



## Breathing Processing to Help Maintain Health Includes Techniques and Benefits

Gianna Salonga<sup>1</sup>, Vanessa Aunor<sup>1</sup>

<sup>1</sup>Department of Physical Education, University of the East, Philippines

\*Corresponding Author: Gianna Salonga



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### Abstract

Breathing exercises are designed and performed to achieve more controlled and efficient ventilation. The dilation of blood vessels affects blood pressure, which is to reduce the resistance to blood flow, so that blood pressure tends to be normal. Holding your breath also helps to increase your concentration, and stabilizes your emotions. Thoughts and emotions feel more stable and it is easy to concentrate on holding your breath. In breath-holding meditation practice is very helpful in increasing concentration. By holding your breath when the lungs are filled with air or empty, the process of taking oxygen by the blood stops, resulting in a lack of oxygen in the blood. This condition stimulates the blood to form more Hb cells, so that when you inhale, the amount of oxygen absorbed by the blood increases, as well as when you exhale, the amount of CO<sub>2</sub> that is removed is also greater. The holding of breath will also cause a decrease in the amount of oxygen in the body's tissues, which increases the acidity of the body's tissues. The process of moving air in and out of the lungs to facilitate gas exchange with the body's internal environment, primarily by introducing oxygen and removing carbon dioxide. Breathing exercises are designed and performed to achieve more controlled and efficient ventilation.

## Introduction

Breathing is very important for human life, but many people do not pay attention to breathing properly, efficiently and correctly. This way of breathing results in the lungs not working optimally. Most of the lung capacity is unused. One time someone may have taken a deep breath and filled someone's lungs with air, then someone breathes normally again (short breaths), in the person's lungs there will be leftover air which will eventually become stale air which can damage a person's lung cells.

The body's response will trigger the release of the hormone adrenaline, which increases blood pressure and heart rate. Reactions to stress and the release of adrenal hormones are important when someone is in a dangerous situation (Chrousos, 2009). The problem is if someone experiences prolonged stress, the body will continue to release the hormone adrenaline even when someone is not in a dangerous situation. This condition can cause disorders such as hypertension and heart problems.

The part of the lung that is rarely used over time becomes damaged and is no longer able to supply oxygen to the blood. Breath becomes short and short, the body becomes tired quickly, oxygen supply to all parts of the body decreases. As a result, the body becomes weak and susceptible to various diseases. People who do not train how to breathe properly and correctly at the age of 40 years old are getting worse and are prone to various diseases (Bayliss et al.,

2003). Therefore, pay attention to one's breathing, practice one's breathing by following various sports.

There is naturally a mechanism to prevent atelectasis, namely by providing collateral ventilation. Ventilation will be effective during deep inspiration, because on inspiration the pores of the khon open and the air enters the alveolus which obstructs otherwise as long as expiration of the khon lungs closes, positive pressure increases in the obstructed alveolus and helps remove mucus blockage (Schwartzstein & Parker, 2006). This shows that only deep inspiration is effective in causing collateral ventilation into the adjoining alveolus which is blocked so as to prevent atelectasis (Koster & Slebos, 2016). The process of moving air in and out of the lungs to facilitate gas exchange with the body's internal environment, especially by introducing oxygen and removing carbon dioxide (Chaumont et al., 2019). The need for oxygen in the blood, nerves and brain is fulfilled by breathing. Blood absorbs oxygen from the inhaled air and enters the lungs. Blood carries oxygen to all parts of the body where it is needed. Stopping blood flow to the heart or brain due to a clot or blood clot can result in sudden death because the heart or brain cannot meet its oxygen needs.

Breathing exercises are designed and executed to achieve more controlled and efficient ventilation to increase maximum alveolar inflation, increase muscle relaxation, relieve anxiety, get rid of useless, uncoordinated patterns of respiratory muscle activity, slow down the frequency of breathing, and reduce trapped air.

### **Healthy breath processing techniques**

Since thousands of years various martial arts and martial arts colleges in the world, meditation teachers, yoga teachers, priests in India and China have introduced good breathing techniques to their students. This breathing technique continues to be developed and studied by many people today.

If in the past, this breath processing tends to be used to increase the strength of internal power by champions and fighters to defend themselves or fight against enemies. With the changing times where people no longer need physical strength and struggle to survive, nowadays people prefer to use breath processing techniques to improve health and fitness. In general, a person is familiar with various breathing methods, namely abdominal breathing, chest breathing, shoulder breathing and complete or combined breathing (Ley & Timmons, 2013).

