

*Dr. Anuja Sharma
& Randi Stone.*

Breathe Better, Live Better

Improve your health and well-being.

PACE talks
July 23, 2025



Overview— breathe

Lets learn about the breath, body and brain connction.

01

Breath Why
& How

03

Carbon
dioxide

02

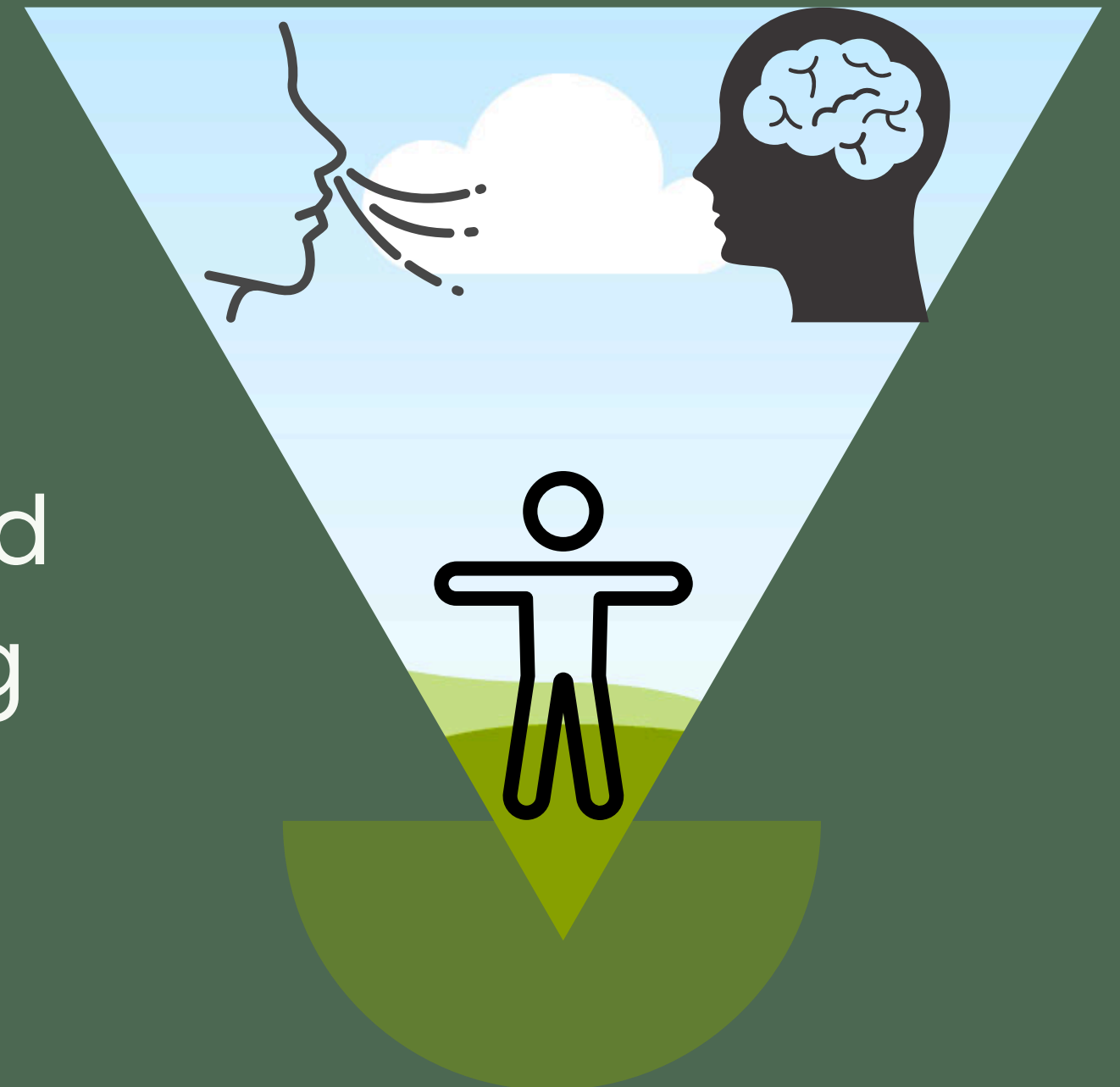
Nasal
Breathing

04

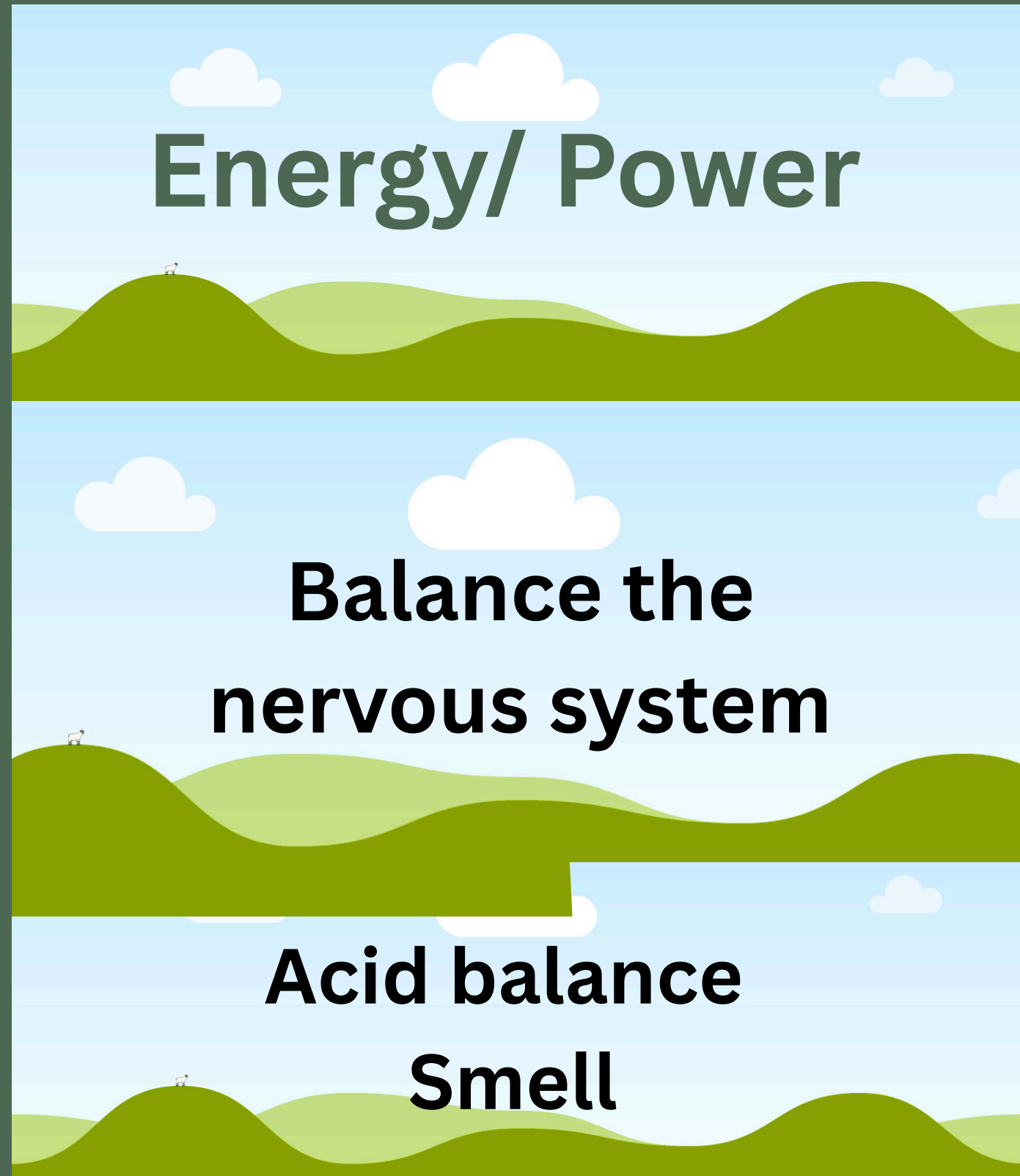
The
Diaphragm

05

Brief
structured
breathing
exercise.

