



Joy of Medicine Summit
September 23, 2017
SSVMS

The Art of Mindfulness



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RYT (200) Yoga instructor
PT (NASM)
Plant-Based Chef

Disclosure

- **All presenters & planning committee members for this program have no affiliations with any corporate organizations that may constitute a conflict of interest with this program**

 KAISER PERMANENTE

← Emergency/Trauma

← Hospital Entrance

← Outpatient Surgery

← D.B. Moore Building

→ Medical Office

Buildings 1, 2 & 3

→ Parking Garage



PR 149 . Normal sinus rhythm, rate 87
QRSD 82 . Consider right atrial enlargement
QT 345 . Nonspecific Inferior T wave abnormalities
QTc 415 . Anterior ST elevation
*Consider acute injury

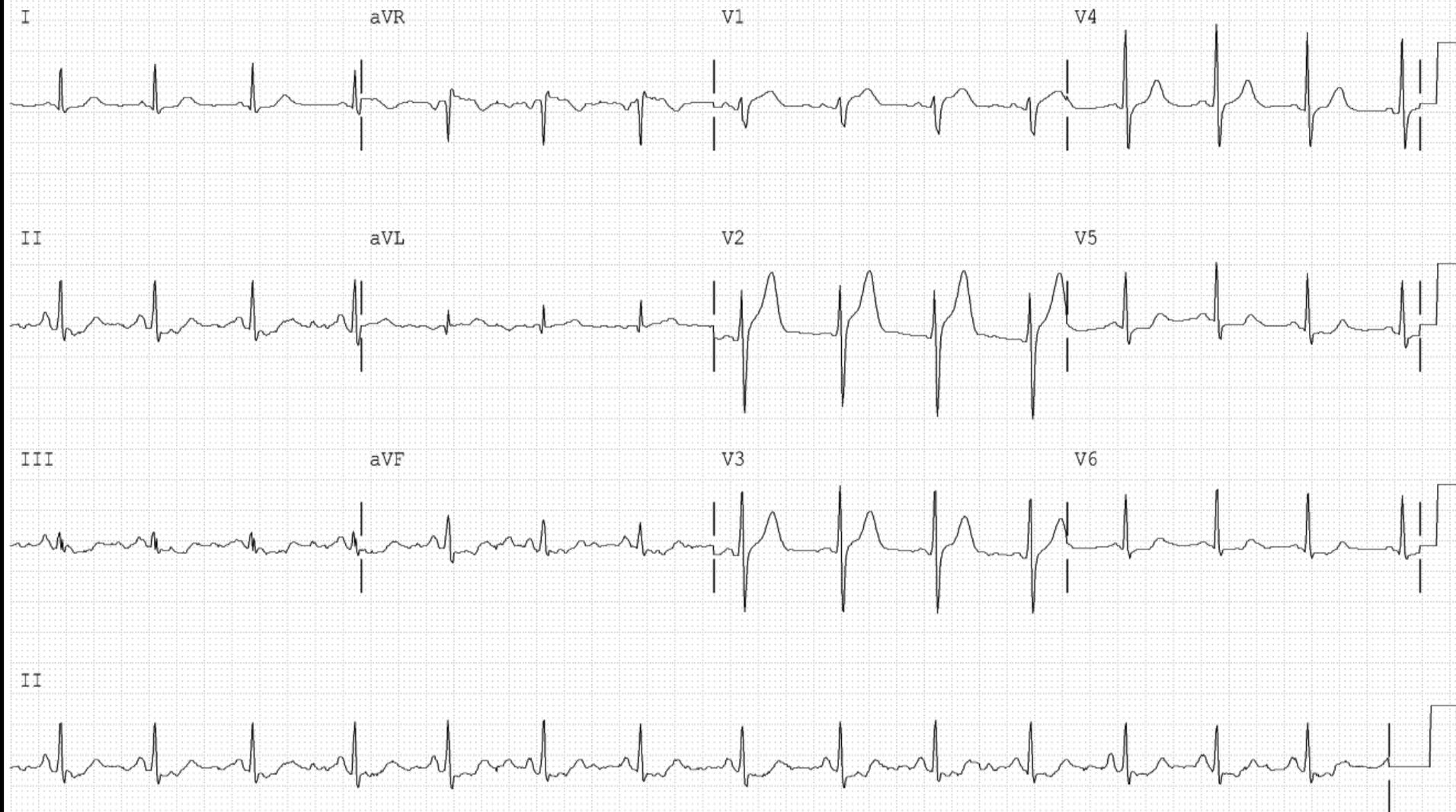
- ABNORMAL ECG -

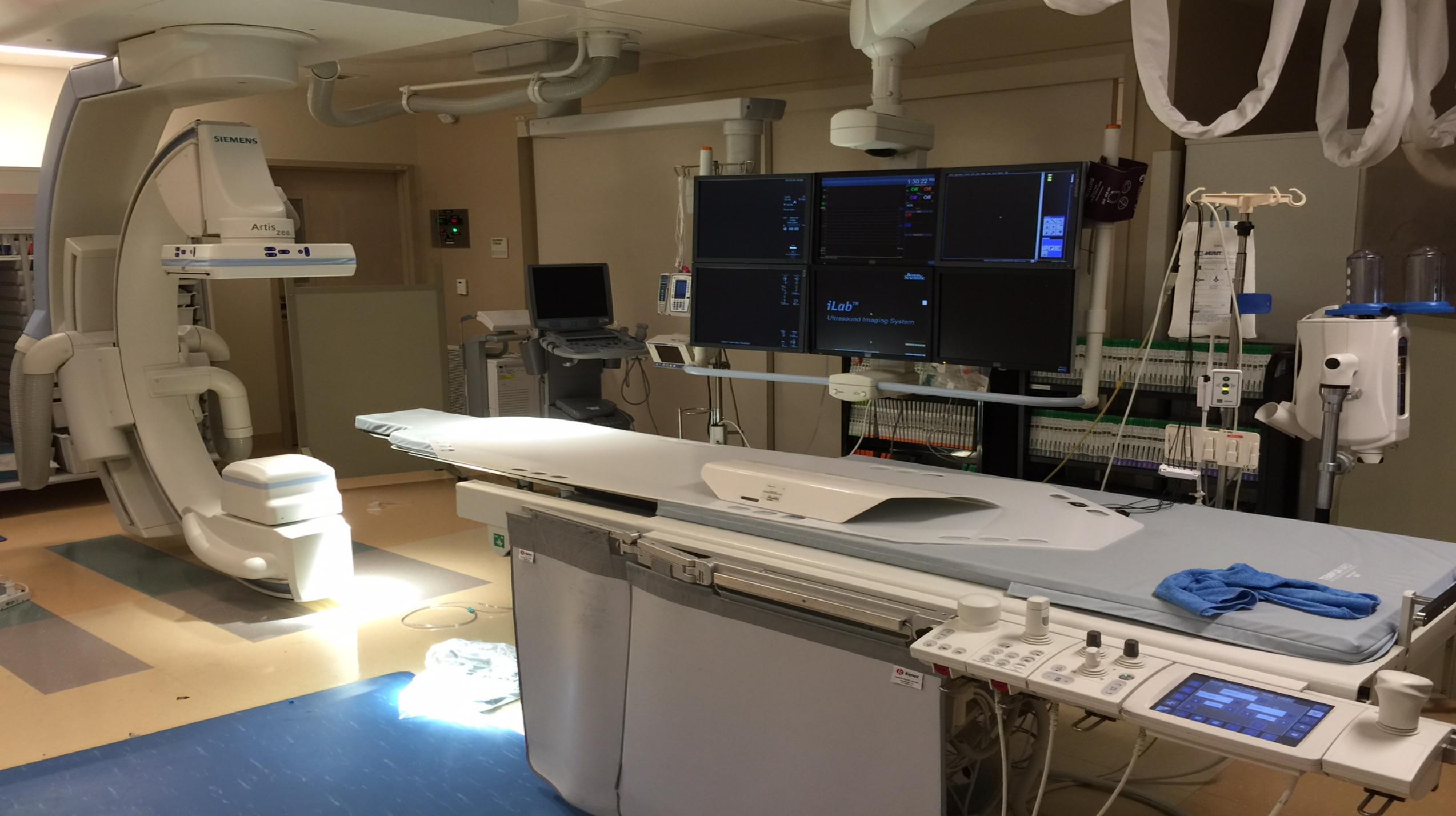
--AXES--
P 75
QRS 55
T 2

Tech DWS
Room 16
Edited C-HP708

KAISER SOUTH SACRAMENTO - EMERGENCY DEPARTMENT

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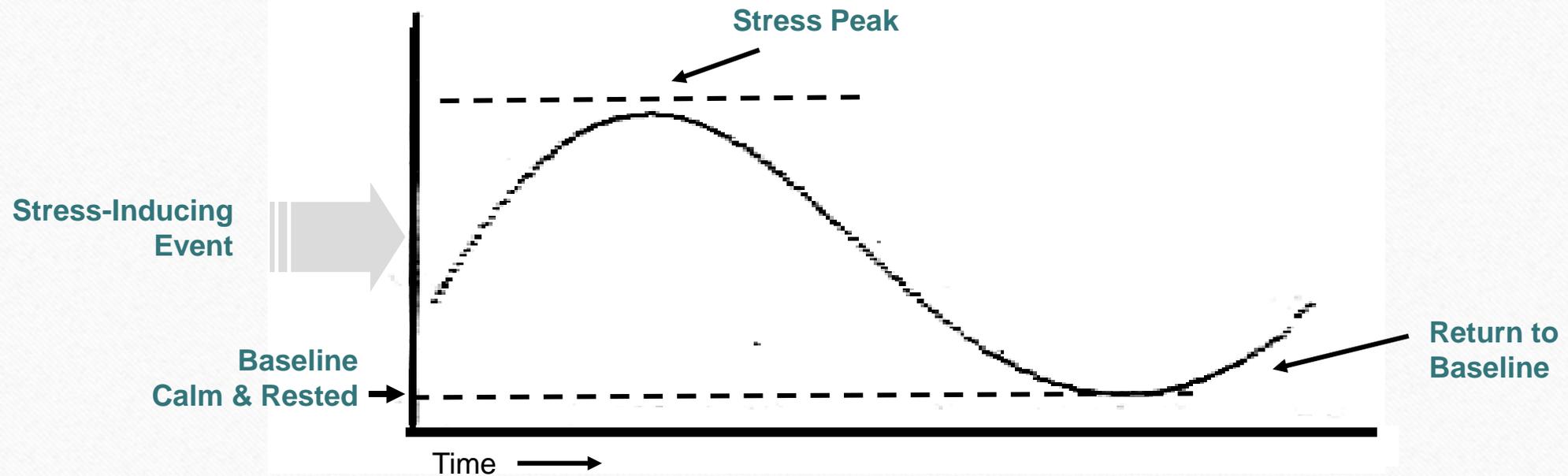




Acute Stress

- The acute stress response occurs immediately after you perceive a threat in your environment. (Heart rate and blood pressure increases, pupils dilate, digestion slows, body prepares to fight or flee danger)
- Research suggests that occasional acute stress responses actually helps immune function and builds resilience.
- It keeps the immune system primed and ready for injury or infection.
- Once the threat has passed, all systems should return to normal and you're able to relax.

