



TAKE A BREATH: SLOW PACED BREATHING FOR REDUCING STRESS

Dr Emma Mosley



83%



Of the US workforce suffer from work related stress (Stress.org 2019)

595,000



Workers suffering with new or long standing work-related stress (UK government statistics 17/18)

74%



Of the nation were overwhelmed or unable to cope in the past year due to stress (Mental Health Organization 2018)



Stress? What stress?

69%



Say that the health care system is a source of stress (APA Stress in America report 2019)

15.4



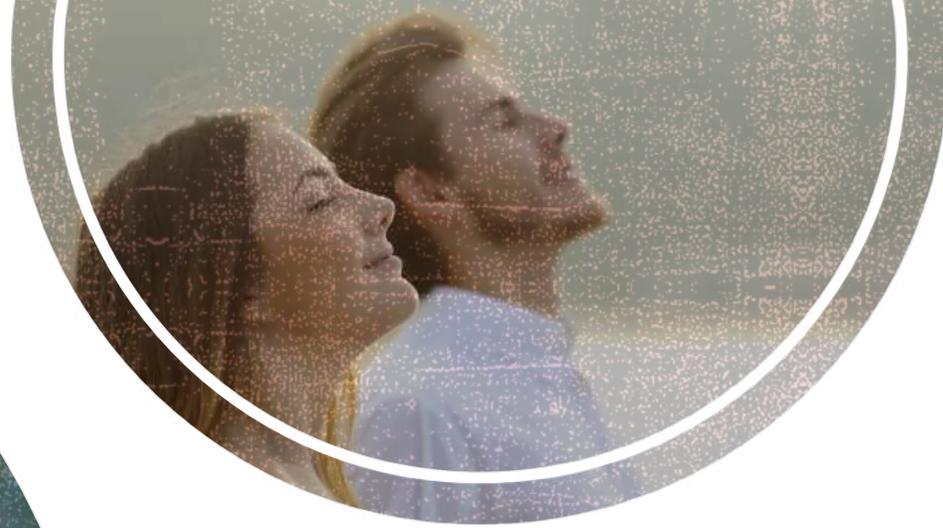
Million

Working days lost to work-related stress (UK government statistics 17/18)

79%



Say that mass shootings is a source of stress (APA Stress in America report 2019)



WHAT IS SLOW PACED BREATHING?

- Prana = breath/ energy
- Prana-Yama = stop/ control and the rising expansion of breath
- Aimed at directly and consciously controlling one or more parameters of respiration (Zaccaro et al. 2018)



WHAT ARE THE BENEFITS?

Improvement
in brain
activity

Improvement
in heart rate
variability

SYSTEMATIC REVIEW ARTICLE

Front. Hum. Neurosci., 07 September 2018 | <https://doi.org/10.3389/fnhum.2018.00353>



How Breath-Control Can Change Your Life: A Systematic Review on Psycho-Physiological Correlates of Slow Breathing

 Andrea Zaccaro¹,  Andrea Piarulli^{1,2},  Marco Laurino³,  Erika Garbella⁴,  Danilo Menicucci¹,
 Bruno Neri⁵ and  Angelo Gemignani^{2,3,6*}

↑
Relaxation, comfort,
pleasantness, vigor
and alertness

↓
Arousal, anxiety,
depression, anger
and confusion



OUR RESEARCH...

[J Clin Med](#). 2019 Feb; 8(2): 193.

Published online 2019 Feb 6. doi: [10.3390/jcm8020193](https://doi.org/10.3390/jcm8020193)

PMCID: [PMC6406675](https://pubmed.ncbi.nlm.nih.gov/PMC6406675/)

PMID: [30736268](https://pubmed.ncbi.nlm.nih.gov/30736268/)

Influence of a 30-Day Slow-Paced Breathing Intervention Compared to Social Media Use on Subjective Sleep Quality and Cardiac Vagal Activity

[Sylvain Laborde](#),^{1,2,*} [Thomas Hosang](#),^{3,4} [Emma Mosley](#),⁵ and [Fabrice Dosseville](#)²

Findings:

15 minutes of slow paced breathing before bed improved subjective sleep quality and overnight heart rate variability when compared to social media use