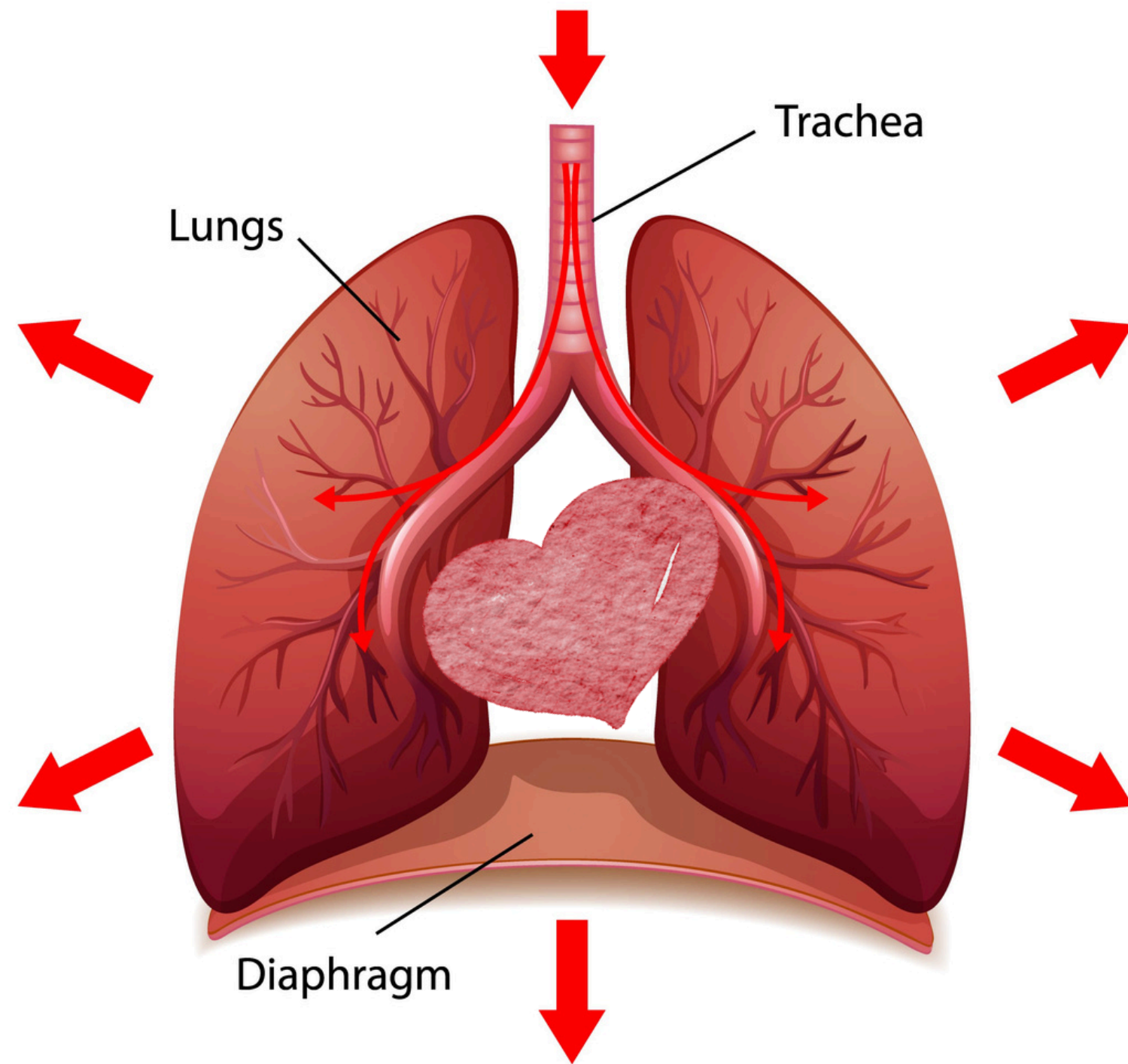


More than just in and out-



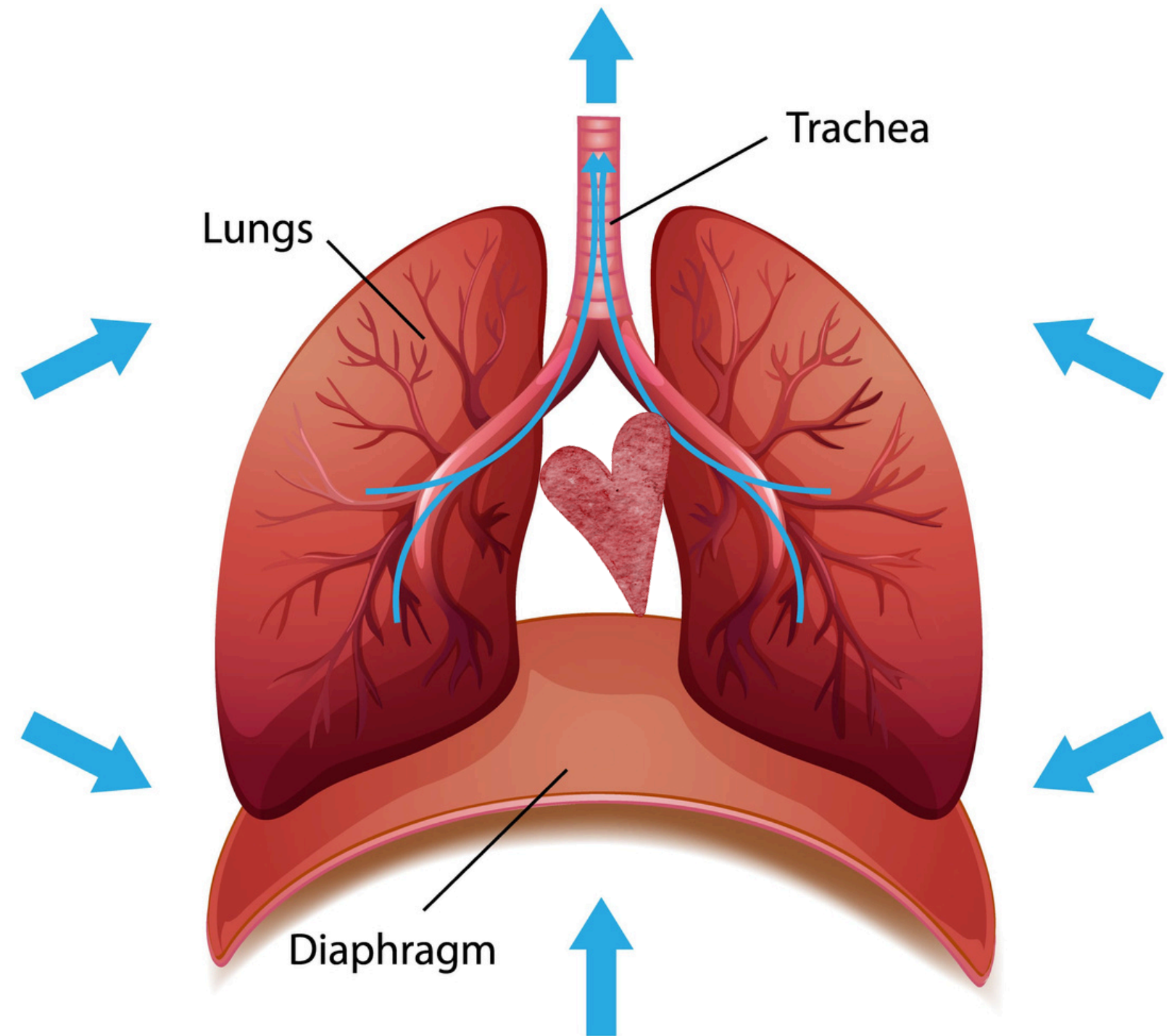
BREATHING

Breathing in



Inhalation

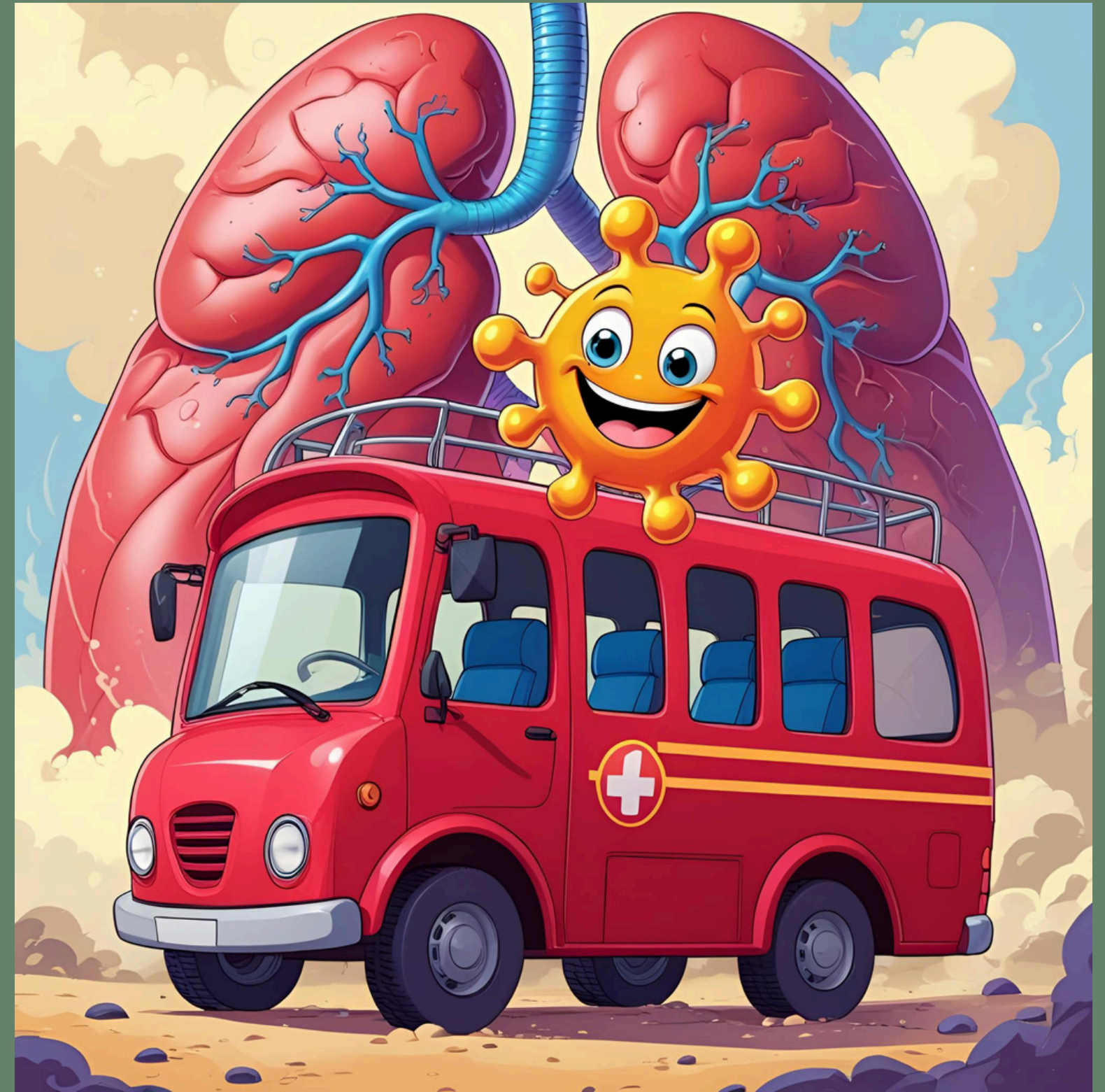