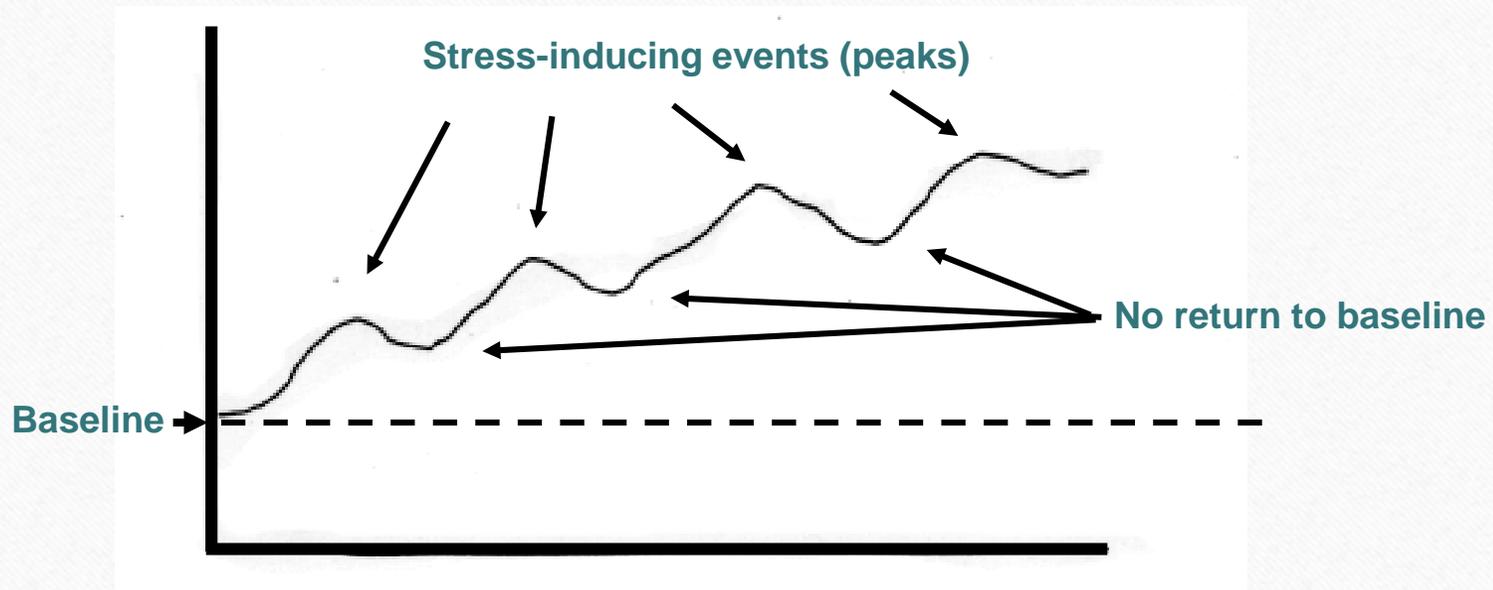
Normal Stress and Relaxation Cycles

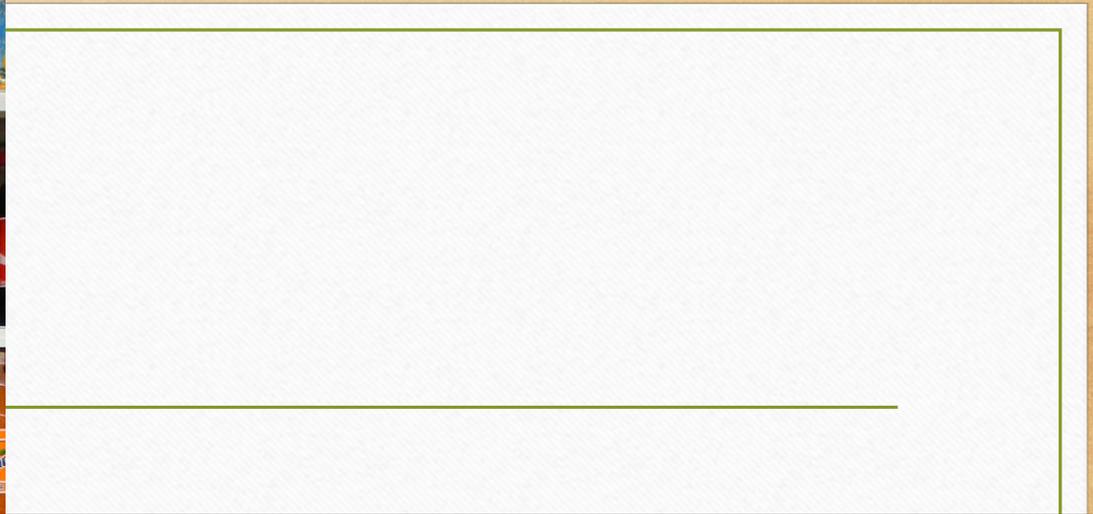


Chronic Stress

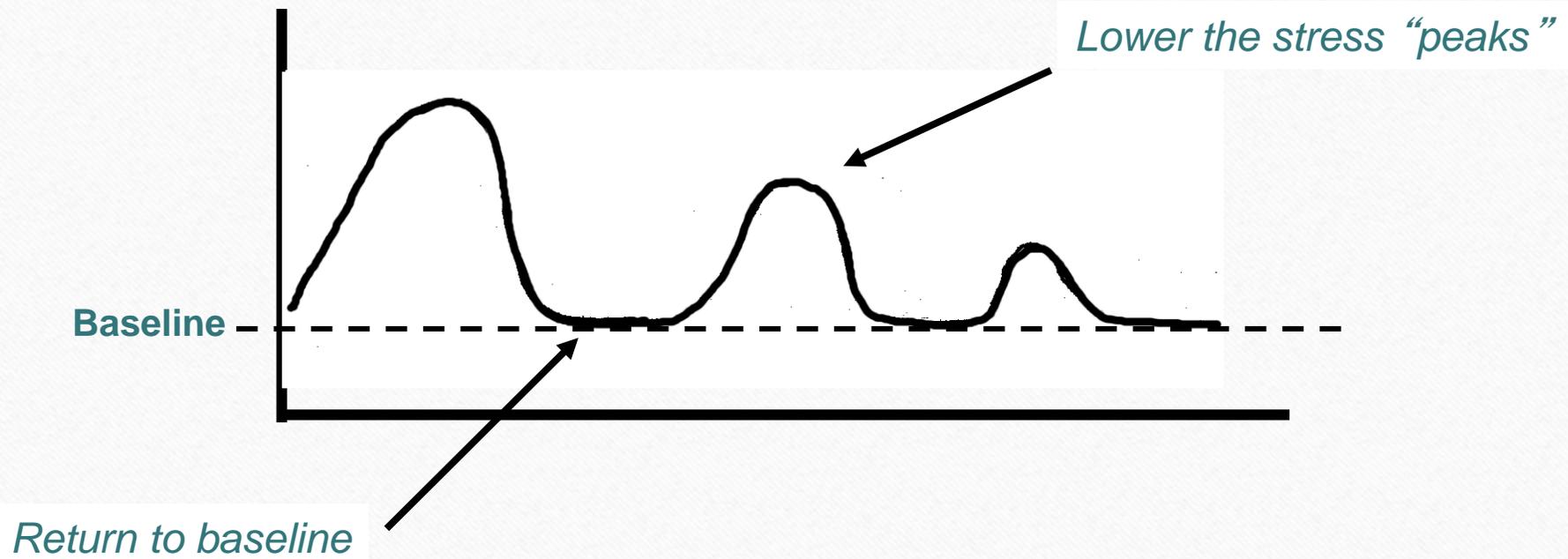
- The acute stress reaction can get locked into the “on” position leading to a chronic stress state. This is detrimental to physical and emotional health.
- Oftentimes, it’s how we think that traps us in chronic stress. If you keep thinking about the threat – imagining all the terrible things that could happen, etc. you essentially keep the threat alive.
- Why Zebras Don’t get Ulcers by Robert Sapolsky

Stress Escalator





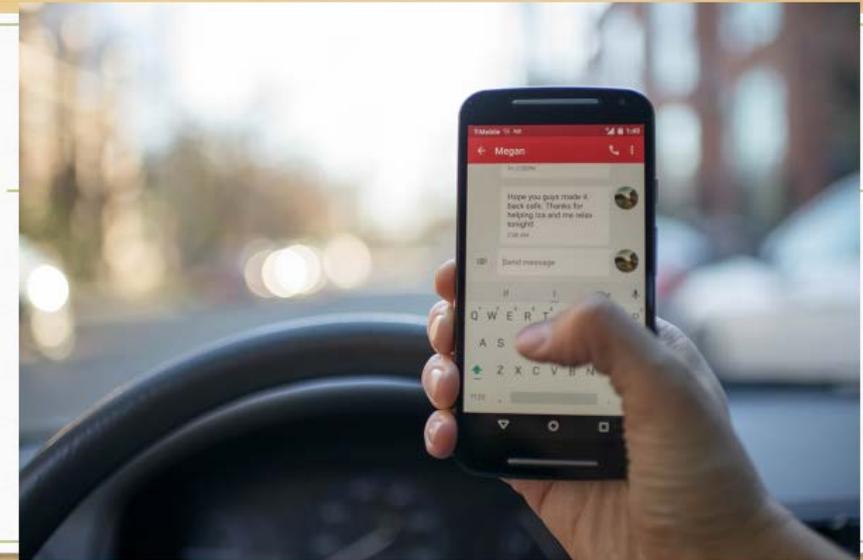
Getting off the Escalator



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- What is the greatest source of stress in our lives today?



Multitasking: Switching costs
Subtle "switching" costs cut efficiency, raise risk.
What the research shows



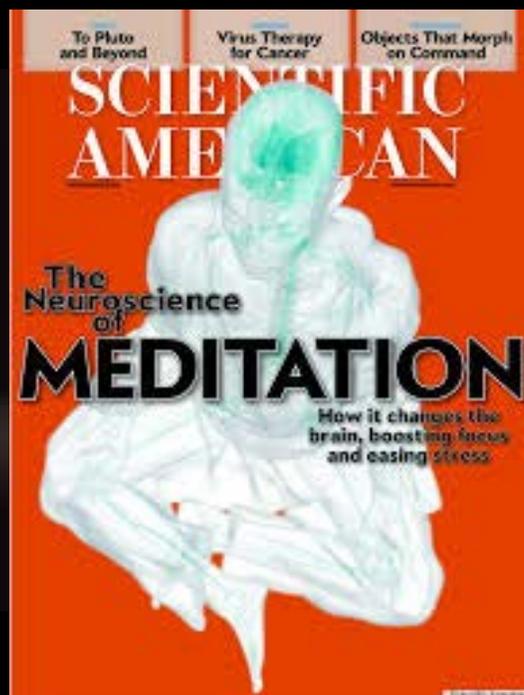
Responding to stress

- Your **perception** of and **reaction** to stress is key. These are things you have control over.
- A BIG part of stress management is how you THINK about stressors.
- Even if you can't change the situation, you can control how you cope or react.

Keller A, Litzelman K, Wisk LE, et al. Does the Perception that Stress Affects Health Matter? The Association with Health and Mortality. *Health psychology : official journal of the Division of Health Psychology, American Psychological Association*. 2012;31(5):677-684.