#### ***Abdominal Breathing***

Sitting upright, cross-legged or sitting straight on a chair with your legs dangling to touch the floor, your hands resting on your knees. Inhale as deep as possible until it fills the lung cavity. Watch the person's stomach as they breathe. When you inhale, the stomach will expand and on the exhale, the stomach deflates. The habit that is often done without someone knowing it is when you inhale, the stomach deflates and vice versa when exhaling the stomach swells (Pallardy, 2006). Do this belly breathing several times until someone gets used to it. Take slow and long breaths and exhale slowly and long ways until several times. Then also do the inhale and exhale in a rather quick way, several times.

When someone is just starting out, maybe someone will feel awkward because someone is not used to this way of breathing, without someone realizing that someone has been breathing the wrong way all this time. Pay attention to the babies, they breathe with abdominal breathing, when inhaling the stomach is bulging and when exhaling the stomach is contracting. That is good breathing, but somehow as an adult it is slowly being abandoned.

#### ***Chest Breathing***

The method is the same as above, only someone's attention is directed towards the chest. On the inhale the chest is expanded and on the exhale the stomach is deflated. Repeat this way of

breathing several times until a person feels familiar. Without realizing it, most people actually breathe this way, it's just done by inhaling and exhaling short and fast.

### **Shoulders Breathing**

Sitting manner and attitude is the same as stomach and chest breathing, only one's attention is directed towards the shoulders. When you inhale bring the air to get to the shoulders or upper chest, so that the shoulders will rise. When exhaling the shoulders are lowered back to their usual position. Do this breathing method until someone feels normal.

### ***Combined or complete breathing***

On abdominal breathing there is a weakness, namely the air only fills the lower part of the lungs while the upper part is still empty. On the other hand, on chest or shoulder breathing, the air only fills the upper part of the lungs while the lower part is still empty. In order for the air to enter perfectly and fill all the space in the lungs, combined breathing is carried out, namely by combining the breathing technique for the stomach, chest and shoulders at the same time.

Take a sitting position like the three ways of breathing above. Inhale as deeply as possible starting with inflating your stomach, then expanding your chest and lifting your shoulders up. Then exhale starting with deflating the stomach followed by lowering the chest and shoulders. When you inhale someone will feel that the entire space of a person's lungs is filled with air, and vice versa when exhaling, one's lungs will be completely emptied. This is a good and perfect way of breathing, do this over and over again until one feels normal. Take slow inhalations and exhales and display a few times. Then do the same for the inhalation and exhale quickly.

### **Tempo inhale and exhale**

In order for the energy obtained from breathing to be truly maximal, it requires good and perfect contact between the blood and the oxygen that enters the lungs. In breathing techniques a person recognizes continuous or continuous breathing and interrupted breathing. In continuous breathing, inhaling and exhaling is carried out continuously and continuously should not be stopped by holding the breath. This continuous breathing is commonly found in Thai chi breathing exercises and meditation. The breath is drawn and exhaled smoothly and slowly, so that the contact between the blood and oxygen in the lungs can take place perfectly.

Conversely, in interrupted breathing, between inhaling and exhaling is interspersed with intervals of holding your breath. Holding your breath is done when the lungs are filled with air or when the air in the lungs is completely empty. The breath is drawn gently and slowly for a few counts until the air fills the entire lung space, then is held for a few counts, then exhaled gently and slowly for a few counts, and is held in an empty lung for a few counts as well, then returns to the withdrawal breath as before. The length of breath holding is usually half the time spent inhaling and exhaling. For example, inhaling and exhaling for a count of 10, then the length of holding the breath is for a count of 5. This method is usually done in yoga, meditation and silat practice to generate inner energy.

### **The benefits of holding breath**

No matter how much air the lungs breathe, if the number of Hb cells in the blood is not enough, the blood's ability to absorb oxygen and distribute it to all parts of the body will also decrease. Besides increasing the ability of the lungs to breathe air from outside, the amount of Hb in the blood also needs to be increased. Increasing the amount of Hb in the blood can be done with breath holding techniques (Dantzker et al., 1975). Tempo inhale and exhale

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### **Conclusion**

Good and correct breathing will make the body healthy and fit, not susceptible to various diseases. Breathing exercises will do more than just these two things. The ability to control breath will help a person reduce stress and improve certain functions in the body. The main benefit of breathing exercises is stress control.

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