Breathing out



Exhalation

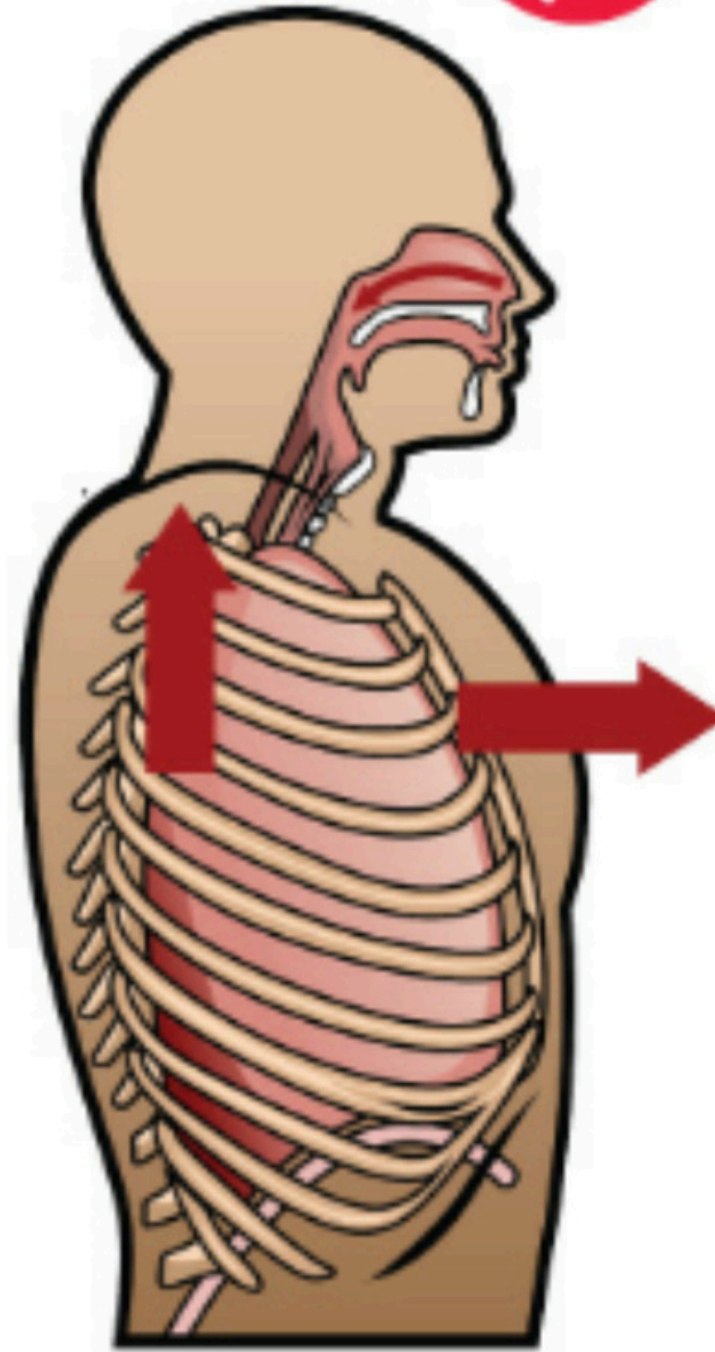


The Oxygen Express

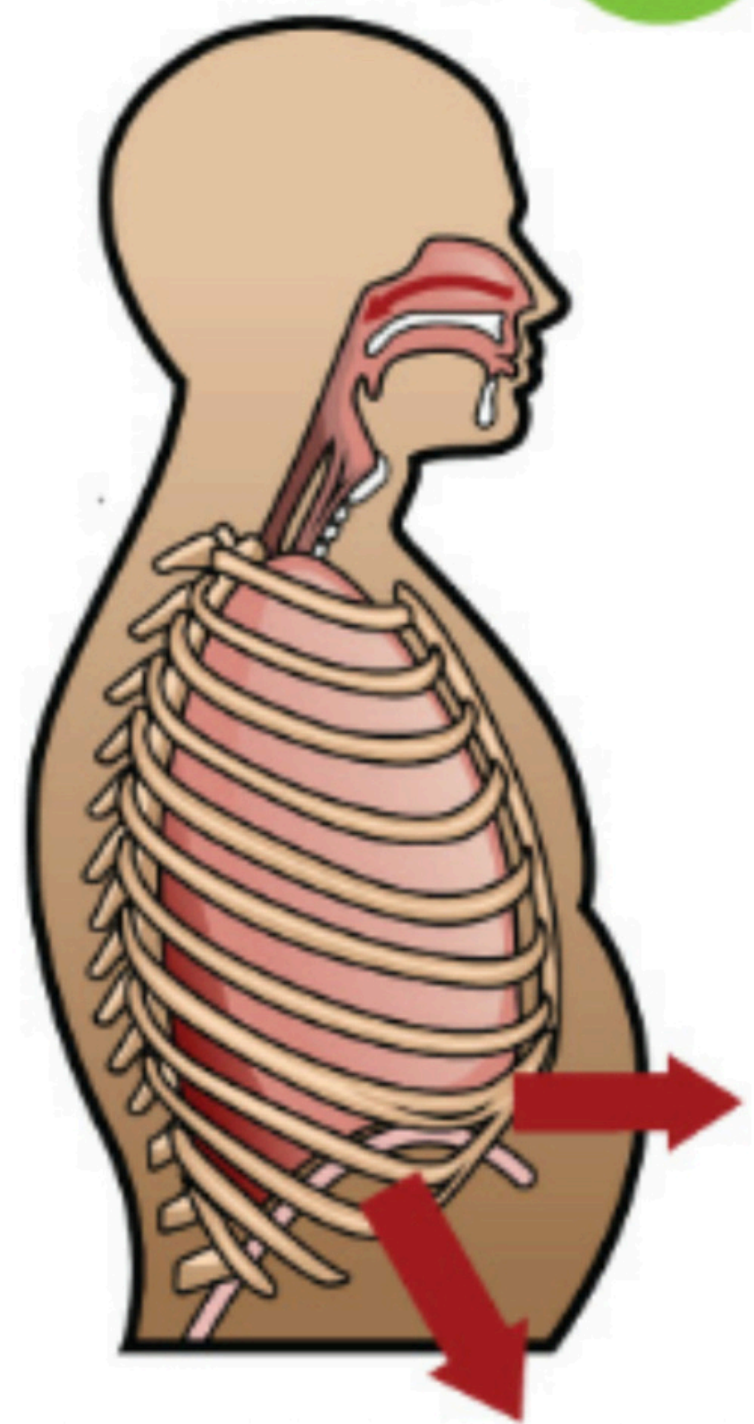




Upper Chest
Breathing