Healthy heart

- Ornish found a dose-response correlation with the frequency and duration of practicing stress management-techniques and changes in coronary artery blockages.
- The more people practiced, the more improvements were found.

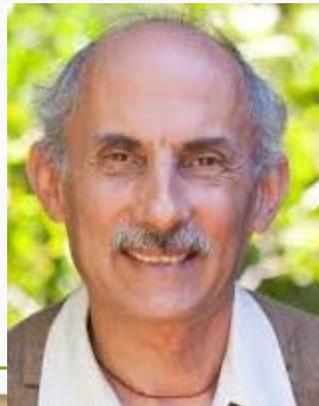


- In the 19th century, mindfulness was used to translate the Pali word *Sati*. Pali is the canonical language of Theravada, a form of Buddhism found in Southeast Asia.
-
- “Establishing Mindfulness” (*Satipatthana*) is a primary practice of Theravada Buddhism.
 - It is said to lead to insight into the true nature of self and reality (impermanence, the suffering of conditioned existence, and non-self)



- In the 60's and 70's, Westerners began going to Southeast Asia to learn mindfulness practices. They brought those practices back to the West and began to teach them within the framework of Buddhism.
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- In the 80's and 90's, it was discovered that those practices could be extracted from Buddhism and the cultural matrix of Asia and used within a secular context.

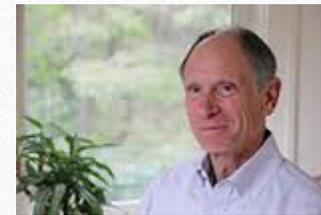
Jack Kornfield



Sharon Salzberg



Joseph Goldstein



Knowing what you are doing while you are
doing it is the essence of mindful practice

Jon Kabot Zinn



“Mindfulness means paying attention in a particular way; On purpose, in the present moment, and nonjudgmentally.”

