Breath AS Medicine

Intentional Breathing Strategies To Enhance Your Area Of Expertise

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The Science Of Breath Control

- Breath rates & patterns influence our biochemistry, biomechanics, physiology & psychological states of being
- Respiration is one of the few autonomic functions that we can control, if we wish. Otherwise, it occurs from the intelligence of our Autonomic Nervous System (ANS) on its' own.
- The ANS is taking its' cues from our "perception" of the present moment
- Breathing "unites" the body/mind connection

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The Regulation Of Breath

- Controlling the length, depth & pace for various physiological, biochemical and psychological outcomes
- Cycles of a breath include:
  - Inhale
  - Exhale
  - Space In-between
- Optimal breath is nasal Diaphragmatic Breathing at rate of 10 breaths or less per minute

The Nose Knows

- Nasal Breathing
  - Produces nitric oxide (improves lungs ability to absorb oxygen & transport oxygen through the body). Also regulates blood pressure and strengthens immune system
  - Air is appropriately filtered of impurities as well as warmed/cooled
  - Adds moisture to air preventing dryness in lungs and bronchial tubes
  - Engages the diaphragm muscle appropriately
  - Stimulates the vagus nerve
  - The nose houses olfactory bulbs, which are direct extensions of part of the brain called the hypothalamus. Hypothalamus is responsible for many functions in our bodies i.e. heartbeat, blood pressure, thirst, appetite and sleep cycles. The hypothalamus is also responsible for generating chemicals that influence memory and emotion.
  - Easier to control the nervous systems i.e. sympathetic vs parasympathetic
- Mouth Breathing
  - The complete opposite

The Nasal Cycles

The inhale is sympathetic. The inhale gains information on our surroundings.

The exhale is parasympathetic. The exhale is the action based on the information.

Mouth breathing/shallow breathing is sympathetic

Nasal diaphragmatic breathing is parasympathetic

The left nostril is parasympathetic on inhale & sympathetic on exhale

The right nostril is sympathetic on inhale & parasympathetic on exhale

One nostril is more dominant than the other every 90 to 120 minutes. This is how we regulate our body temperature of 98.6

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Diaphragmatic Breathing

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The Diaphragm Muscle

- The Diaphragm is the primary muscle of inhale. It a major muscle that massages the abdominal organs, liver, stomach & lungs
- Core stabilization of pelvic bowl and low back alignment (the basis for ALL movement)
- Mediates action of autonomic and enteric nervous systems
- The vagus nerve runs through the diaphragm
- Supports posture and patterns of movement i.e., the pelvis and low back alignment
- Inspiratory muscle failure causes core muscle to fatigue
- Core awareness failure limits performance
- Reduces endurance capacity

Ocean Sounding Breath

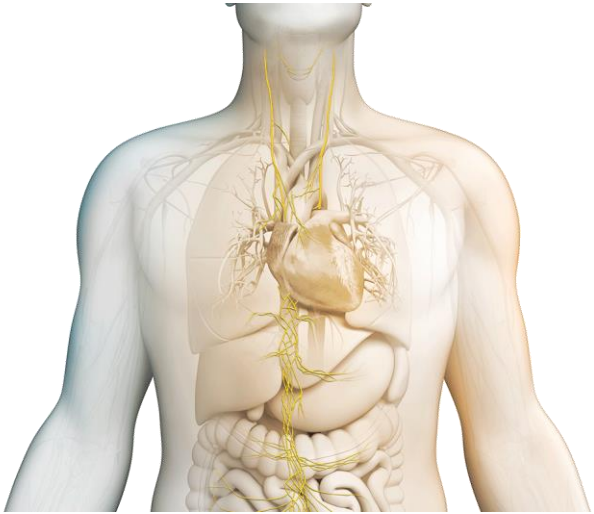
- Technique to improve length, depth, pace
- Stimulate vagus nerve with sound
- Increases oxygen uptake 10% to 15%
- Done on both inhale AND exhale

Breath Rates = Heart Rates

- Breath is the regulator
  - Heart rates rise on the inhale and lower on the exhale
  - The changes in heart rate driven by breathing is known as Respiratory Sinus Arrhythmia (RSA)
  - RSA decreases by 10% per decade between ages 20 and 70.
  - RSA prominence (meaning difference between minimum & maximum heart rate during breath cycle) is a measure of aerobic fitness
  - Important to value breath rates (or length, depth & pace) to improve HEART HEALTH

Heart Rate Variability

- Driven by strength of vagus nerve
- Known as the “guardian” of the body as it communicates the state of your organs to the brain and delivering signals from the brain back to them
- Main component of Parasympathetic Nervous System
- Is only stimulated through nasal diaphragmatic breathing (not mouth breathing)
- Increases serotonin, dopamine, oxytocin endorphins (feel good hormones)
- Lowers heart rate & blood pressure
- Regulates heart rate variability (strength of the space between inhale & exhale)
- Monitors Mental & Emotional Centers in the Brain Including: Problem Solving, Communication, Adaptability, Creativity
- Under stress, the vagus nerve turns off non-essential functions (including executive functioning in the brain)



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4-Part Breath

- Anaerobic Movement of Diaphragm
  - Strengthens Diaphragm
  - Strengthens Inspiratory & Expiratory Muscles
  - Creates gaps in mind for deep focus
  - Heart rate variability (PNS & Vagus Nerve)
  - Holds oxygen & carbon dioxide molecules in bloodstream longer
  - Raises CO2 tolerance
  - Improves LDP
  - Improves Lung Function

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Benefits Of Breath Regulation

- Increases energy levels
- Improves sleep
- Reduce blood pressure; increases heart rate variability
- Reduces Acid/Inflammation/Toxins
- Left/Right pre-frontal cortex
- Neutralize the perception of time; flow states
- Ability to self regulate thoughts & emotions (reduces anxiety & depression)
- Neuroplasticity = Transformation
- Reduces Stress
- Increases productivity, concentration levels, improved mental cognition & overall executive functioning

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Breath AS Medicine Trainings

- **E-Learning Courses**
  - **6-Hour Breath AS Medicine Intro Course (MedFit)**
  - **15-Hour Breath AS Medicine For Fitness Professionals**
  - **25-Hour Breath AS Medicine**
- **LIVE Courses**
  - **25-Hour Breath AS Medicine (Begins October 5, 2020)**
- **MedFit Member Discount**
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