TOMRICHTER.YOGA

The Six Principles of Conscious Breathing

1. Erect Posture - the joy of alignment
2. Breathe low using primarily your diaphragm
3. Breathe always through your nose
4. Breathe rhythmically
5. Breathe slowly
6. Breathe small/minimal

Commitment

→ I am having fun!
→ I take the responsibility to how I think, feel, and act and what happens in my life
→ I go into gratitude
→ I forgive and let go
→ What can I do right now to feel and breathe better?
→ Acknowledge and celebrate your successes

STEP 1 BREATHING AND HEALTH INDEX QUESTIONNAIRE

Learn more about your current breathing habits by answering the 20 questions in the *Breathing and Health Index Questionnaire* below. These questions will help you assess your own breathing and become aware of how well your airways work. Blocked airways, over-breathing, and irregular breathing are all factors that can cause seemingly unrelated health problems. Hence, there are questions relating to health issues such as stomach problems, for example.

Choose the option that best describes your current health status. All questions refer to the past month.

		Very Often	Often	Sometimes	Rarely	Very Rarely
01	Overall health: My health status is poor	1	2	3	4	5
02	Insomnia, restless sleep, snoring, sleep apnea, grinding/clenching teeth	1	2	3	4	5
03	Low on energy, morning tiredness, tired during the day, poor concentration	1	2	3	4	5
04	Heart palpitations, extra heart beats, high pulse (above 75) and/or irregular heart beats	1	2	3	4	5
05	Internal stress, brain in overdrive, in a hurry, sugar cravings, addictive tendencies	1	2	3	4	5
06	Feeling anxious, depressed, afraid, worried, avoiding conflicts, "people pleaser"	1	2	3	4	5
07	Irritated, angry, impatient, end up in conflicts, over-ambitious	1	2	3	4	5
08	Indigestion, constipation, overeating	1	2	3	4	5
09	Stiff and/or tense muscles, pain in the back/neck/shoulders, headache	1	2	3	4	5
10	Shortness of breath during exercise, lactic acid/ low endurance at physical work	1	2	3	4	5
11	Open mouth, mouth breathing, dry mouth, dry lips	1	2	3	4	5
12	Stuffy/runny/itchy nose, sinus congestion, narrow nasal passages, recurrent colds	1	2	3	4	5
13	Lump sensation in the throat, difficulty swallowing, irritated throat, sensitive airways	1	2	3	4	5
14	Shallow breathing, difficulty breathing with my diaphragm (abdominally)	1	2	3	4	5
15	Over breathing (hyperventilation/fast breathing), heavy breathing - difficulty getting air, chest tightness	1	2	3	4	5
16	Sneezing, sighing, yawning, taking big breaths prior to speaking	1	2	3	4	5
17	Daytime apnea/holding breath, forgetting to exhale	1	2	3	4	5
18	Noisy breathing, mucus, clearing of throat, coughing, sniffling, wheezing	1	2	3	4	5
19	Forward leaning and/or slumped posture	1	2	3	4	5
20	The voice does not carry, hoarseness, squeaky/nasal/strained voice	1	2	3	4	5

TOTAL:

STEP 5 BREATHING HABITS IN EVERYDAY LIFE

During the 28-Day Breathing Retraining, once each week (day 7, 14, 21 and 28) you should write down the situations and emotions that you realize trigger stressed breathing, i.e., fast breathing, irregular breathing, breathing apnea, shallow breathing, mouth breathing or noisy breathing — coughing, clearing of throat, blocked nose, sniffling, etc.

Enter a number between 1 and 5 that you feel best represents how stressed/poor your respiration has been during the week

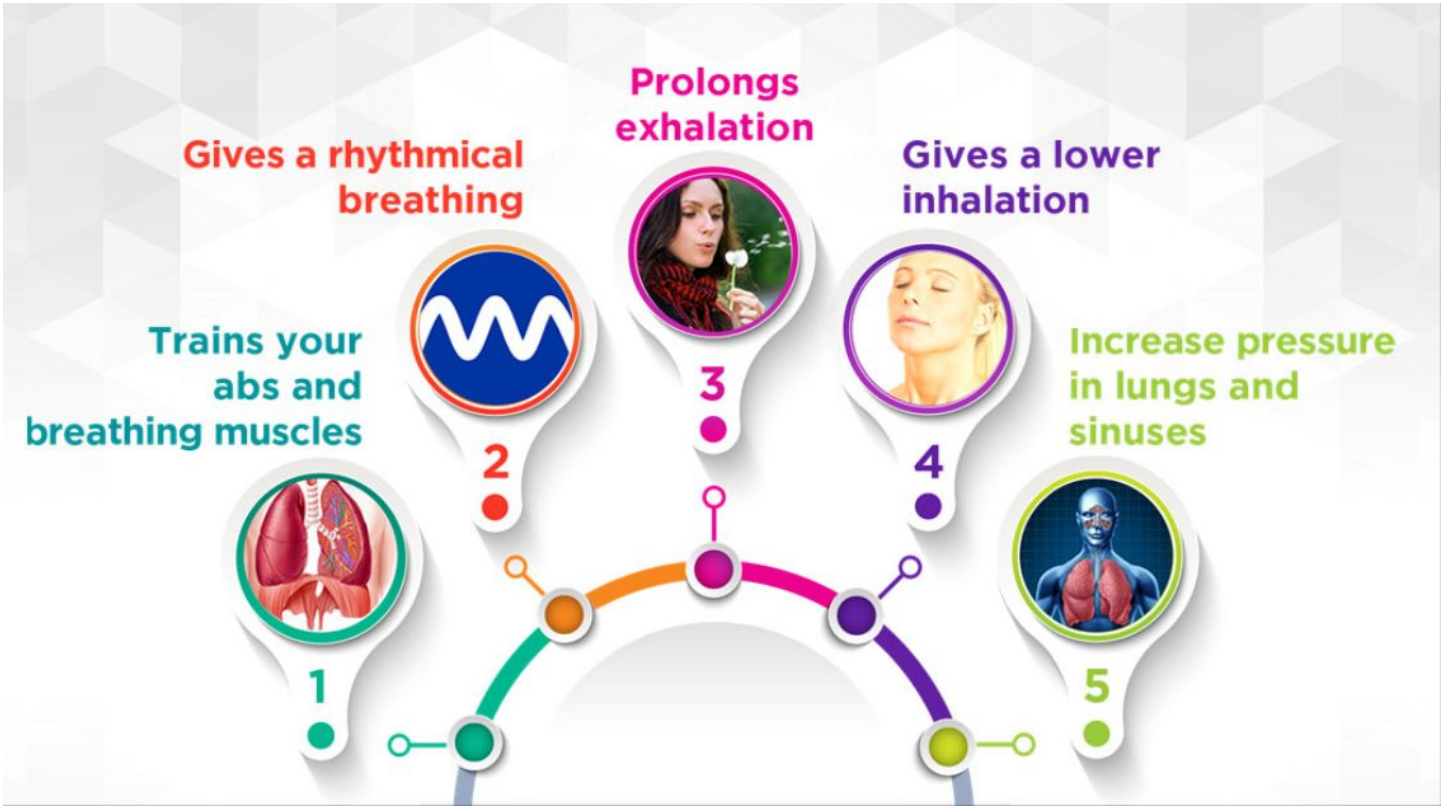
1 very often | 2 often | 3 sometimes | 4 rarely | 5 very rarely