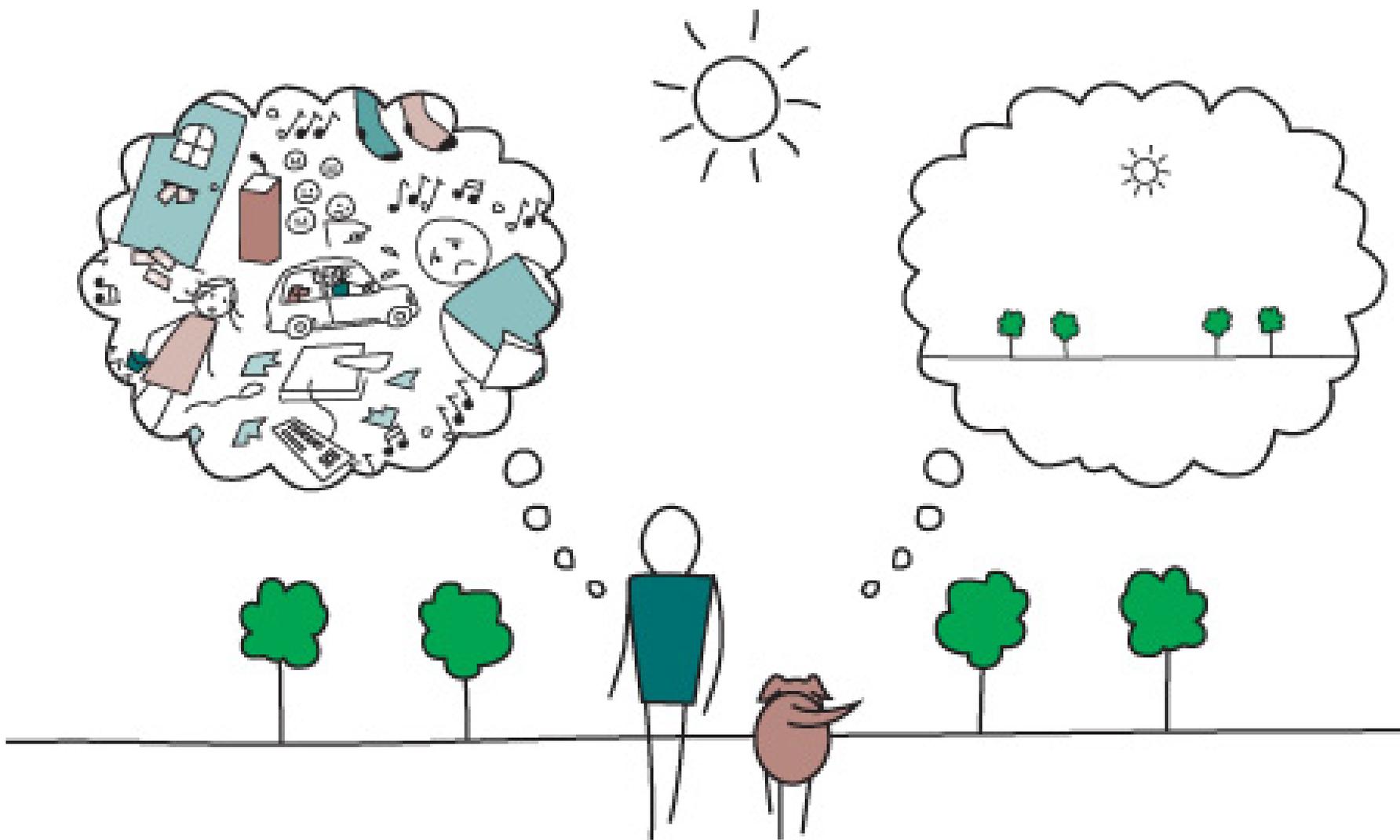
-Jon Kabat-Zinn



Regular Practice cultivates 3 core skills (Shinzen Young)

- **Concentration**: The ability to focus and stabilize one's attention.
- **Sensory Clarity**: The ability to keep track of the components of sensory experience as they arise in various combinations, moment-by-moment.
- **Equanimity**: The ability to 'be with' experience with an attitude of gentle matter-of-factness.





Mind Full, or Mindful?

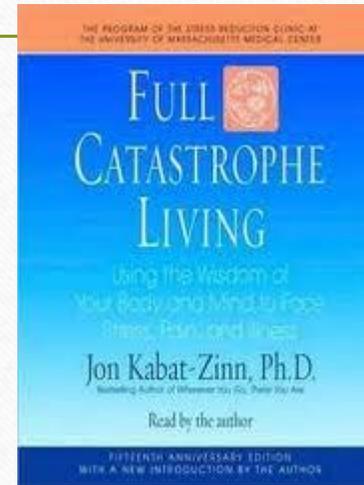
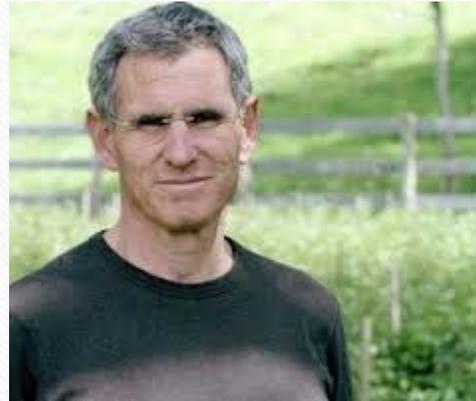
Mindfulness Training Techniques

- Many techniques! Depends on teacher and tradition
 - Restrictive or open attention
 - Noting option
-
- Beginner practices:
 - Restrictive focus, such as breath meditation
 - Develops/strengthens core skills of concentration, clarity and equanimity
 - Intermediate / advanced practices:
 - Open awareness to increasing amount of sensory experience, such as “choiceless awareness”
 - Formal and informal practices

- **Mindfulness awareness practices started to be used within a secular context to develop useful attentional skills.**
-
- **These practices became ever more prevalent in clinical settings for pain management, addiction recovery, stress reduction, and as an adjunct to psychotherapy.**



- In 1979, Jon Kabat-Zinn created **Mindfulness-Based Stress Reduction (MBSR)** at the **University of Massachusetts Medical School** to treat chronically ill patients.



- Subsequently, a number of other psychotherapeutic modalities centering around mindfulness were developed: *Acceptance and Commitment Therapy (ACT)*; *Mindfulness-Based Cognitive Therapy (MBCT)*; *Dialectical Behavioral Therapy (DBT)*.

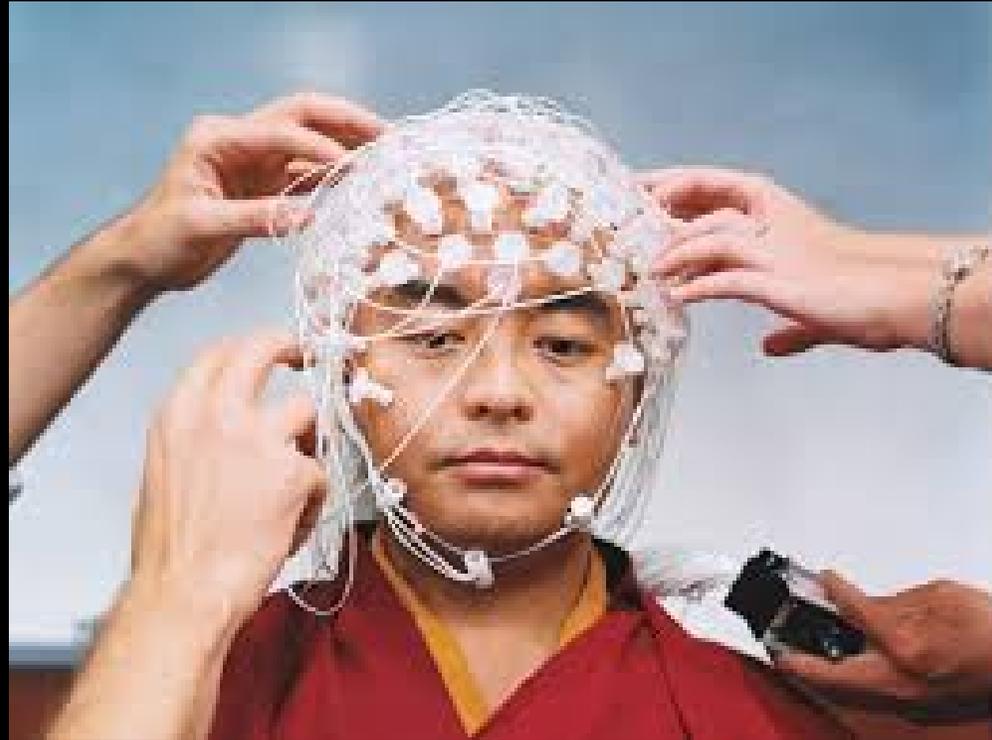
Mindfulness in Society

Increasingly, it is being understood that mindful awareness is a cultivatable skill with broad applications through all aspects of society, including education, prison system, politics, business, and even the training of soldiers.



