# Reducing Stress and Enhancing Well-Being through the Practices of Mindfulness



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# Agenda

Stress and Health

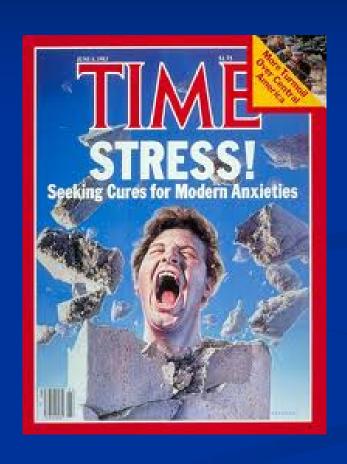
What is Mindfulness?

History and Background

Current Research on the Benefits of Mindfulness

Experience and Dialogue

### What's Stress Got to do With It?

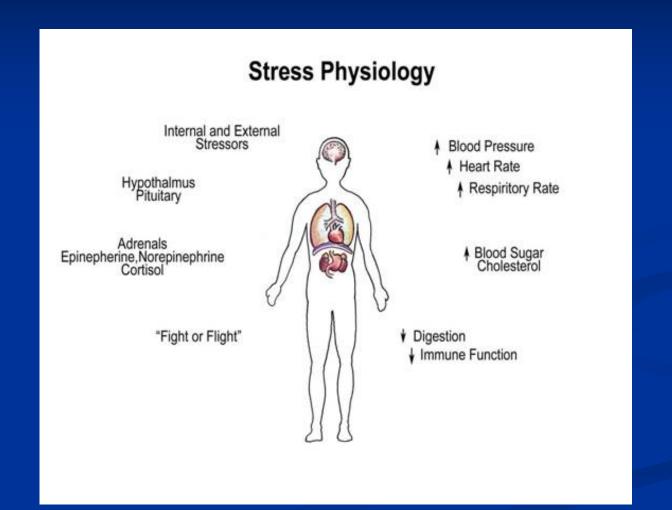


### What do you think stress is?

"A particular relationship between the person and the environment that is appraised as taxing or exceeding his or her resources, and endangering his or her well being."

Richard Lazarus PhD

### The Physiology of Stress



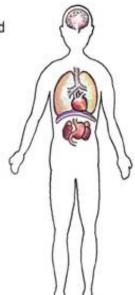
### **How Stress Turns to Illness**

#### **Stress Reaction Cycle**

Stressful event Stress reaction triggered

Hormones released Physiologic response Internalization Inhibition of Stress Reaction

> Automatic/Habitual Reactions



Chronic Stress Anxiety, Depression Insomnia, Headaches High Blood Pressure, Arrhythmias

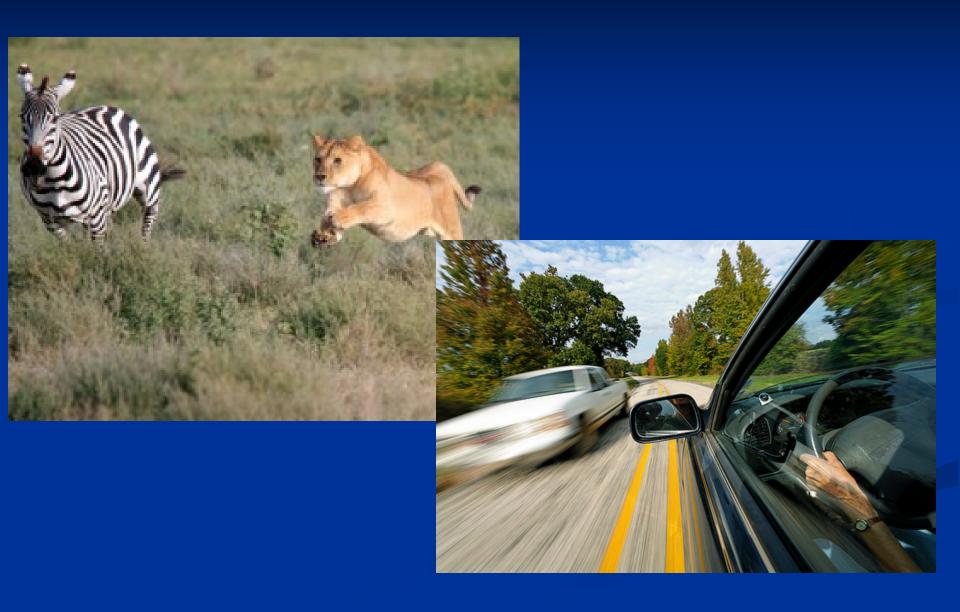
> Breakdown Physical/Psychological Exhaustion Genetic Predispositions