MY BREATHING IS POOR WHEN I:		WEEK 1	WEEK 2	WEEK 3	WEEK 4
01	AM DRIVING				
02	DO HOUSEWORK				
03	CONCENTRATE				
04	DO PHYSICAL ACTIVITY				
05	AM TALKING				
06	USE THE COMPUTER				
07	WATCH TV				
08	AM SLEEPING				
MY BREATHING IS POOR WHEN I GET:					
09	ANGRY, IRRITATED				
10	DEPRESSED, SAD				
11	STRESSED				
12	AFRAID, WORRIED				
	TOTAL				

The maximum score is 60. A high score indicates that you have good breathing habits in everyday life. A score below 25 indicates that improving your breathing in different situations and when experiencing different emotions can benefit you greatly.

TIPS: In the beginning it may be advantageous to set an alarm to go off a few times per day as a reminder to pay attention to your breathing.

Advantages of the Relaxator



When to use the Relaxator

→ Everytime you start a new activity (that allows for the relaxator to be used)
→ During times of high stress
→ Low Energy
→ Pain
→ Asthma
→ Anxiety
→ Cough
→ Low Energy

How to use the relaxator

→ Set a suitable resistance - no competition here

→ Hold it with your lips - not with your teeth

→ Inhale through nose, out through Relaxator/Mouth

→ Focus on exhale

→ Let the air in on inhalation

→ Relax, shoulders remain still

→ Do not use it: when you are tired but driving

Risks?Issues?

→ If you have sensitive skin,

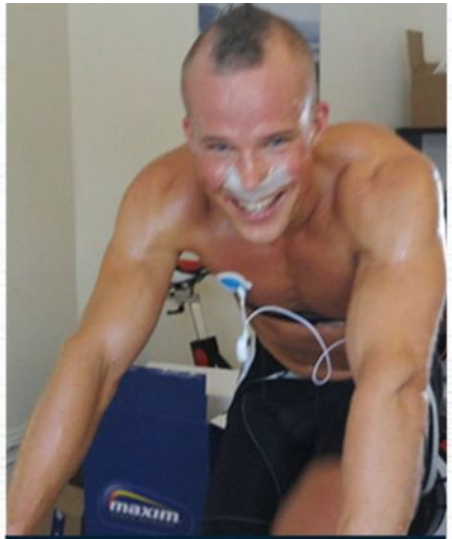
- Drink water and mildly moisten the lips,
- Put the tape against the pillow a few times
- Tape from your nose to the chin
- Slightly fold in your lips
- Put on some coconut oil
- Fold the tape ends - easier to take it off in the morning
- Take off: Moisten lips, push out tape from within, or even soak tape in water

Feedback Physical Exercise with closed mouth

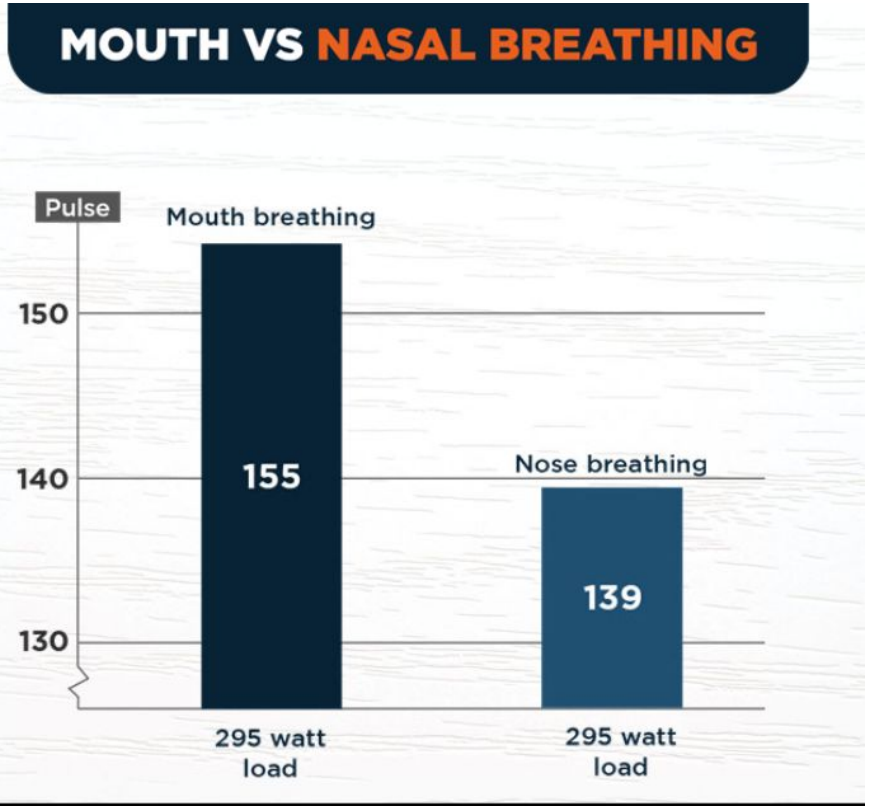
Mattias Andersson
former Nordic Tae Kwon Do champion, asthmatic