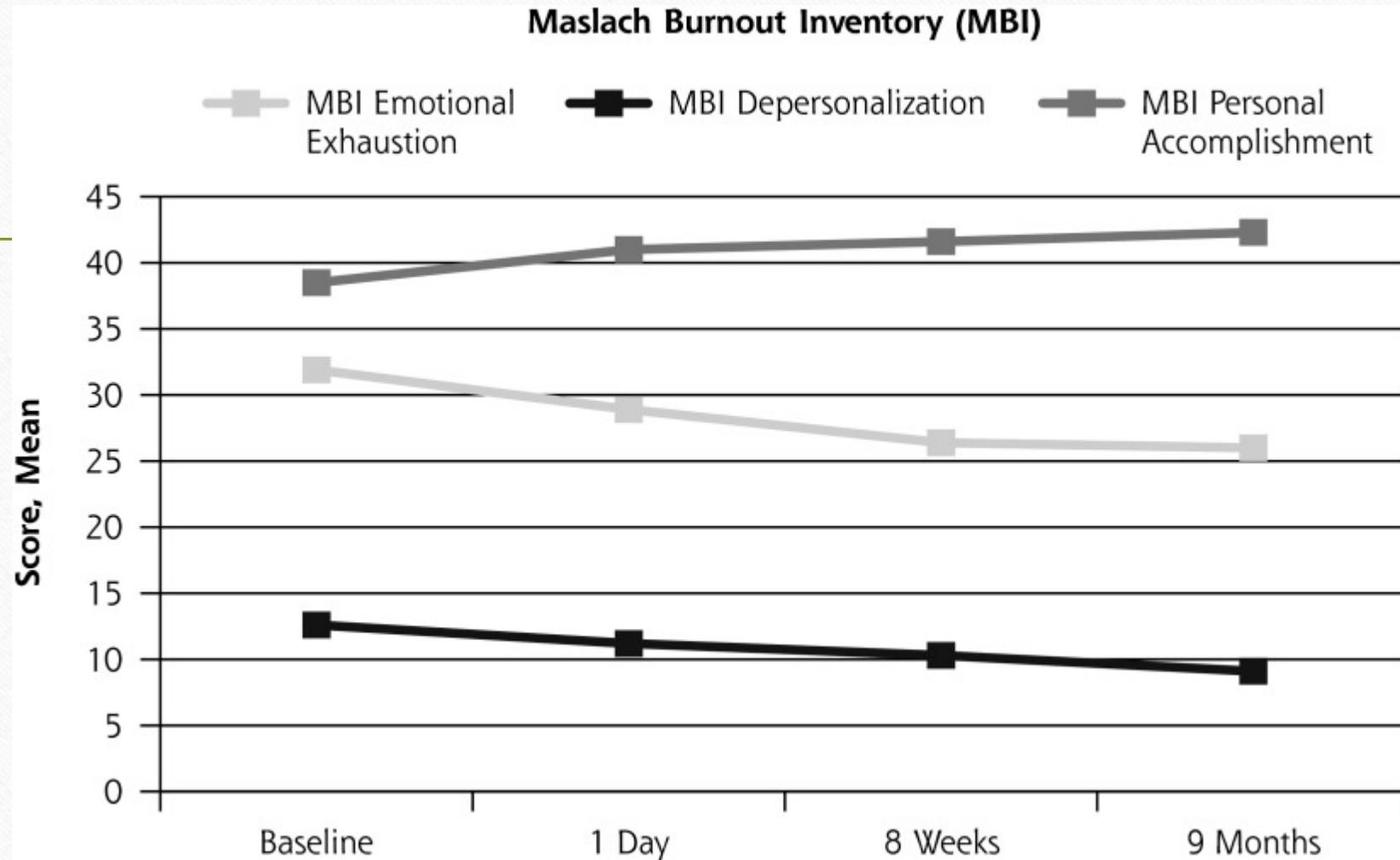
- Ground Hog Day



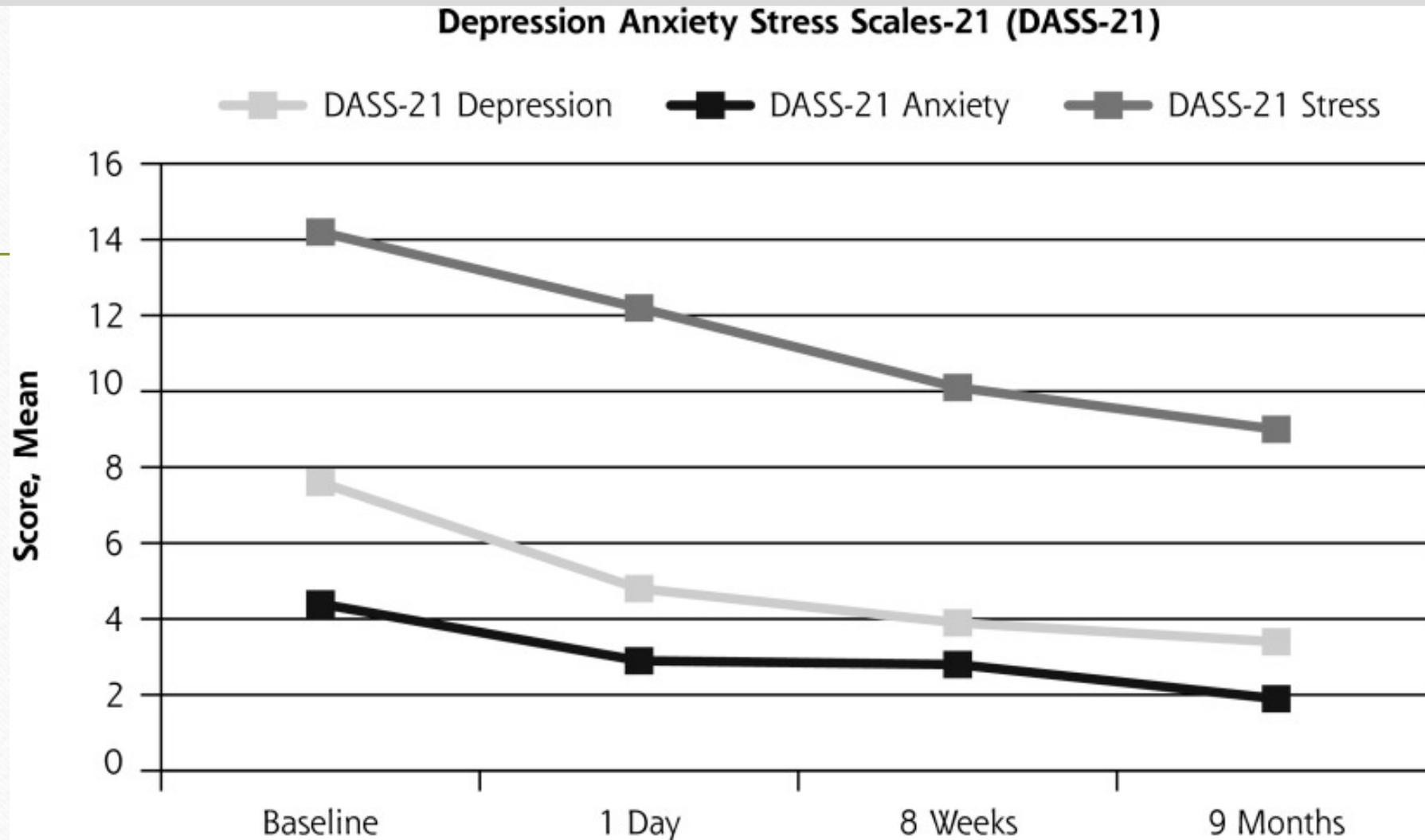


Mindfulness-based stress reduction for GPs: results of a controlled mixed methods pilot study in Dutch primary care. *Br J Gen Pract.* 2016 Feb;66(643):e99-105.

- Controlled for baseline scores, the MBSR group reported a greater decrease in depersonalisation than the control group (-1.42 , 95% confidence interval [CI] = -2.72 to -0.21 , $P = 0.03$).



scores for all of outcome measures at baseline and specific times postintervention.



scores for all of outcome measures at baseline and specific times postintervention.