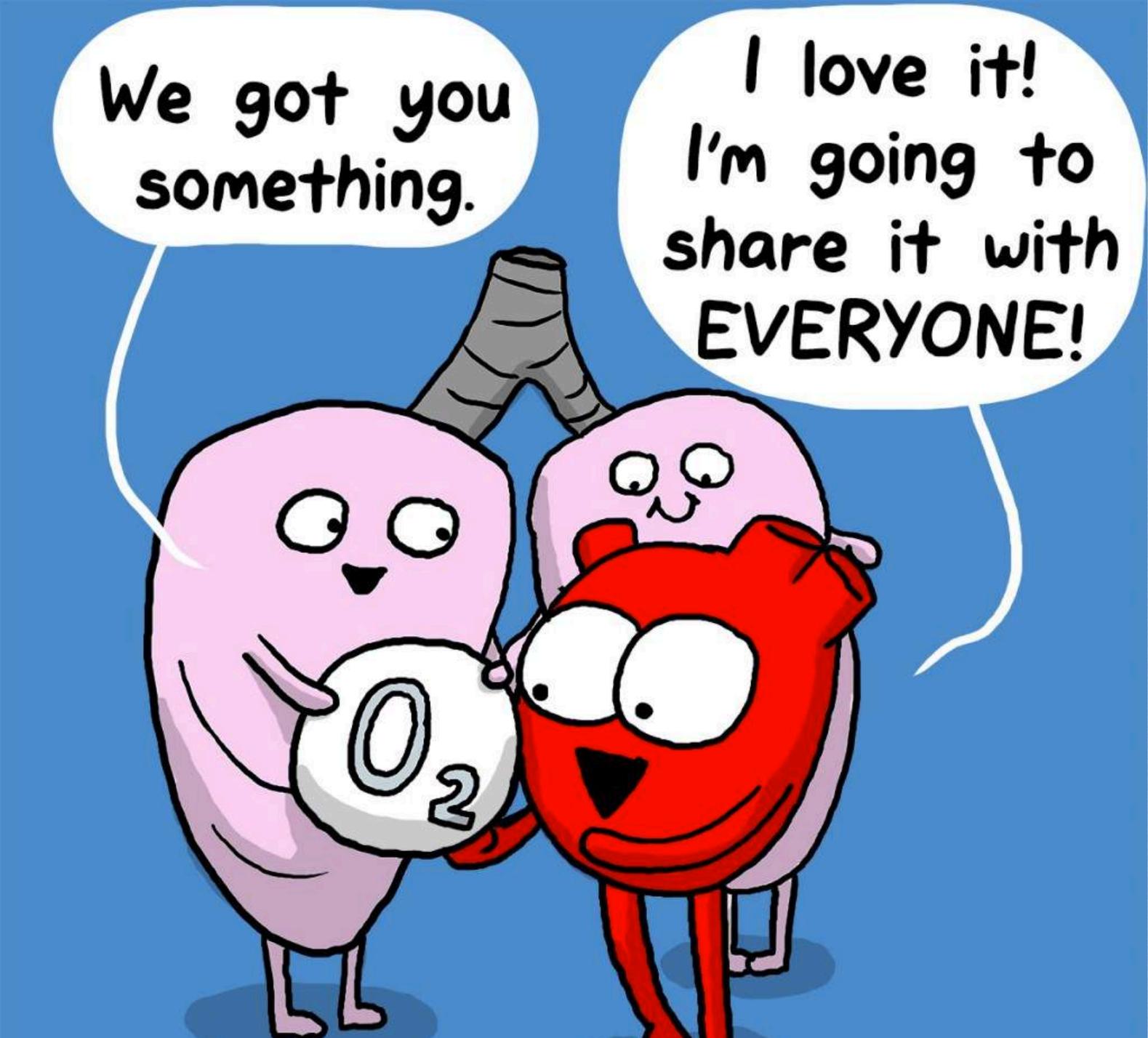


OUR RESEARCH...

Mosley et al. (In preparation). High performing athletes and slow paced breathing: psychoeducation, cognitive performance and cardiac vagal activity.

- “I’ve used it during the gym, when I need to stay in the same position... like the last set, I use it to maintain shape”
- “I used it before games, when I felt nervous”
- “I feel like my body was more relaxed before I dropped off to sleep”
- “I used it on the golf course once, because It was going badly and I thought I was going to loose my temper, so I focused on my breathing”





We got you something.