- Mouth: Asthma
- Nose: No asthma
- Higher load
- 26% fewer breaths

Feedback Physical Exercise with closed mouth



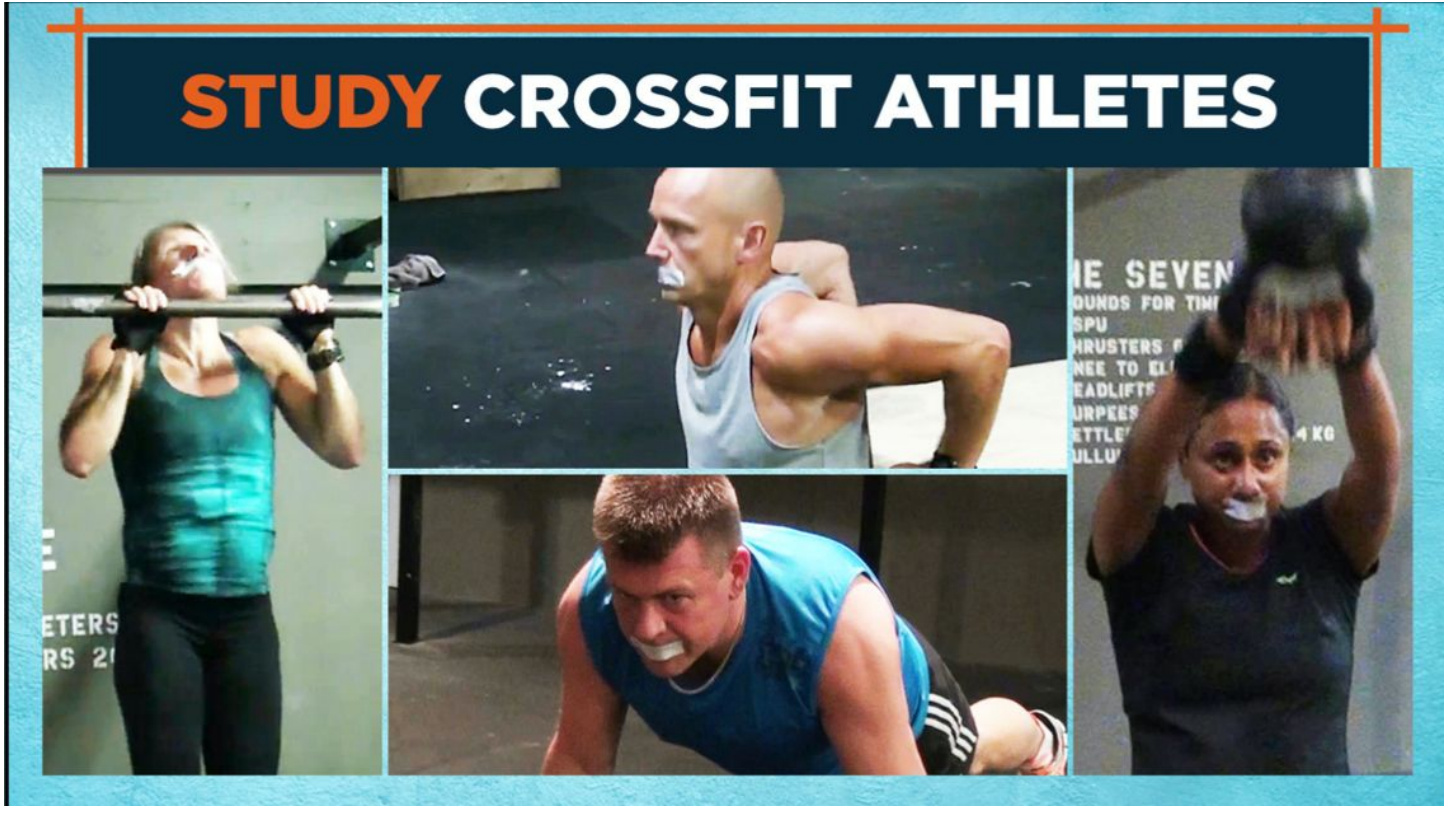
Clas Björling
Swedish Record
Triathlon Ironman
2005 - 2012



