

#ideaworld



LIMITLESS

Loaded Breathwork

PRESENTED BY

ViPR PRO®





STEPH CURRY, NBA

@COACHBRANDONPAYNE



WORKSHOP OBJECTIVES



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LOADED BREATHWORK





RESPIRATION

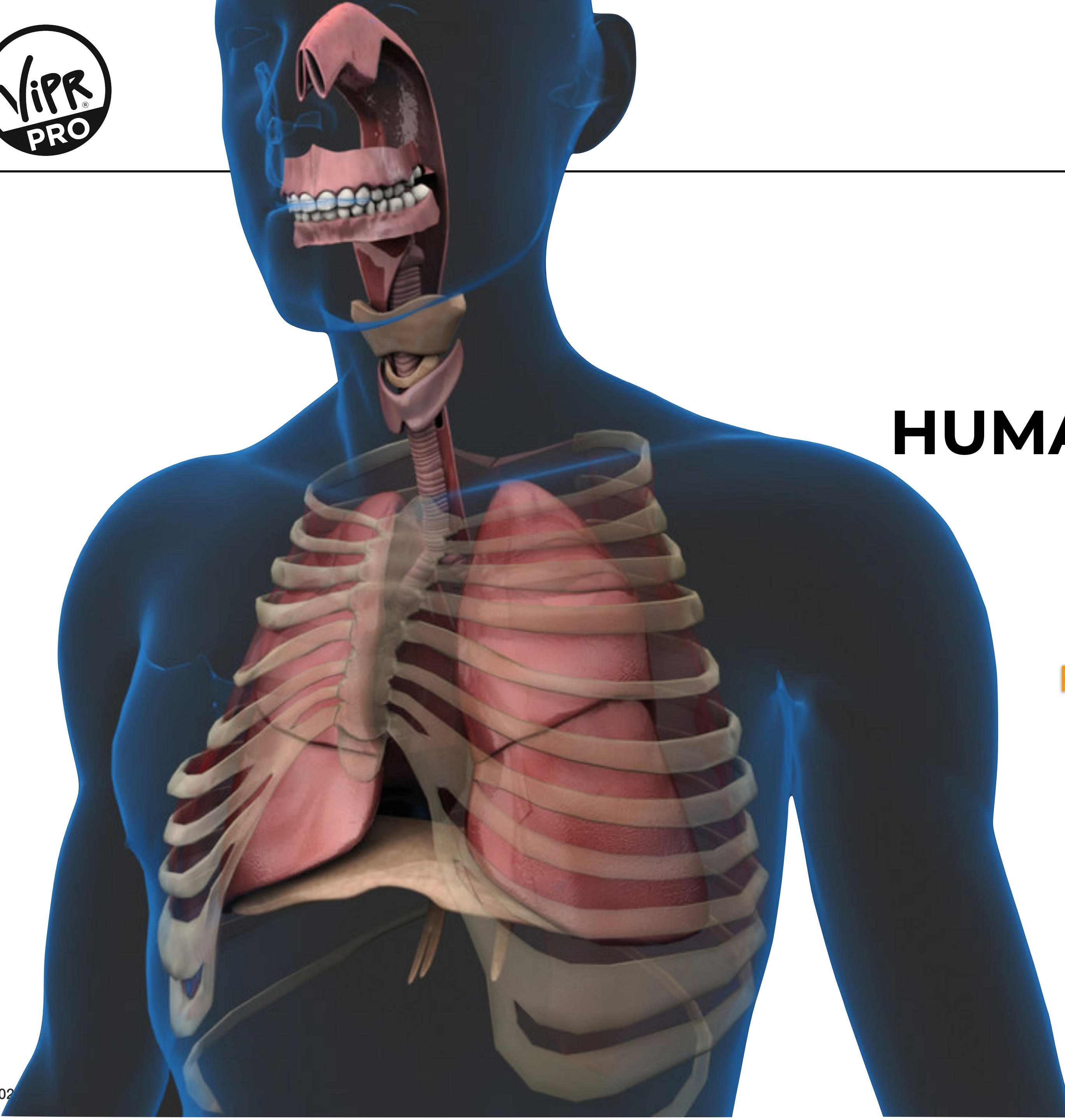
Exchange of O₂ from environment for CO₂ from the body's cells

RATE

APPROXIMATELY
23,000 TIMES/DAY
(both voluntary
and
involuntary)



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HEALTH AND HUMAN PERFORMANCE

LOSS OF ADAPTABILITY



FUNCTIONAL IMPAIRMENT



DEATH



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HEALTH AND HUMAN PERFORMANCE

MUST TAKE ADVANTAGE OF:

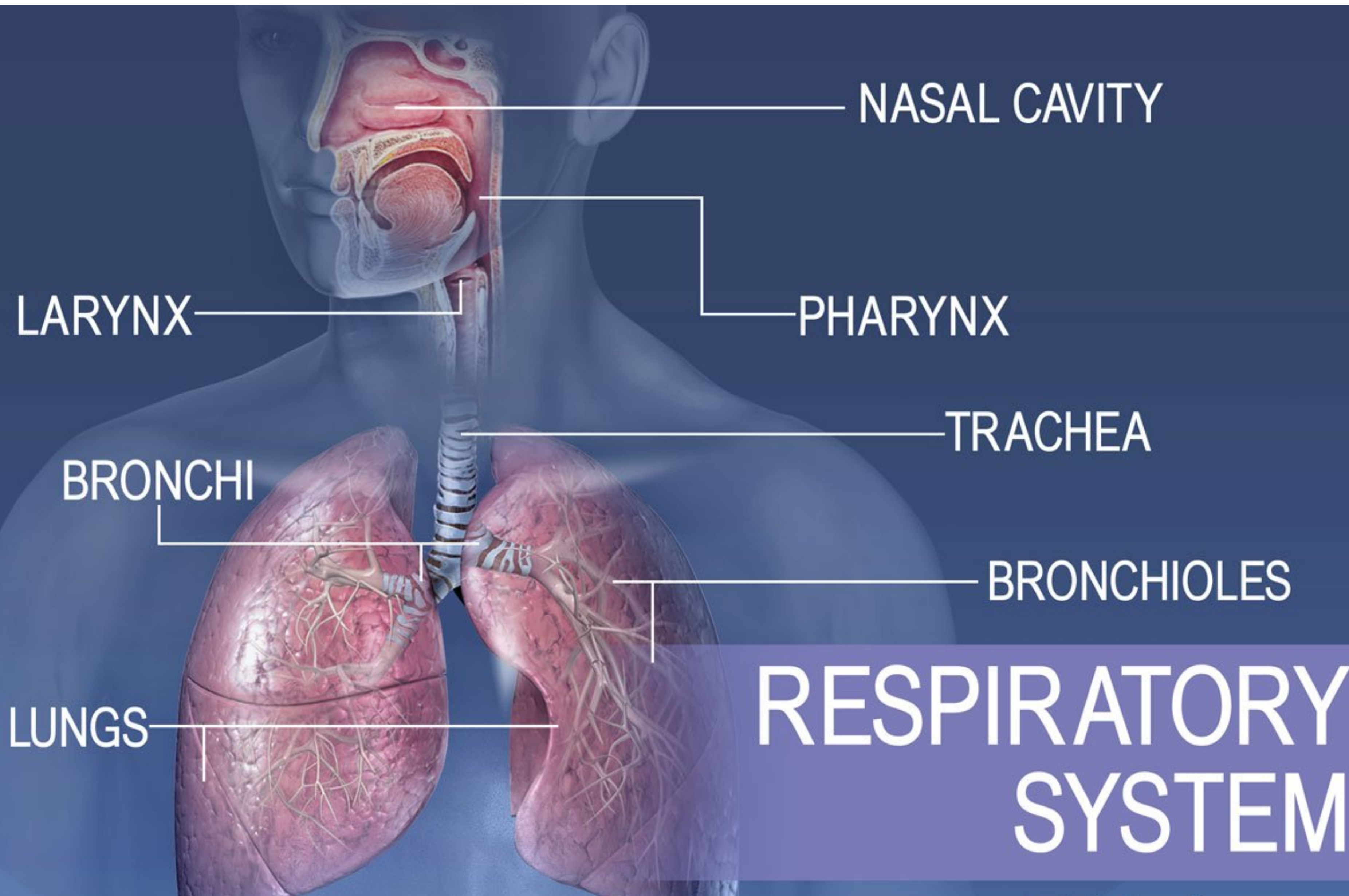
- Nerve
- Muscle
- Mechanics
- Gas Exchange
- voluntary / involuntary controls

NEED VARIABILITY OF BREATHING :

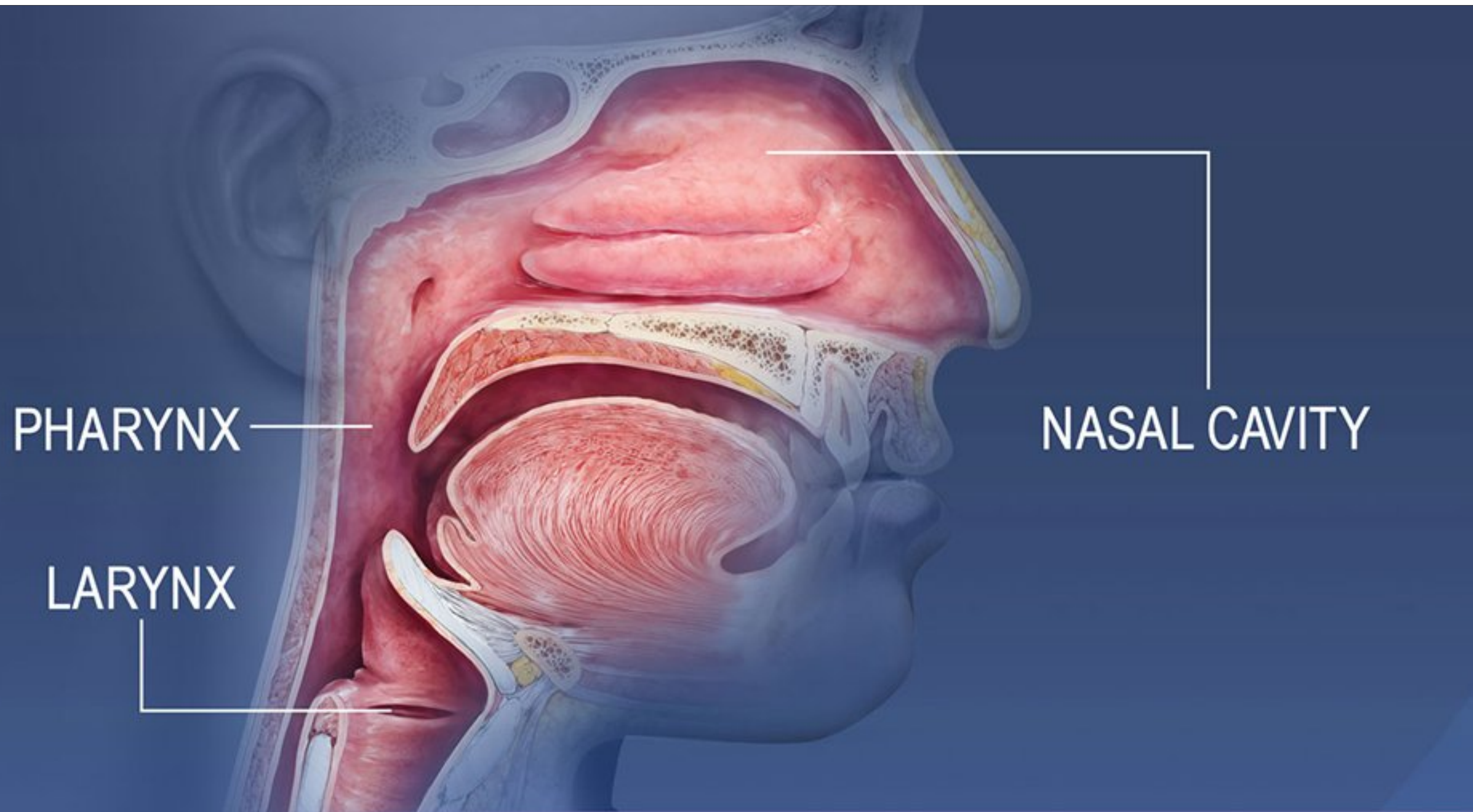
- valsalva
- belly
- forced
- percussive
- tempo
- weighted
- short/shallow
- etc ...