I love it!
I'm going to share it with **EVERYONE!**

WHY DOES IT PROMOTE THESE BENEFITS?

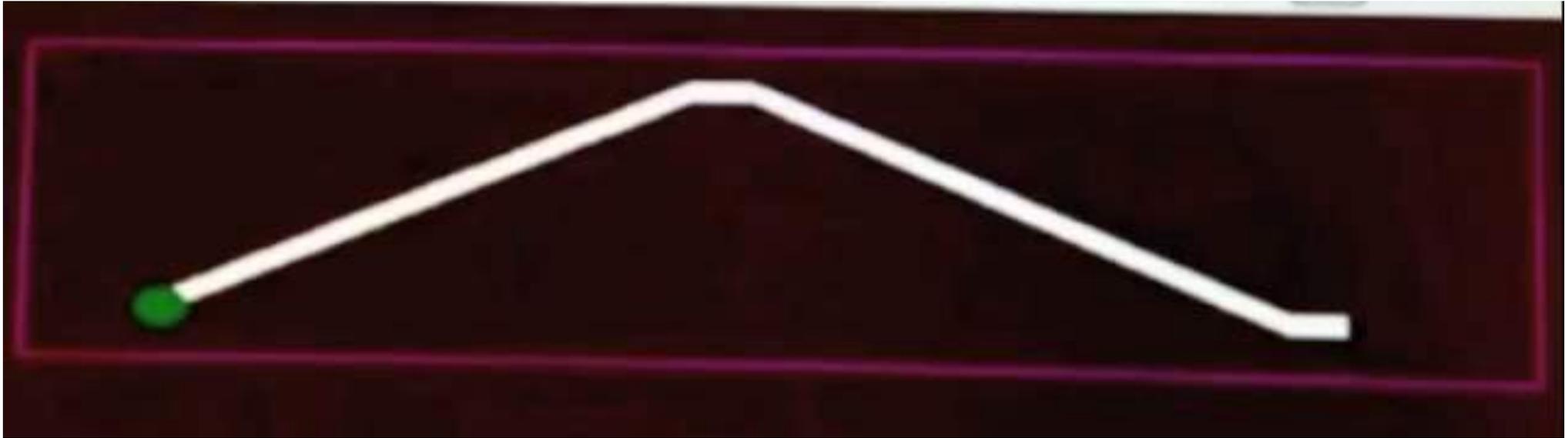
The heart and lungs are inextricably linked!

