



Breathing for Better
Performance and Recovery

PRESENTED BY

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# Today...

- Learn how breathing impacts strength, posture, well being.
- Experience different strategies to improve breathing technique.





#### It's Real...

#### Framingham Study:

Measures of forced exhalation breathing associated with lifespan

#### Research has found:

Blood pressure, sympathetic tone

Mental health, athletic performance, focus, parasympathetic tone





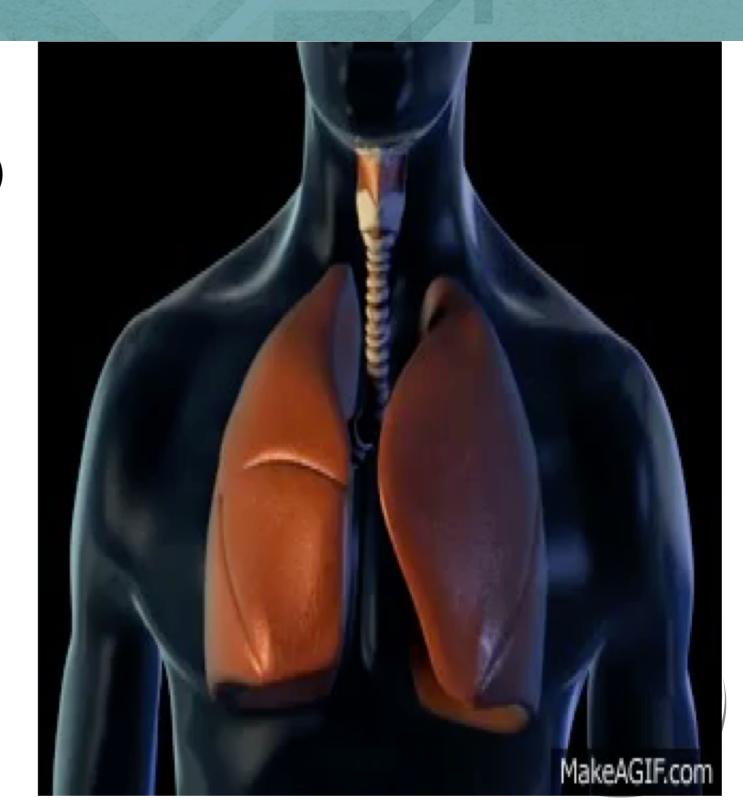
# Physiology of Breathing

**Breath in:** Stimulatory (Sympathetic dominance)

Heart rate

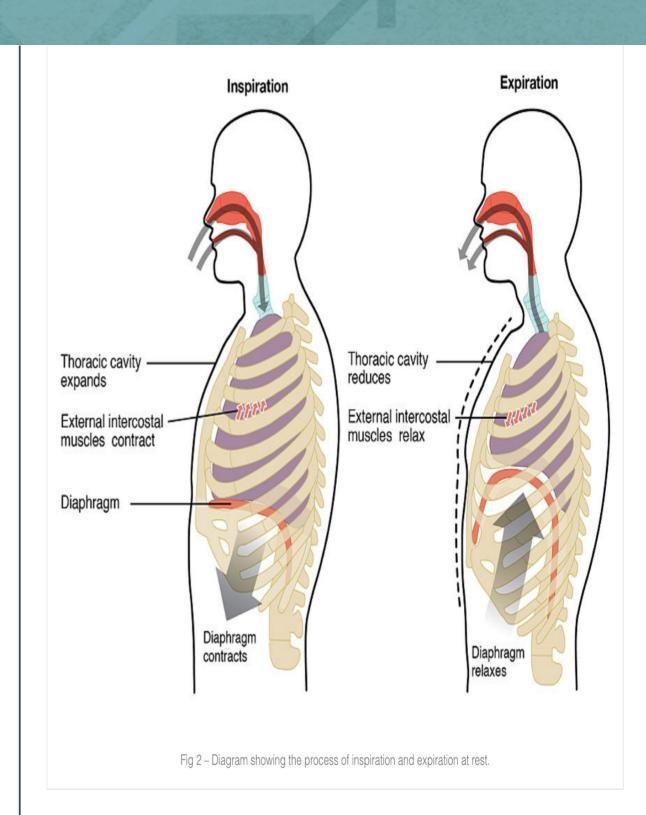
**Breath out:** Relax (Parasympathetic)

Heart rate



# Anatomy of Breathing

- ✓ Nose
- Mouth
- ✓ Lunge (Pleural Cavity)
- Diaphragm (Boyles Law)
- Rectus Abdominus
- ✓ External Intercostals (Inhale)
- ✓ Internal Intercostals (Exhale)



### Biomechanics of Breathing

- ✓ Head/neck (Level)
- ✓ Chest (Neutral, last 1/3 of inhalation)
- ✓ Thoracic spine (Expand horizontally)
- Ribs (Expand horizontally, Keep "down")
- ✓ Lumbar spine (Nuetral)
- ✓ Pelvis (Neutral)



# Show Your Stuff

- 1. Clavicle, belly, ribs
- 2. Breaths per minute
- 3. 90 Second run test



## **Breathing Drills**

- Shoe breathing
- Crocodile breath (Pavel Tsatsoullne)
- Elbows on bench (Eric Cressey)
- Dead bug
- Quadraped breathing (Eric Cressey)
- Assisted breath and reach (Chad Smith)
- ☐ Short Seated Belly Breathing (Eric Cressey)



# **Breathing Drills**

- Supine Braced Breathing
- 90/90 Braced Breathing



# Exercise (Performance Breathing)

- Wall push
- Plank
- Push up
- Lunge



# Exercise (Recovery Breathing)

- 2 min jog (Nose breath)
- 2 min exercise test (Recovery breath)
- □ 4-7-8 Breath
- 4-2-4 Breathing
- 3 min



#### Re-test

- ☐ Clavicle, belly, ribs
- Breaths per minute
- 90 Second run test



## Thank You!!

# Brett Klika CSCS SPIDERfit Kids on Facebook! www.spiderfitkids.com