Belly
Breathing



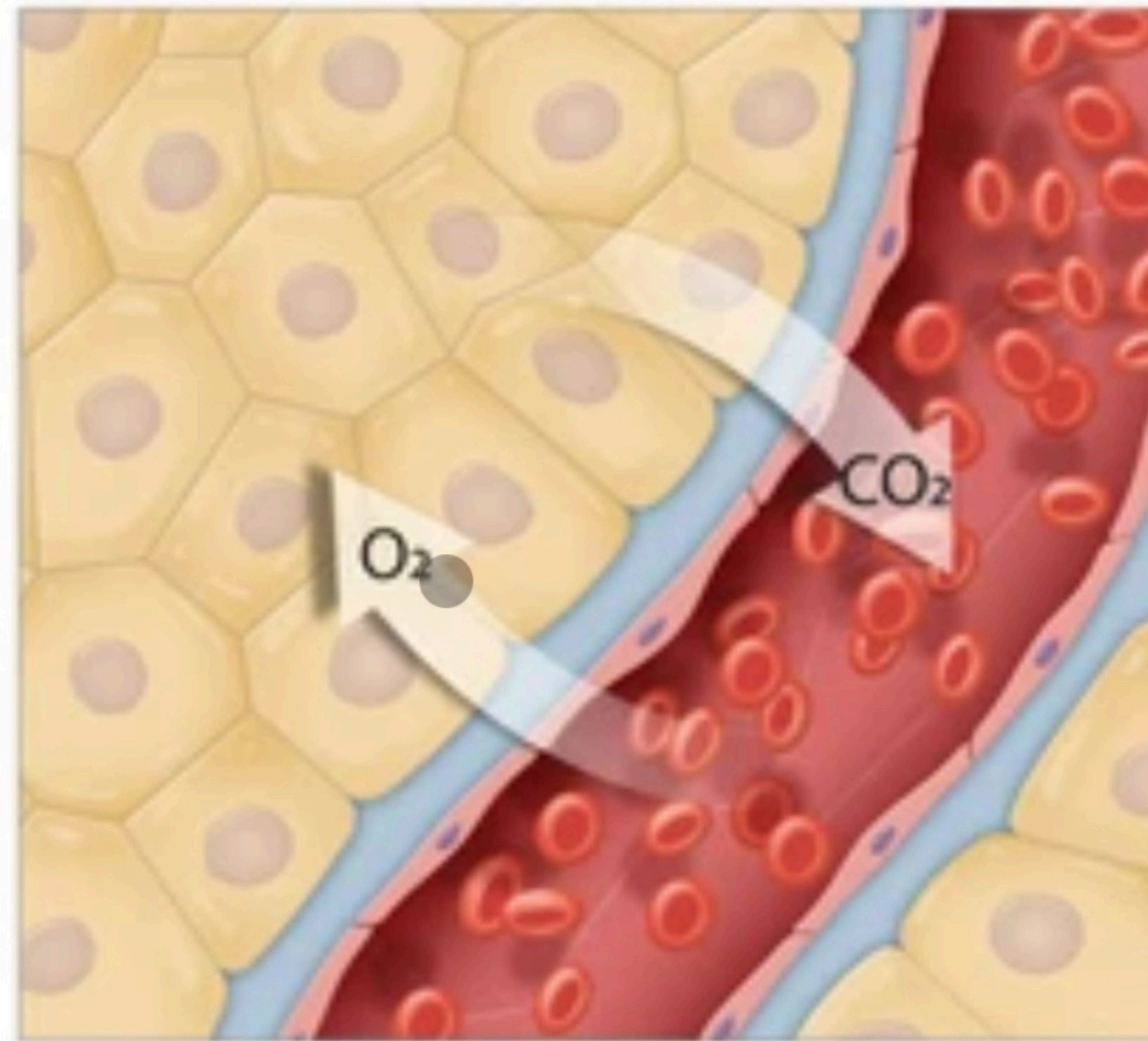
Carbon dioxide- the key to health



Fit Mind



Internal respiration



Systemic

Fit Body



Why Nasal Breathing?

