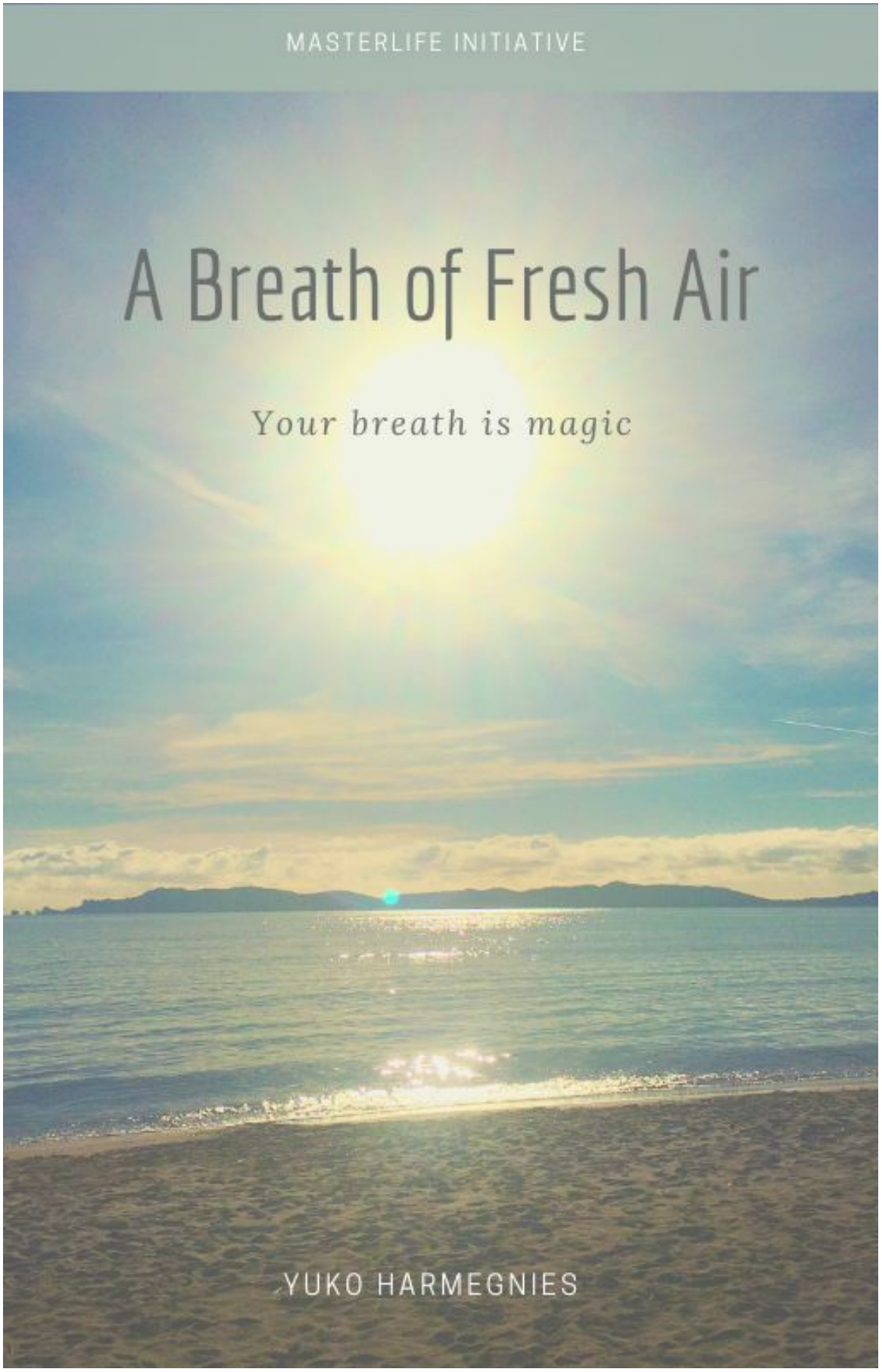
MASTERLIFE INITIATIVE
A Breath of Fresh Air
Your breath is magic
YUKO HARMEGNIES

Dear Friends,

Welcome to a Breath of Fresh Air!

