy, which equals heat. Gtum-mo is but one example. It is also why these breathing exercises will give you control over your metabolism and your body's ability to rid itself of toxins. This results in the obvious multiplied vitality you receive. With each breath you take, the pumping of lungs and heart moves an invisible flow of vitality (called chi, qi, or prana) through the tissues of the body in a certain pattern. This created breath pattern is like a cosmic blueprint that forms the basis of how your body will be transformed, for better or for worse.

It has been well established by the medical community that the entire range of human emotions can be correlated to certain alterations in breathing. According to both yogic science and traditional Chinese medicine, when certain organ systems, meridians, or

body parts are deprived of vital force or severely imbalanced, degeneration or malignancy may result.

If you visualize your physical flesh as simply a materialization of particles attached to an invisible energy matrix, you'll see how dependent the flesh is on the energy pattern which underlies it. This is certainly easy to understand in the light of Kirlian photography. A leaf can be photographed and its energy image recorded. The leaf then may be cut in half, yet when it is photographed again immediately afterward, the energy pattern of the full leaf remains.

It is in a similar fashion that the physical body can regenerate itself. This of course depends upon that energy field remaining intact. The ancients believed that qi (pronounced "chi") or prana supplied the bioelectricity to keep the vitality matrix sound.

We are most connected with our emotional and energetic physical bodies when we are consciously connected with our breath. In many cultures, the word for "breath" can also be translated as "soul" or "spirit." This is why ancient peoples have placed so much importance on being aware of one's breathing. While it might seem very challenging to be constantly monitoring our breath, we can at least take designated breaks throughout our day to get in touch with our real self.

These breaks can be as simple as taking three conscious breaths. It is our conscious awareness that's the key to both our mental and physical health. When, as an example,

we neglect proper physical posture, in that we fail to notice how we walk, how our weight shifts, and the many unusual stressors we create, then our physical shape becomes molded out of alignment. Poor posture makes proper breathing more difficult; the lungs and oxygen-carrying red blood cells have a much harder job to do.

Just as physical posture adapts to an unnatural structure due to being unconscious of it, breathing likewise reverts to being controlled unconsciously by a more primitive part of the brain. The breath rhythms adjust to subconsciously stored emotional traumas, resulting in biological disturbances. The emotions are so closely aligned with the breath that any readjustments by the primitive part of the brain can produce unexplainable and disturbing states of fear, anxiety, aggression, depression, or other unwanted emotions associated with such breathing rhythms.

This is why even folk remedies such as "take a deep breath" can be amazingly effective when we encounter emotional storms. If you promise yourself to take breaks to just do three conscious breaths, you'll be astounded at how centering such a small practice can be.

What exactly is a "conscious breath"? Let's take a little journey through the body and see. First, there's a tickling sensation on the tip of the nose as inhalation begins. The air, as the ancients believed, contains a living essence, a life force known as qi or prana. It is this force that energizes mind and body. The air begins flowing through the nasal turbinates, which contain spongy erectile tissue that governs the pattern and flow

of air through the nose. As the turbinates are stimulated by air flow, they in turn activate neuronal responses and affect the nervous system. This affects the personality as well. Interesting, as a side note, is the engorgement of the nasal turbinates of lovers, which due to the release of hormones and altered breathing patterns creates what is called the "honeymoon nose."

Is there any one of us who has not experienced vivid memories triggered by a certain smell? Odors plug in emotions quite easily. When you consider that we breathe an average 18,000 to 20,000 times a day, you must wonder what array of subliminal messages the brain receives from all the things we smell in a 24-hour period.

Once the air has passed the nose on its way downward, it enters the main channel going to the lungs: the trachea. It then splits into the two smaller channels supplying the lungs, which look like trees with many branches. These are called bronchioles. The bronchioles end as a vast number of tiny air sacs called alveoli—delicate soap bubbles with walls only the thickness of a microscopic cell. Here, the miracle of the "violet mist" takes place as the air oxygenates the blood. The alveoli have minute capillaries so thin that blood cells must enter single file. Any blood cells that have been deformed by pollution cannot enter. The air gives its oxygen molecules to the red blood cells to carry the life force to the various organs of the body.

Off-gassing from carpets, furniture, chemical sprays, cosmetics, tobacco smoke, or exhaust fumes can damage the tiny alveoli. What was once a mass of oxygen-

processing bubbles turns into a black hole as polluted air pops them. This means that there is much less area for oxygen to come into contact with blood and transfer its life-sustaining payload. The result is a severe shortness of breath (emphysema). This in turn signals the breakdown of the physical body along with mental and emotional confusion.