Feedback Sleep Tape

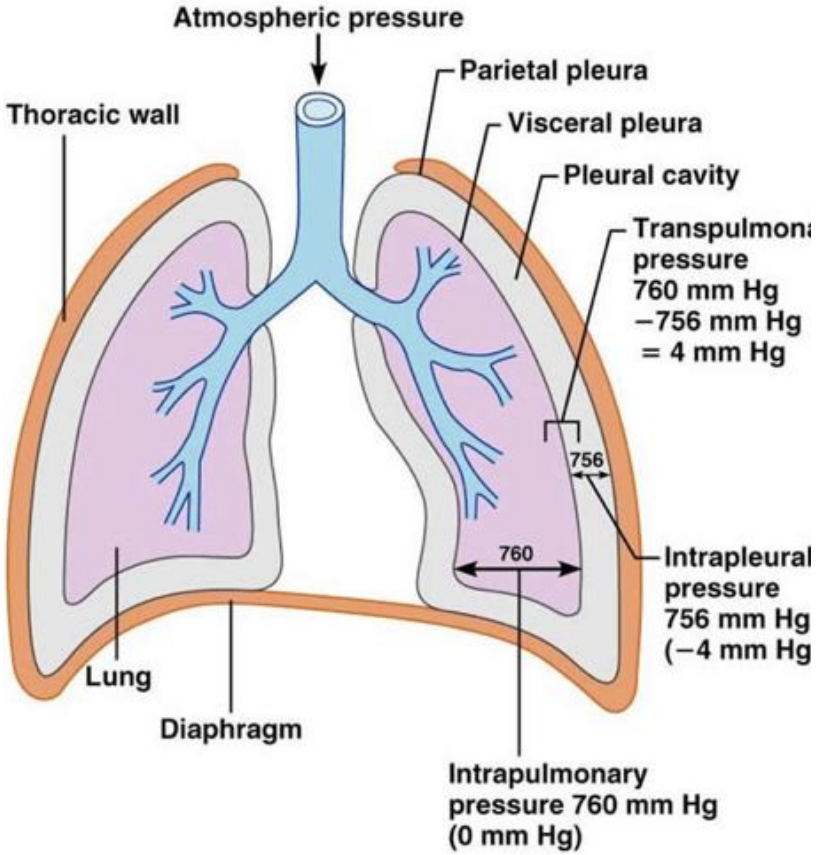
Feedback Sleep Tape

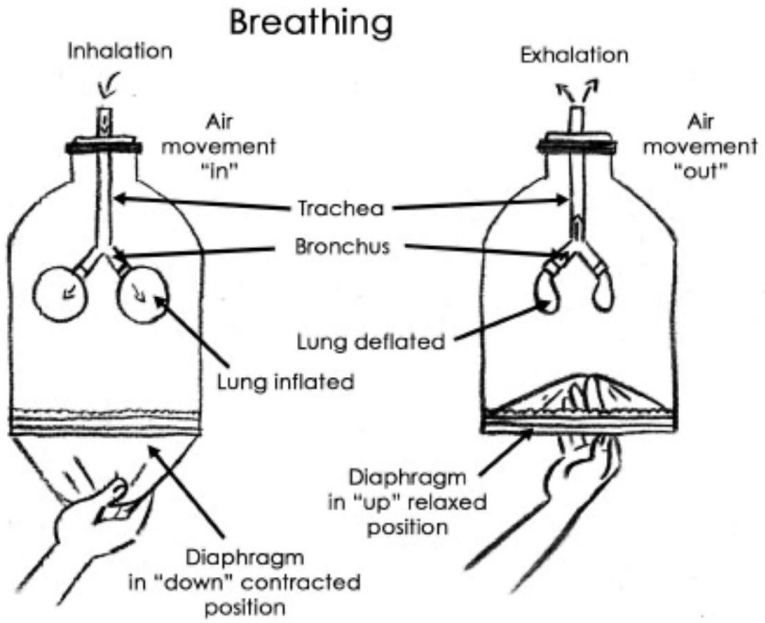
Closed mouth high intensity training study



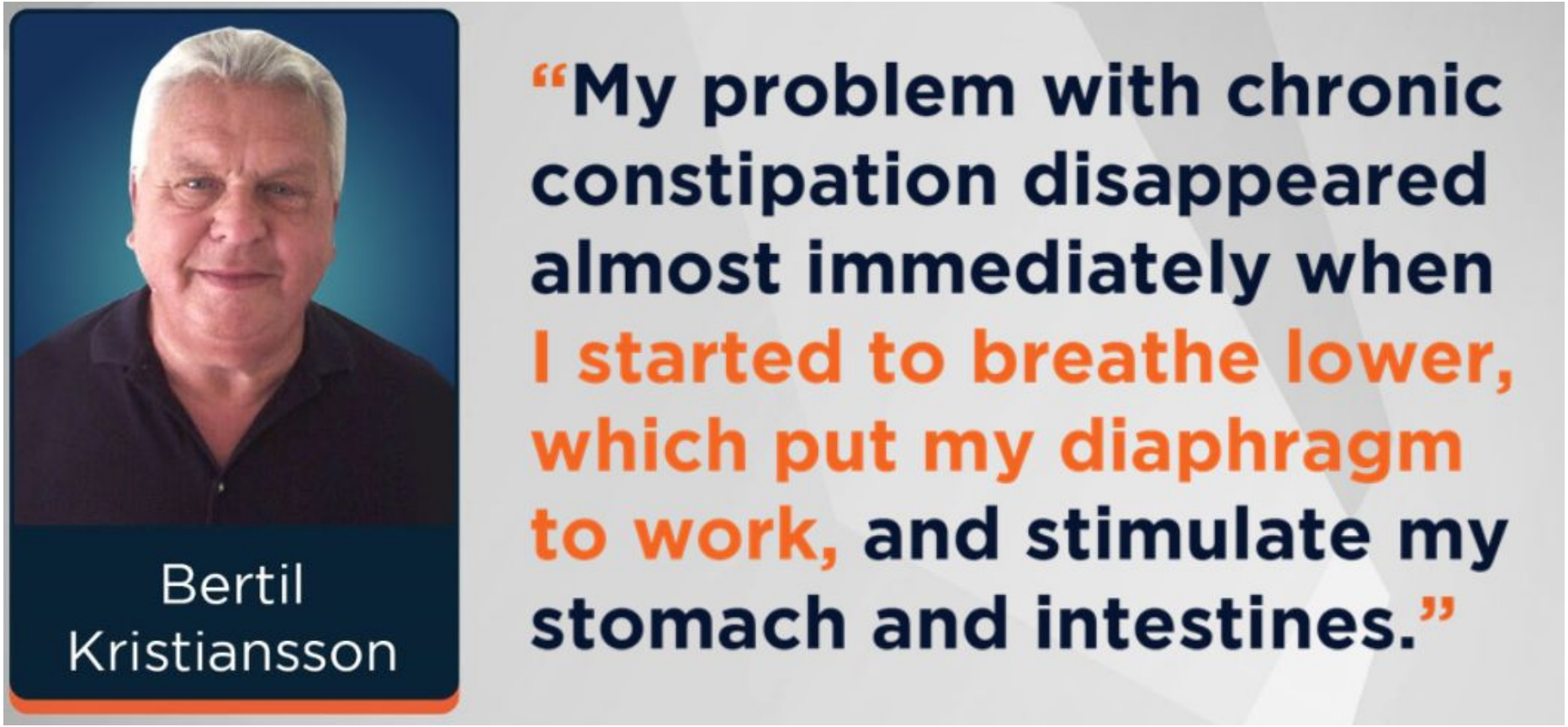
Principle 2: Breathe low - using primarily your diaphragm