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RESPIRATORY SYSTEM

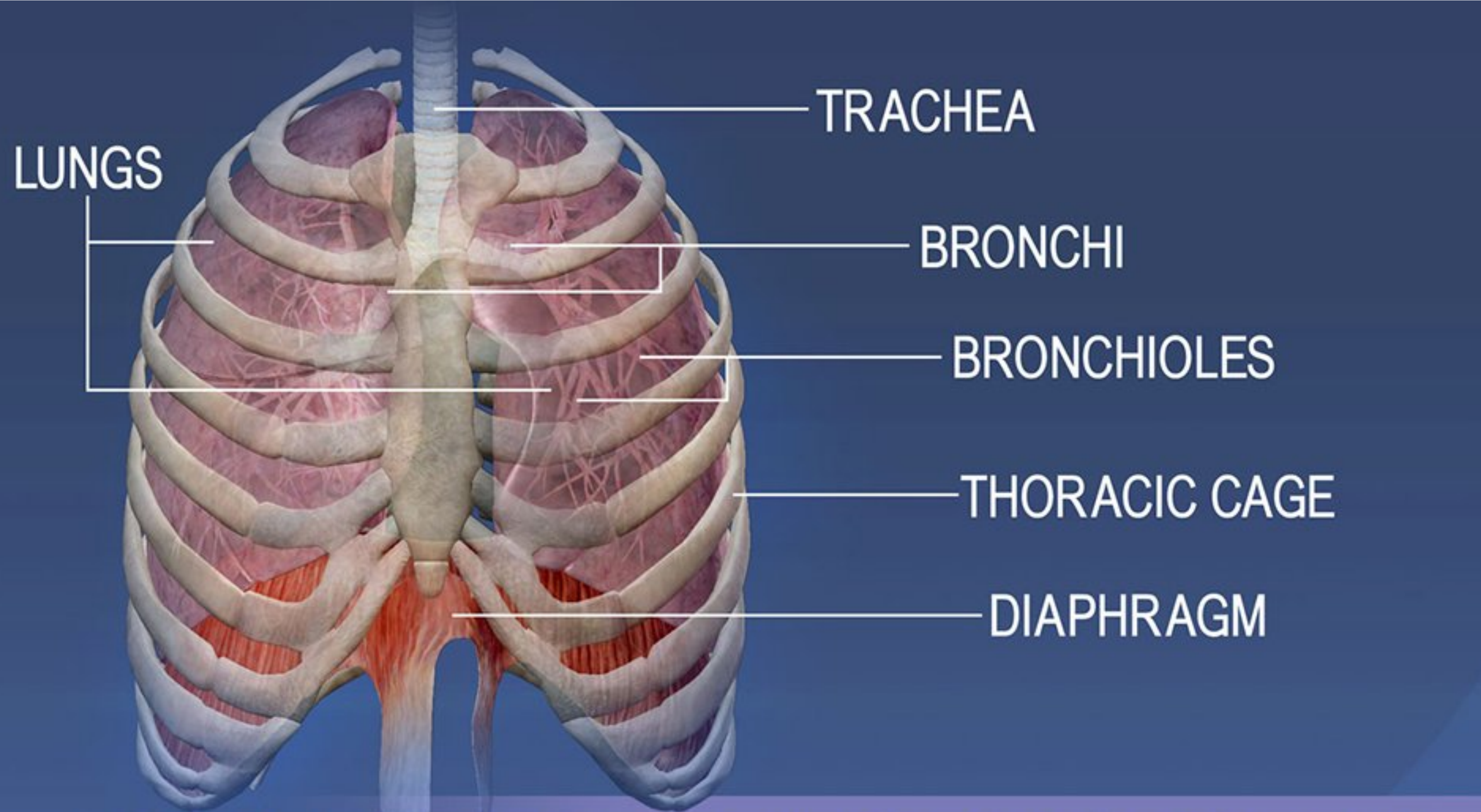


PHARYNX

NASAL CAVITY

LARYNX

UPPER RESPIRATORY SYSTEM



LUNGS

TRACHEA

BRONCHI

BRONCHIOLES

THORACIC CAGE

DIAPHRAGM

LOWER RESPIRATORY SYSTEM

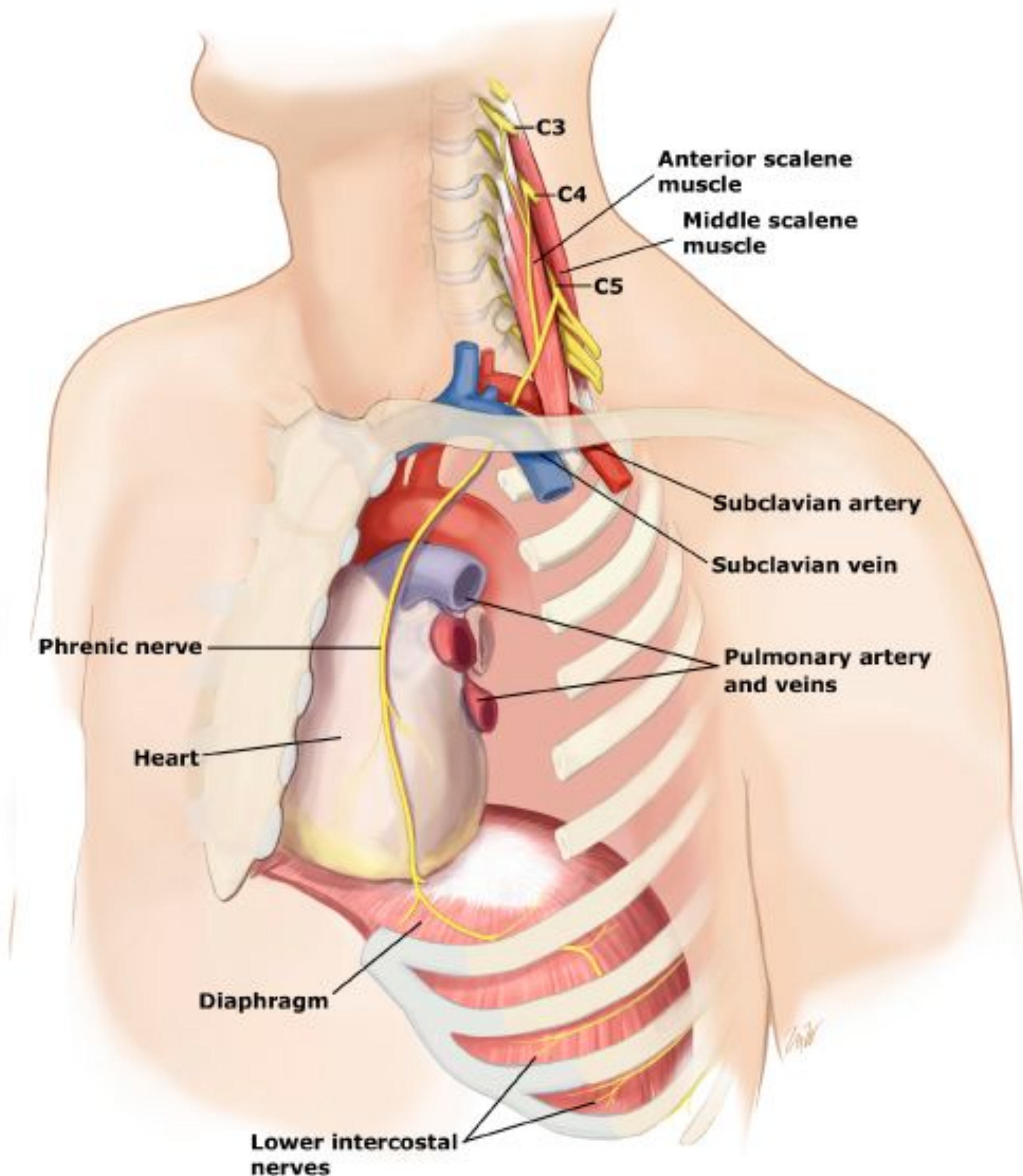


REDUNDANCIES

Nerves
Muscles
Mechanics
Gas Exchange
Voluntary/
Involuntary



#ideaworld



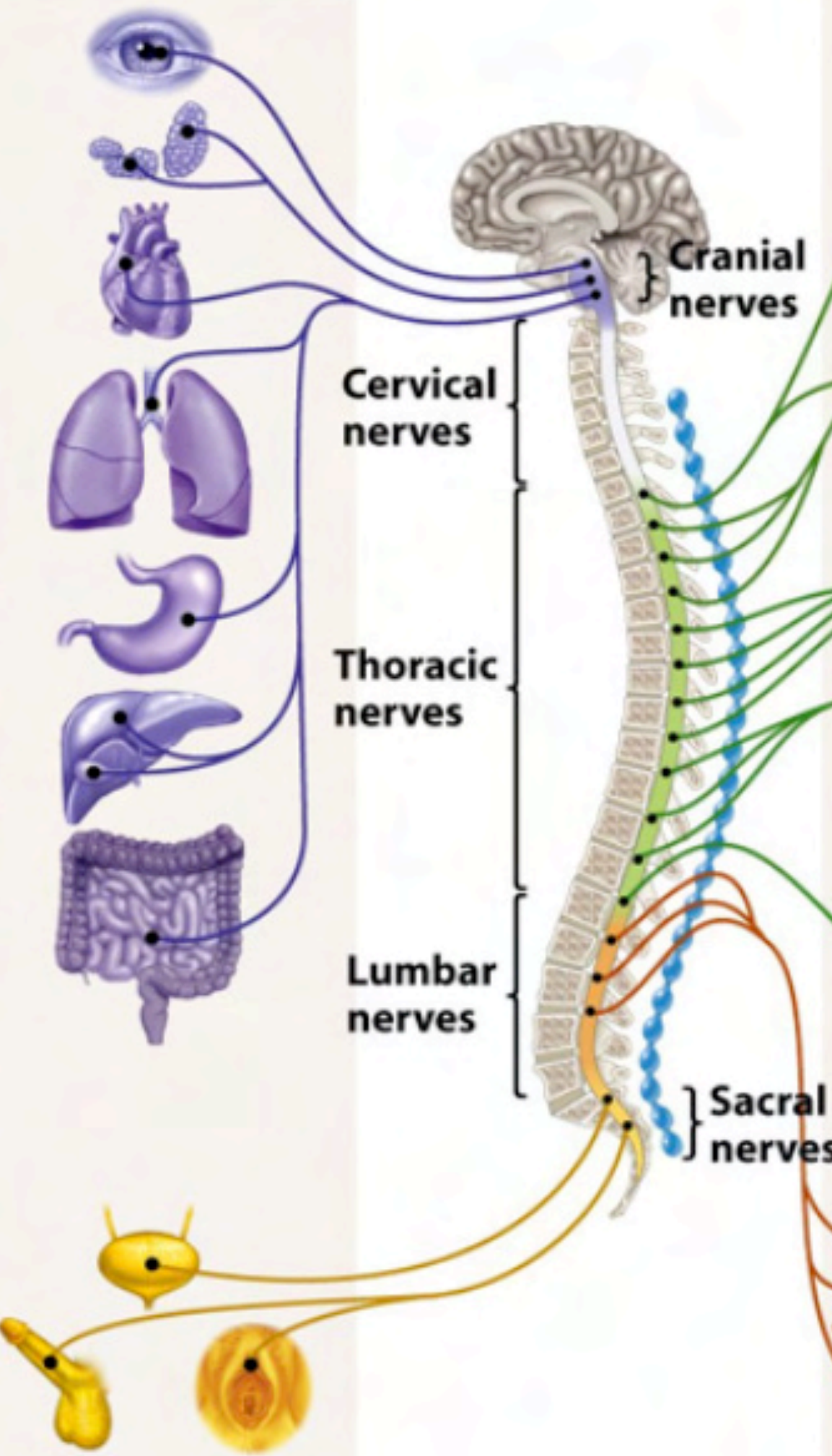
REDUNDANCIES

Nerves

Muscles
Mechanics
Gas Exchange
Voluntary/
Involuntary

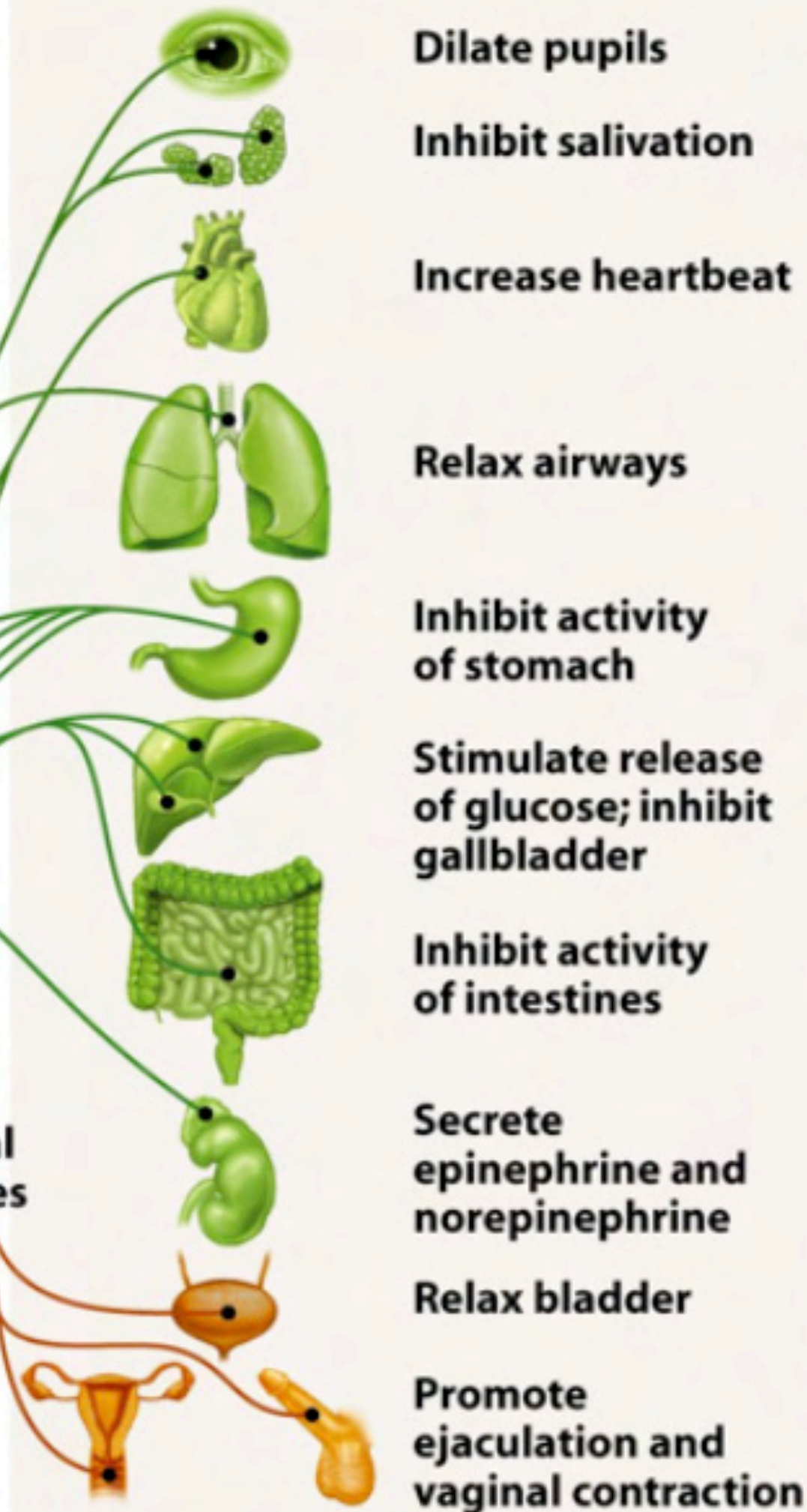
PARASYMPATHETIC NERVES
"Rest and digest"

- Constrict pupils
- Stimulate saliva
- Slow heartbeat
- Constrict airways
- Stimulate activity of stomach
- Inhibit release of glucose; stimulate gallbladder
- Stimulate activity of intestines
- Contract bladder
- Promote erection of genitals



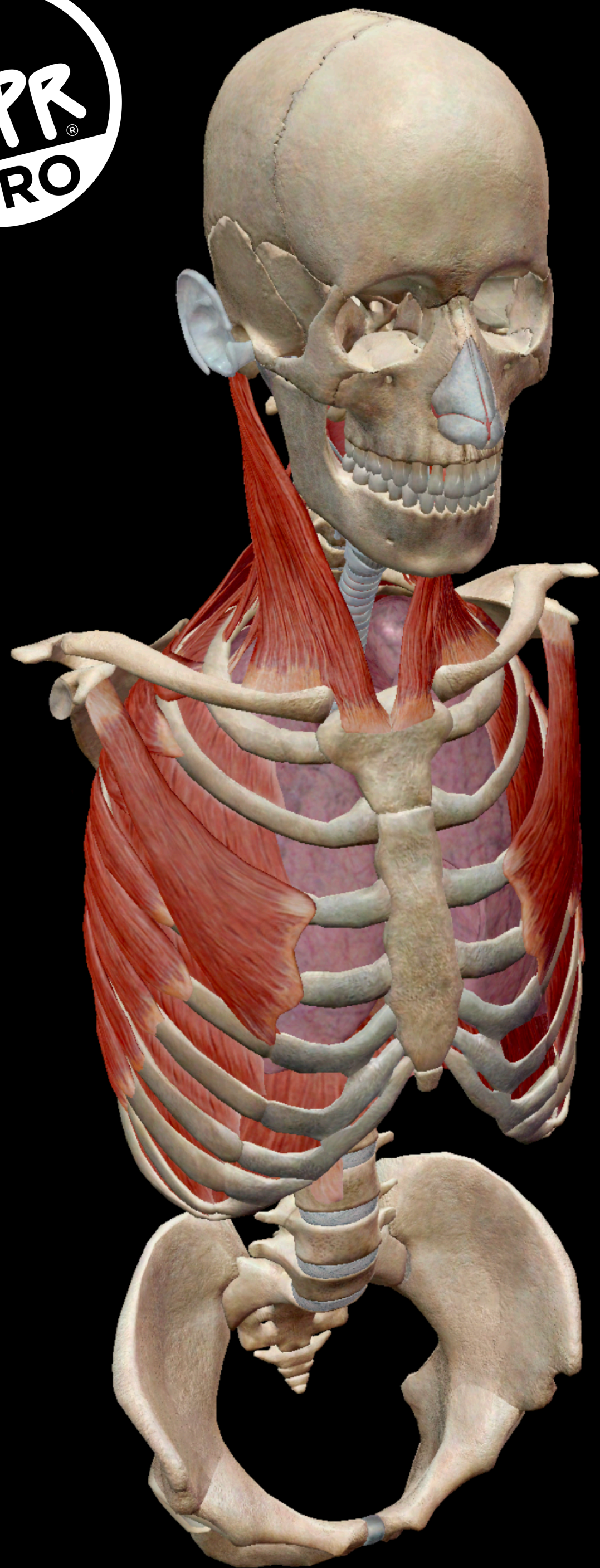
SYMPATHETIC NERVES
"Fight or flight"

- Dilate pupils
- Inhibit salivation
- Increase heartbeat
- Relax airways
- Inhibit activity of stomach
- Stimulate release of glucose; inhibit gallbladder
- Inhibit activity of intestines
- Secrete epinephrine and norepinephrine
- Relax bladder
- Promote ejaculation and vaginal contraction



REDUNDANCIES
Nerves
Muscles
Mechanics
Gas Exchange
Voluntary/
Involuntary

Figure 45-20 Biological Science, 2/e
© 2005 Pearson Prentice Hall, Inc.



INSPIRATION

Muscles

1 - Respiratory Diaphragm

2 - Pectoralis Minor

3 - Pectoralis Major

4 - Serratus Anterior

Muscles which lift the ribs from the scapular girdle

5 - Levatores Costarum

6 - Transversopinalis

Muscles which lift the ribs away from the thoracic spine

7 - Serratus Posterior Superior

8 - Sternocleidomastoid

Muscles which lift the ribs from the head or neck

REDUNDANCIES

Nerves

Muscles

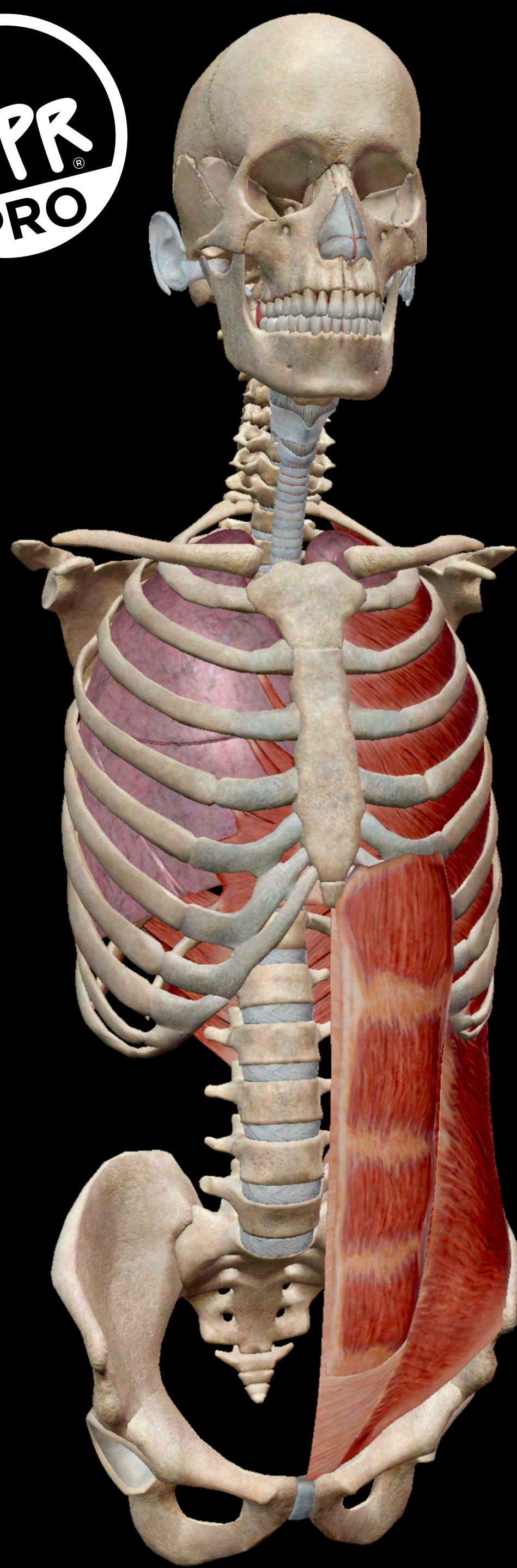
Mechanics

Gas Exchange

Voluntary/
Involuntary



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EXPIRATION

REDUNDANCIES

Nerves

Muscles

Mechanics

Gas Exchange

Voluntary/
Involuntary

1 - Abdominal Muscles

2 - Pelvic Diaphragm (floor)

3 - Transversus Thoracis
(at the inside of the rib cage)

4 - Quadratus Lumborum

5 - Serratus Posterior Inferior

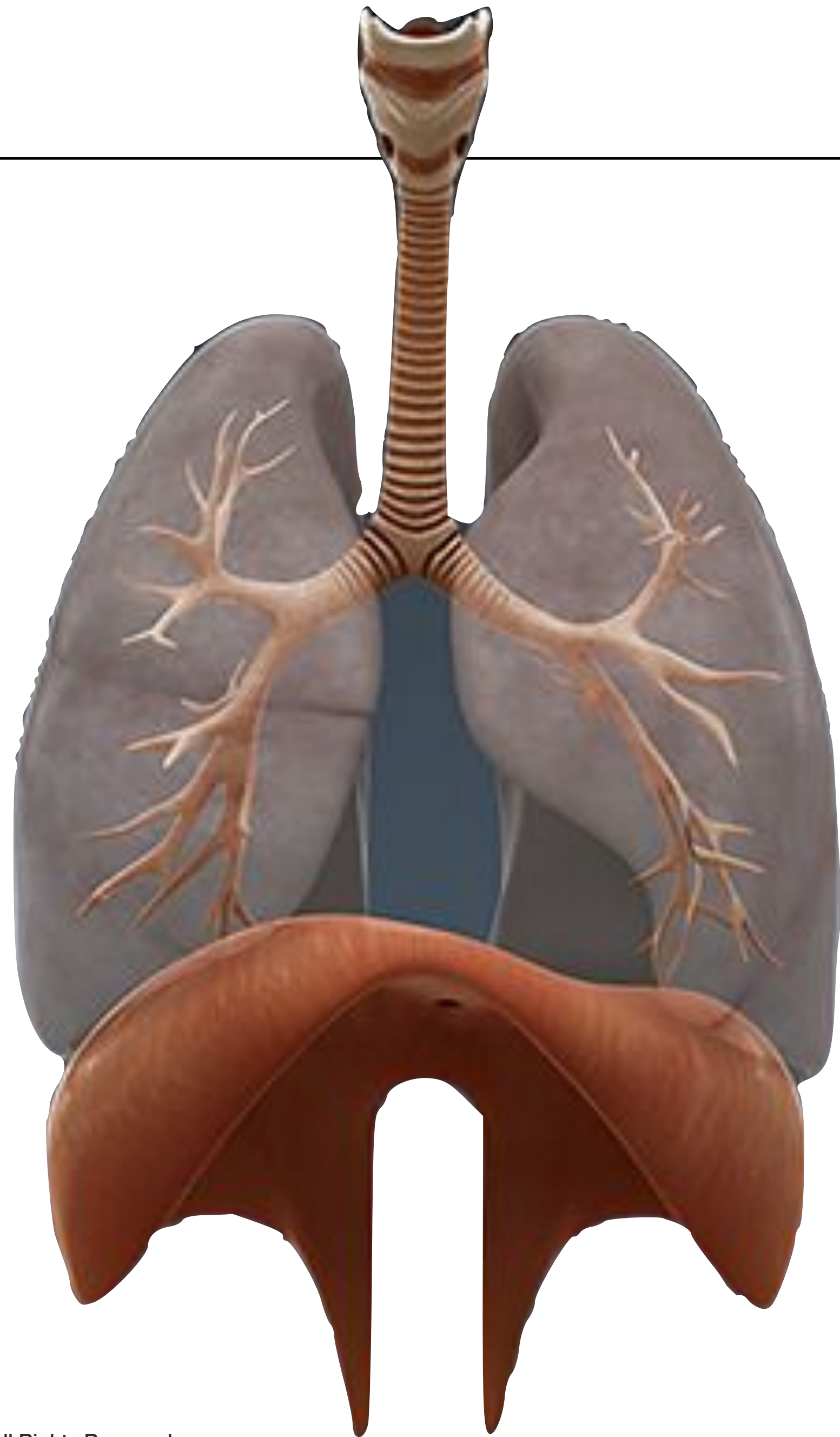
6 - Intercostals
(Internal / External)