Learning how the breath works has metamorphosed my life and I am dedicated to sharing this information with as many people with as many people as possible. I hope it will help you too! Feel free to share with all those who may appreciate it!

Stay Magic,

Yuko x

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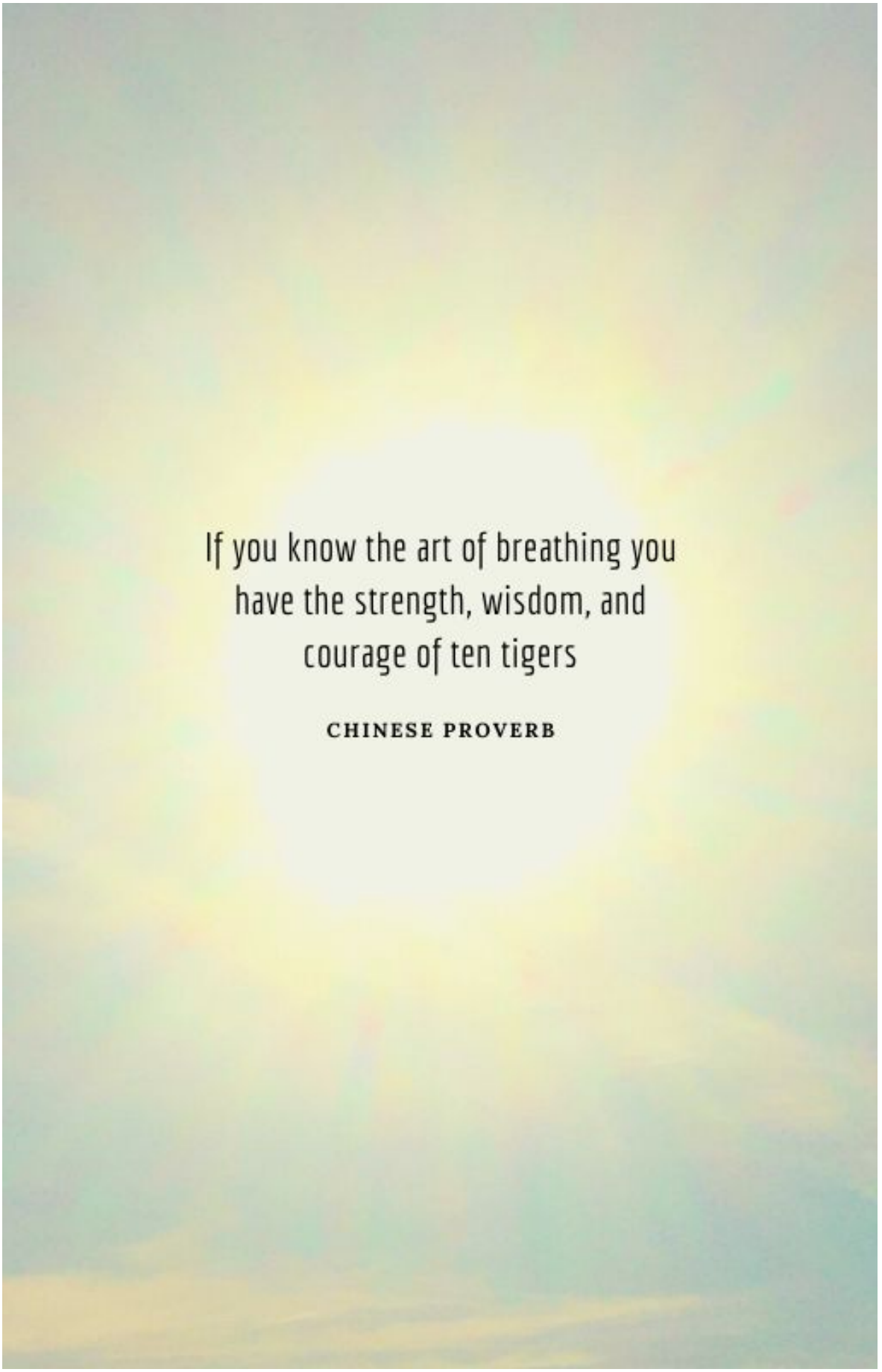