If any disruption to this natural process occurs, hemoglobin, which is the oxygen-carrying molecule within the red blood cells, will be stopped in its journey throughout the body. This means no oxygen is delivered and no CO₂, the waste product of metabolism, can be transported out of the body. The ensuing autointoxication, if severe enough, will lead to death.

In one experiment conducted in the 1800s by Dr. Claude Bernard, a French physiologist, we have a classic example of autointoxication. Bernard took a bell glass that contained what was measured to be three hours of air for a bird. He placed the bird in the glass container for two hours and then removed the bird with no apparent negative effects. This apparently left one hour of air in the bell glass, but when he placed a second bird in the container, it died immediately because it didn't have time to adapt to the toxicity of the remaining air.

It is my personal view that we humans are like the first bird, which experienced a gradual poisoning of its blood. We are poisoned not only by the toxic air we breathe, the chemicals we're exposed to, and their off-gassing, but by our shallow breathing. When

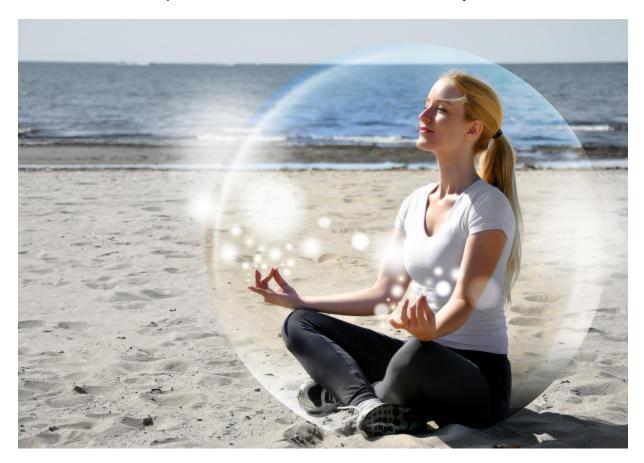
you consider the mental stress we experience and its effect of rearranging our breathing patterns and breath ratios, it's a miracle we live at all.

This is a testament to the powers of vital adaptation, where the physical organism adapts by shutting off less vital functions so that we may survive. It's somewhat like a small plane carrying a heavy cargo that jettisons lesser-value items in order to climb higher. The human body just starts shutting down functions, like our sensitivity to second-hand cigarette smoke, off-gassing of carpets, cosmetics, and countless other pollutants we're exposed to daily.

This is why it's crucial to begin to breathe consciously. Not only does it allow us to breathe deeper, but it allows us to begin to reconnect our dormant senses, thus reconnecting us to the world around us. Take two dogs as an example, one of which is kept indoors and the other outside. Both dogs are scent hounds: that is, their ability to track game by scent is extremely high. When the inside dog, accustomed to the stale air and other smells within the home, is let outside, there's a marked reduction in its ability to track game. The outside dog has no trouble retaining its natural propensity.

If this shutting down of animals' natural survival instincts can be so obvious, what about all the natural abilities we humans would ordinarily possess if it weren't for our own states of autointoxication? Getting rid of stale toxic air through deep breathing appears to make so much more sense now. The burden placed upon the lungs and heart by these toxins is enormous. The International Breath Institute found that 70% of the

body's toxins are released during exhalation. Although we probably know that the main waste product of breathing is carbon dioxide, which the delicate alveoli must release and exchange for oxygen and other gases in our inhalation, the exhaled air is filled with other deadly poisons, including VOCs or volatile organic compounds. These are the harmful chemicals we try to protect ourselves from in wall paint, plywood, pressboard furniture, carpets, and household chemicals. If you inhaled them out of a sealed container, as in the experiment of Claude Bernard with the bird, you would die!



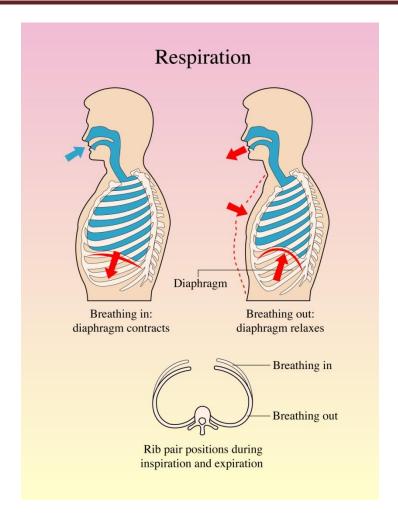
Exhaled air contains methanol, isoprene, acetone, ethanol, alcohol, ketones, hydrocarbons, and water. It's almost as if we make our homes and offices, with their artificial heating and cooling systems recycling our exhalations, into that bell glass and

we're the canaries. However, unlike the proverbial miner's canary that dies from bad air, we humans degenerate via the law of vital adaptation to our toxic conditions, blaming our ailments on everything else.