→ Efficient use of muscles
→ Effective gas exchange
→ Stimulates digestion
→ Stimulates lymphatic system
→ Stimulates blood flow
→ Affects pressure in chest and abdominal cavity to support other processes - massages heart
→ Improves posture
→ Triggers parasympathetic response through vagus nerve





Bell jar experiment showing "how we breathe"


Bertil
Kristiansson
“My problem with chronic constipation disappeared almost immediately when I started to breathe lower, which put my diaphragm to work, and stimulate my stomach and intestines.”

Muscles of inspiration

Accessory

Sternocleidomastoid (elevates sternum)

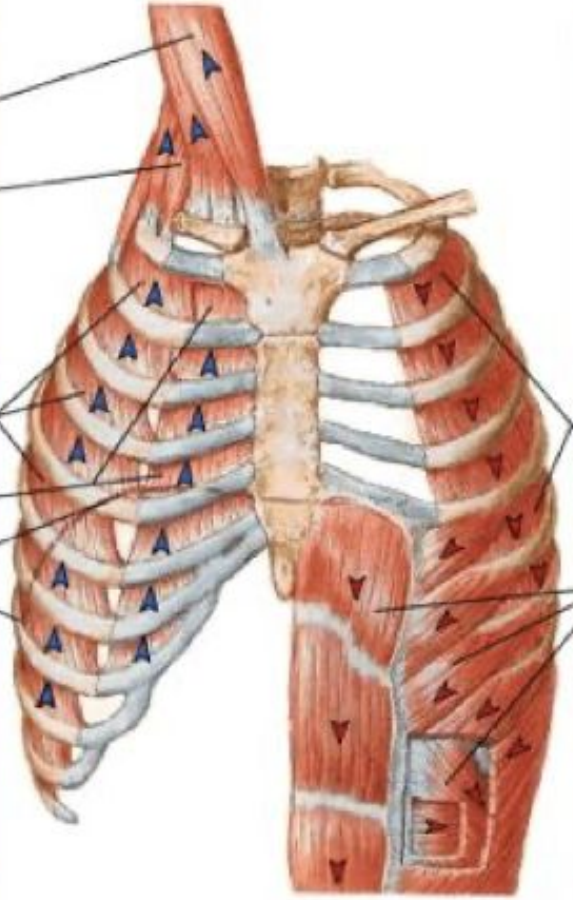
Scalenes Group (elevate upper ribs)

Not shown:
Pectoralis minor

Principal

External intercostals
Interchondral part of internal intercostals (also elevates ribs)

Diaphragm (dome descends, thus increasing vertical dimension of thorac cavity; also elevates lower ribs)



Muscles of expiration

Quiet breathing

Expiration results from passive, elastic recoil of the lungs, dib cage and diaphragm