Goodman MJ¹, Schorling JB., A mindfulness course decreases burnout and improves well-being among healthcare providers. *Int J Psychiatry Med.* 2012;43(2):119-

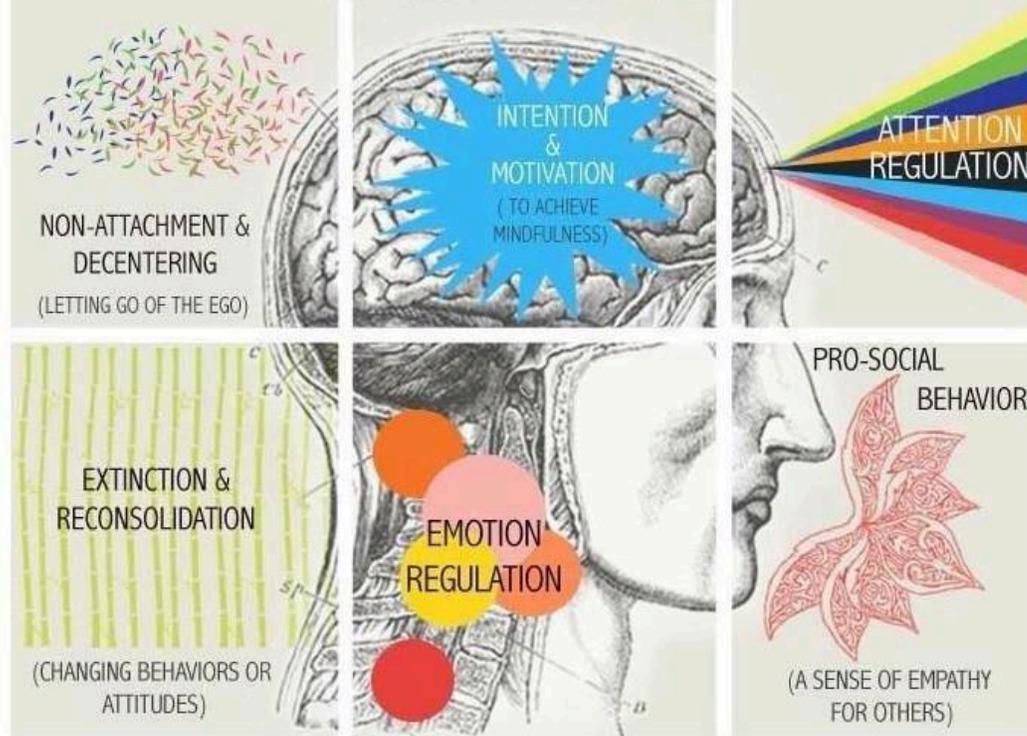
- . Mental Health, Emotional Exhaustion, Depersonalization, and Personal Accomplishment scores all improved significantly from the first to the last class.

Mindfulness...

Changes the Brain in Positive Ways

HOW IT WORKS: THE SCIENCE OF MEDITATION

MINDFULNESS INVOLVES SIX NEUROPSYCHOLOGICAL PROCESSES THAT LEAD TO A PERSON'S MEDITATIVE STATE OF SELF-AWARENESS.



Dr. Richard Davidson's lab at the University of Wisconsin-Madison

University of North Carolina,

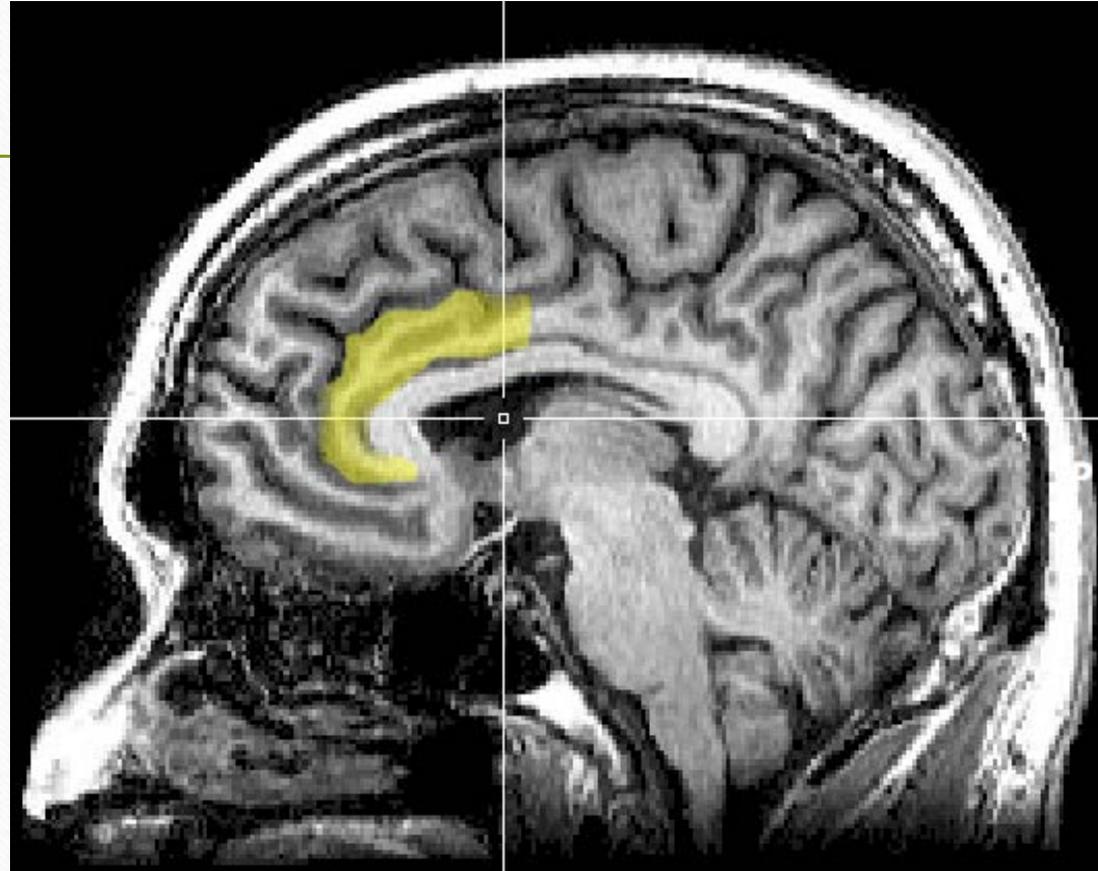
Shows how the brain changes in positive ways with meditation!

Overcoming Fear and Anger

Old Brain

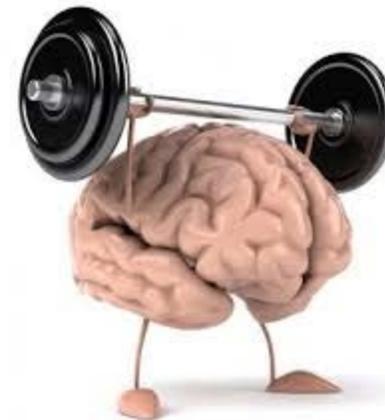
Vs.

New Brain



- Recent research in neuroscience shows that we have the power to influence our brains.
 - When we think certain thoughts, it strengthens those neural circuits. *Mental States Become Neural Traits!*
-
- Self-Directed Neuroplasticity =
Nurture positive states of mind
to strengthen and build those neural
networks. *Make Happiness a Habit!*

The brain is like a muscle that we can build through practicing skills.



Pro-Social Behavior



- **Impulse Regulation**
- **Emotional Awareness**
- **Compassion & Empathy**
- **Forgiveness**

Mindfulness...