Moisturize
Cool/warm air
Pressurize

Nitric oxide
Disinfect/filter air

Helps engage the diaphragm





Rest and Digest Parasympathetic

Fight or Flight Sympathetic

Decreased Alertness

Constricted Pupils

Slow & Deep Breathing

Decreased Heart Rate

Stimulated Digestion

 Decreased Muscle Tone

Increased Alertness

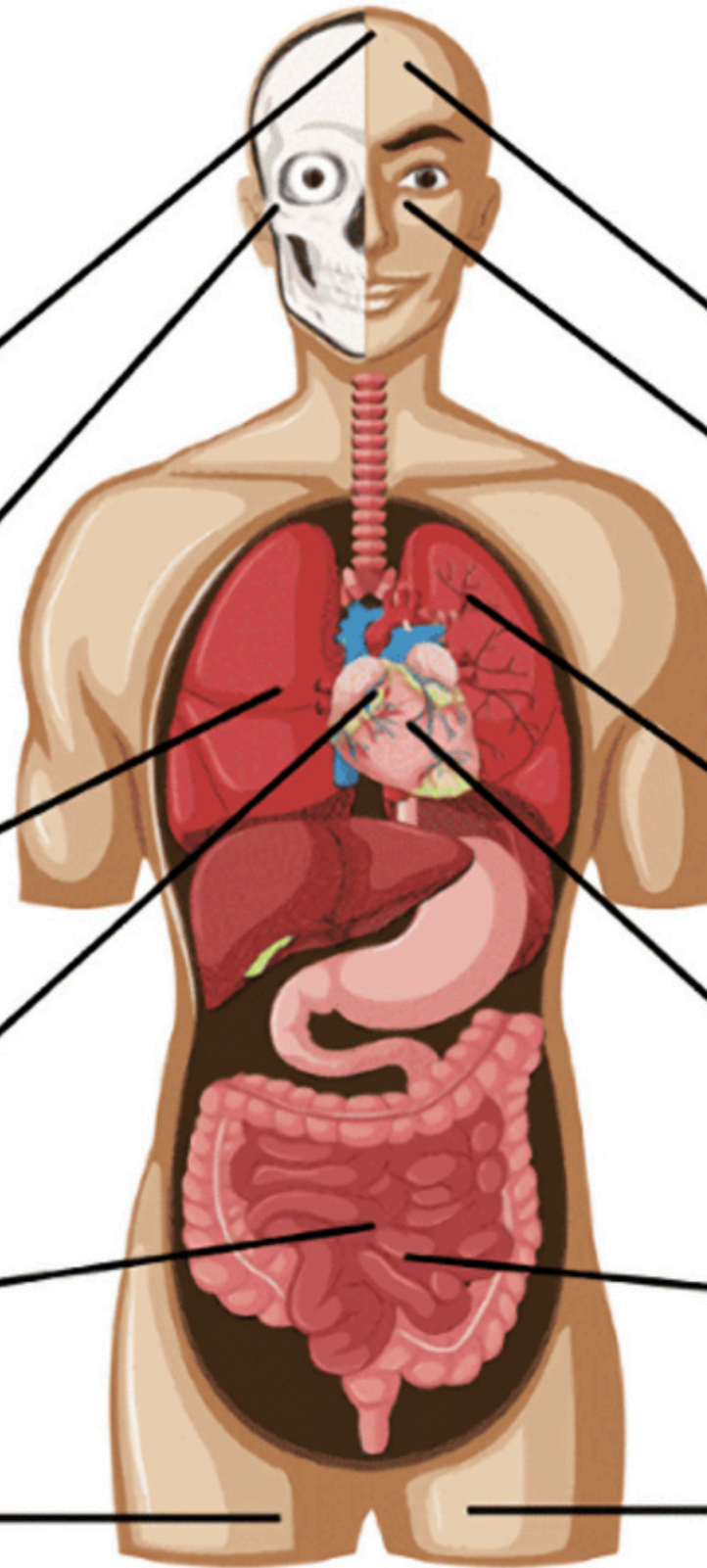
Dilated Pupils

Increased Breathing

Accelerated Heart Rate

Inhibited Digestion

Increased Muscle Tone



REST & DIGEST RESPONSE