If you know the art of breathing you
have the strength, wisdom, and
courage of ten tigers
CHINESE PROVERB

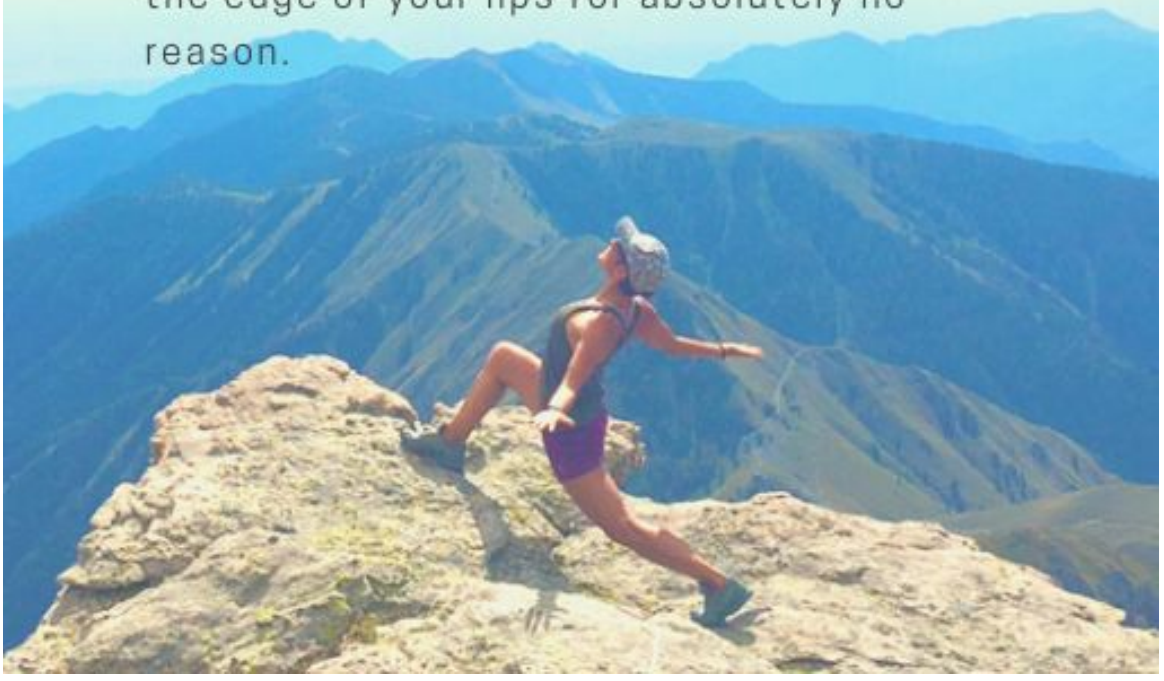
BREATHE, C'EST SI BON

OFFER YOURSELF A BREATH OF FRESH AIR

Take a sigh of contentment - one just like when you are marvelled by something ot just like the one you take when you are happy with yourself.

Then go ahead and take another...

...and another. Then let setlle a smile on the edge of your lips for absolutely no reason.



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Introduction

Life starts and ends with a breath. The breath affects the nervous system, the heart and the digestive system as well as muscles, sleep, energy levels, concentration and memory.

Learning how to oxygenate ourselves better is essential to influencing our wellness on a day to day basis. Being well oxygenated can relax muscular and psychological tensions, fight stress and anxiety and lead us to more zenitude.

So let us breathe, our bodies are so miraculous, it truly deserves a breath of fresh air!