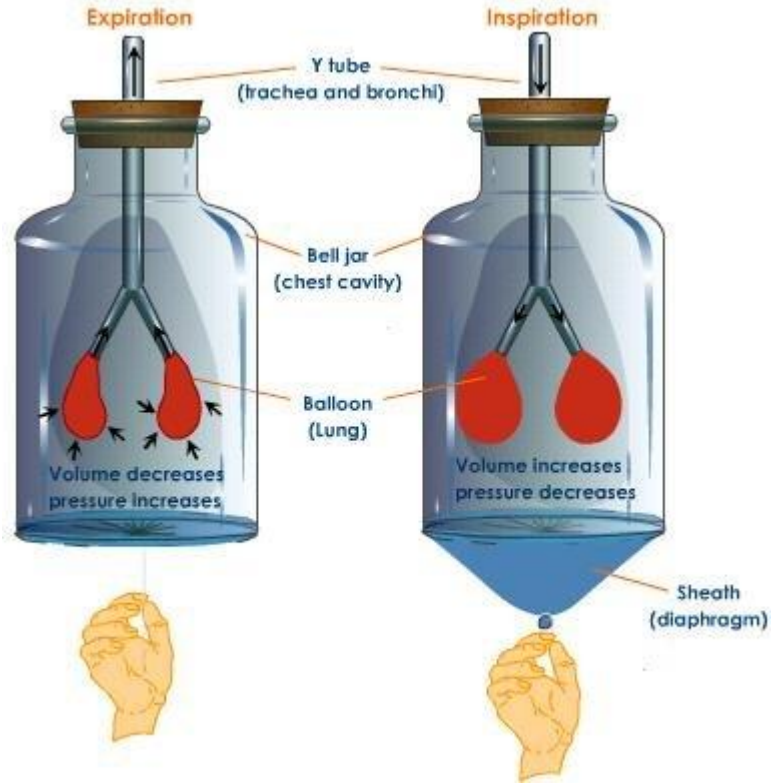
Active breathing

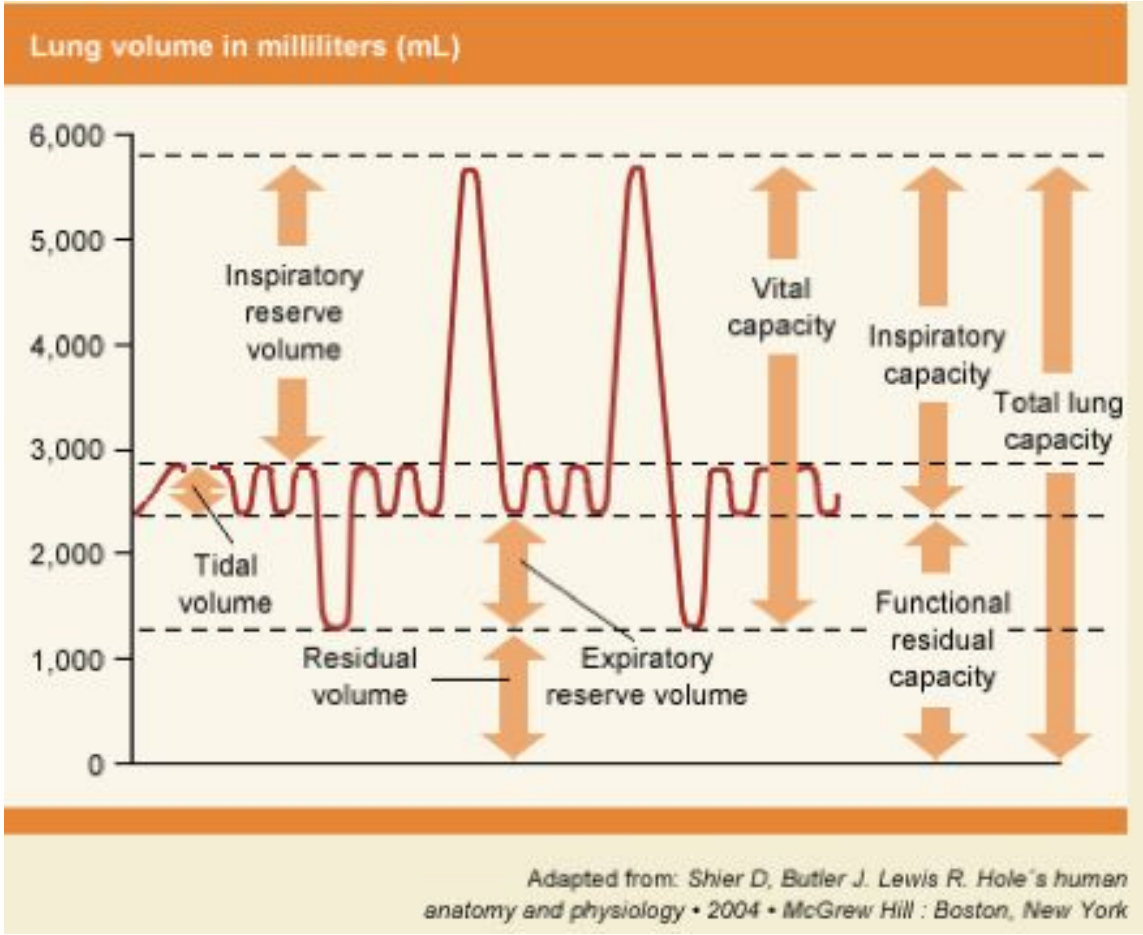
Internal intercostals, except interchondral part (pull ribs down)

Abdominals (pull ribs down, compress abdominal contents thus pushing diaphragm up)

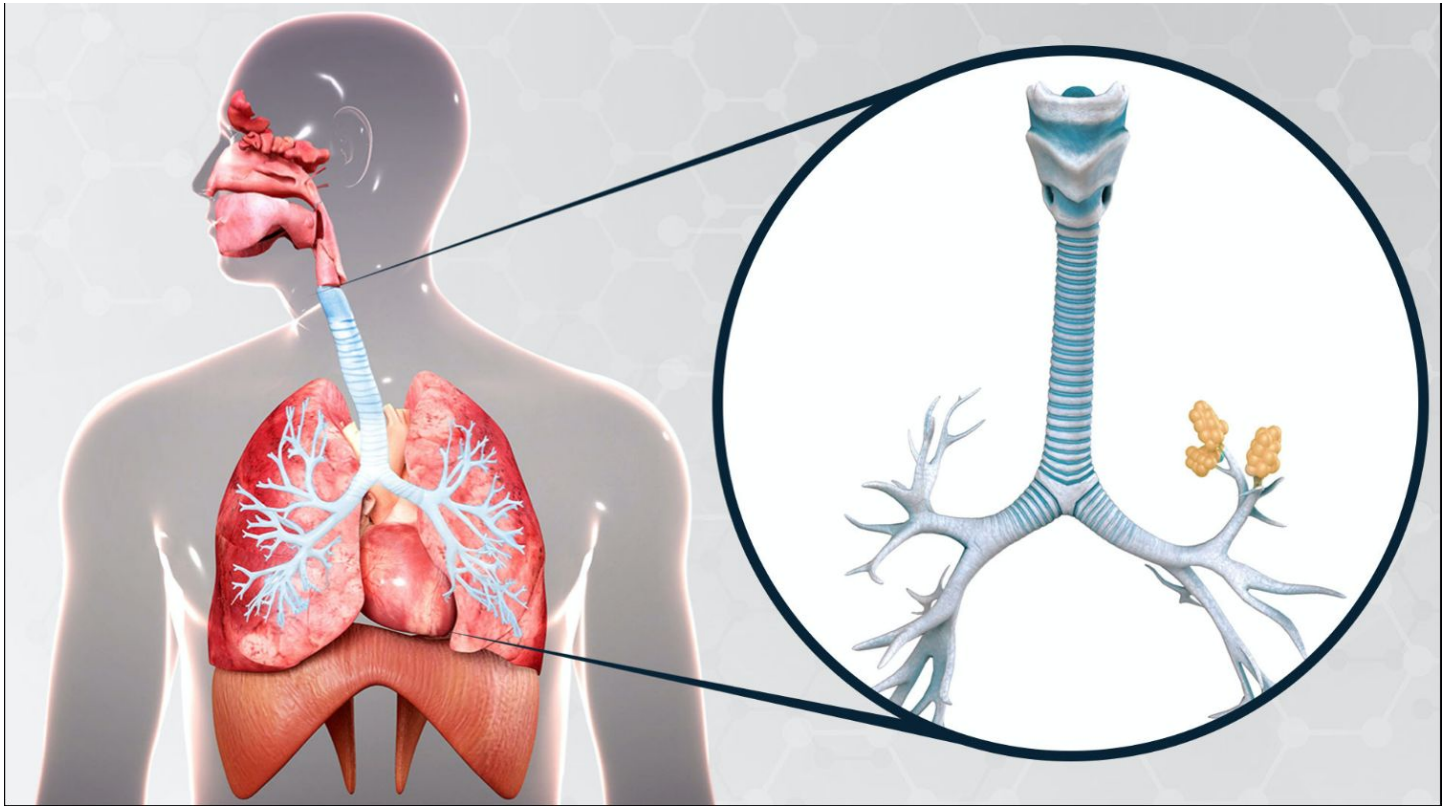
Note shown:
Quadratus lumborum (pulls ribs down)