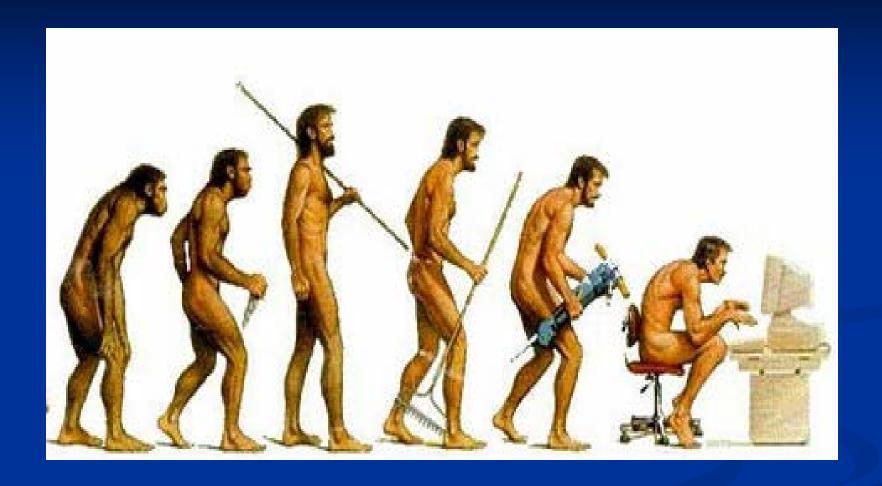
Maladaptive Coping Overworking, Overeating Alcohol, Drugs, Caffeine, Nicotine, TV. Computer

# The Long term effects of chronic stress (and cortisol exposure):

- Impaired immune response
- Changes in body composition (more fat less muscle)
- Mental health problems; increased risk of depression, anxiety, shifting moods, frustration
- Memory and learning impairment
- Sleep impairment
- Increased risk of heart attack
- Reproductive dysfunctions
- Gastrointestinal dysfunctions

#### Fight or Flight Response







The Fight or Flight response is mean for short term use only!

#### Maladaptive Human Response



### External and Internal Stressors

- External
  - A medical condition
  - Financial Problems
  - Family illness
  - Accidents
  - Employment problems

- Internal
  - Worrying about the future (or the past)
  - Negative thoughts about health or family
  - Physical discomfort and what we think it means

### What is the Mind-Body Connection?

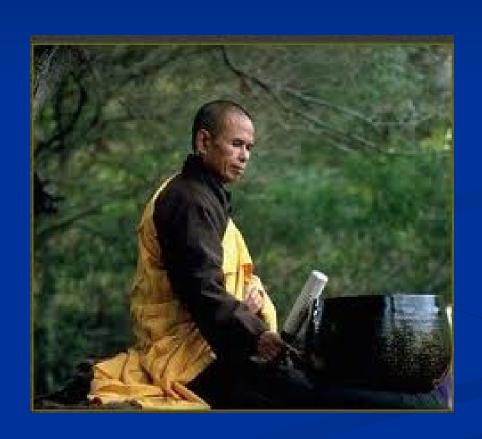


# The Premise of Mindfulness-Based Stress Reduction:

- That Stress is a Physiologic Condition causing or contributing to mental and physical illness.
- Meditative Practices have been shown to reduce stress related symptoms and measures associated with illnesses.
- We can learn practices that help us change our physiology