Muscles that move
the ribs

Muscles with
variable actions



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REDUNDANCIES

Nerves

Muscles

Mechanics

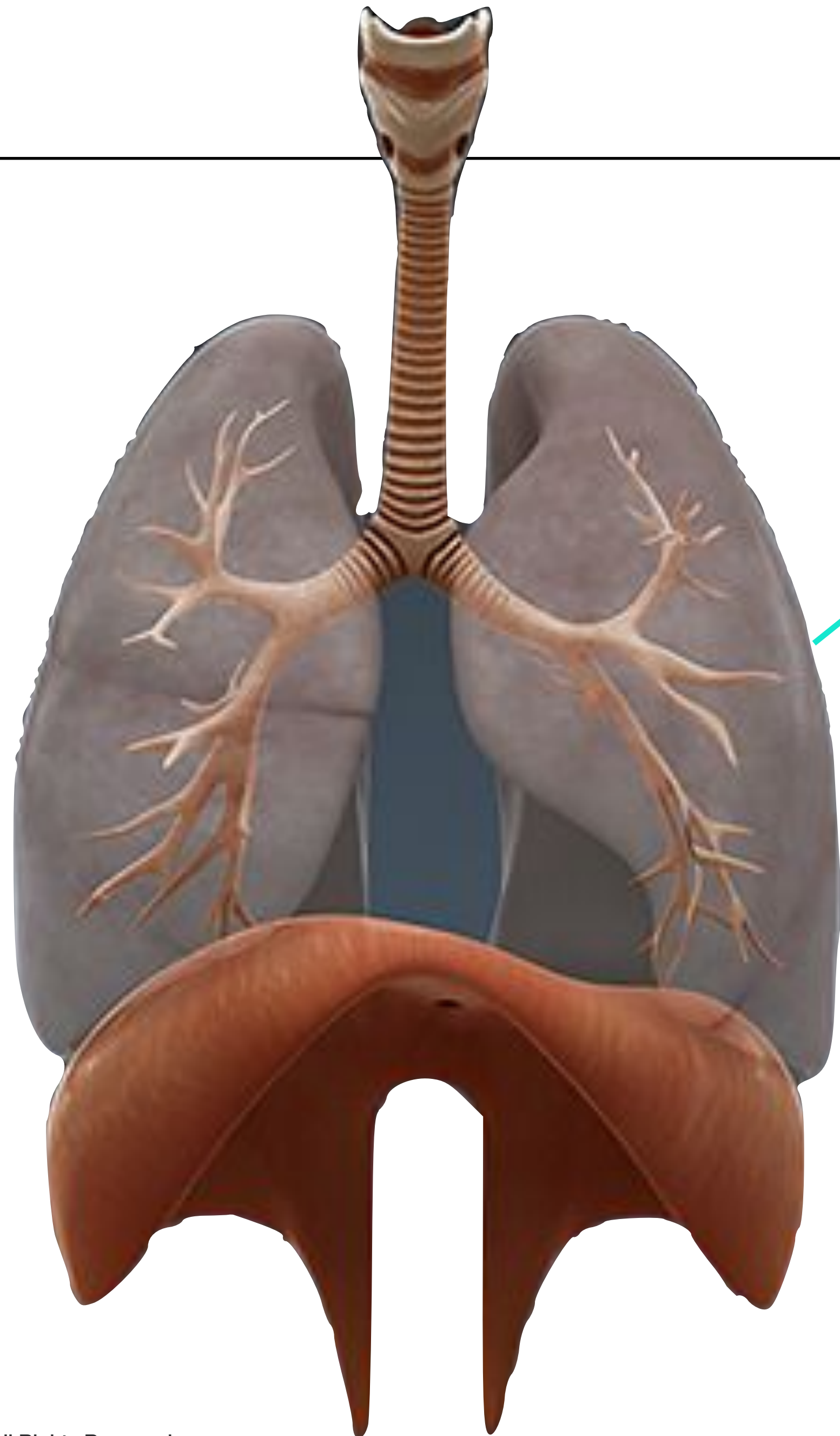
Gas Exchange

Voluntary/

Involuntary



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Spine

REDUNDANCIES

Nerves
Muscles

Mechanics

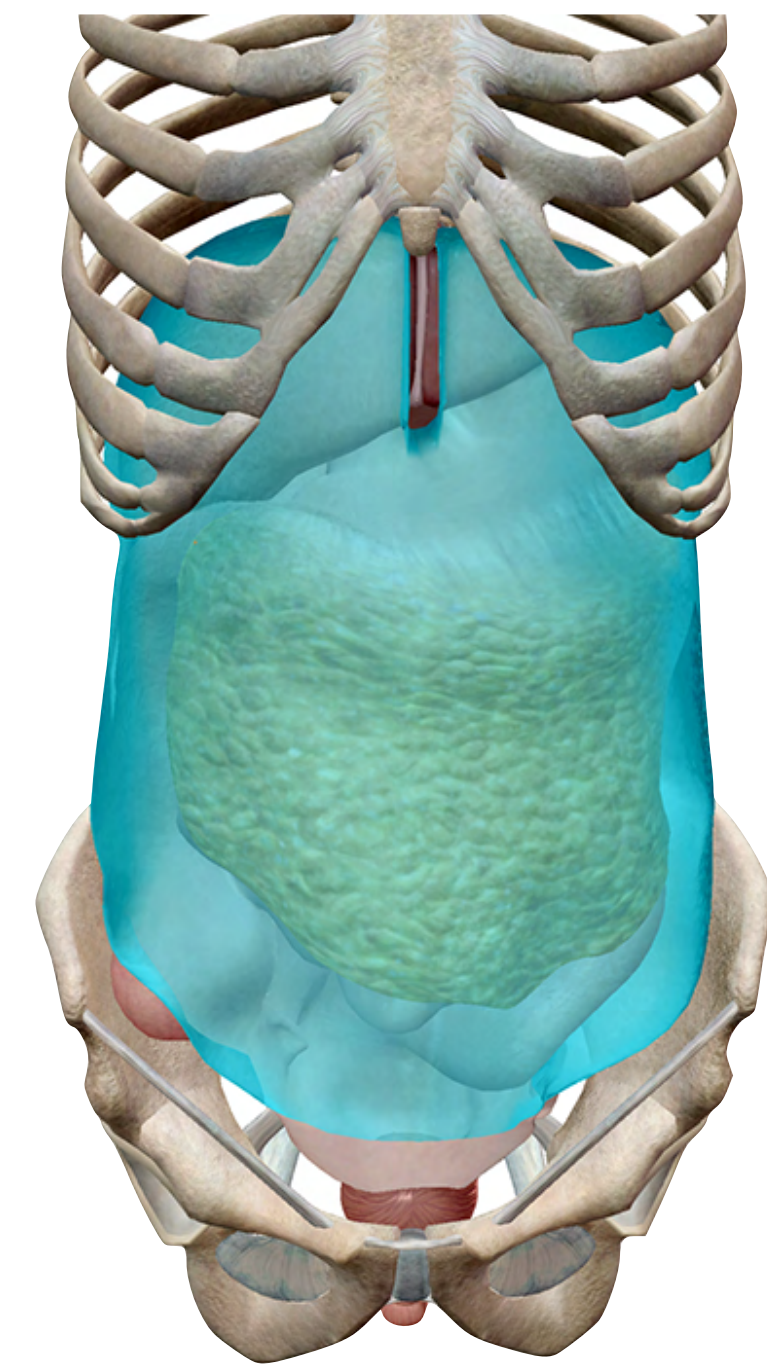
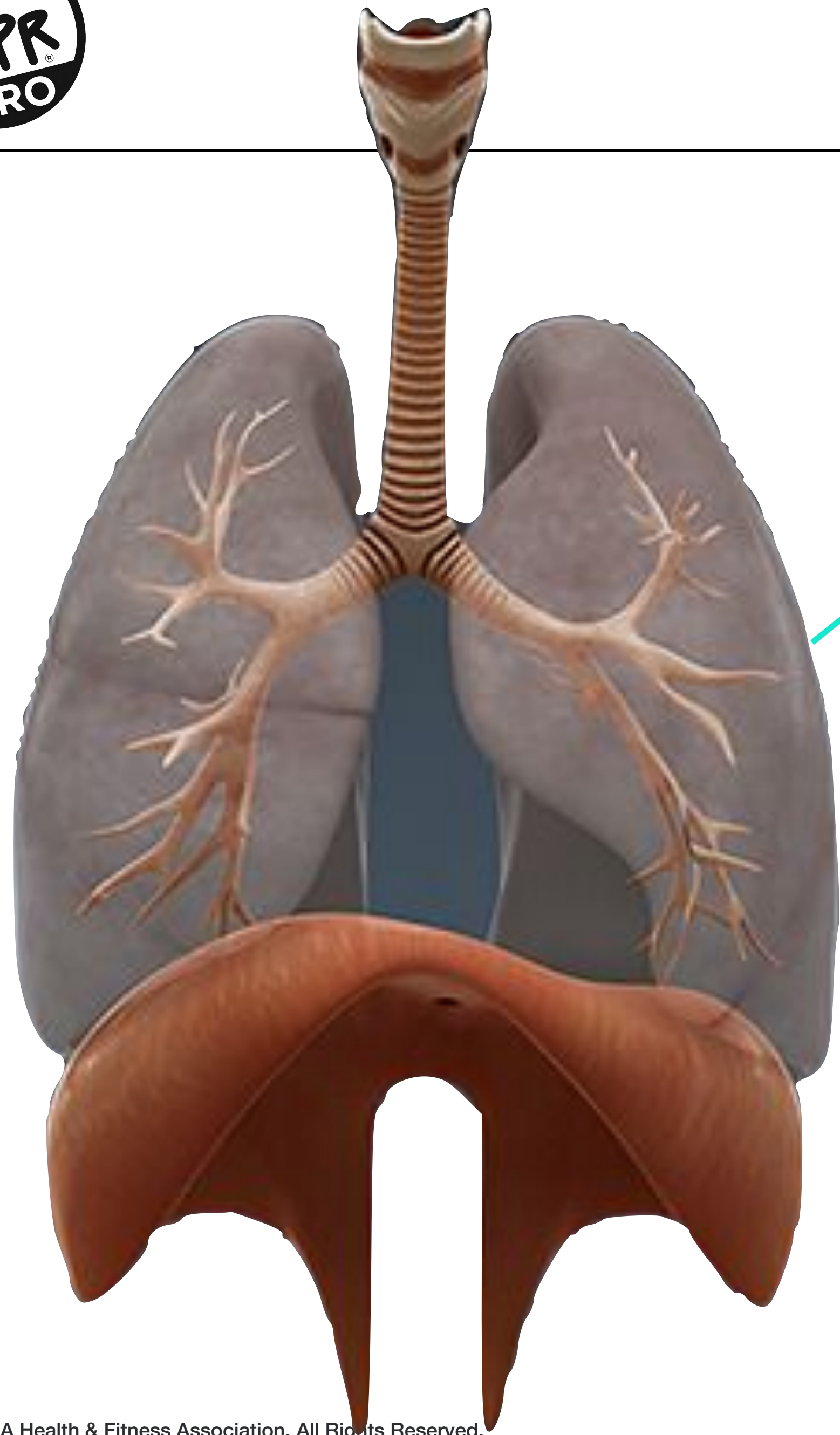
Gas Exchange
Voluntary/
Involuntary



#ideaworld



Spine

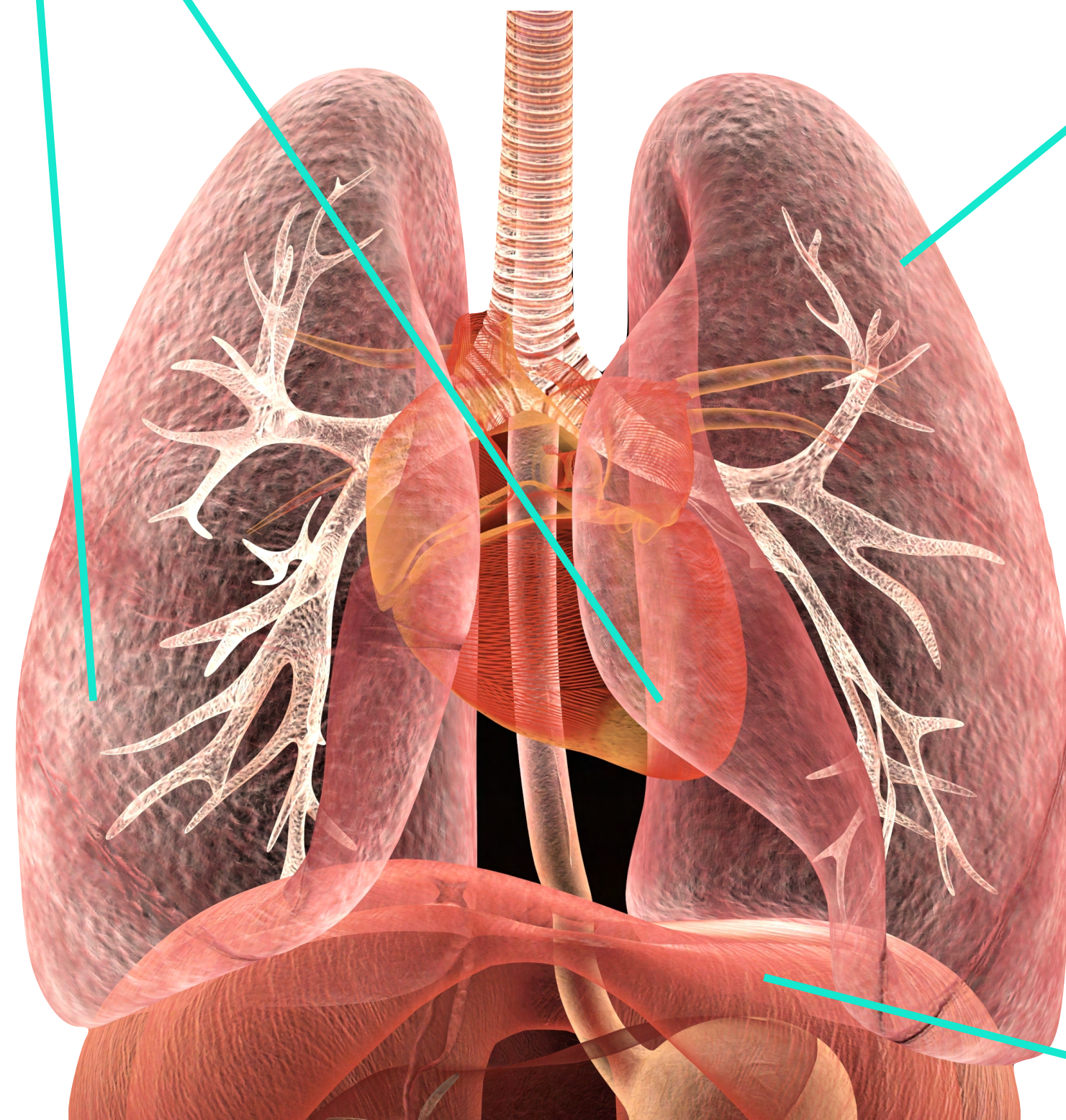
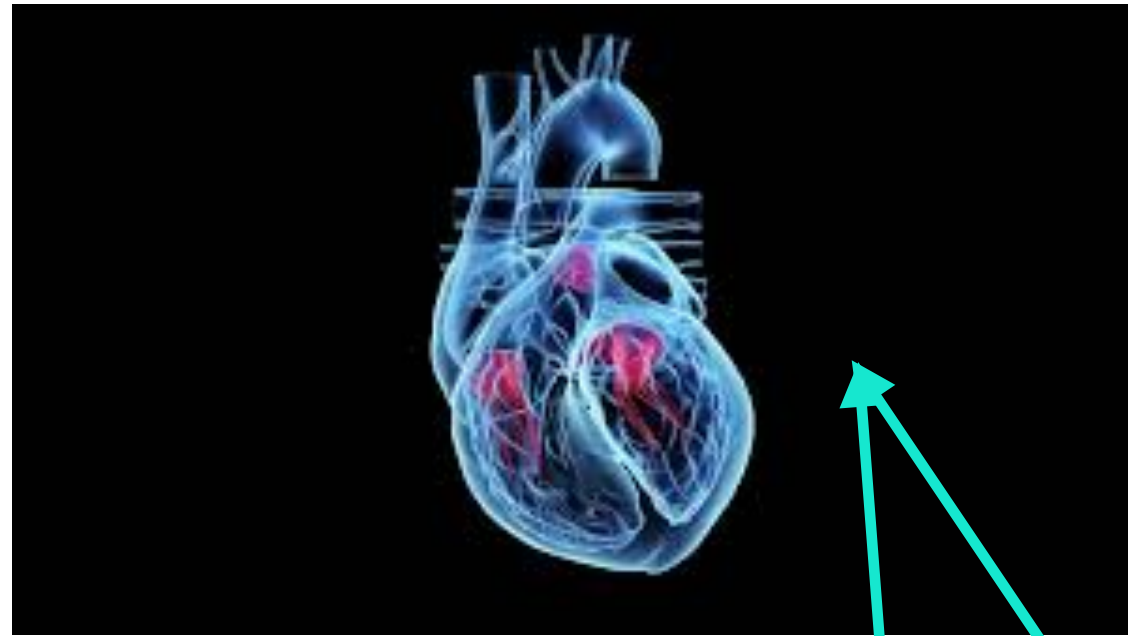


Parietal Peritoneum

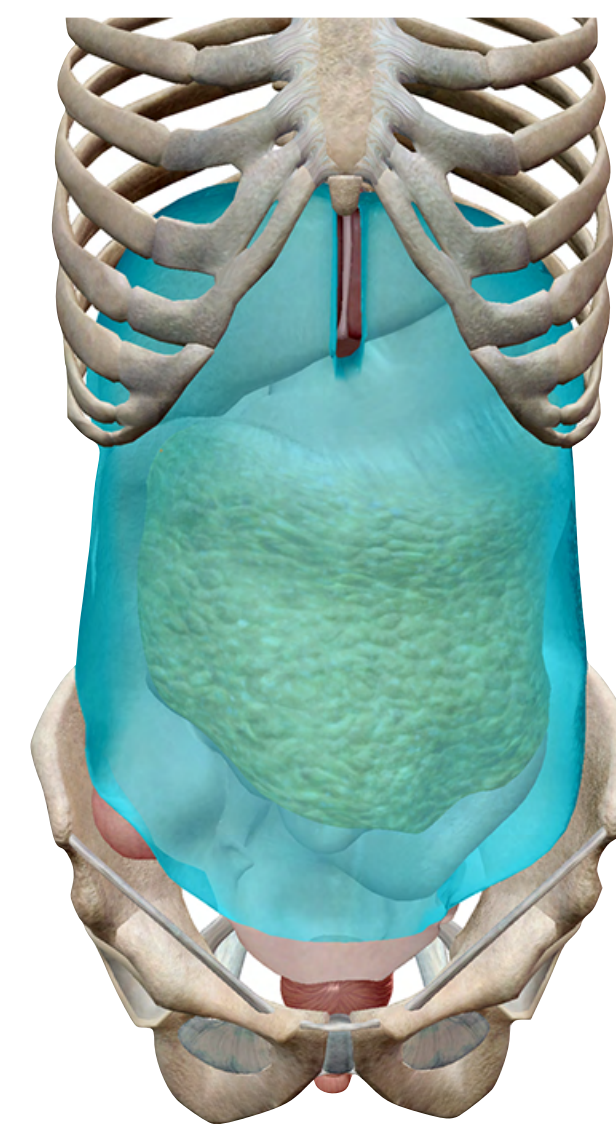
REDUNDANCIES
Nerves
Muscles
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Voluntary/
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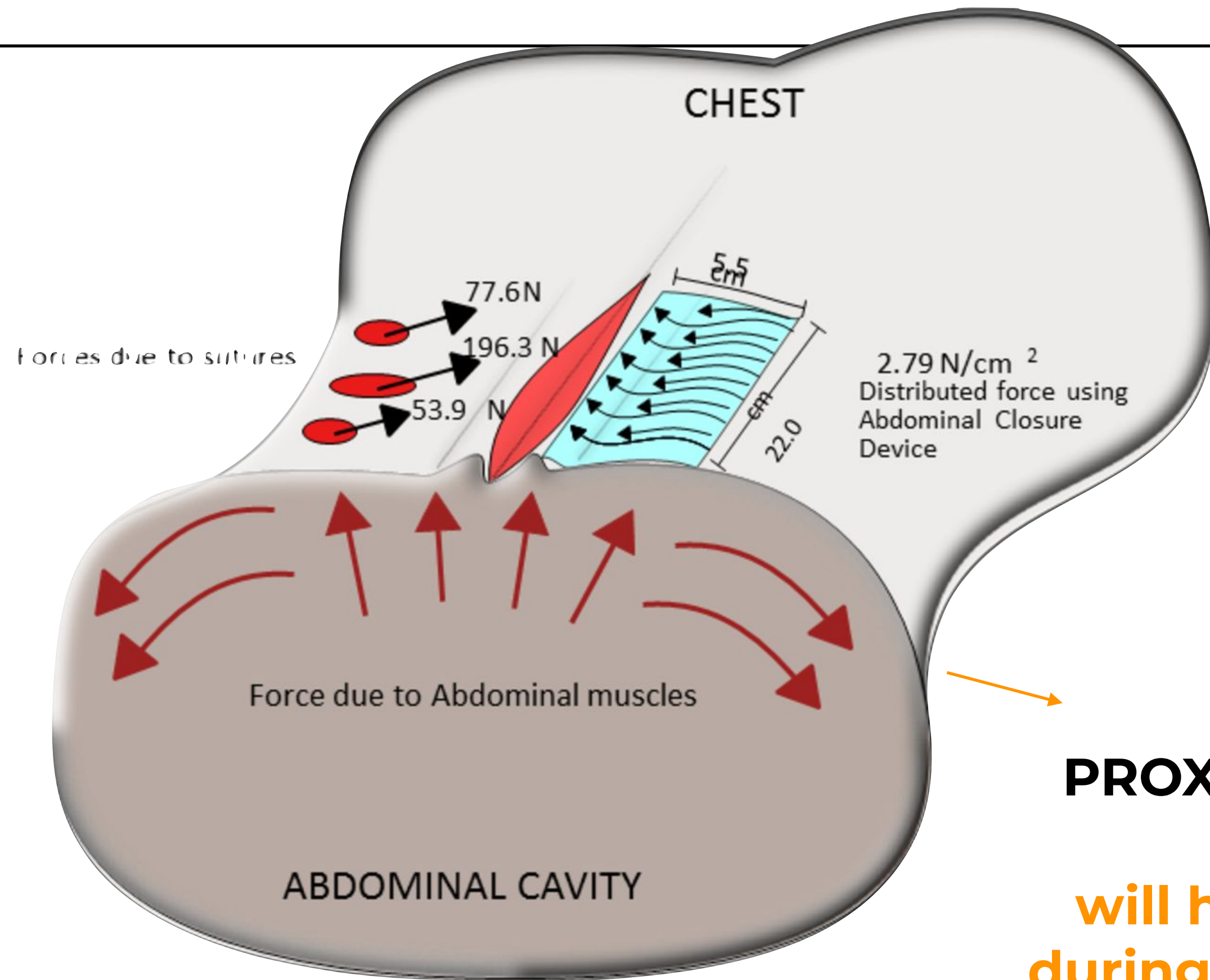


Spine



Parietal Peritoneum

REDUNDANCIES
Nerves
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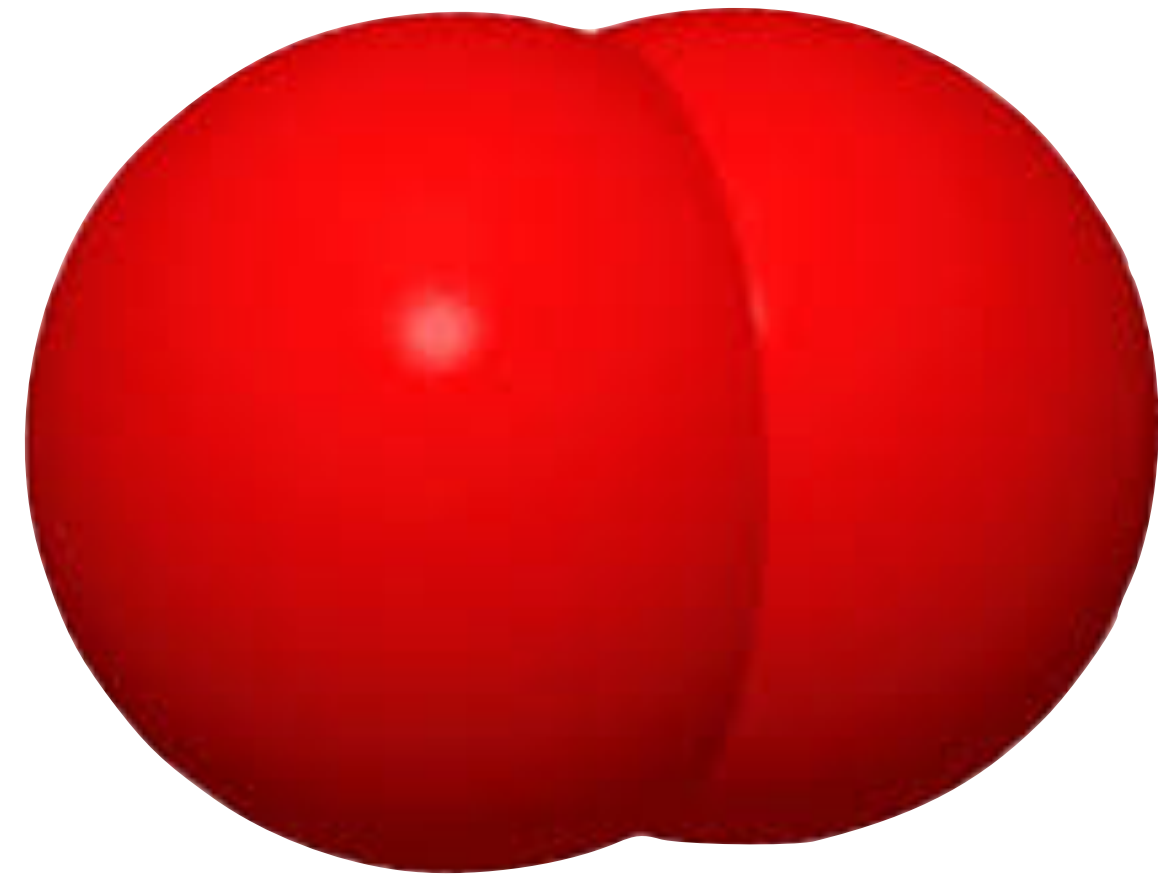
Abdominal 'Hoop Tension'
 (accented during exhalation)
 / diaphragmatic sparing)

PROXIMAL STABILITY

will help hamstrings
 during high contraction
 with high ventilation rates
 e.g. Crossfit)

REDUNDANCIES

- Nerves
- Muscles
- Mechanics**
- Gas Exchange
- Voluntary/
Involuntary



[HGb]