PUPILS
CONSTRICT



SLOW & DEEP
BREATHING



MUSCLES RELAX



HEART RATE
DECREASES



CELLS REPAIR
& REGENERATE



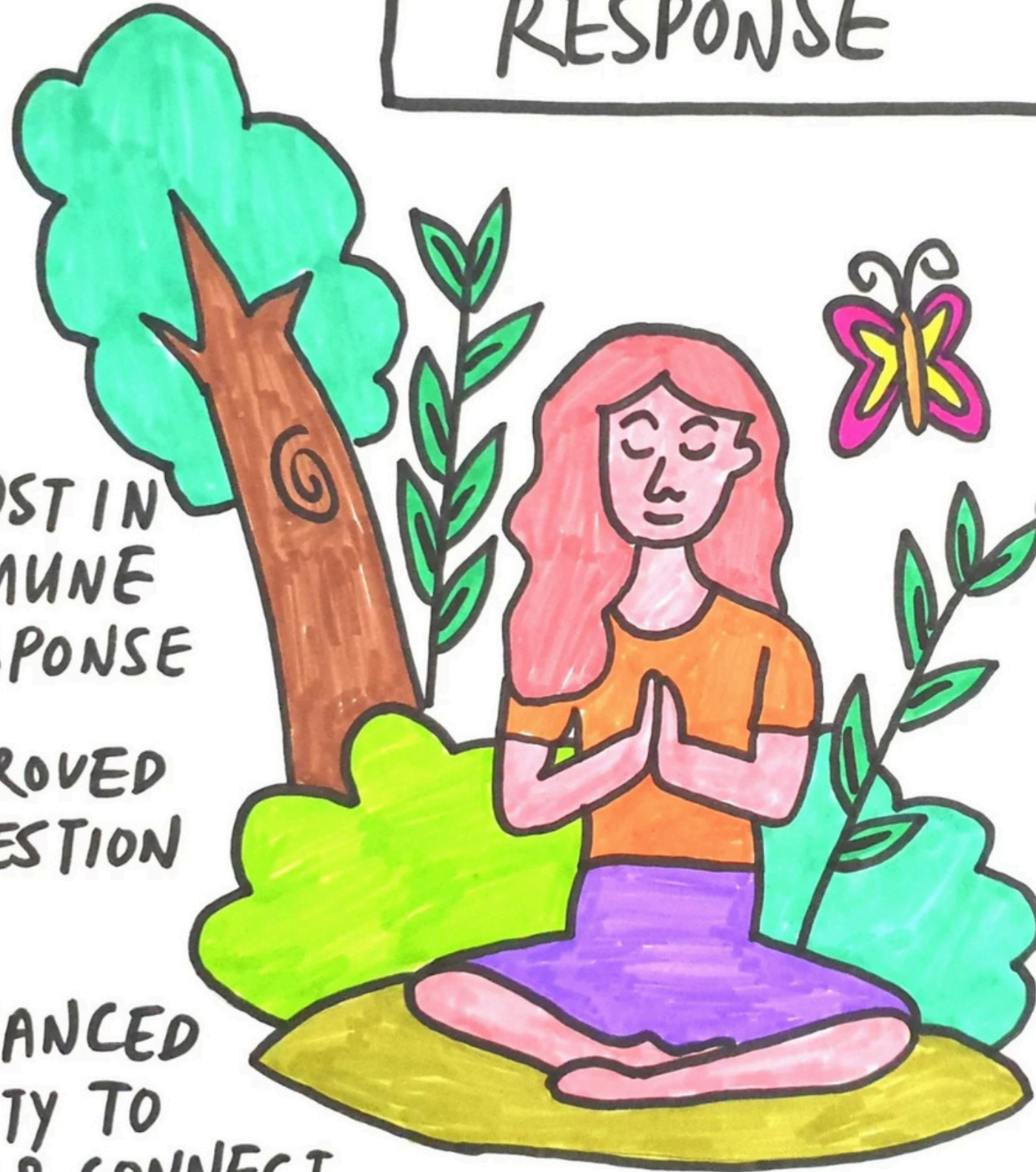
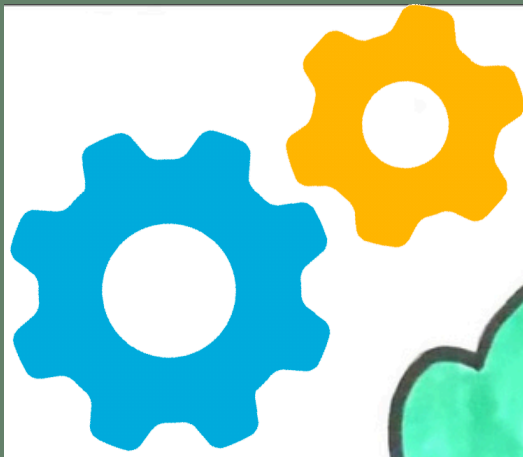
BOOST IN
IMMUNE
RESPONSE



IMPROVED
DIGESTION

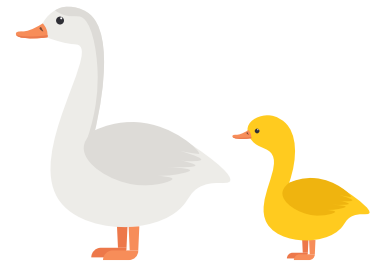


ENHANCED
ABILITY TO
RELATE & CONNECT
WITH OTHERS



Breathing for Wellness

1



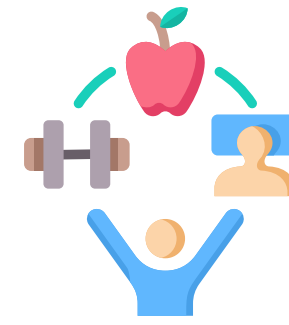
**Start small- dont
force. Build
awareness and
consistency.**