The biomechanics of respiration

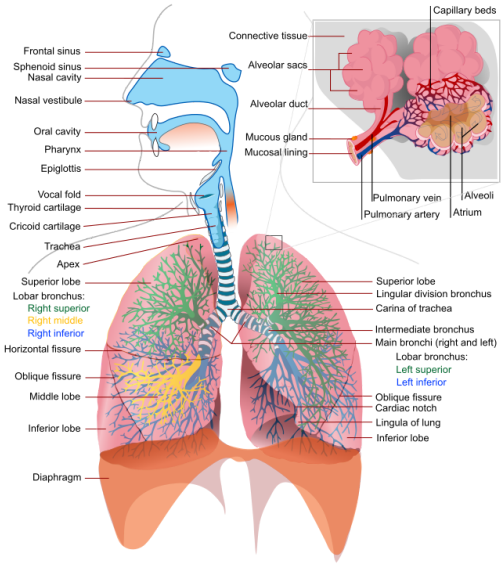
The phases of the breath

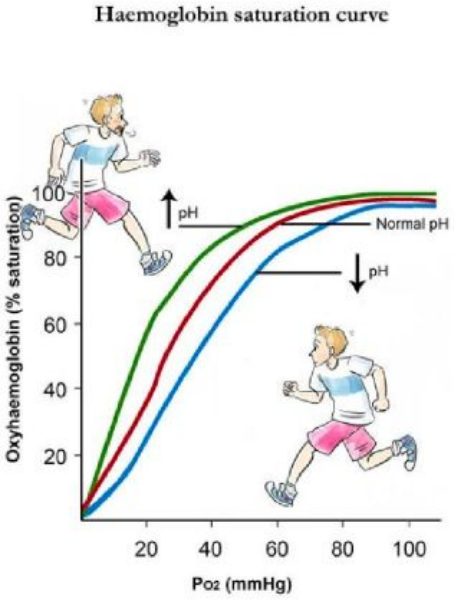
Upon breathing in, air enters through the lungs, and oxygen attaches to red blood cells in the blood. The heart pumps blood, red blood cells carry oxygen throughout the body. However, oxygen in the blood by itself is useless, it is necessary that the oxygen is transferred into the cells. For this exchange to take place, the cell must have carbon dioxide that is generated in exchange. If there is not enough carbon dioxide, the brain will find that this precious source of life will be better served in primary places such as the heart and brain.

During inhale the diaphragm pulls down to draw in air, and relaxes upwards on the exhale using the dorsal intercostals as well as the transverse and obliques. This movement is essential for organ health. The diaphragm pushes the digestive organs down slightly on the inhale thousands of times a day essential for our daily health and wellness.

Chemical processes of respiration

Our weight is equal to the number of cells in the body and all cells need to be oxygenated from moment to moment. Aerobic respiration (also known as cellular respiration) allows organisms to release energy stored in the cells. We remove up to 70% of waste through the breath (the rest is made up of 20% through the skin and 10% from kidneys and digestion). The air we breathe consists of 20.95% Oxygen, 78.08% Nitrogen, 0.03% Carbon Dioxide and 0.93% Argon. In the human bloodstream optimal health is attained around 95%-96% of O2 and 4%-5% CO2. O2 is relatively insoluble in blood, so just breathing is not enough to ensure adequate oxygenation of the body. O2 is transported by a protein molecule called Haemoglobin. 4 O2 molecules are attached to each Haemoglobin and remain attached until there is sufficient CO2 to release them. It is only through this release that O2 will circulate into tissues and muscles. This process of release is known as the Bohr effect.





What is CO2 and why is it important?

Carbon dioxide or CO2 is a gas created from our metabolic process as an end product. The human lungs require 5% CO2 or 40 mmHg. If we breathe too heavily, CO2 is exhaled or washed from our lungs. A loss of CO2 from the lungs results in a reduction of CO2 in the blood, tissues and cells.