[MGb]

REDUNDANCIES

Nerves

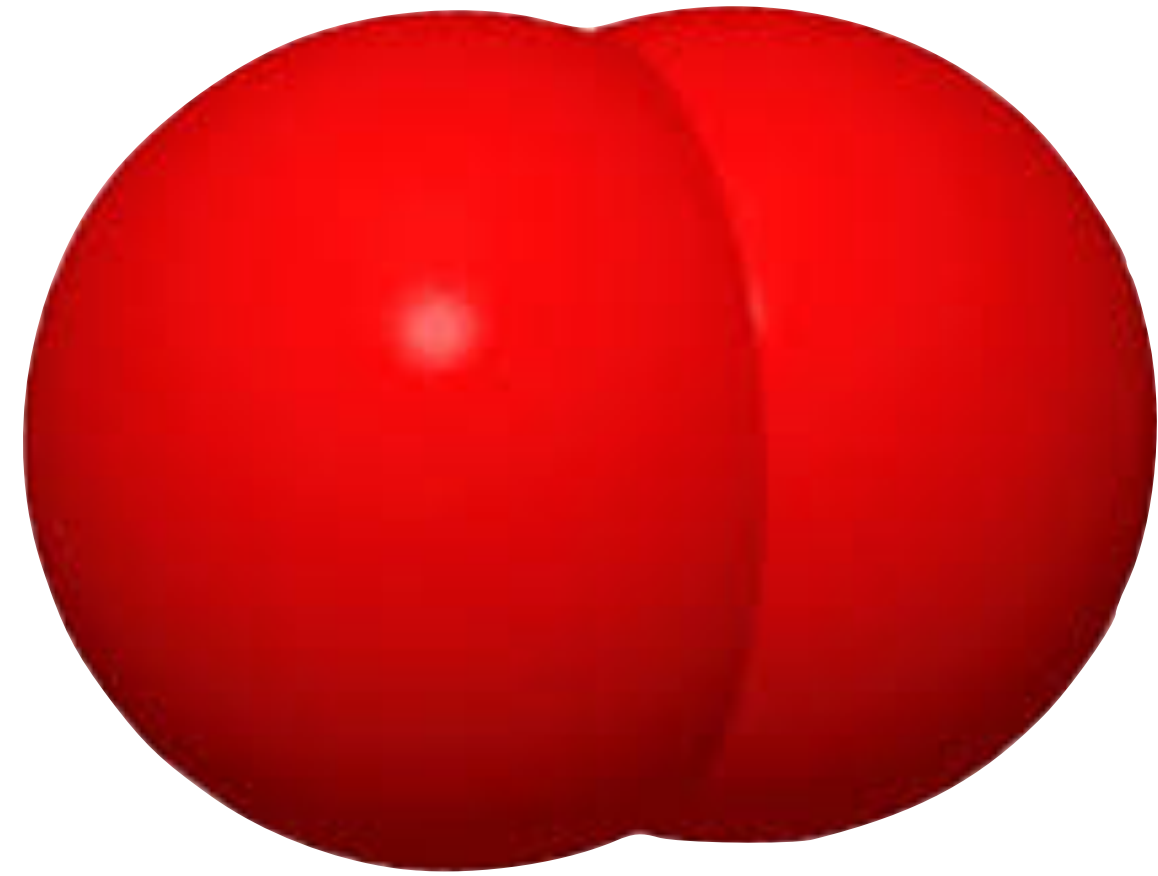
Muscles

Mechanics

Gas Exchange

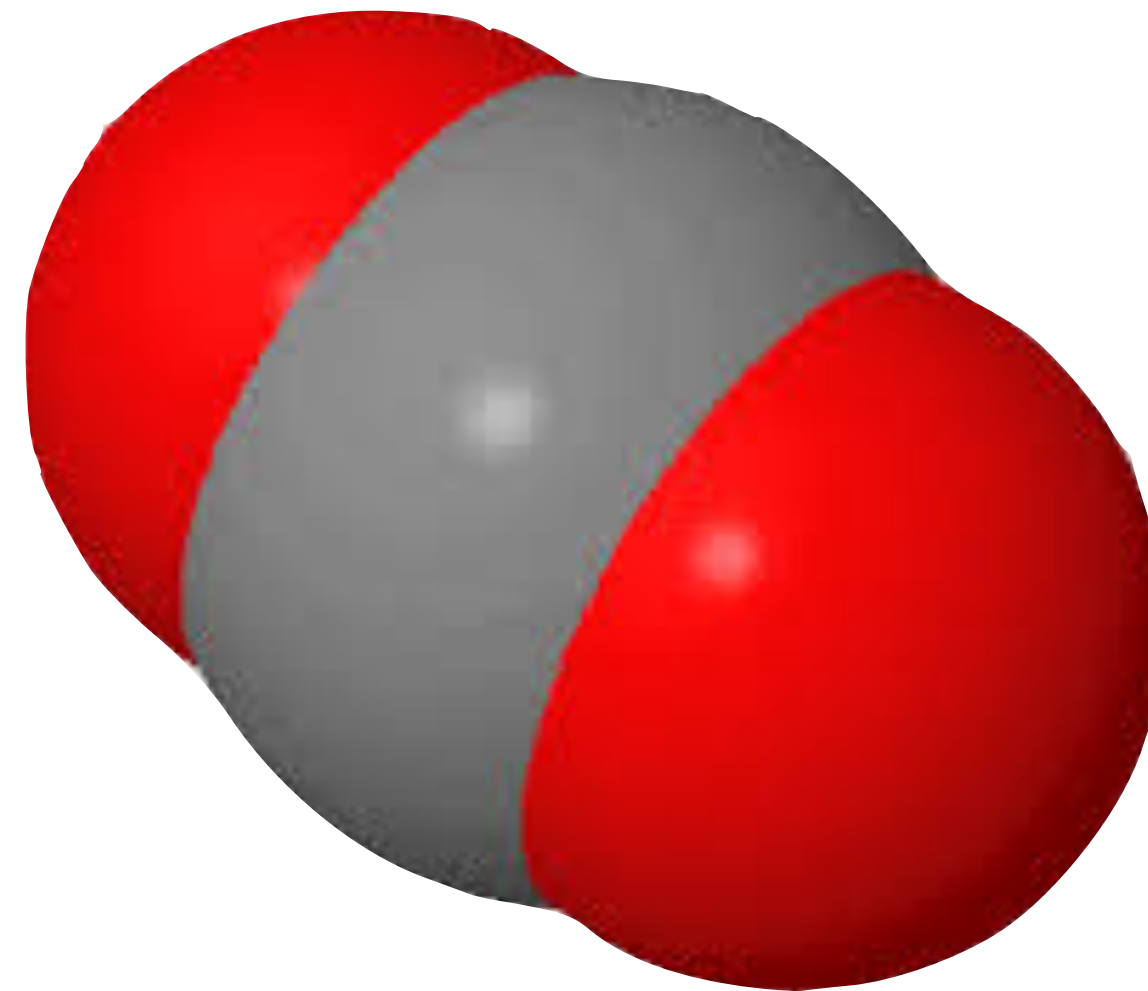
Voluntary/

Involuntary



[HGb]

[MGb]



CO₂ clearance

(Metabolite formation)

OBLA

(Acidosis [H⁺])

REDUNDANCIES

Nerves

Muscles

Mechanics

Gas Exchange

Voluntary/

Involuntary



RESPIRATORY MUSCLE TRAINING (RMT)

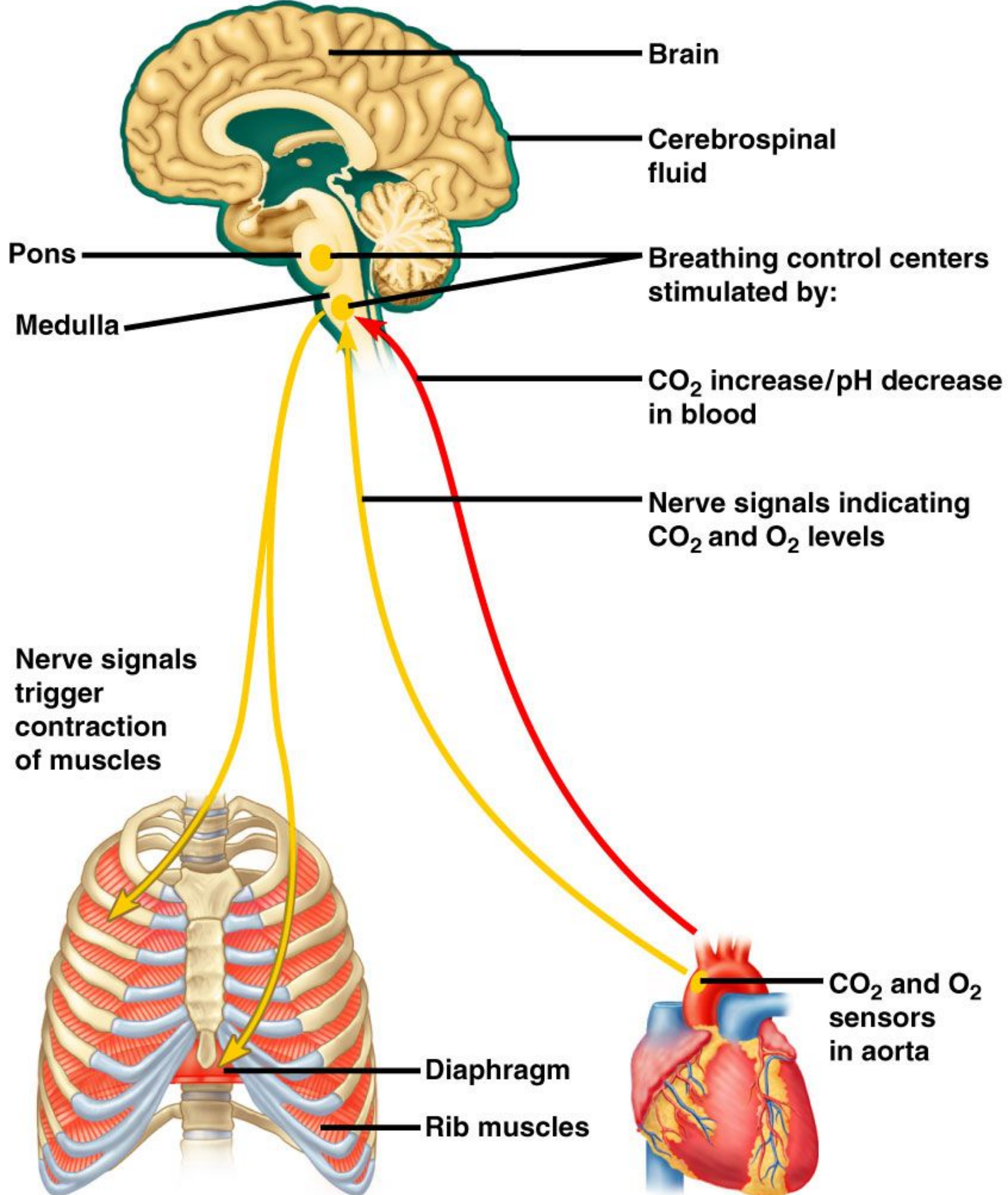
BreathWork



THEORY



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REDUNDANCIES

- Nerves
- Muscles
- Mechanics
- Gas Exchange
- Voluntary/Involuntary**

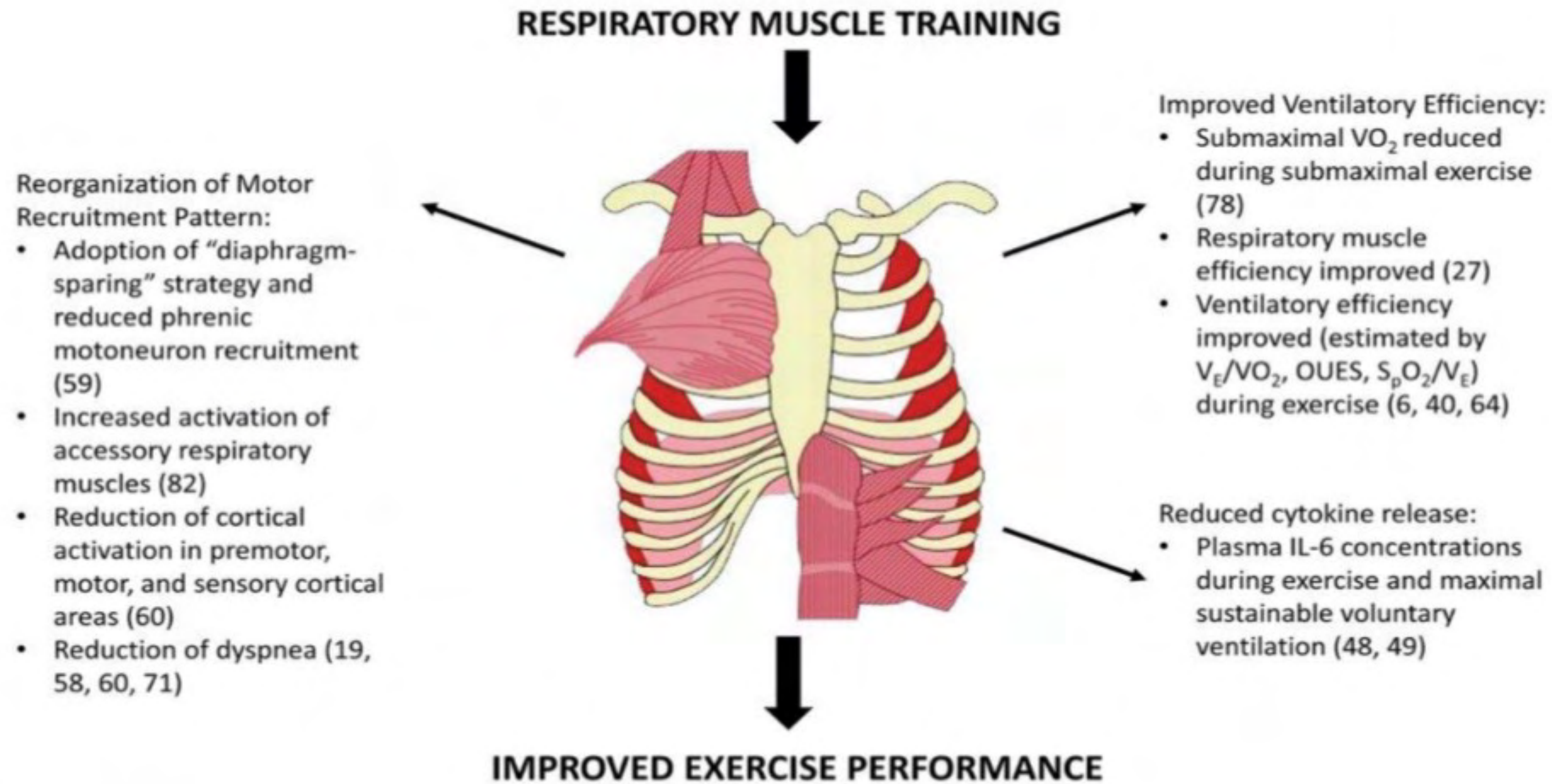


Figure 2.

Illustration of new insights from recent investigations into physiological adaptations induced by IMT that may enhance exercise performance.

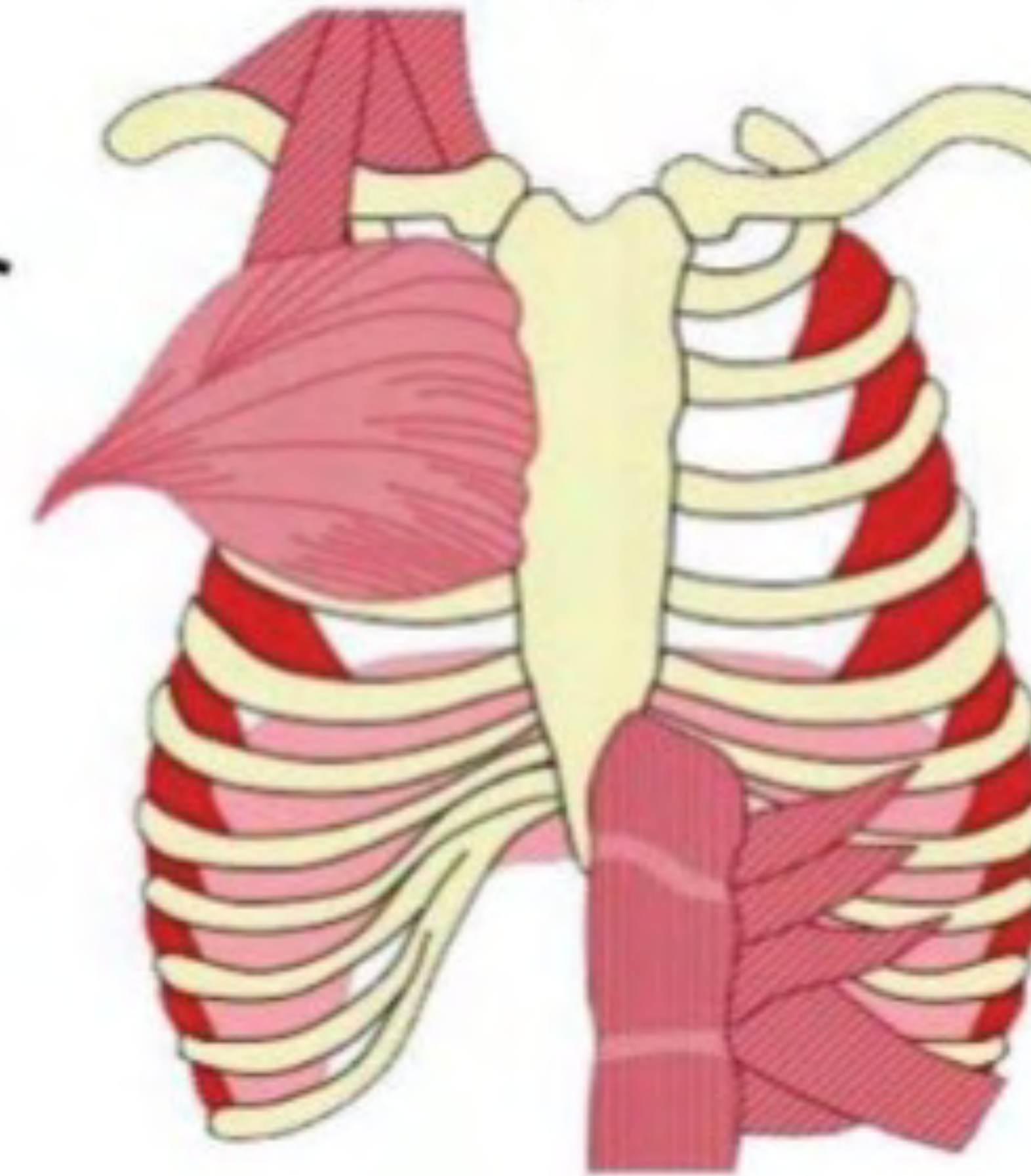
Adopted from: Recent advancements in our understanding of the ergogenic effect of respiratory muscle training in healthy humans: a systematic review

RESPIRATORY MUSCLE TRAINING

Reorganization of Motor Recruitment Pattern:

Adoption of “diaphragm-sparing” strategy and reduced phrenic motoneuron recruitment (59)

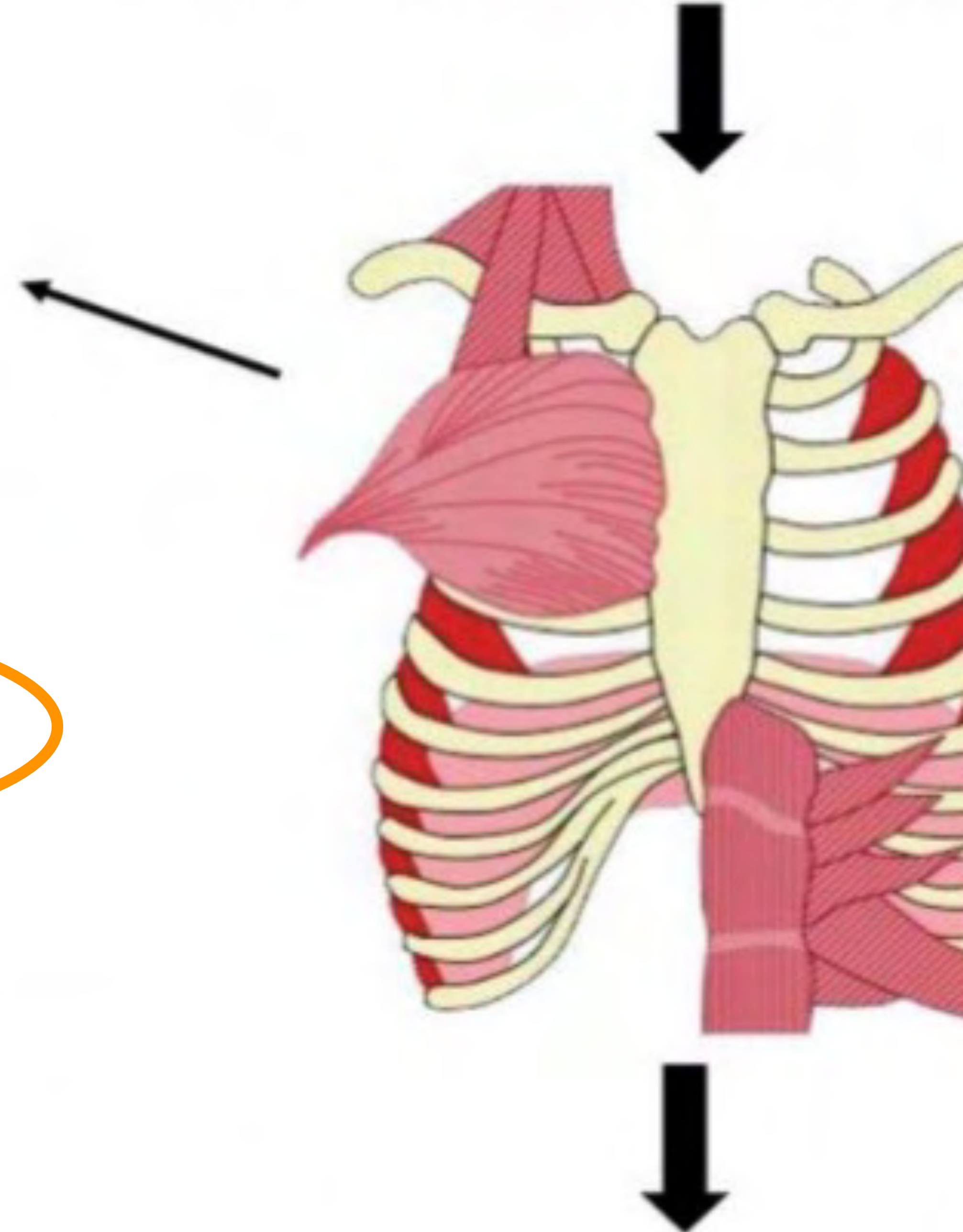
- Increased activation of accessory respiratory muscles (82)
- Reduction of cortical activation in premotor, motor, and sensory cortical areas (60)
- Reduction of dyspnea (19, 58, 60, 71)