2



**Consider
underlying health
conditions- check
with your doctor.**

3



**Complement to
nutrition, sleep,
exercise and
social
connection.**

Breathe slow

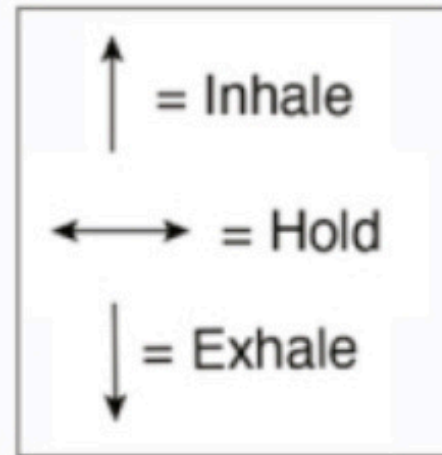
Breathe low

Nose for breathing

Cultivate awareness

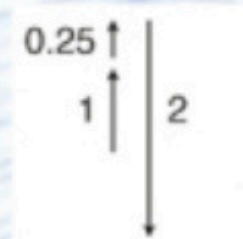
Humming

Brief Structured Breathing Exercises

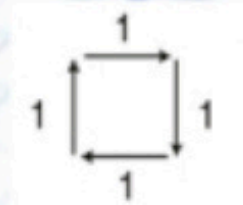


Daily Practice (5 min)

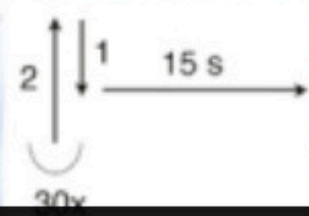
Physiological Sighing



Box Breathing



Cyclic Hyperventilation



Lowered
Respiratory
Rate

Improved
Mood





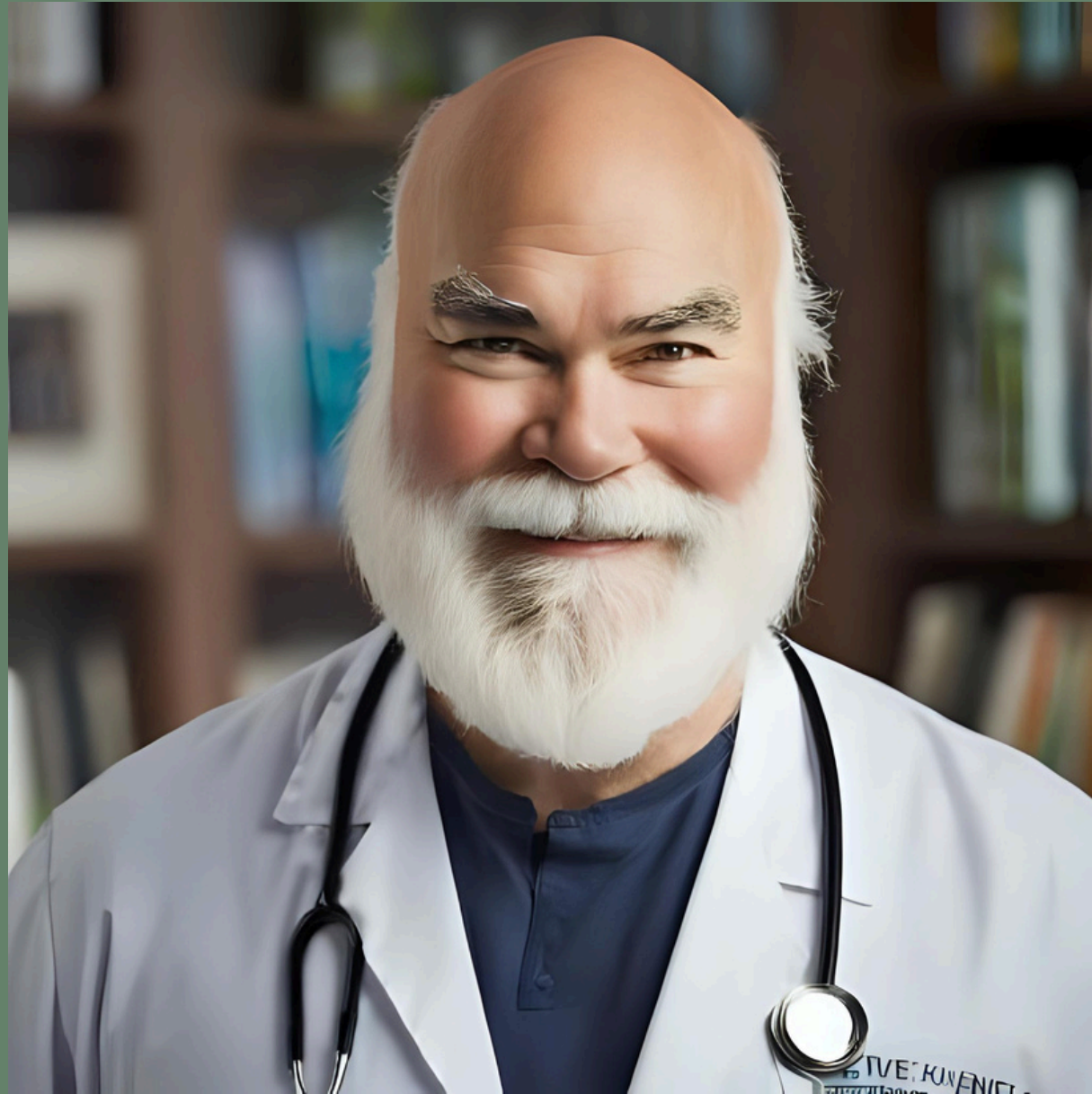
Take a breath in through the nose till
lungs are comfortably full