Helps Balance the Nervous System

Stress Response

Central Nervous System

Perception - Narrowed

Memory - Coarse, Imprecise

Learning - Blocked

Conditioning - Defense

Tendency - Regress or Perseverate

Tone – Fight or Flight

Muscular System

Tension

Ready for Action

Jaws Clench

Body Braces for Action

Autonomic Nervous System

Heart rate increases

Blood pressure increases

Oxygen need increases

Breathing rate increases

Palms, face sweat

Blood sugar increases

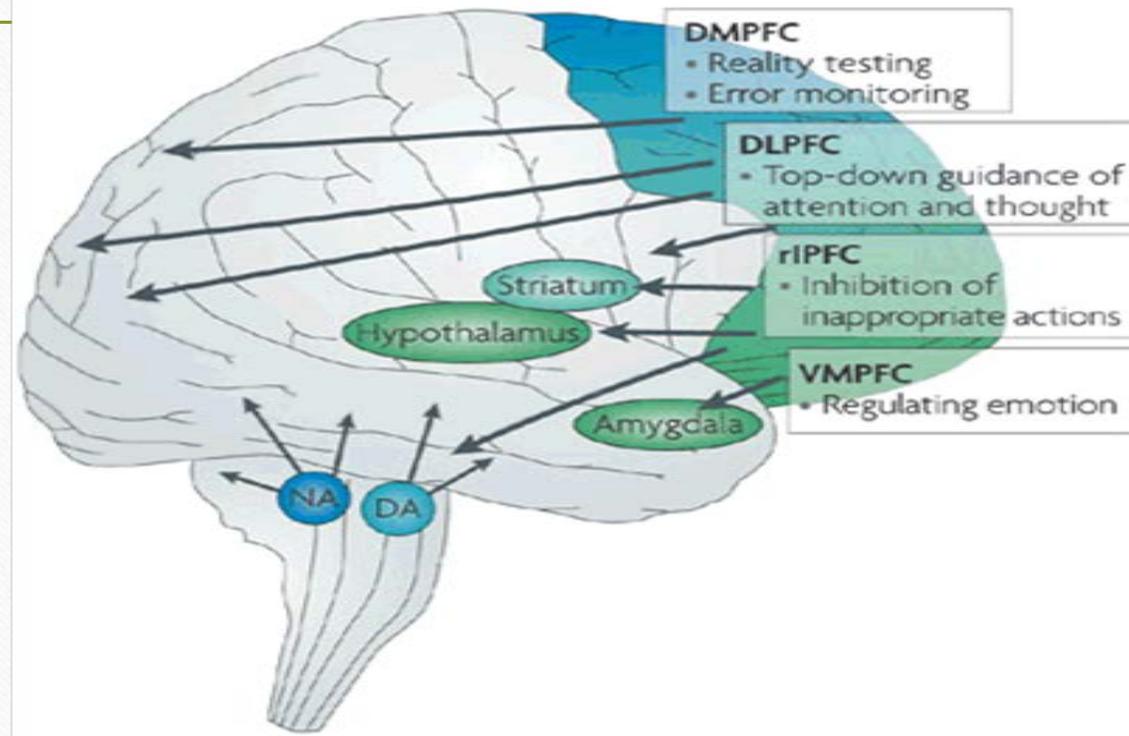
Adrenalin flows

Digestive tract shuts down blood to muscles

Blood vessels constrict in hands, face

Relaxation Response

a Prefrontal regulation during alert, non-stress conditions

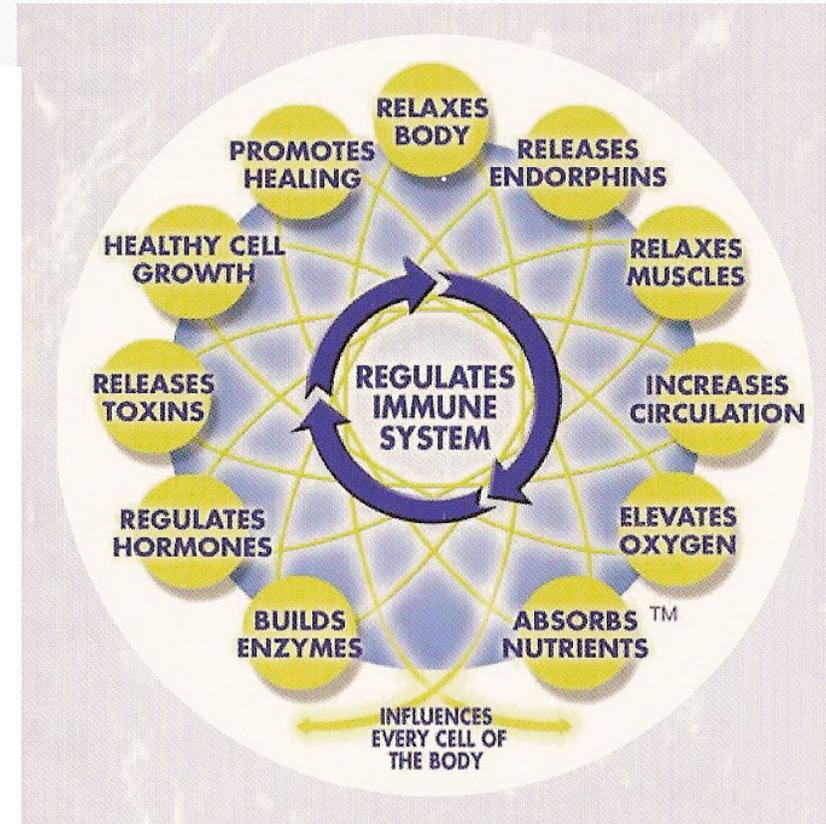


Relaxation Response

Relaxation

"The relaxation response is a physical state of deep rest that changes the physical and emotional responses to stress... and the opposite of the fight or flight response."

-- Herbert Benson, M.D.
Associate Professor of Medicine, Harvard Medical School



Mindfulness...

Improves Self-Regulation

In our “Resilient Zone” we have the best capacity for flexibility and adaptability in mind, body and spirit.



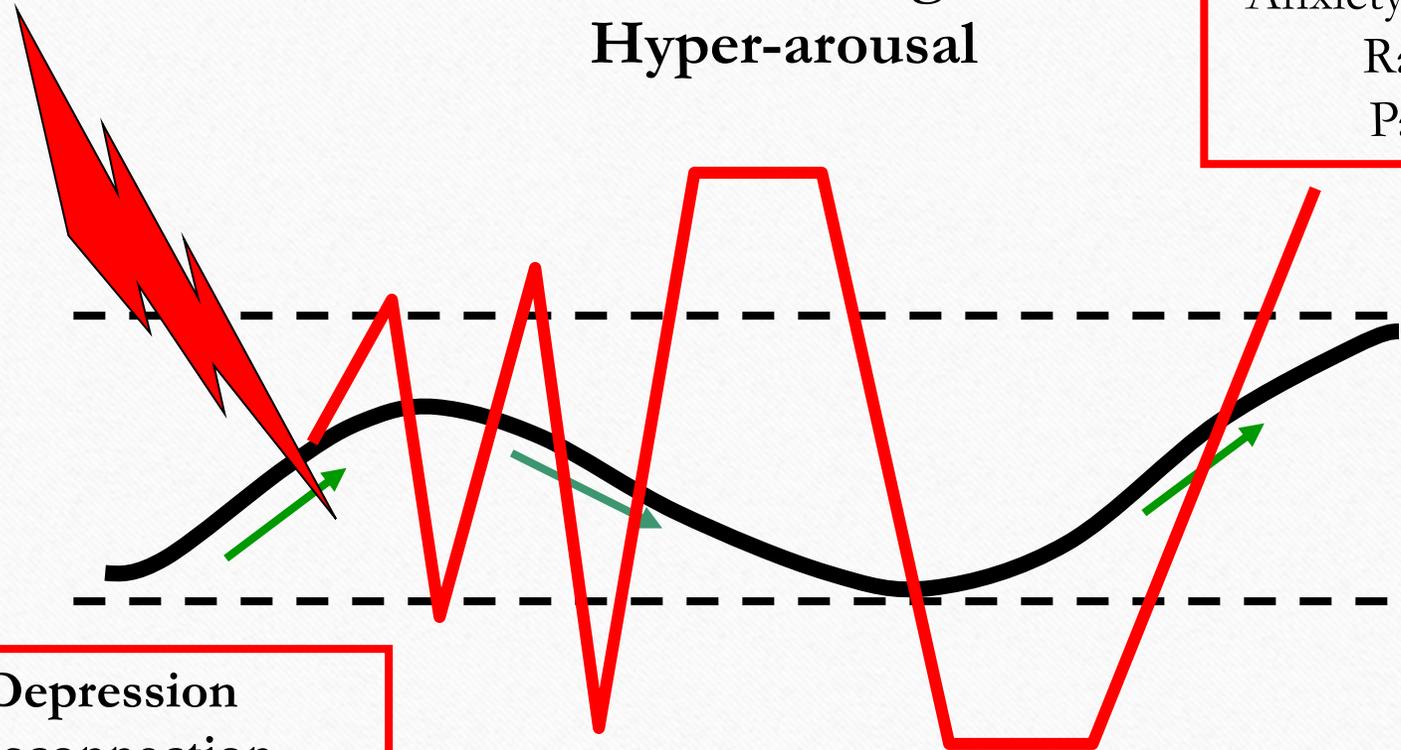
Mindfulness helps deepen the Resilient Zone

Stressful/Traumatic Event

**or
Stressful/Traumatic
Triggers**

**Stuck on "High"
Hyper-arousal**

Hyperactivity
Hypervigilance
Mania
Anxiety & Panic
Rage
Pain



resilient zone

Depression
Disconnection
Exhaustion/Fatigue
Numbness

Stuck on "Low"
Hypo-arousal

● Mindfulness is like swimming or eating a meal. It is better to experience it then hear about it.