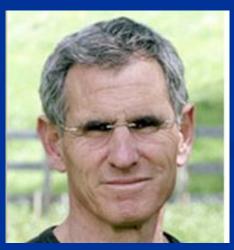
- "MINDFULNESS" is a trainable skill which enables us to be more present in the moment, aware of what is going on inside and around us non-judgementally.
- Neuroscience research shows that mindfulness training cultivates the innate capacities of the mind to be present; to step out of automatic pilot and to create space so we can be clearer, calmer, more focused, more creative, and more compassionate.

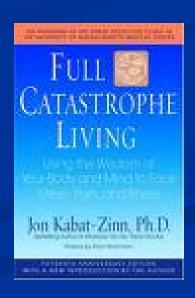
# Origins of Mindfulness



#### A Pioneer in Mindfulness and Health

Jon Kabat-Zinn, PhD





# Summary of Research Findings on Mindfulness Based Stress Reduction

Clinical Research

Consistent & reliable benefits in a range of medical & psychological illnesses

Improved measures of health & well-being in

healthy individuals

Changes maintained for up to four years (length of study) Kabat-Zinn, 1987

Basic Science Research
Strengthening of immune system
Positive changes in brain structure
Improvements in stress bio-markers

# Mindfulness Based Stress Reduction Is Offered Worldwide



#### **Now Who's Using Mindfulness?**



### Innovators in Mindfulness into Business, Leadership, Government, Integrative Medicine, and the Military

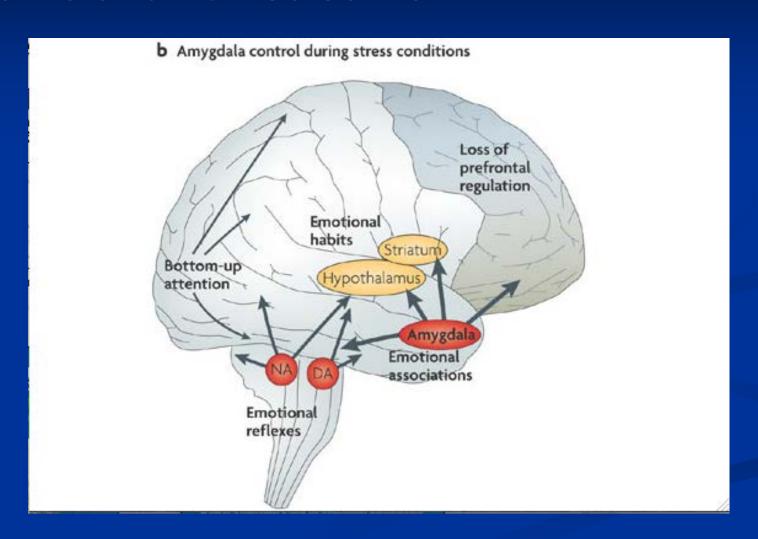
- Andrew Weil, M.D. "Father of Integrative Medicine" Director Arizona Center for Integrative Medicine at University of Arizona
- Jeremy Hunter, PhD -Harvard graduate, Professor Drucker School of Management teaches Mindfulness to Business students and leaders.
- Janice Marturano J.D. Deputy General Counsel, General Mills- Founder Institute for Mindful Leadership
- Congressman Tim Ryan (Ohio) Author of A Mindful Nation,
- Captain Elizabeth Stanley, PhD Professor Security Studies Georgetown University, US Army Intelligence Officer, Graduate of Harvard University School of Government and co-creator of the Mind Fitness training for active military
- Phil Jackson trained the Bulls and the Lakers in Mindfulness Meditation

### Companies offering Mindfulness Based Stress Reduction Programs

Aetna International, Apple Computers, Boeing, Cargill, Inc. Compusense, Deutsche Bank, Department of Defense, eBay, Facebook, Ford Motor Company, Genentech, General Mills,

Google, Hughes Aircraft, Kaiser Permanente, NASA, Nortel Networks, Plantronics, Target, Texas Instruments, Twitter, Qualcom, Yahoo! to name a few

# The stressed brain: Bottom-up attention, reactive and non-selective





"OK, OK, you've made your point.
I'll admit that sometimes when I feel
threatened, I snap."