The release of oxygen from red blood cells depends on the partial pressure or quantity of carbon dioxide in your lungs/arterial blood. When one is overbreathing, carbon dioxide is removed from the body, causing the oxygen to "stick" to haemoglobin within the red blood cells. This prevents its release into tissues and organs.

It is worth noting that during normal conditions, 75% of your intake of oxygen is exhaled while breathing a healthy volume of four to six litres per minute. Even during intense exercise, it is estimated that 25% of our oxygen intake is exhaled. Breathing a volume greater than normal does not increase the amount of oxygen in your blood, as it is already 97–98% saturated.

Carbon dioxide relaxes the smooth muscles that surround the airways, arteries and capillaries.

With a normal breathing volume of 5 litres of air per minute, the partial pressure of carbon dioxide amounts to 40mmHg. Each 1 mmHg drop of arterial CO2 reduces blood flow to the brain by 2%. *In other words, oxygenation of your brain significantly decreases when you breathe heavily.* The heavier you breathe, the more you feed your hyperventilation or overbreathing related problems. On a physiological level, over-breathing leads to LESS usable oxygen in the body!

- Have you ever noticed that you get light-headed after taking a number of big breaths?
- Have you ever noticed being very tired in the morning after a night's breathing through the mouth?
- How tired are you after a day's talking?
- Do you notice that, as you get stressed, your breathing gets faster, resulting in a mental block and difficulty in making worthwhile decisions?
- Heavy breathing feeds anxiety and stress.

Nose vs mouth breathing

Yoga masters know "A yogi only breathes with his nose and eats with his mouth". Some believed a devil jealous of a yogi's powers would enter an open mouth. This is a contentious issue for many, including those in the medical world. Yoga has always used nose breathing as a key principle for physical and emotional health. Nose-breathing key benefits:

- The nose filters, warms and humidifies the air we breathe before it enters the body
- Breathing with the nose encourages belly-breathing, effectively switching on the Parasympathetic nervous system
- The nasal cavity produces Nitric Oxide, a key component to relaxed oxygen diffusion
- Reduction in breaths per minute, aiding in O2 and CO2 balance and reducing fatigue and stress

"Are there any benefits to breathing with the mouth ?"

Yes, but only in extreme situations. If we are forced to flee from an oncoming car when crossing the road or in another situation where our life is at risk we need to instantly turn on our proactive Sympathetic nervous system and save ourselves.A typical response to danger is a sharp mouth inhale into the chest (a gasp), dilating of our pupils (night vision), instant heart rate increase, adrenalin spike and at times, an emptying of our bowels.These responses are activated by a sharp inhale and will potentially save our life.

This becomes a problem when we continually breathe with our mouth into our upper chest, permanently activating our Sympathetic nervous system, leaving us fatigued, irritable and over a long period of time susceptible to physical and mental ailments.

Les exercices

UNBLOCKING THE NOSE

A blocked nose can also prevent good access to the nasal breath. When the nose is blocked, we have a tendency to breathe through the mouth.

- Take a small breath in, take a small breath out and at the end of the exhale hold your breath
- Pinch your nose to keep air out of the lungs
- Nod your head 10 times
- Repeat 3 times

THE PHASES OF THE BREATH

This practice is also called "cardiac coherence". It helps you learn to balance your breathing.

- INHALE - Breathe in slowly on the count of three
- HOLD - Hold the breath on the count of three
- EXHALE - Exhale slowly on the count of three
- HOLD - Hold the breath out on the count of three

CARBON DIOXIDE EFFECT

- Inhale on the count of three
- Exhale on the count of six (if too hard, decrease to four)
- Repeat ten times
- Gently hold the end of the exhalation
- And hold your lungs empty, softly
- Tip: lower the chin to lengthen the neck and lift the chest
- While holding the lungs empty, do you feel:
- Heat ?, Saliva in the mouth?
- To welcome the inhale, lift your chin and let the air come in naturally

Stay Magic,

Yuko x

Masterlife Initiative

2020