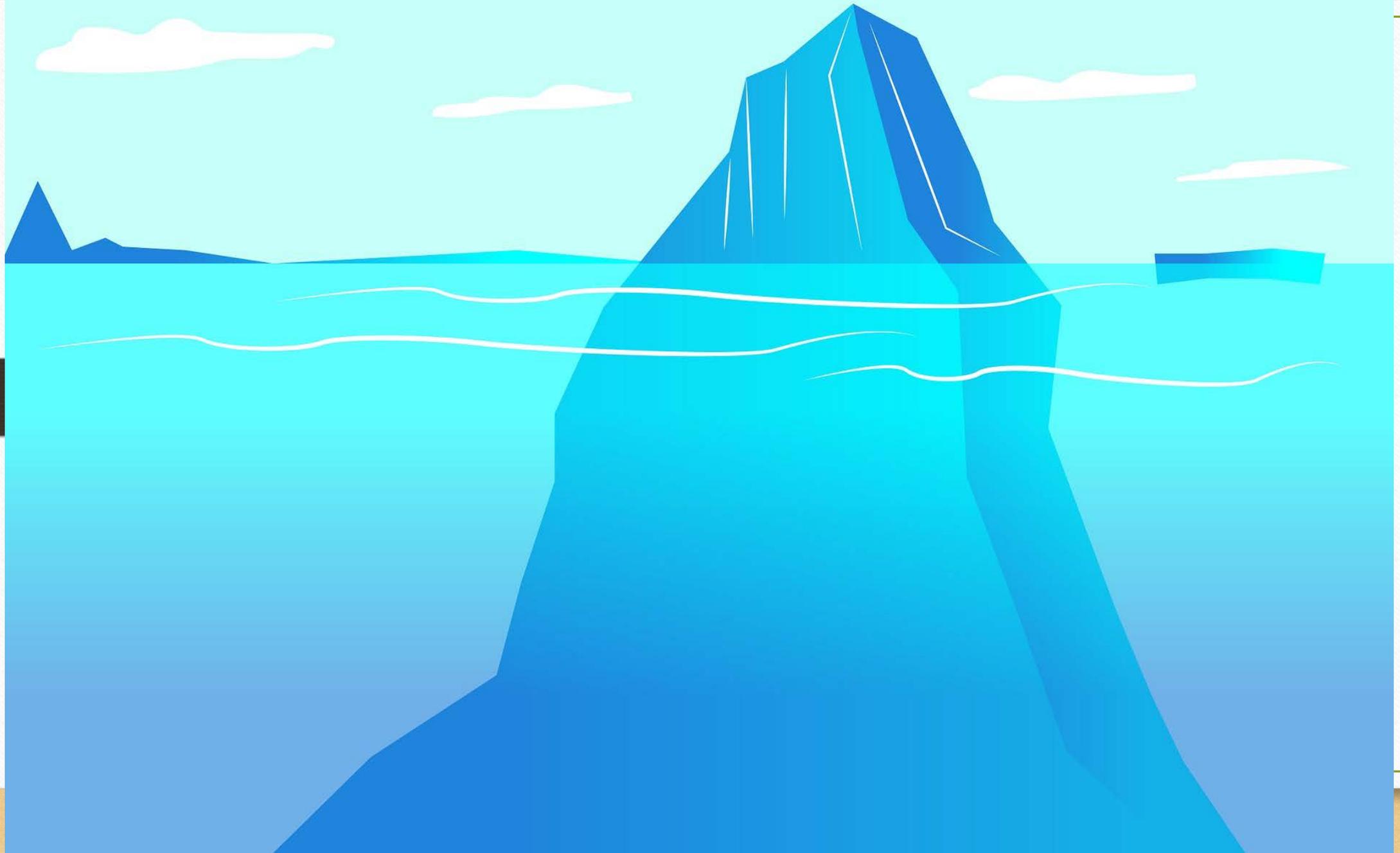




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- Recognize what is happening
 - Accept the situation
 - Investigate with intimate attention
 - Nonidentification



5 Minute Meditation



Telomerase



- Age defying enzyme – found in Human cells
- Dr. Elizabeth Blackburn was awarded the 2009 Nobel Prize in Medicine for her discovery of telomerase.
- Telomerase: your natural enzyme that repairs and lengthens damaged telomeres.

Telomeres

- Stress can make you age faster by affecting telomeres!
- Telomeres are DNA at the end of your chromosomes that directly affect how quickly your cells age.
- When the telomere is completely gone, your cells die.



Telomerase

- Chronic stress decreases telomerase and causes telomeres to age more quickly.
- Dr. Blackburn teamed up with Dr. Ornish to find out how we can boost the activity of the enzyme.
- People eating a plant-based diet and actively practicing stress-management techniques increased telomerase levels.

Mindfulness is not the answer to life's problems but life's problems can be seen through the lens of a clear mind.



Applications

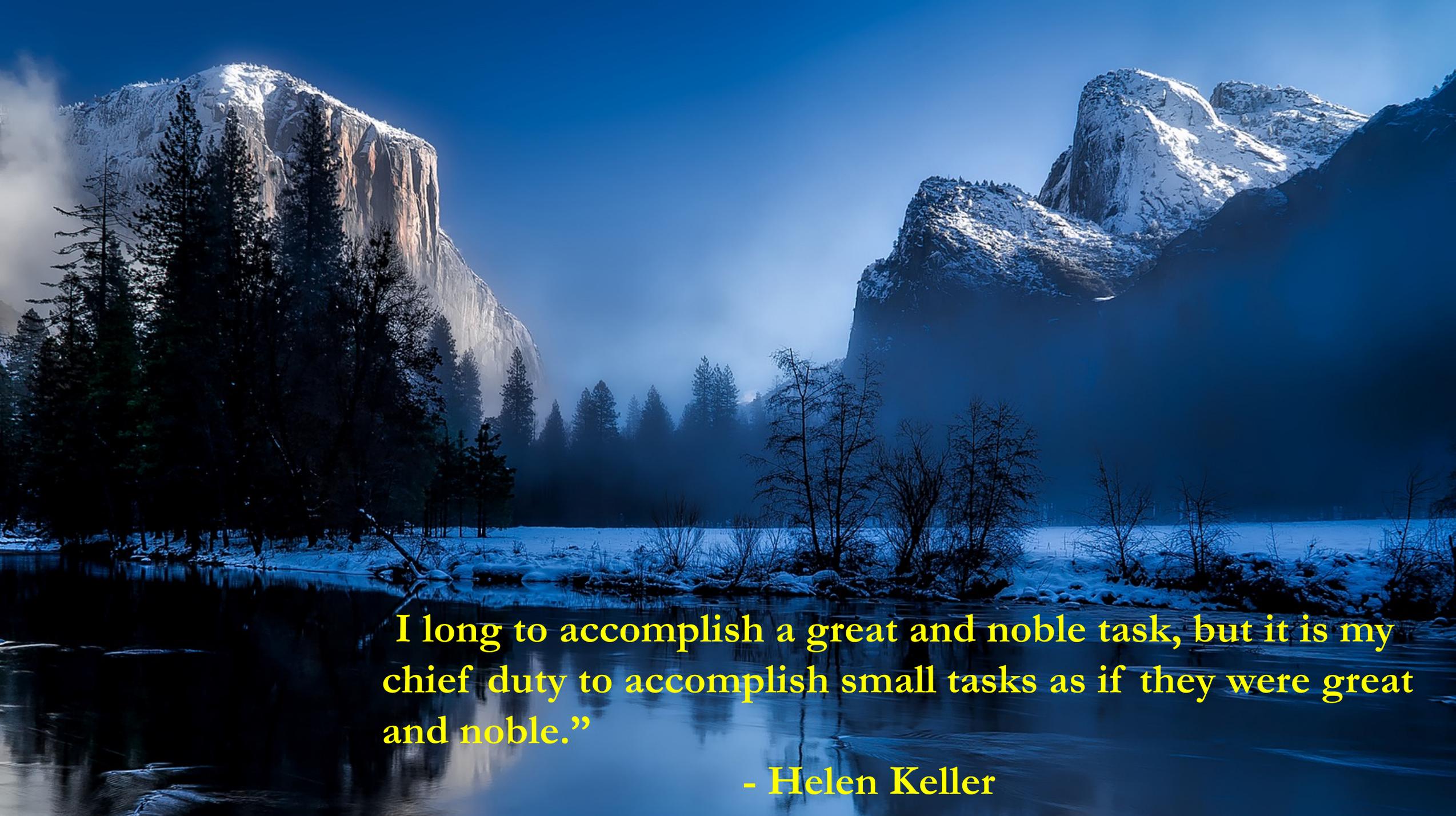
- Before walking into a room with a patient.
- Before picking up the phone.
- Before getting out of the car at work.
- Before starting the car at work.





Learn to Relax

- Relaxation Breathing
- Progressive muscle relaxation
- Guided Imagery
- Meditation
- Take a mental vacation during your day.
- Kp.org
- Renew your mind, body, spirit regularly to better weather the stress of life and of work.



I long to accomplish a great and noble task, but it is my chief duty to accomplish small tasks as if they were great and noble.”

- Helen Keller