Take a second smaller breath using
chest muscles

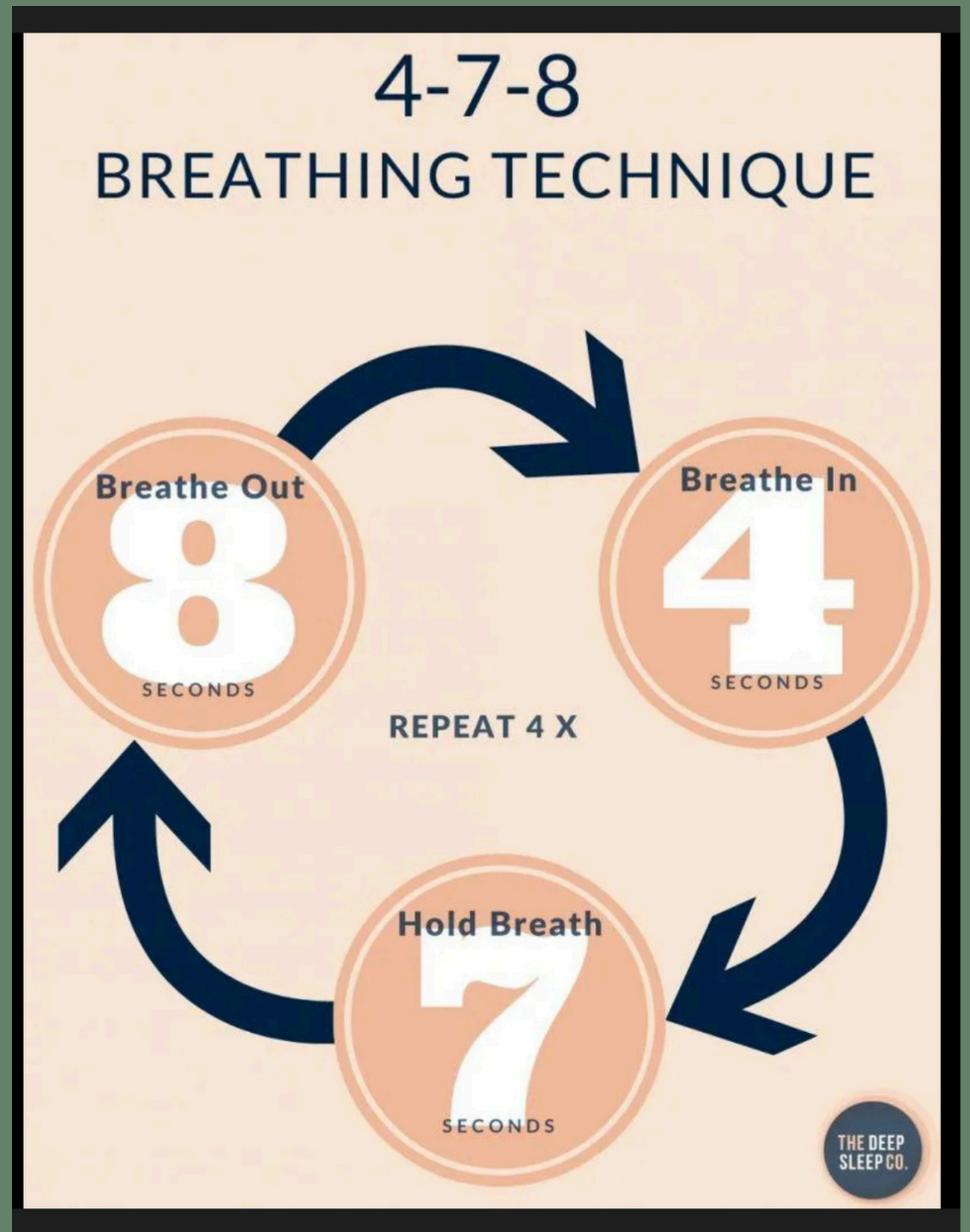
Pause and exhale
slowly through the
mouth/nose.

**Cyclic Signing for 5
minutes daily**





Dr. Andrew Weil



References

<https://pmc.ncbi.nlm.nih.gov/articles/PMC11048276/>

<https://www.nature.com/articles/s41598-021-04461-8>

<https://bmcrenotes.biomedcentral.com/articles/10.1186/s13104-017-2625-6>

<https://pmc.ncbi.nlm.nih.gov/articles/PMC9873947/> t

Patrick Mckeown: The Oxygen Advantage. The book.

[https://journal.chestnet.org/article/S0012-3692\(15\)52391-X](https://journal.chestnet.org/article/S0012-3692(15)52391-X)

<https://clinicaltrials.gov/ct2/show/NCT05304000>



Thank
you!

*MAY YOUR EXHALES BE LONG
AND LIFE BE FULL OF MOMENTS
THAT TAKE YOUR BREATH AWAY.*

Useful Resources

https://youtu.be/gz4G31LGyog?si=AtgaRE-era_JE15d

<https://youtu.be/lBJ2z4PxVt0?si=iEfOMeJQdDTY2JTN>

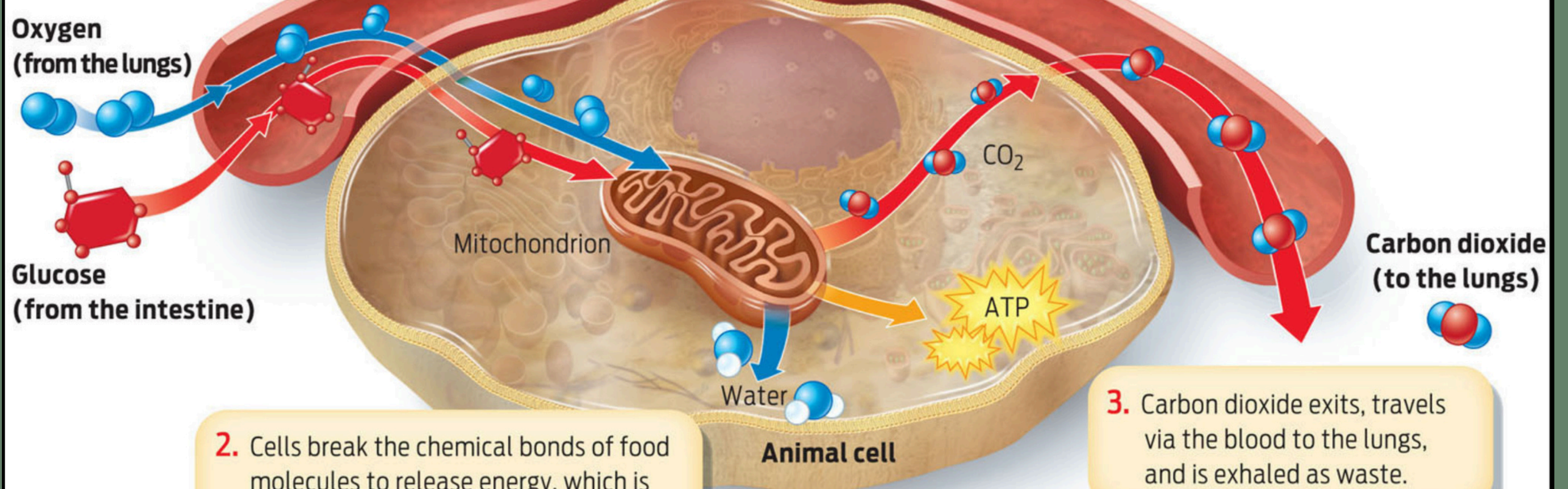
<https://youtu.be/tKaUEVnducl?si=WXvSNMCm6Bjdr91A>

<https://www.youtube.com/watch?v=DTW1HUPNLhU>

<https://www.youtube.com/watch?v=vpvPm5U4LqE>

<https://buteykoclinic.com/blogs/buteyko-breathing-technique/buteyko-breathing-technique>

1. Blood that circulates throughout the body delivers oxygen from the lungs and food-derived subunits from the small intestines to the body's cells.



2. Cells break the chemical bonds of food molecules to release energy, which is used to make ATP. Water and carbon dioxide are produced as waste products.

3. Carbon dioxide exits, travels via the blood to the lungs, and is exhaled as waste.

Inputs



Glucose
 $C_6H_{12}O_6$

+



Oxygen
 O_2



Outputs



Energy
ATP

+



Carbon dioxide
 CO_2

+



Water
 H_2O