RESPIRATORY MUSCLE TRA

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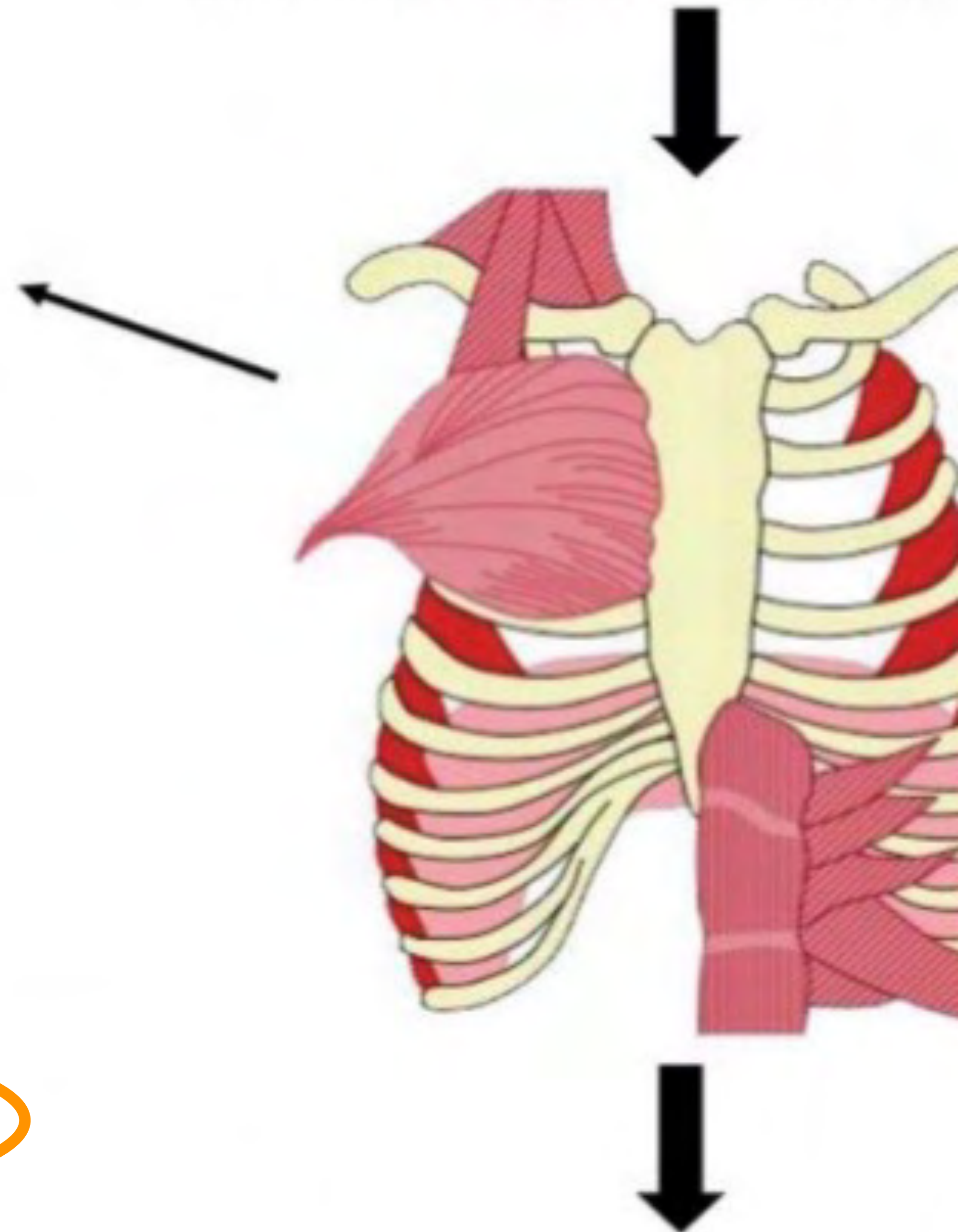
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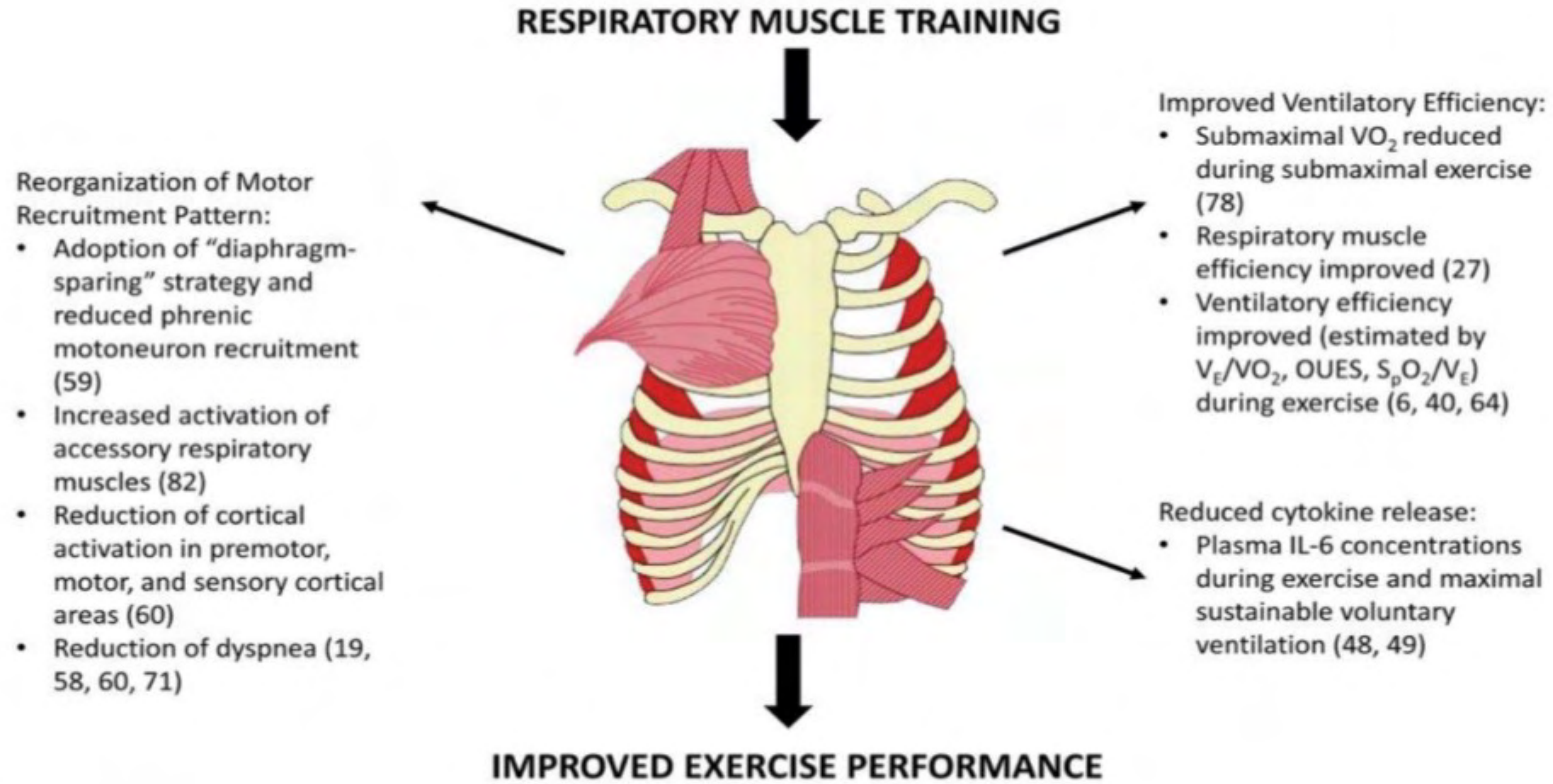
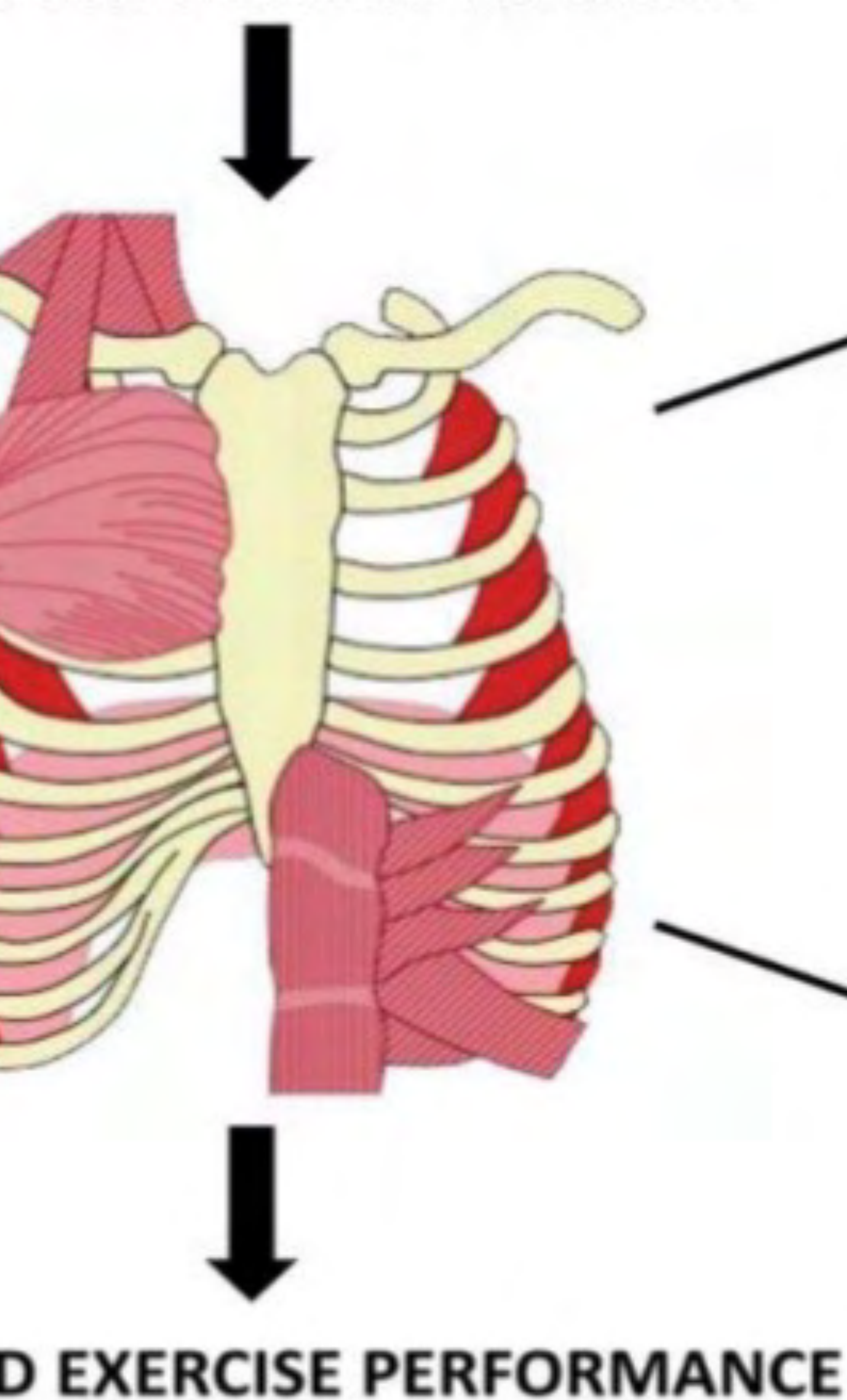


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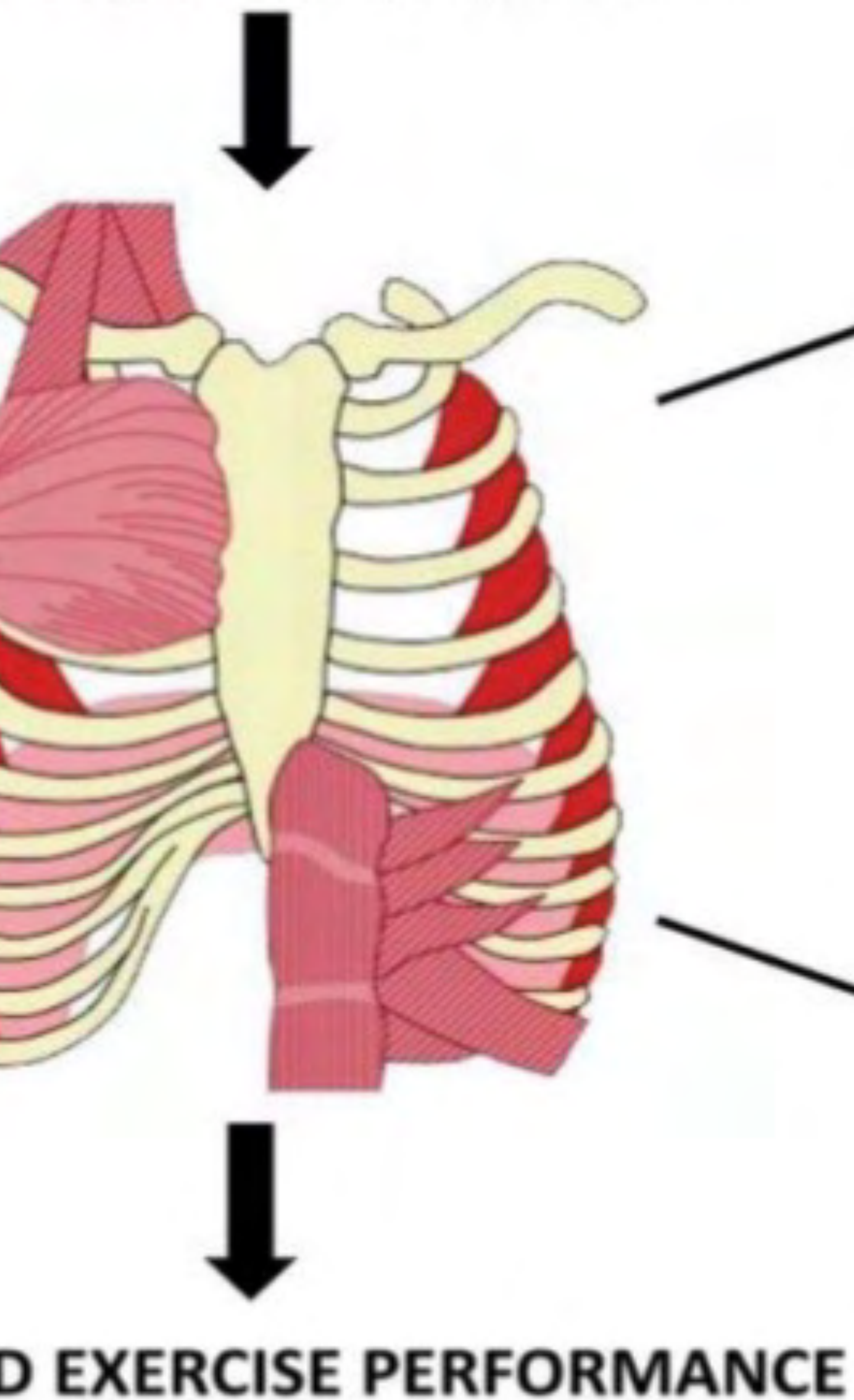


Improved Ventilatory Efficiency:

- Submaximal $\dot{V}O_2$ reduced during submaximal exercise (78)
- Respiratory muscle efficiency improved (27)
- Ventilatory efficiency improved (estimated by $V_E/\dot{V}O_2$, OUES, S_pO_2/V_E) during exercise (6, 40, 64)

Reduced cytokine release:

- Plasma IL-6 concentrations during exercise and maximal sustainable voluntary ventilation (48, 49)

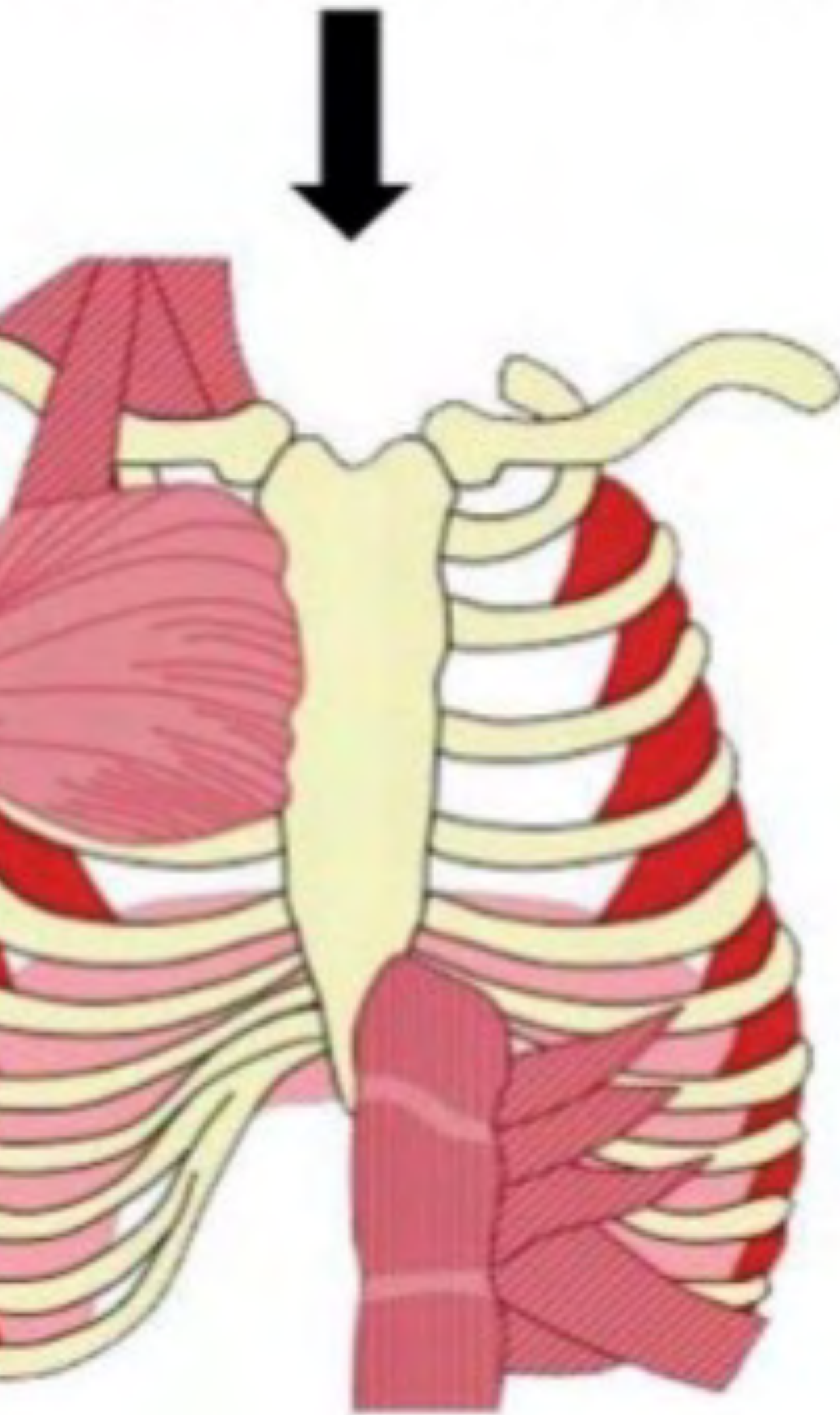


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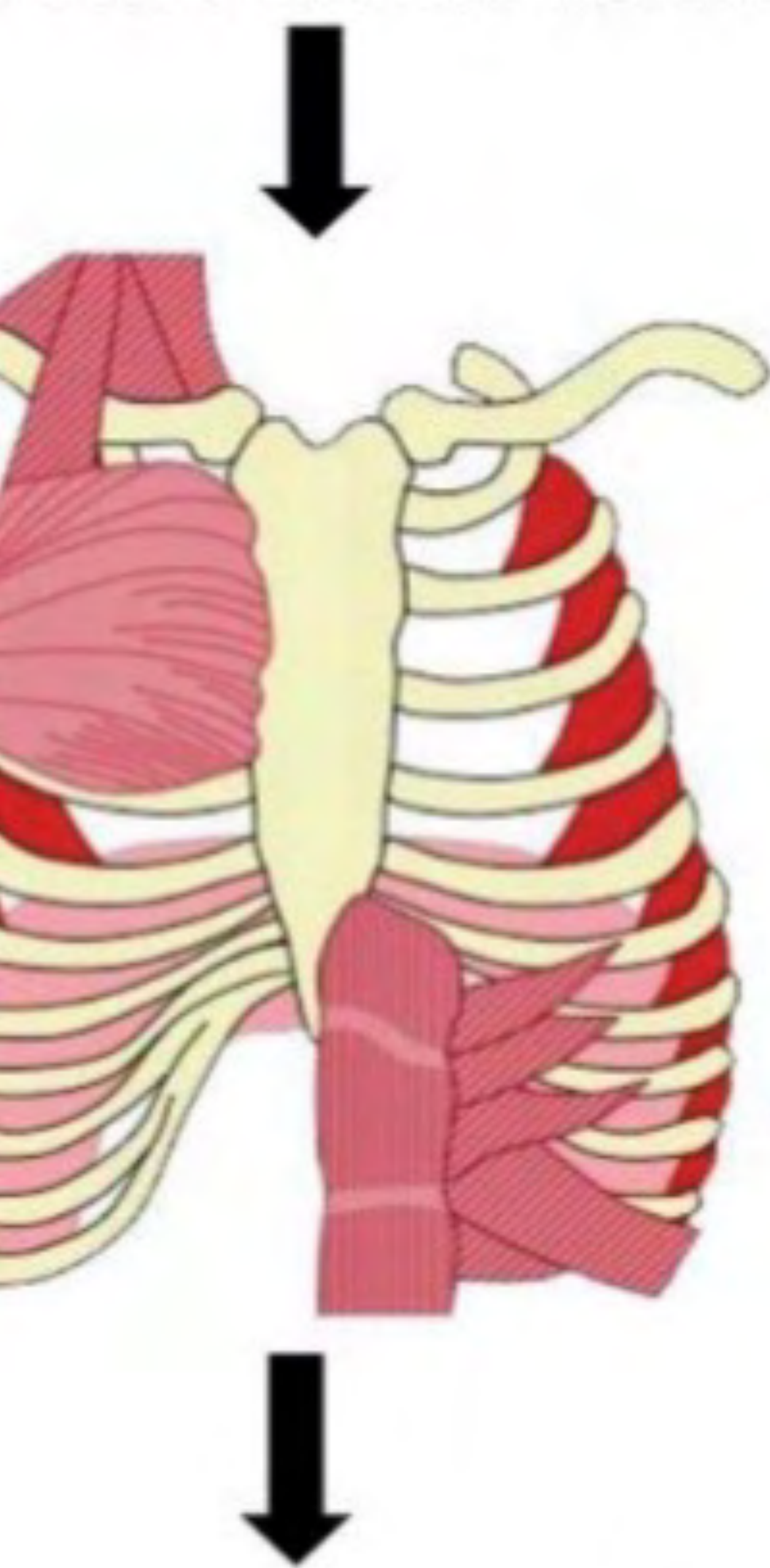
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IMPROVED EXERCISE PERFORMANCE