Mechanics of Breathing



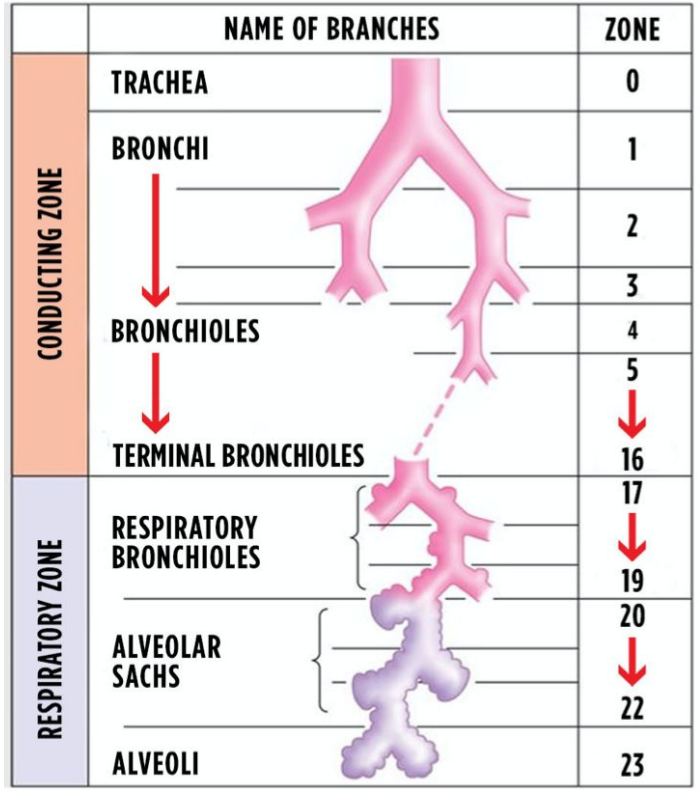

Lung volume in milliliters (mL)
6,000
5,000
4,000
3,000
2,000
1,000
0
Inspiratory reserve volume
Tidal volume
Residual volume
Expiratory reserve volume
Vital capacity
Inspiratory capacity
Total lung capacity
Functional residual capacity
Adapted from: Shier D, Butler J. Lewis R. Hole´s human anatomy and physiology • 2004 • McGrew Hill : Boston, New York