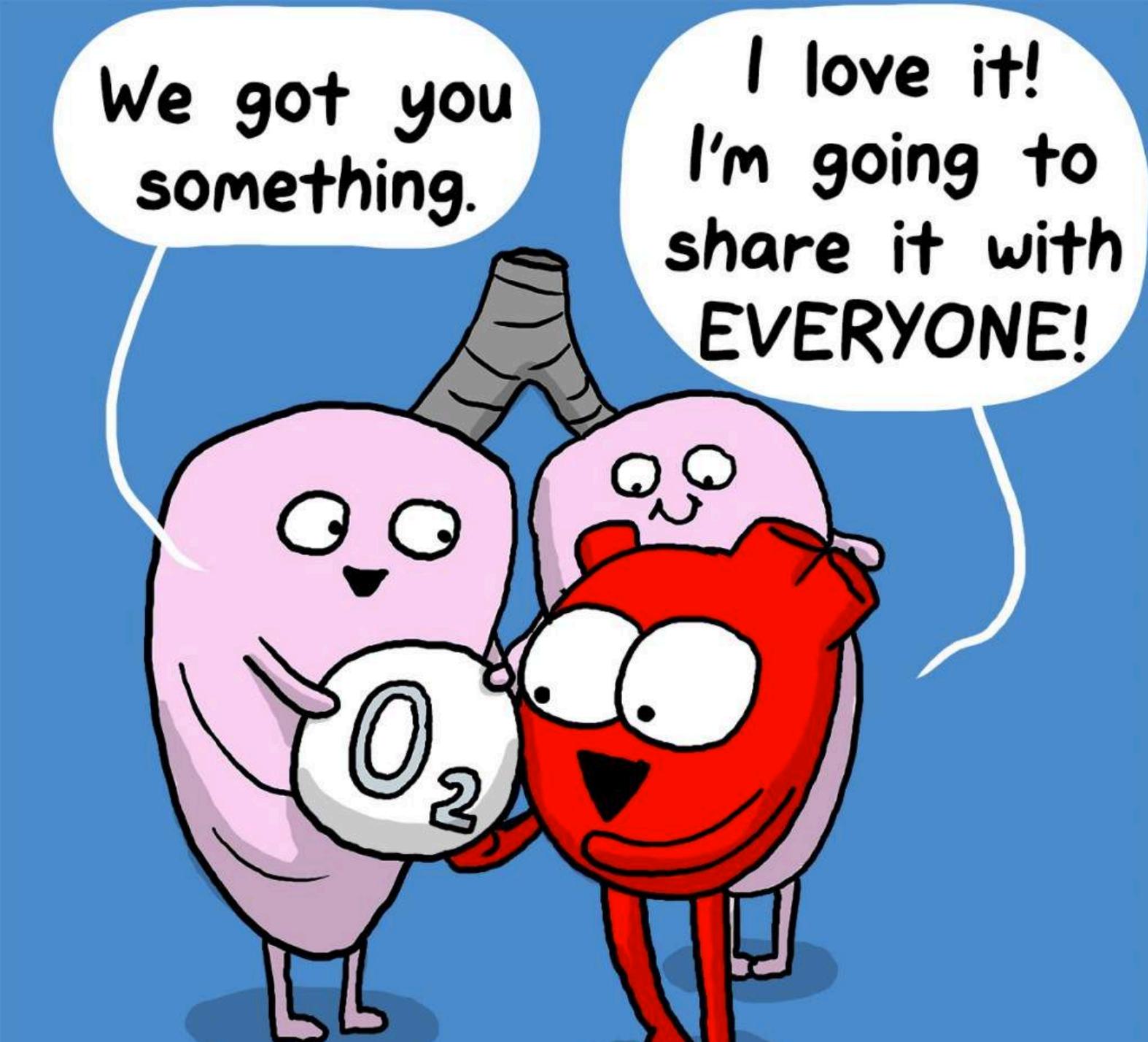
When our breathing changes there are also direct changes in the heart – this is known as **respiratory sinus arrhythmia**.

Try this...



**FINGERS ON PULSES AND OBSERVE THE BREATH
PACER – WHAT HAPPENS TO YOUR HEART RATE?**





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WHY DOES IT PROMOTE THESE BENEFITS?

Inhale = increased HR

Exhale = decreased HR

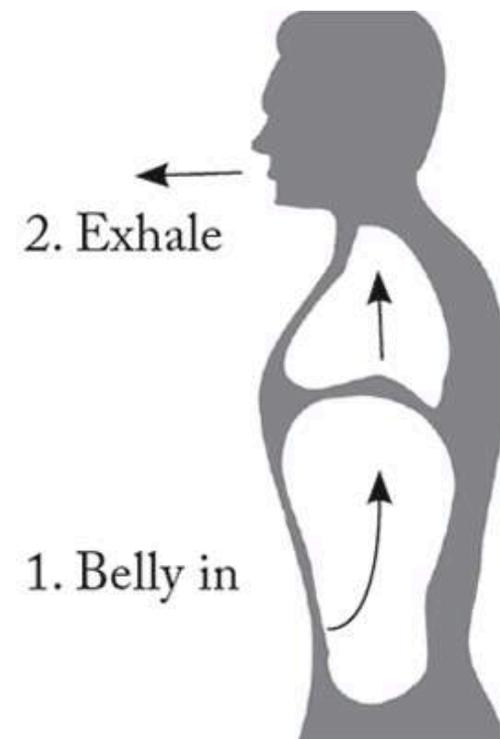
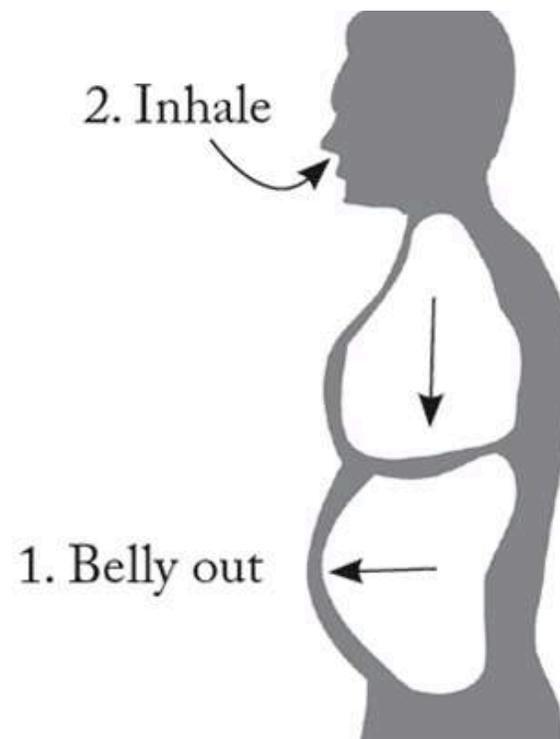
RSA is hypothesized to play a primary role in the regulation of energy exchange via the synchronization of respiratory and cardiovascular processes during metabolic and behavioural changes (Grossman & Taylor, 2007).