Improved Ventilatory Efficiency:

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↓
D EXERCISE PERFORMANCE

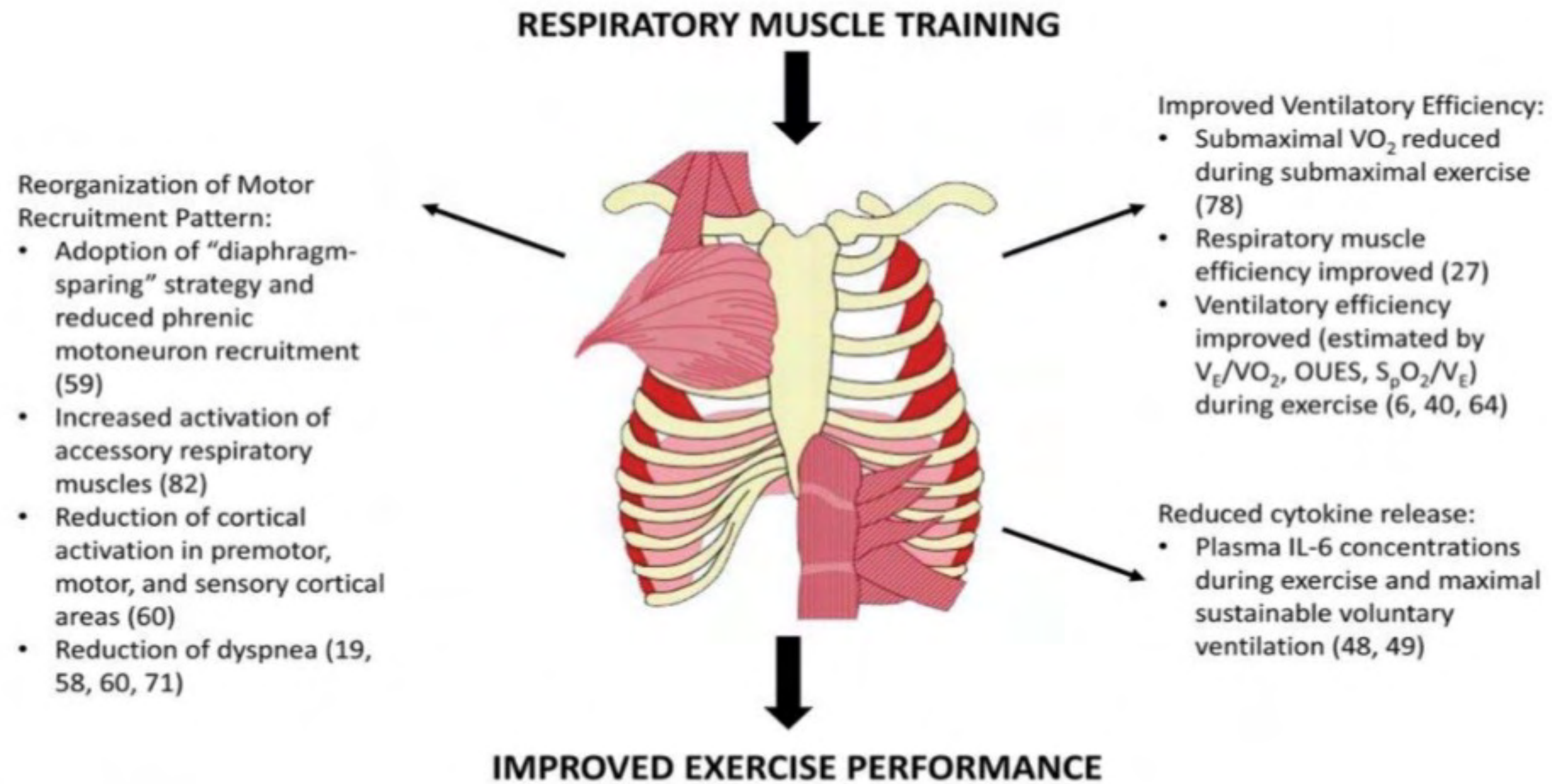


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RESPIRATORY MUSCLE TRAINING (RMT)

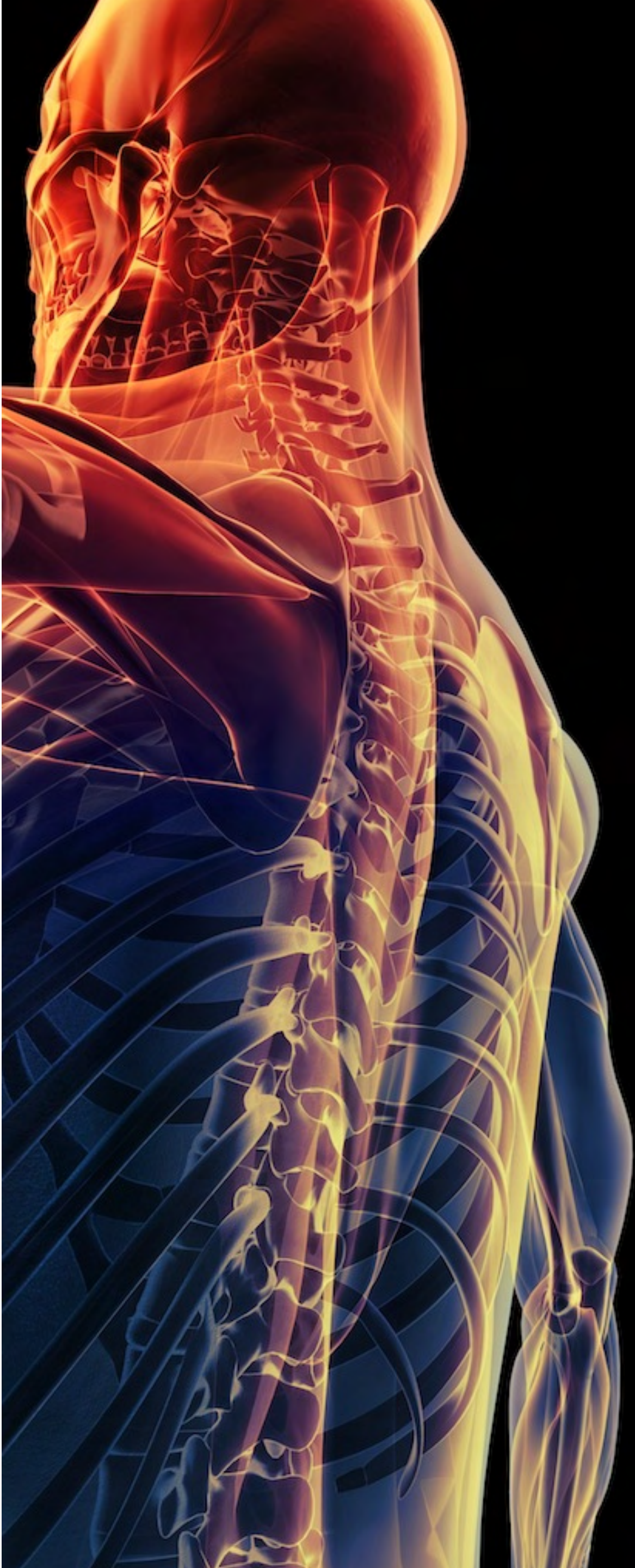
BreathWork



PRACTICE



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Muscles are, first and foremost, TASK DRIVEN. (research by **Zajac** and **Gordon**)

This means they coordinate (through nervous input) to optimize an outcome. Think of walking ... rarely are we conscious of it, and if we are, we generally impair its coordination.

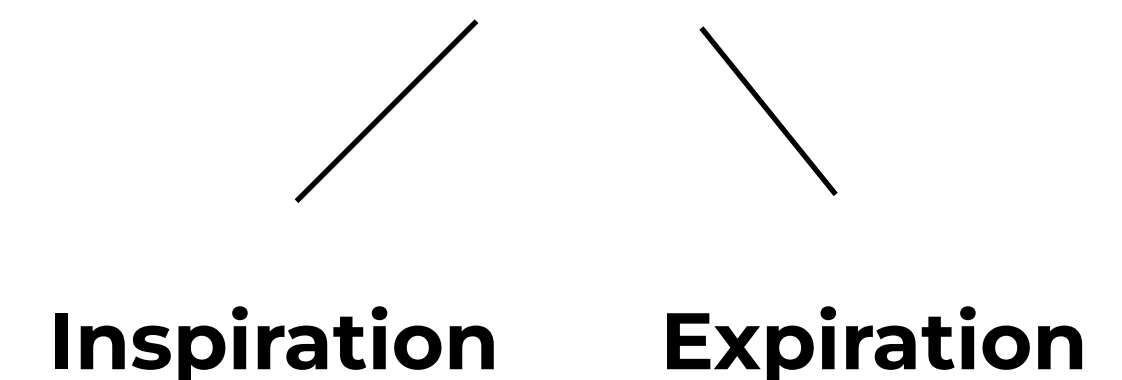
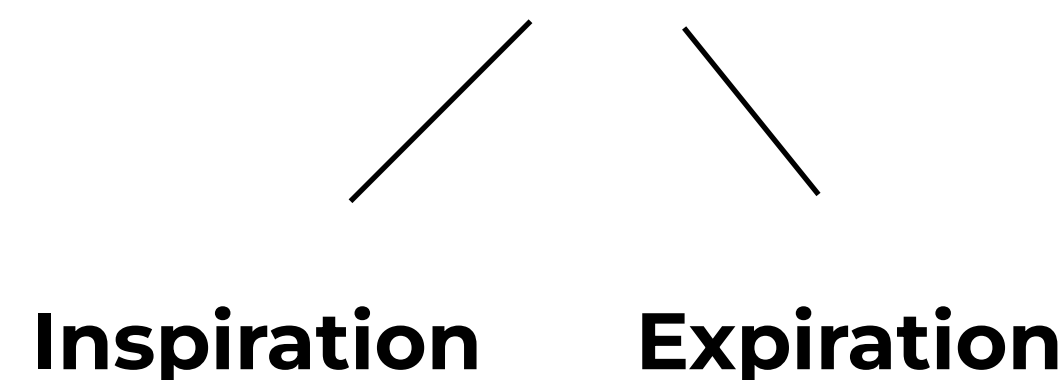
Thus, many different muscles can influence the action of breathing.

For most of these muscles, breathing is NOT their main function. Accessory breathing muscles (those involved in speeding up, slowing, down, stopping, relaxing or exciting breathing) are primarily TYPE 1 (slow oxidative) stabilization motor units.

Therefore, to influence deep stabilization of the lumbo-pelvic hip complex, we will teach:

1 - Forced Breathing

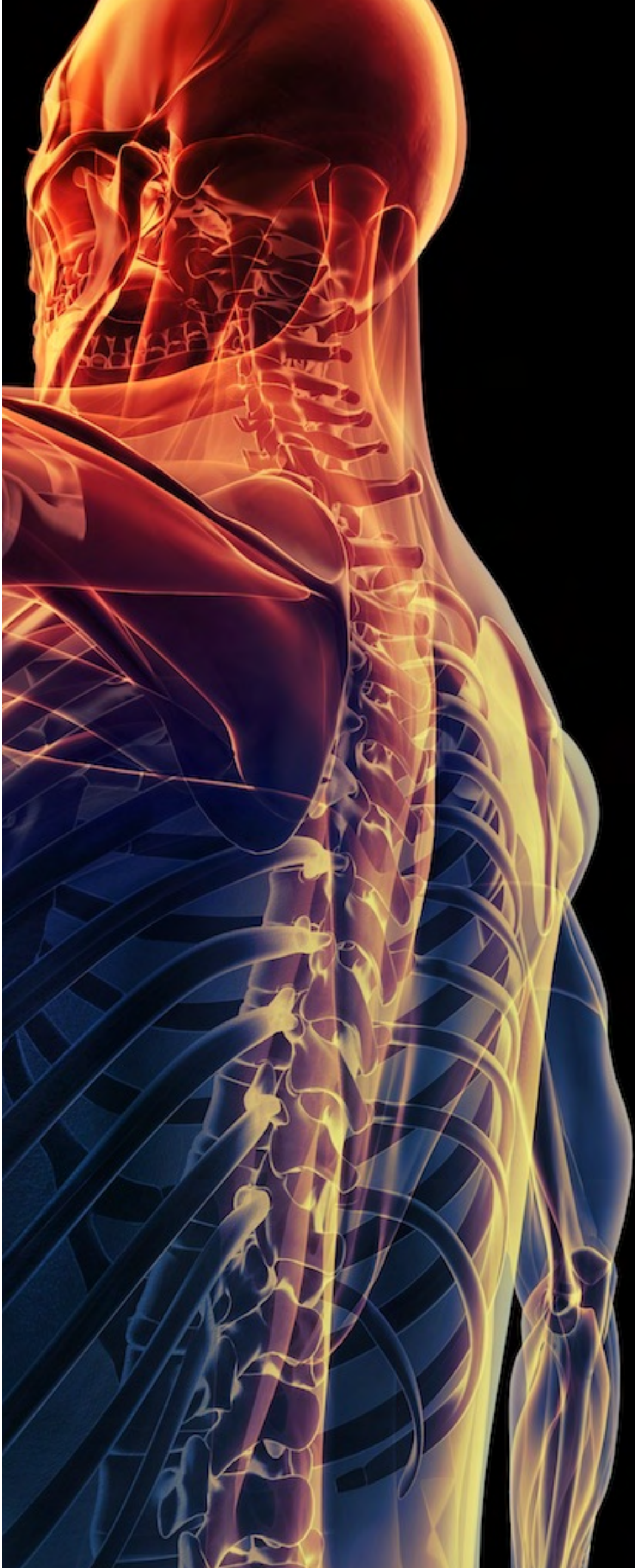
2 - Percussive Breathing



Small Motor Unit
Recruitment

Excitation





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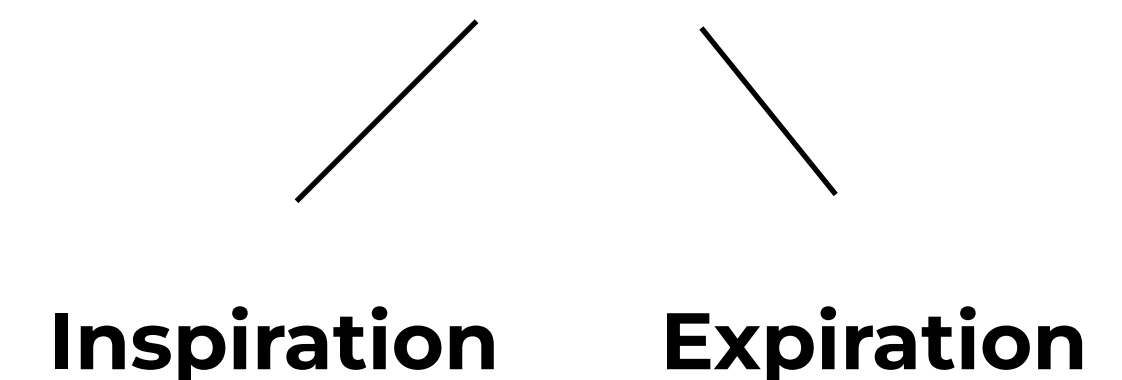
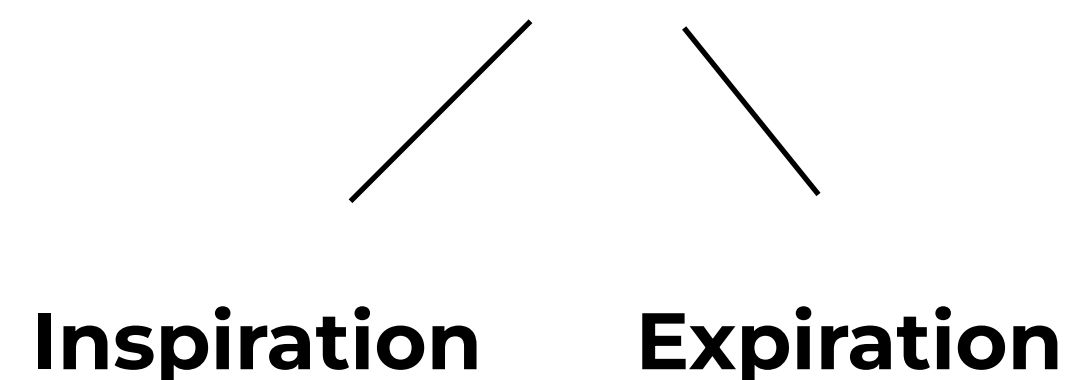
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2 - Percussive Breathing



Small Motor Unit
Recruitment

Excitation





FORCED INHALATION

(Positional Breathing-Type 1)



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FORCED INHALATION

(Positional Breathing-Type 2)



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FORCED EXHALATION (Positional Breathing)



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FORCED EXHALATION

(Positional Breathing)



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FORCED EXHALATION/INHALATION

(Forced Breathing)



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FORCED EXHALATION/INHALATION

(Forced Breathing)



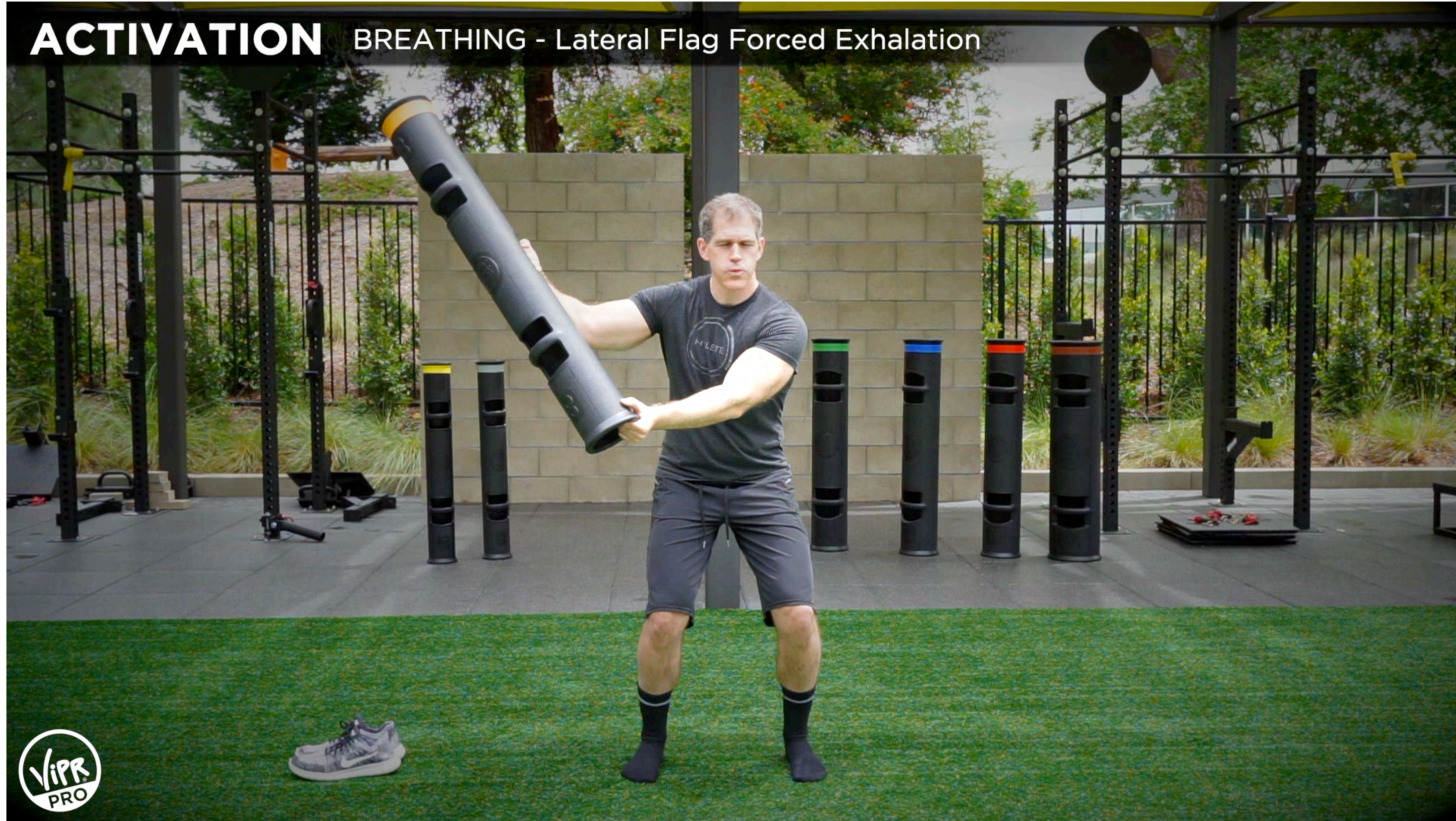
#ideaworld



FORCED EXHALATION

(Positional Breathing)