# The good new is-the Mind can be trained!



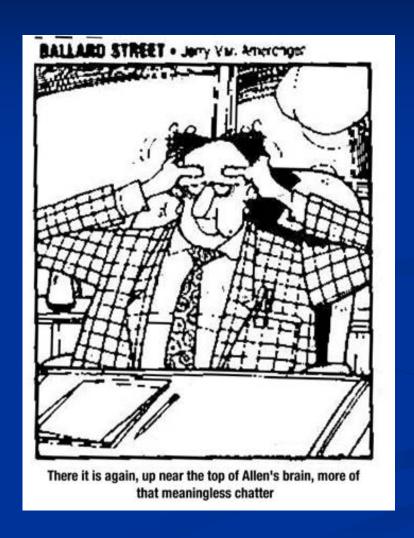
### What is Meditation?



Carol tracks the progression of another thought



### How do you practice Mindfulness?



# Mindful Eating



Mindful Eating means better choices, more enjoyment, and studies show you can also lose weight with out dieting.



### **Mindfulness of Activities**







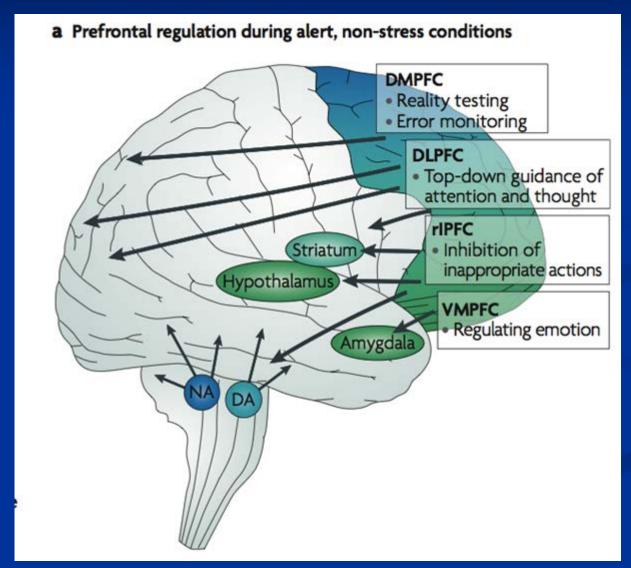


It's helpful to think of mindfulness practices as attention training for the mind, the way you might train a muscle group, or practice playing a musical instrument. This has been shown to make measurable changes through studies on neuroplasticity.





### The Mindful Brain: Top-down controlattentive, responsive & discerning





#### Science News







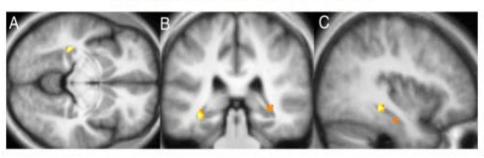
#### Mindfulness Meditation Training Changes Brain Structure in Eight Weeks

ScienceDaily (Jan. 21, 2011) — Participating in an 8-week mindfulness meditation program appears to make measurable changes in brain regions associated with memory, sense of self, empathy and stress. In a study that will appear in the January 30 issue of Psychiatry Research: Neuroimaging, a team led by Massachusetts General Hospital (MGH) researchers report the results of their study, the first to document meditation-produced changes over time in the brain's grey matter.