Certainly, there are many contributing factors that are outside this discussion. The point here is that, no matter what your circumstances may be, taking time to be conscious of breathing deeply is of a far vaster benefit than it may appear to be. So, take time during your day to do three connected deep breaths.

Here's how you do it. When you inhale, allow your abdomen to extend outward in a relaxed fashion that allows your diaphragm to drop and your lungs to fill up from the bottom. If you don't naturally do this (and all babies breathe this way), stale toxic air will remain in the lungs and you'll experience diminished lung capacity and shortness of breath. Shortness of breath and organ breakdown are directly related to the inability of the lungs to deliver the payload of oxygen to the red blood cells, as well as removing waste gases. This is the job of your exhalation.

When you exhale, your abdomen comes in and your diaphragm pushes upward to squeeze the toxic air out, resulting in a complete breath. Between your exhalation and your next inhalation you'll notice a slight pause, like when the surf on a beach comes in and then goes out. This pause connects the old breath to the new breath. Your attention should be concentrated mainly on the pause at the end of the exhalation.



In certain schools of spiritual thought, it is believed that if one is conscious at the time of their last breath or exhalation, they will be conscious of their next inhalation as an infant in a new birth cycle. Whether or not this is true, the mysteries of the breath continue to amaze us.

There is one documented account of a hatha yogi, Sadhu Haridas, who was voluntarily sealed into a vault by the Maharaja of Punjab at Lahore, India, which is now part of Pakistan, in 1837. This vault was constructed of bricks. The yogi was first sewn up in a cloth bag with no food or water, then put into a wooden box and lowered underground

into the vault, which was sealed with the Maharaja's personal seal and covered with earth. It was guarded 24 hours a day, seven days a week, for a total of 40 days.

At the end of 40 days, the earth was dug away and Haridas was disinterred under the watchful eyes of the Maharaja, his court, and the French and English doctors who had been present at his interment. Within a half-hour of being dug up, Haridas was speaking and animated once again.

On another occasion, he was buried for four months and had his beard shaved off just before the performance. After he was dug up, his face was just as smooth as it had been when he was buried; in his sustained state of suspended animation, his beard had not grown at all. Haridas had learned the secret of cleansing his intestines beforehand as well as understanding how to regulate his breathing like a hibernating animal.

This practice of breath regulation is known as pranayama in yogic circles and also practiced in qi gong and kung fu. In qi gong, the breath is moved in a certain manner to give the student control over the qi. The qi is then directed along pathways called meridians, energizing organ systems and acupuncture points. This even triggers the production of cerebrospinal fluid, as the breath affects the movement of the eight cranial bones of the skull. All this leads, as the ancients believed, to radical life extension.

While there are certainly other factors involved, controlling the breath enables you to move the force of life and vitality contained in the breath around the body, resulting in

health and long life. There are certainly many exercises one can learn, but to begin with, start with mastering the three connected breaths.

Once you feel confident, you can begin to practice breathing through the spot between your eyes, known as the "third eye." Breathe with the same abdominal movements and deep inhalations and exhalations, but imagine it coming not through your nostrils but through the third eye. You'll find it amazing how this simple exercise can give you more control over your physical body and health and also increase your powers of intuition.

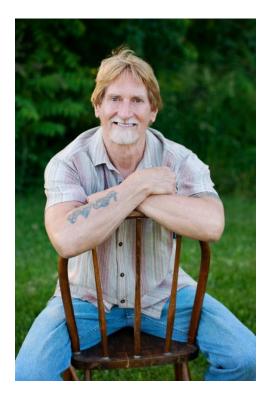
A third exercise is identical to the one I just described, except that you begin breathing from your dan tian, or the area three fingertips below your navel. This is a way the ancients learned to increase their inner strength and remain youthful.

While there's much more to the story than this brief writing can cover, it gives us a glimpse of what might actually be possible. Are the stories of Taoist immortals just fables, or could there possibly be more to them? I personally believe these physical practices can lead to age reversal that can be evidenced by laboratory blood work. This is why I endorse the practice of qi gong as one way of entering the path of abundant health.

If you practice just these three exercises with regularity, you can receive benefits beyond your imagination. May you be blessed with health, long life, and youthfulness!

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Peter Ragnar is an internationally recognized author, with twenty-nine books to his credit. He is known for his heart-based approach to health and organic living. As a spiritual guide and mentor, he assists others in reaching their highest potential. He offers a path to inner development through the practice of qi gong, meditation, and compassion, and helps those seeking his counsel to develop their physical capabilities through exercise and proper diet in order to reach extraordinary levels of vitality.



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