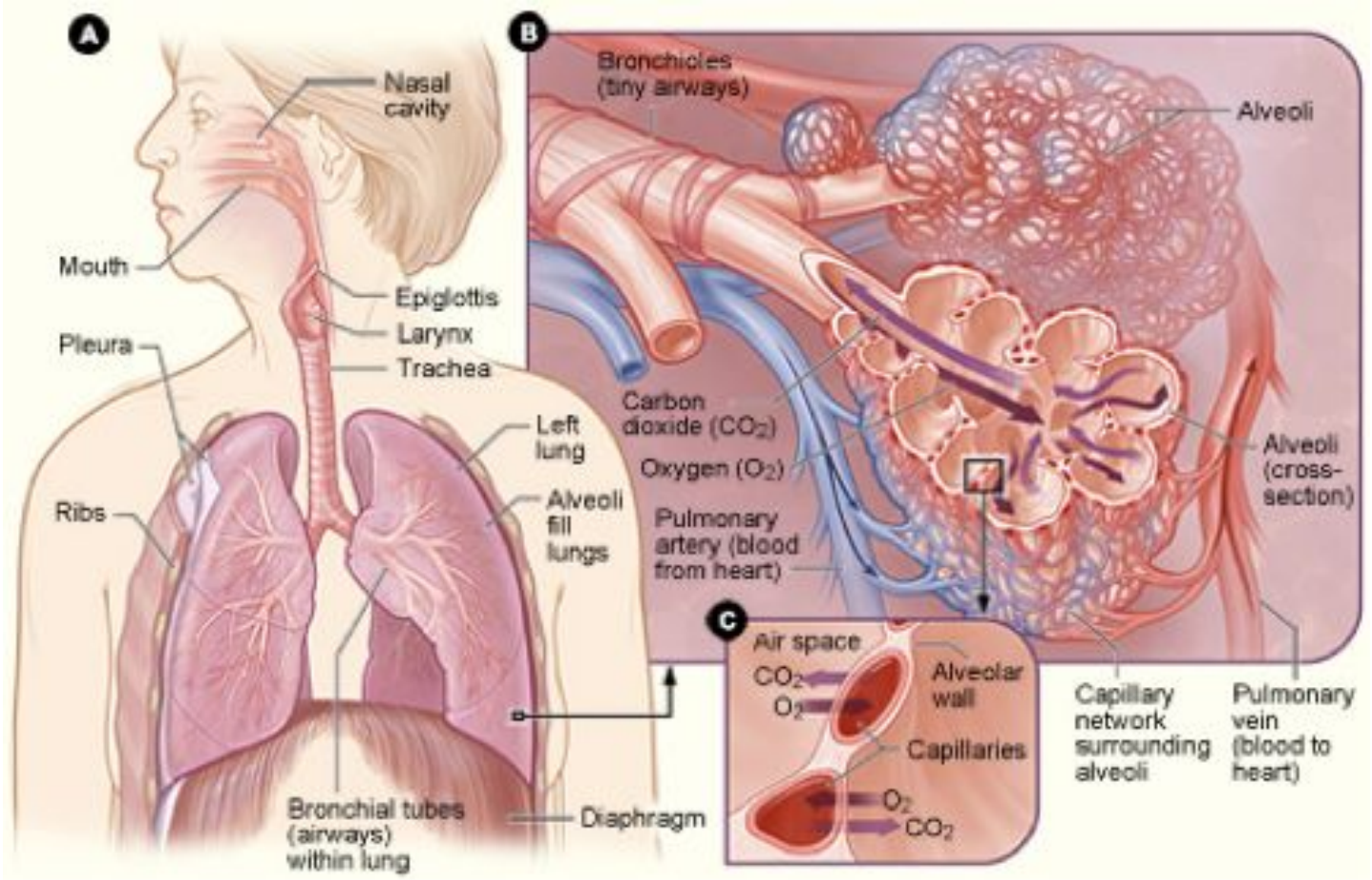
Principle 2: Breathe low - using primarily your diaphragm



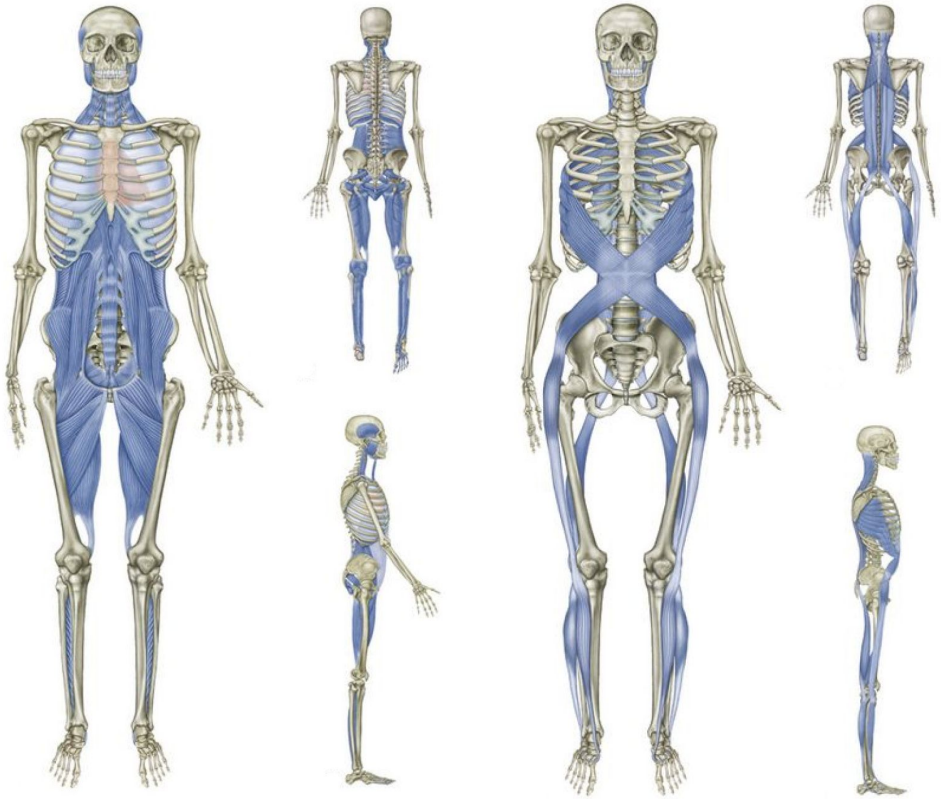
Principle 2: Breathe low to support gaseous exchange

- → The airways divide 23 times before the air reaches the alveoli
- → 50% reduction of the diameter increases the effort 16 times
- → Gas exchange takes place in the alveoli
- → Several hundred million alveoli in each lung
- → The alveoli surface has a size equal of a tennis court




A
Nasal cavity
Mouth
Epiglottis
Larynx
Trachea
Pleura
Left lung
Alveoli fill lungs
Ribs
Bronchial tubes (airways) within lung
Diaphragm
B
Bronchioles (tiny airways)
Alveoli
Carbon dioxide (CO_2)
Oxygen (O_2)
Alveoli (cross-section)
Pulmonary artery (blood from heart)
C
Air space
CO_2
O_2
Alveolar wall
Capillaries
O_2
CO_2
Capillary network surrounding alveoli
Pulmonary vein (blood to heart)

Connection of fascia, breath, kriyas and asana practice



Pressure in the abdominal area stimulates parasympathicus.

Through Kriyas you learn to assess, control and loosen tissues.

Through Breath work you increase your CO_2-tolerance, which loosens tension.

Through posture/asana you learn to breathe while engaging the body.

Principle 2: Breathe low - Exercises

Breathing out through resistance

Pursed lips
Ujjayi

Relaxator

Breathing in upper belly

Lying on back
Lying on belly
Block/Hands on belly