ACTIVATION BREATHING - Lateral Flag Forced Exhalation

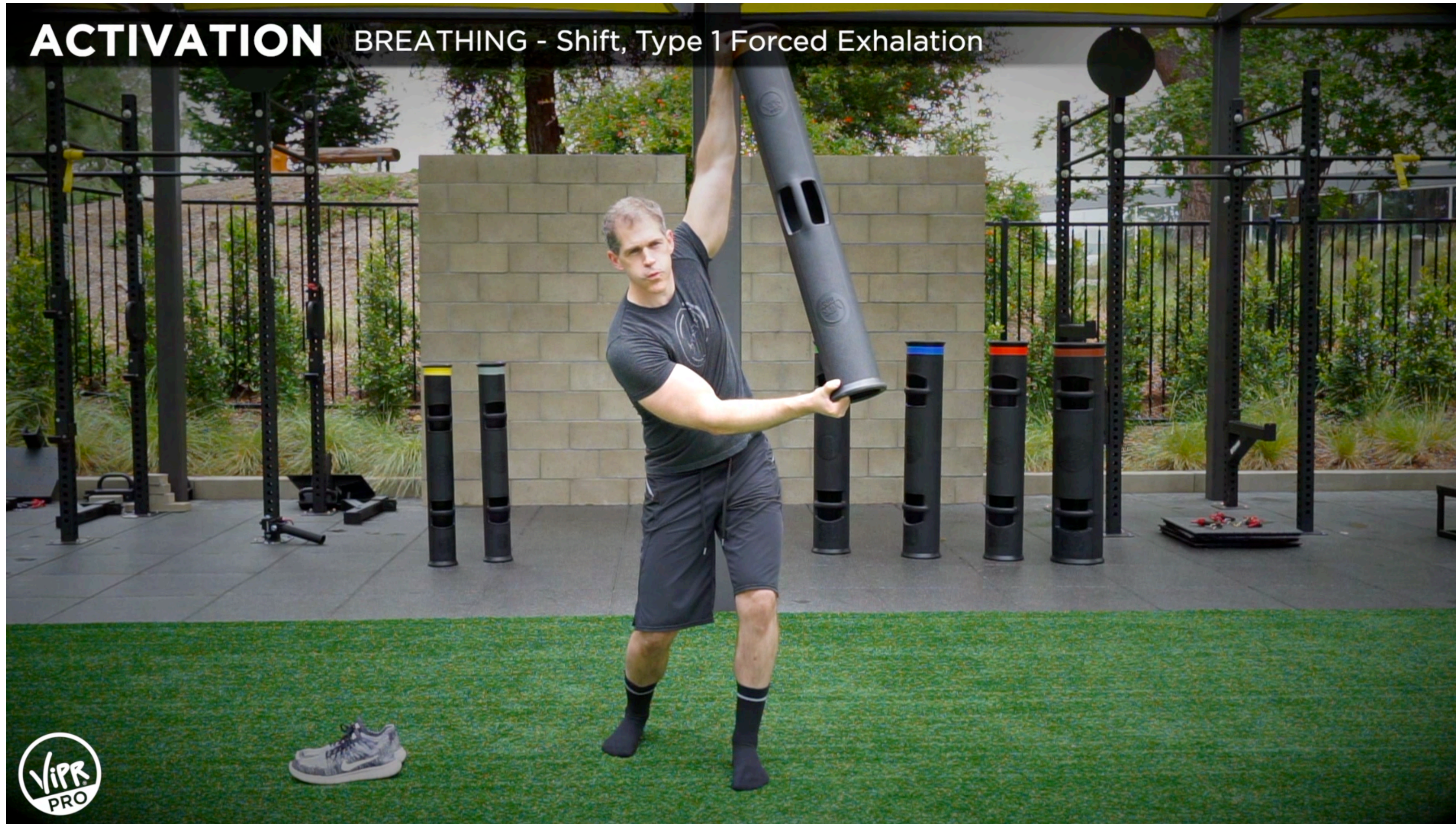


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FORCED EXHALATION

(Positional Breathing)



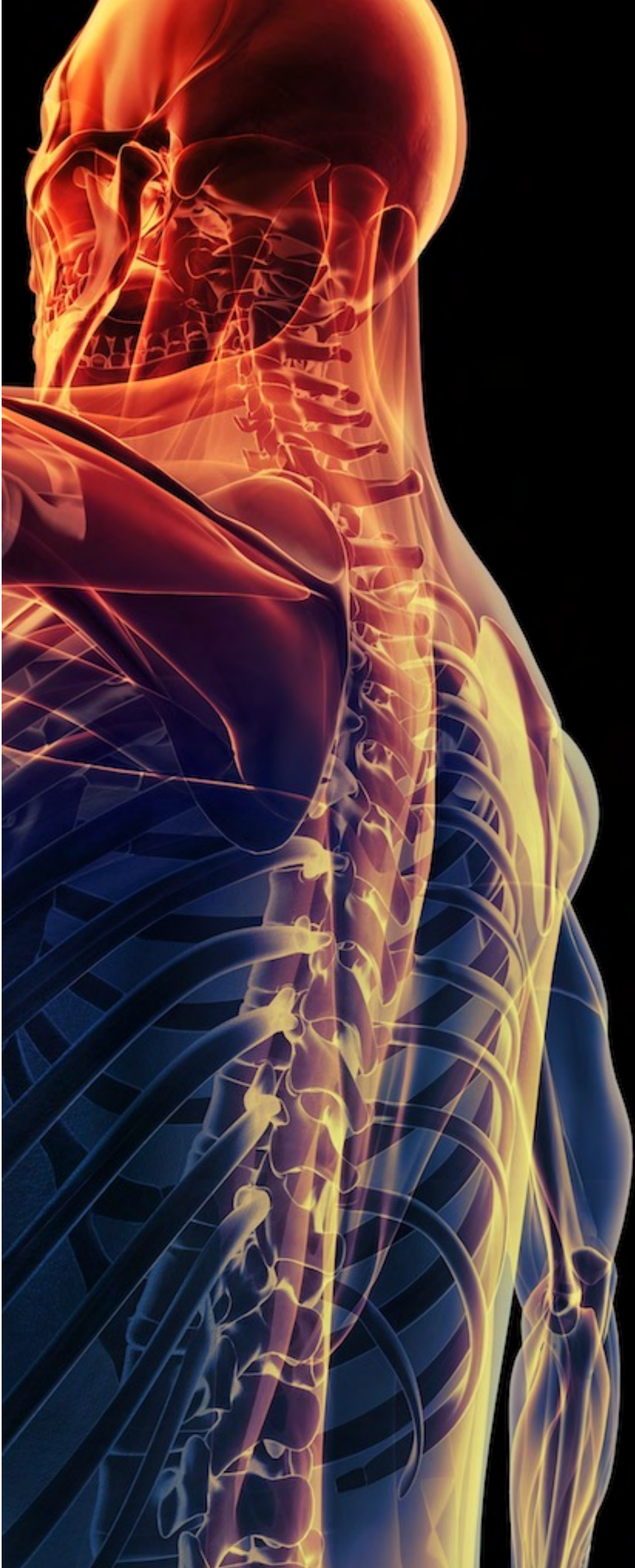
#ideaworld



FORCED EXHALATION (Valsalva Breathing)



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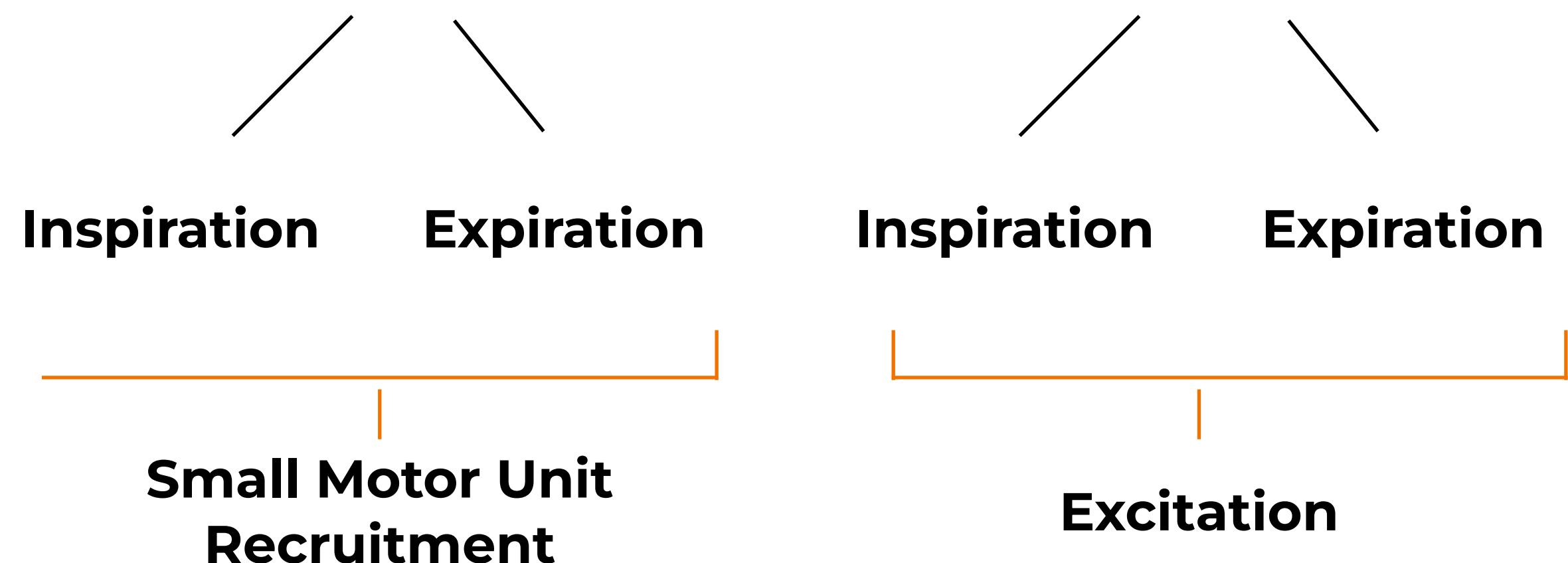
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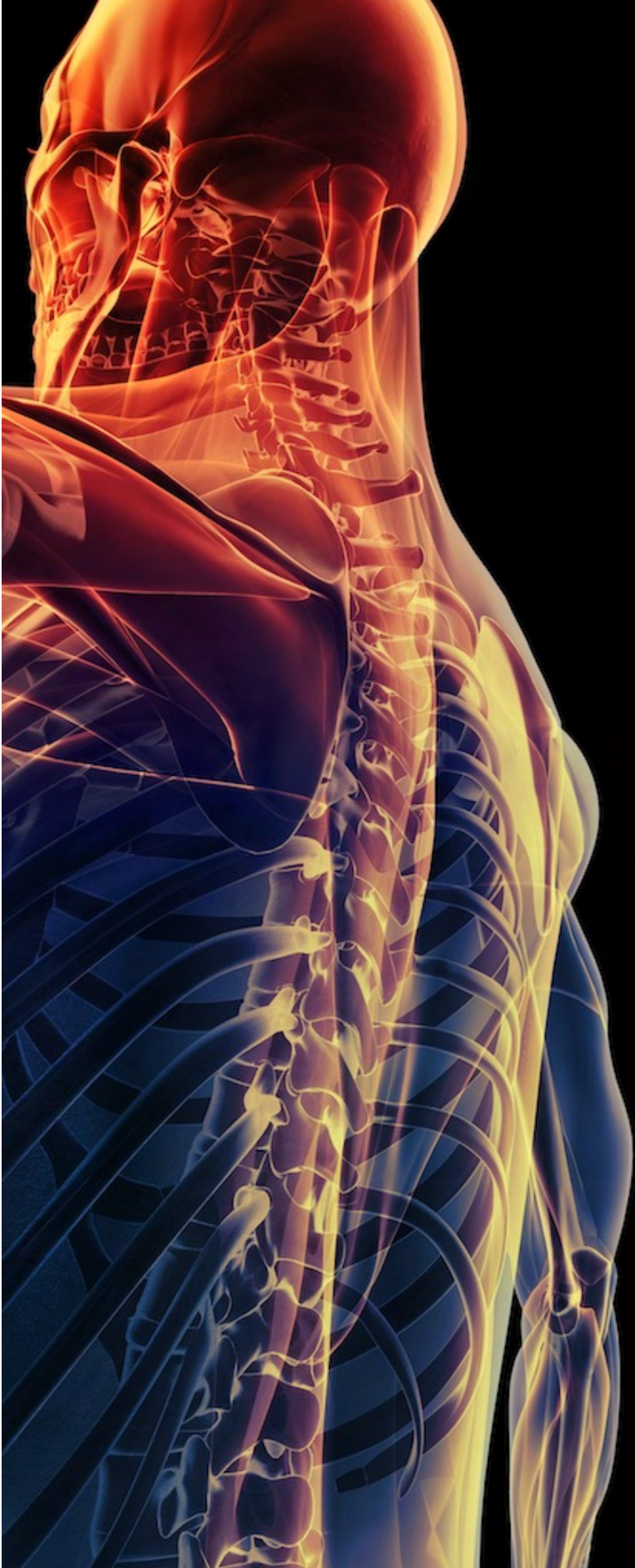
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1 - Forced Breathing

2 - Percussive Breathing

Inspiration Expiration

Inspiration Expiration

Small Motor Unit
Recruitment

Excitation





PERCUSSIVE EXHALATION

(Rate of Relaxation)



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PERCUSSIVE EXHALATION

(Rate of Relaxation)



#ideaworld



RESPIRATORY MUSCLE TRAINING (RMT)

BreathWork



APPLIED



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PROGRAMMING MAP



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PROGRAMMING THEMES



Activation Strategies:

Activation exercises increase system stimulation

Mobility Strategies:

Mobility exercises increase internal space and joint RoM

Cardio Strategies:

Cardio exercises increase cardiovascular and cardiorespiratory conditioning through rhythmical, continuous movement

Strength Strategies:

Strength exercises increase force production

Power / Plyometric Strategies:

Power exercises increase rate of force production

Regeneration Strategies:

Regeneration exercises increase system recovery



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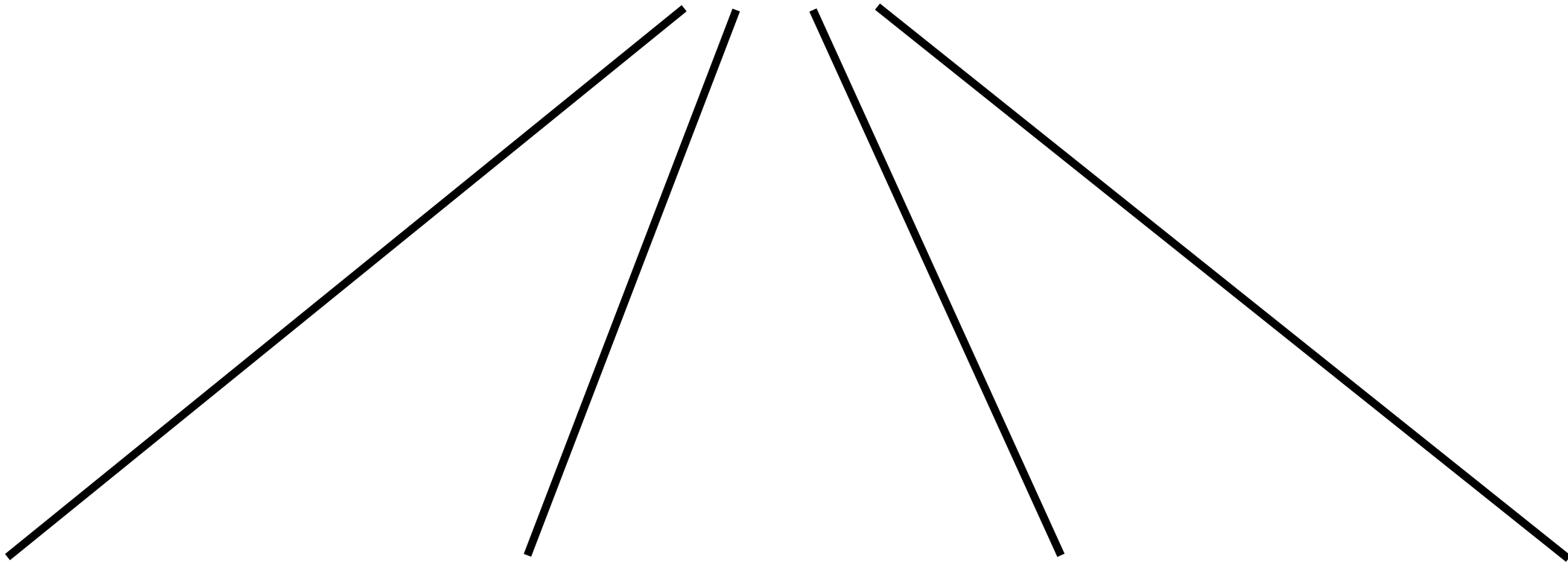


PROGRAMMING THEMES



Activation Strategies:

Activation exercises increase system stimulation



1. Fluid Dynamic

Rub and Scrub
pumps
cardio

2. Small Motor Unit Recruitment

Forced Breathing

3. Excitation

Percussive Breathing

4. Stimulation

Oculomotor
Vestibular
Task Switching



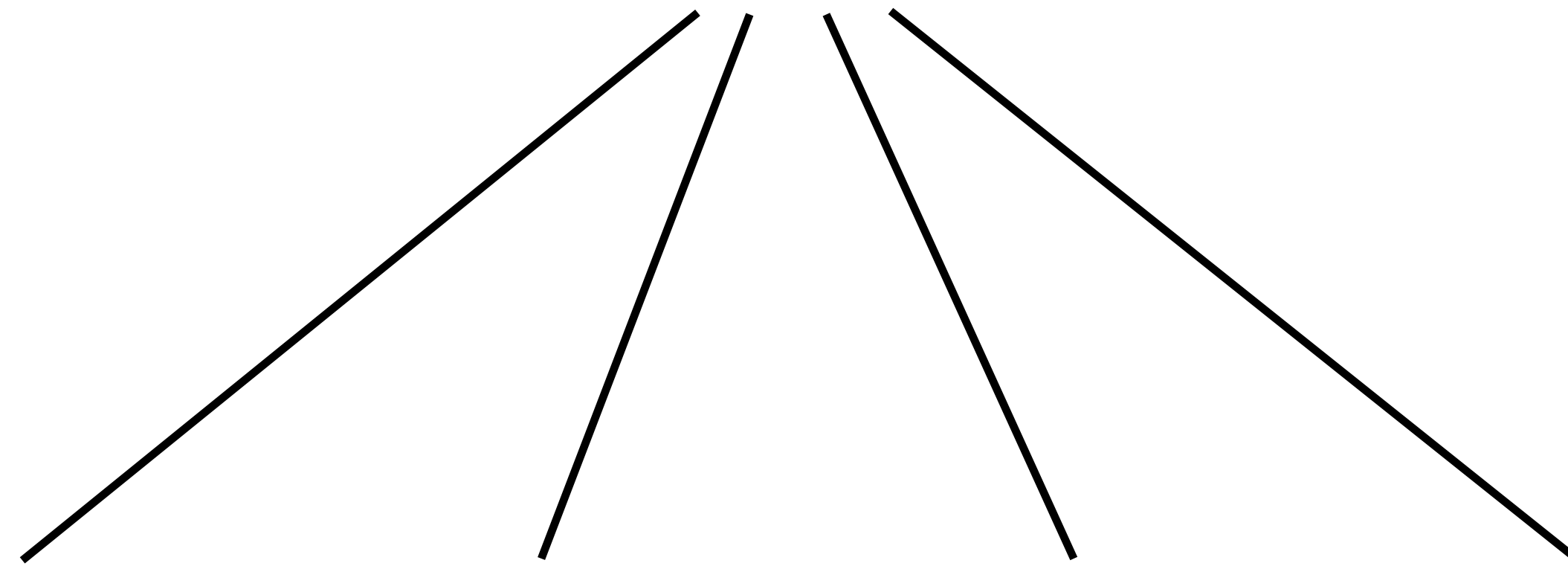
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Activation Strategies:

Activation exercises increase system stimulation



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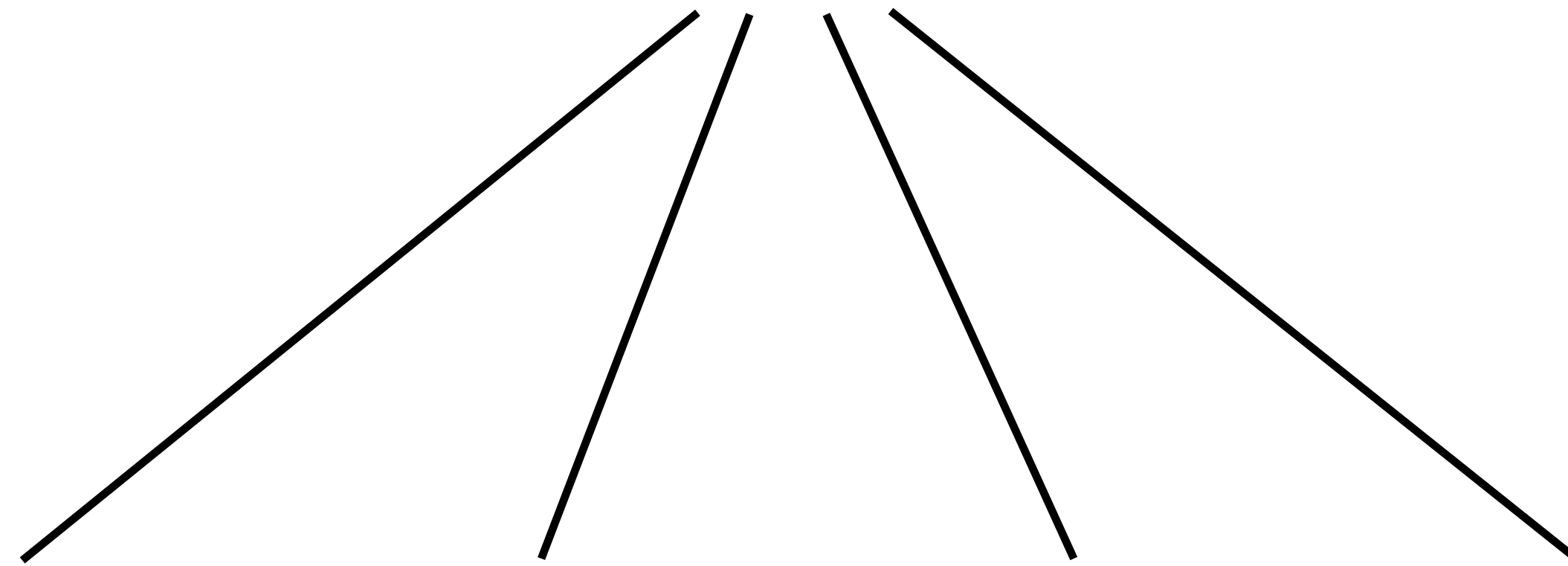


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Activation Strategies:

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Oculomotor
Vestibular
Task Switching

WARM-UP



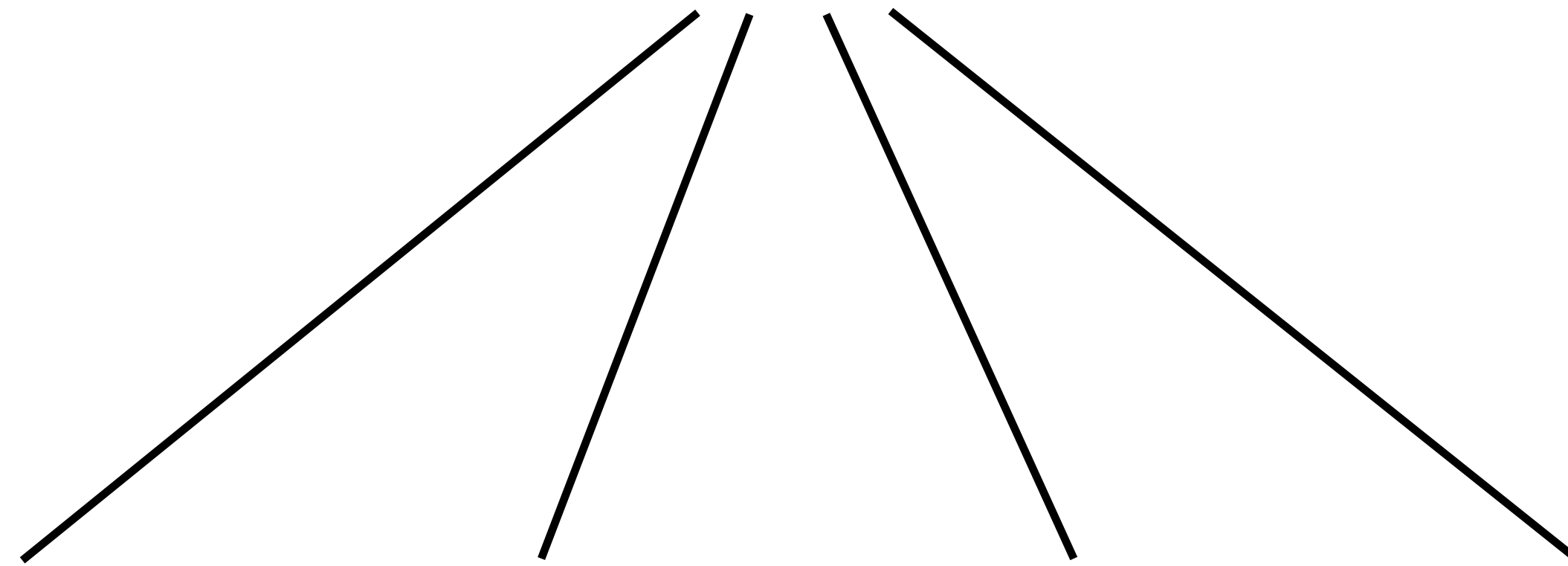
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Activation Strategies:

Activation exercises increase system stimulation



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Rub and Scrub
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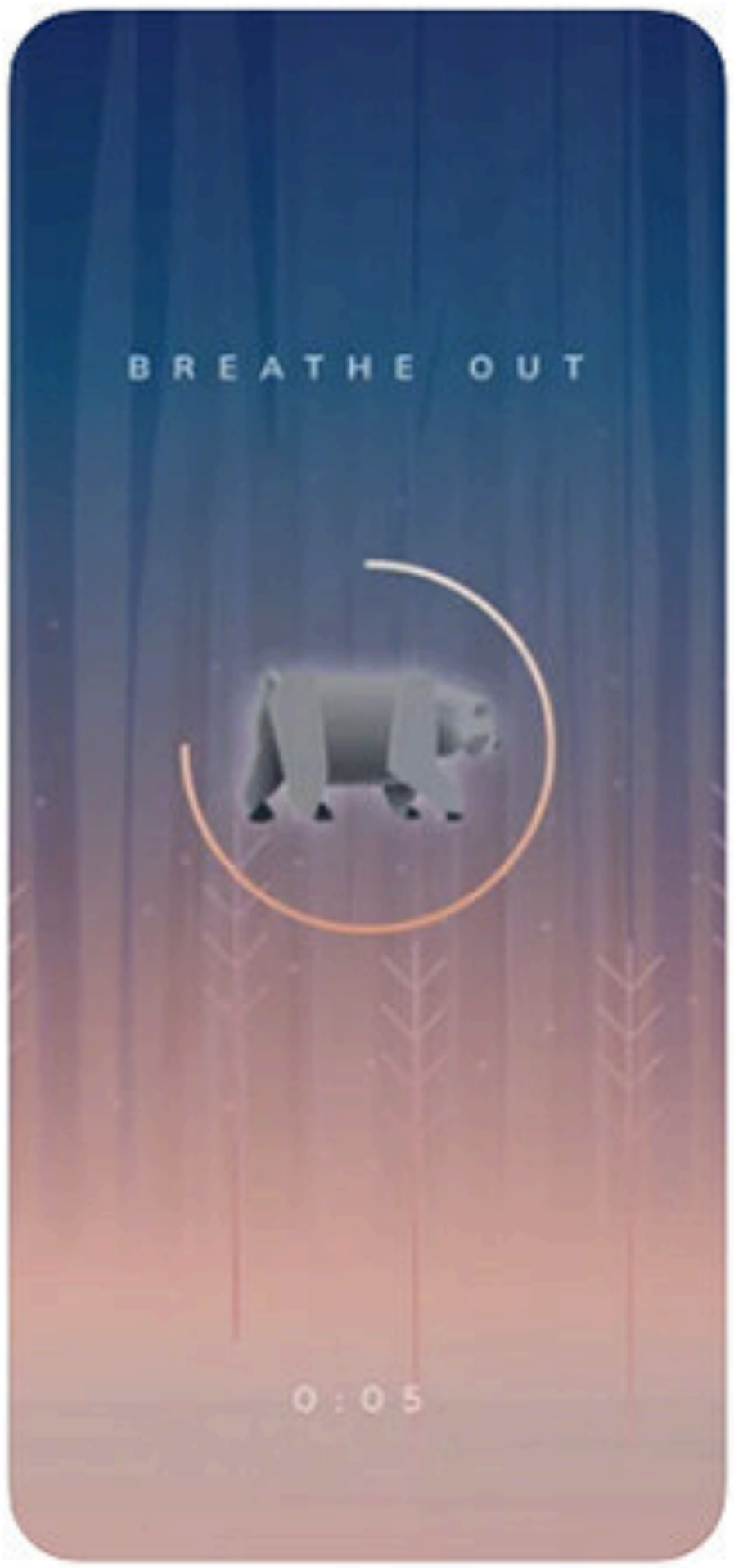
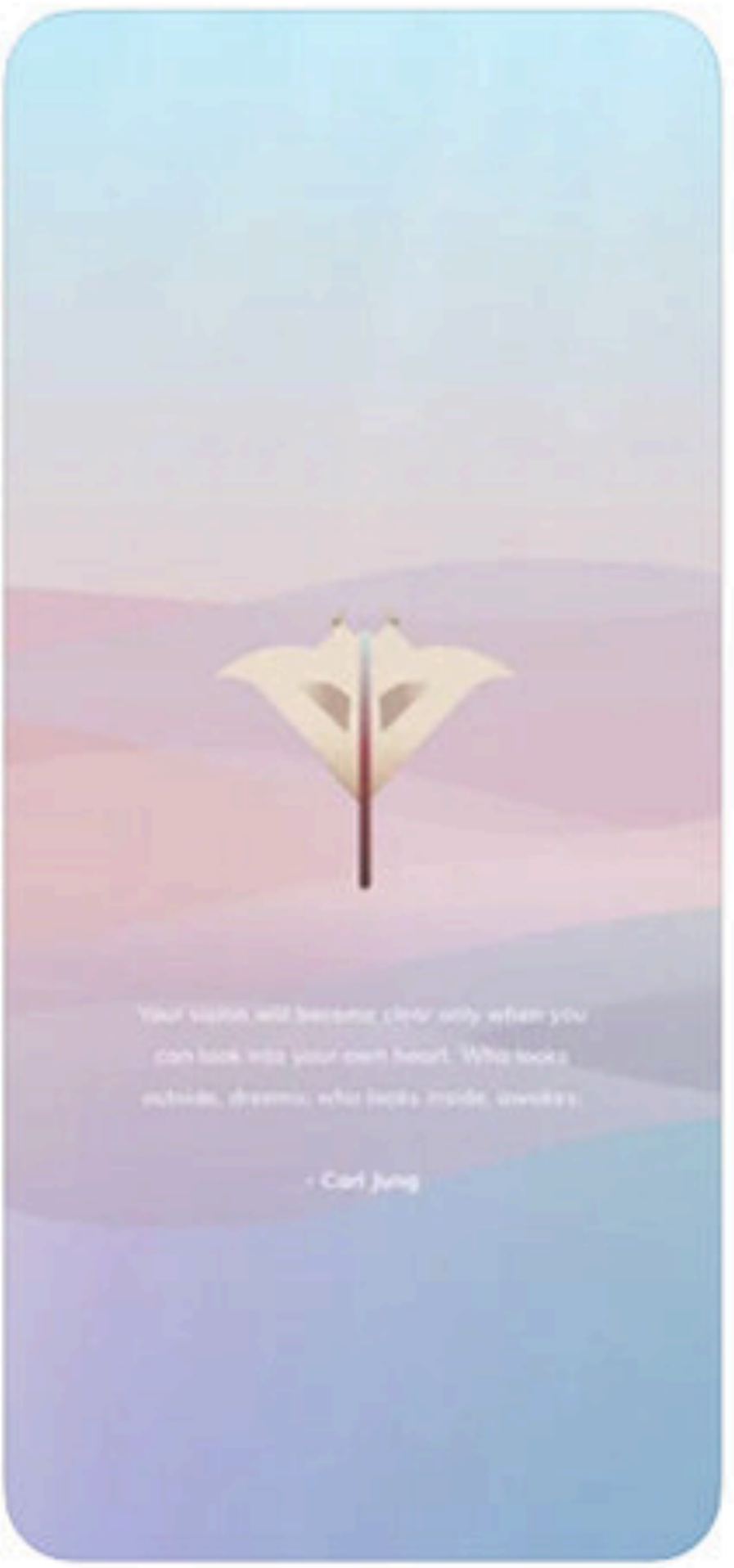
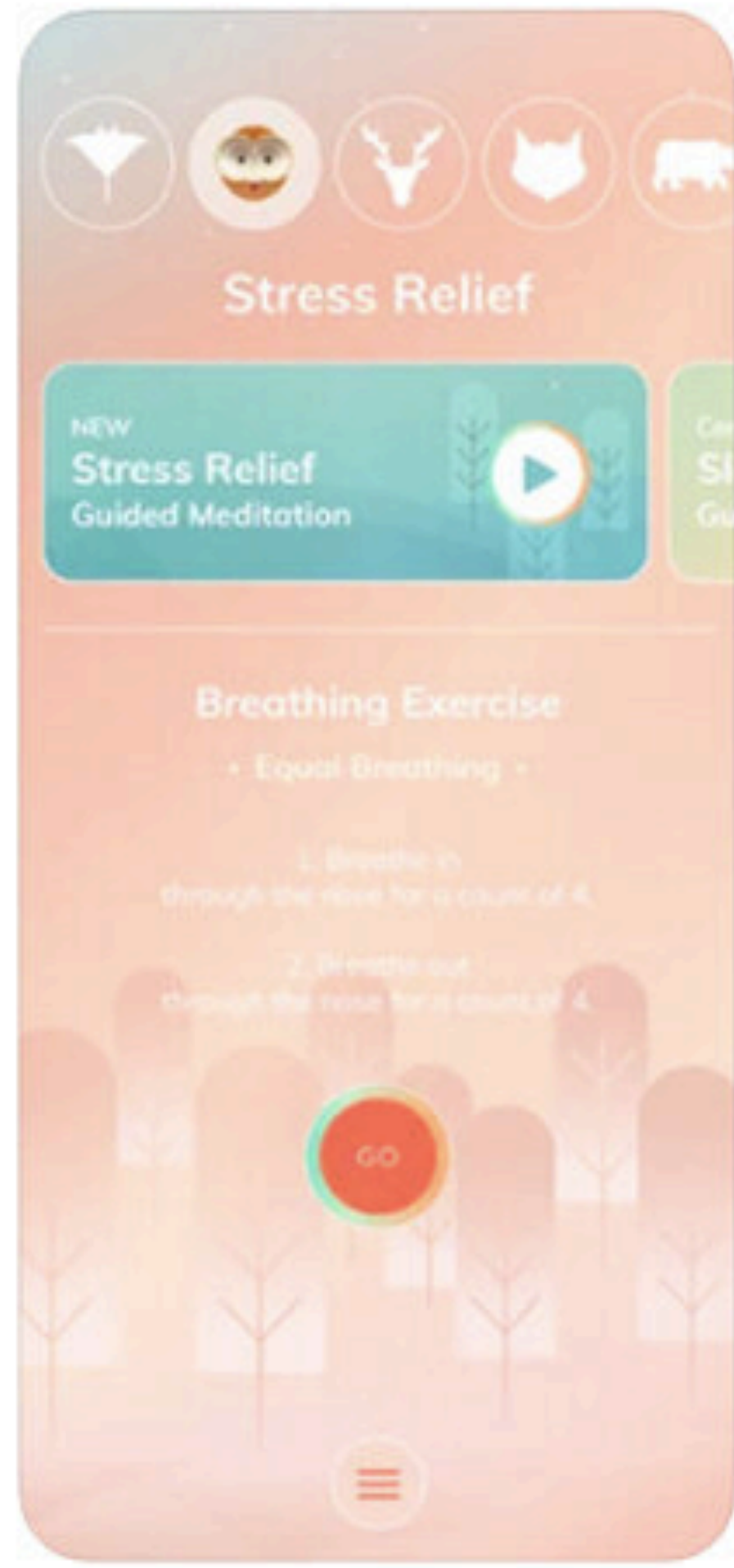
Oculomotor
Vestibular
Task Switching

SESSION



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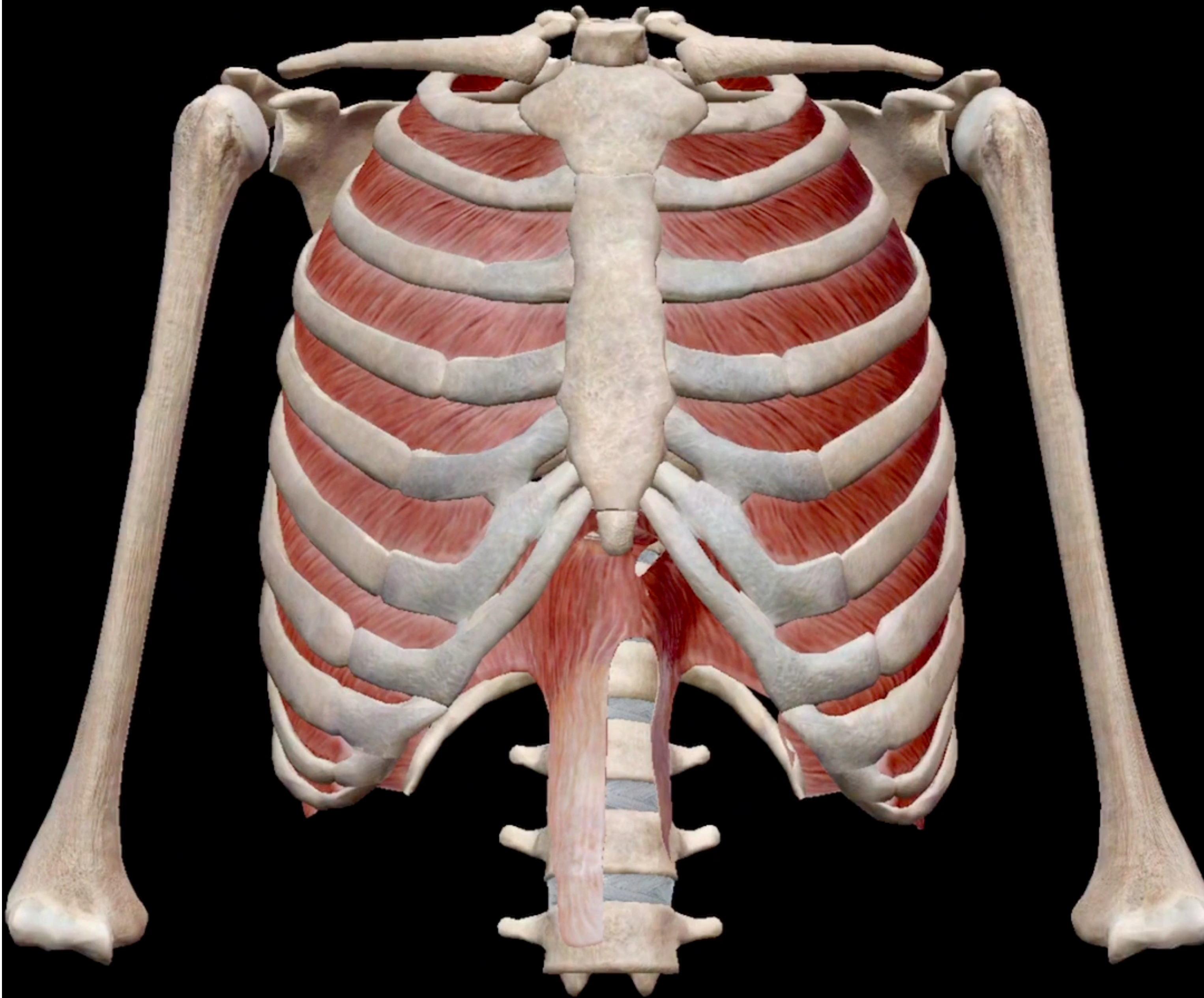




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EDUCATION

www.vipr.com

The screenshot shows the top navigation bar of the ViPR PRO website. It includes the ViPR PRO logo on the left, a menu with 'PRODUCT', 'EDUCATION' (highlighted with an underline), and 'WORKOUT WITH VIPR PRO®', a 'Buy Now' button, a shopping cart icon, and a 'Sign In' link with an arrow. Below the navigation is a hero section with a background image of a woman working out. The text in the hero section reads: 'LEVEL 1 ViPR PRO® FUNCTIONAL STRENGTH'. To the left of the text is a circular blue badge with the ViPR PRO logo and the text 'TRAINER' at the top, 'BE UNBREAKABLE' in the middle, and 'FUNCTIONAL STRENGTH' at the bottom. To the right of the text are three paragraphs of descriptive text.

PRODUCT ▾ **EDUCATION** ▾ WORKOUT WITH VIPR PRO® ▾ Buy Now Sign In →

LEVEL 1 ViPR PRO® FUNCTIONAL STRENGTH

A vital component of health and human performance is the ability to generate force based upon a demand. This is called **Strength**.

A subset of strength, is the ability to create purposeful force for a variety of different tasks; with different speeds/angles/loads. We call this **Functional Strength**, or in other words **Being Farm Strong**.

In this course, you will learn about the concept behind ViPR PRO®, explore ViPR PRO® exercises for five fundamental movement patterns and how to implement these into programming.



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LEVEL 2

ViPR PRO® TEAM TRAINING

The ViPR PRO® Team Training is a two parts course, a video-rich curriculum that will teach you everything you need to know about ViPR PRO® Team Training – which we call ViPR PRO® Training Camp.

In part 1, we will explore the science of farm strong, how to decide your Training Camp, how to set it up, how to program for Training Camp, and how to effectively and authentically coach ViPR PRO® Training Camp.

Part 2 provides the content and programming for ViPR PRO® Training Camp in two formats – StrengthCon and MetCon. These programs are specifically designed for body-wide resiliency to make you unbreakable.

Course Objectives



AD
CONVENTION
FITNESS • NUTRITION • BUSINESS

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THANK YOU

SUPPORT:

Instagram @viprpro

Website: www.vipr.com

Email - Product/Sales: info@vipr.com

Email - Edication/Coaching: jan@vipr.com

Hashtags: #viprpro #BeUbreakable #farmstrong

#viprpro20x



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