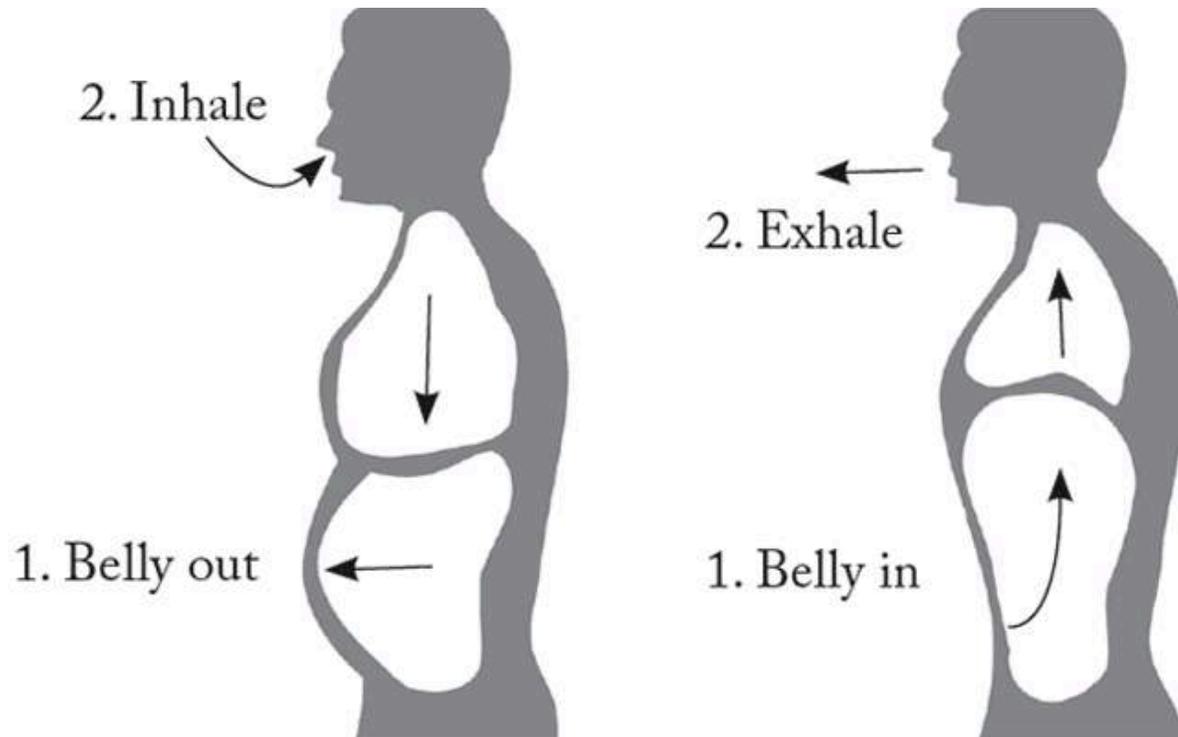
HOW DO I DO SLOW PACED BREATHING?