"Although the practice of meditation

B.K. Hölzel et al. / Psychiatry Research: Neuroimaging 191 (2011) 36-43



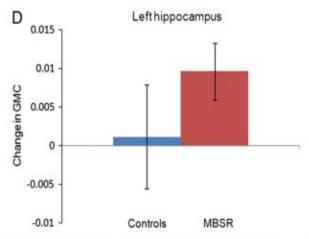
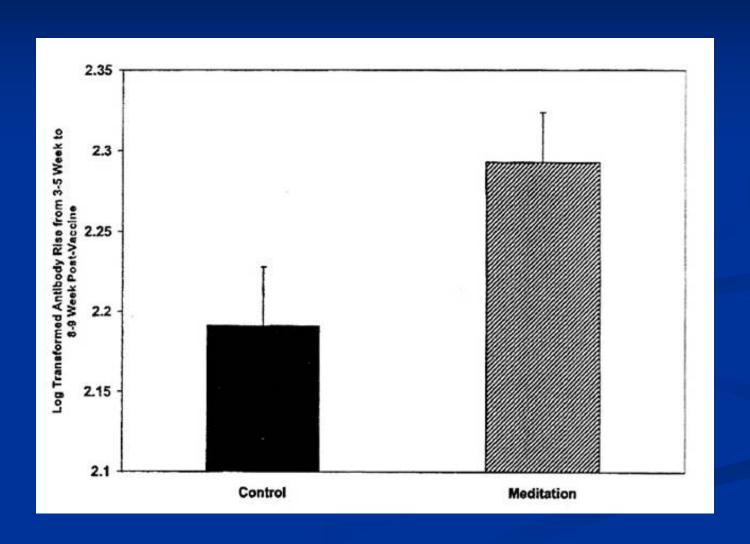


Fig. 1. Region of interest analysis identifies gray matter concentration increases in the left hippocampus (MNI coordinates x = -36 (C), y = -34 (B), z = -8 (A)) in the MBSR group. Voxels (thresholded at P = 0.01 and masked for the regions of interest) are overlaid over the group-averaged brain. D: Change in gray matter concentration (GMC) within the cluster in the left hippocampus from the Pre to the Post time-point in the MBSR and the control group; error bars show 95% confidence interval.

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### **Immune Function in Meditators**



### Mindfulness Training Improves Working Memory Capacity and GRE Performance While Reducing Mind Wandering



After taking a two-week intensive mindfulness training program, undergraduates experienced decreased mind-wandering and improved working memory capacity. They also performed better on a reading comprehension test — a section from the Graduate Record Examination.

Schooler, J. et.al., Psychological Science May 2013 vol. 24 no. 5 776-781

### Less stress more joy for the holidays:



# The "You never have to wait in line again." Yoga Posture



#### 10 Tips to Increase the Joy of the Holidays

- 1) Put self –care higher on your 'to-do" list. This is not the time to skip self-care!
- 2) Practice *Mindful Moments;* feel the hot water of the shower, taste the flavor of your breakfast, look at the mountains.
- 3) In the car, especially in traffic, focus on your breath, feel your hands on the steering wheel, listen to the sounds. Have a quiet car.
- 4) When standing in line, practice standing Yoga, feel your feet, stand tall! Look at the people around you and send good wishes to them and their families.
- 5) Remember *why* you are doing what you are doing; connect with feelings of love and care as you shop by focusing on your heart and your loved ones.

### 10 Tips Continued.....

- 6) Take a break from the radio, TV, Computer, Cell phone for half an hour at the end of the day, before dinner.
- 7) Give to a stranger. Spend and afternoon volunteering.
- 8) Look for ways to simplify; are their activities, events, people that don't really feed your soul or reflect your deepest values?
- 9) Take small breaks throughout the day.
- 10) Trade in Perfectionism for Peace. Your calm centered presence is better than any material present.

#### Think outside the box: Give time



### Mindfulness is a Powerful Skill to Reduce Stress and Enhance Well-Being









# Between stimulus and response there is a space.

In that space is our power to choose our response.

In our response lies our growth and our freedom.

-Viktor E. Frankl

# "There is a lot more right with you, than there is wrong with you" Jon Kabat-Zinn, PhD