Did you know?
The average breaths per minute is
between 12-20

For slow paced breathing the
average is just 6



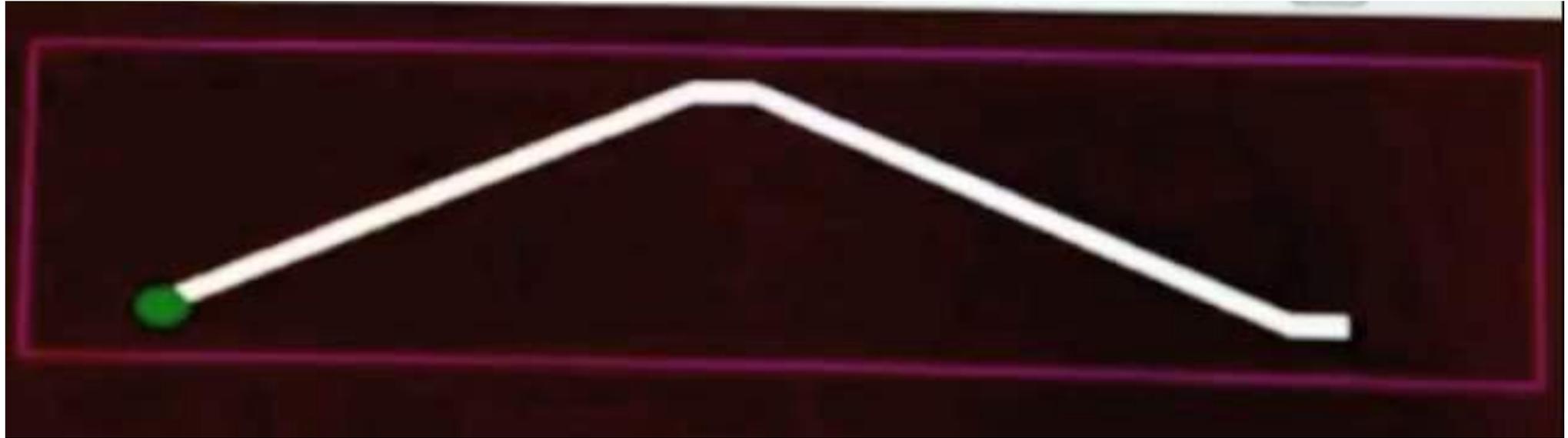
BREATHING TECHNIQUE



- Inhale through the nose
- Hand on stomach and chest
- Stomach should only inflate
- Breathe out through pursed lips



HOW DO I BREATHE PROPERLY?
HOW DO I REACH SIX BREATHS PER MINUTE?

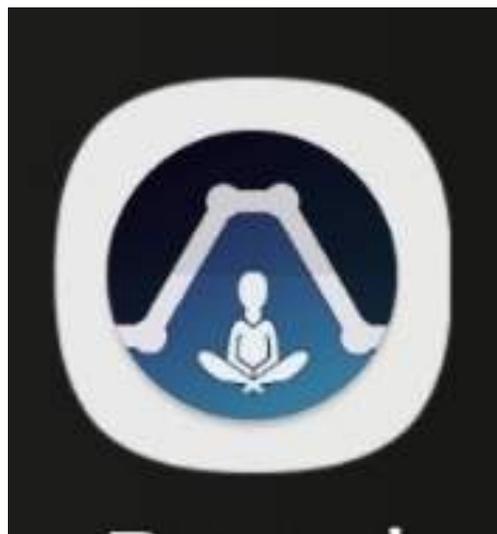




APPS ARE A GREAT WAY OF ACHIEVING THIS

IOS - Breath pacer

Android – Paced breathing



- Settings: 6 breaths per minute
- 4.5 second inhale/ 5.5 second exhale (45% coherence)
- You can use a tone or the visual aid



CREATE A HABIT

Habits, reflecting actions relying on automatic functioning, free up resources for further top-down processing (Graybiel, 2008; Lally & Gardner, 2013) and reduce motivational impairments (Stojanovic, Grund, & Fries, 2020).

Practice your breathing everyday for five minutes and set a reminder on your phone!

- In the morning
- Before bed
- During a cool down





TAKE HOME MESSAGES

- This is an easy, fast, cheap way to reduce stress!
- Download a breath pacer app
- Find 5 minutes of each day to practice your slow paced breathing

