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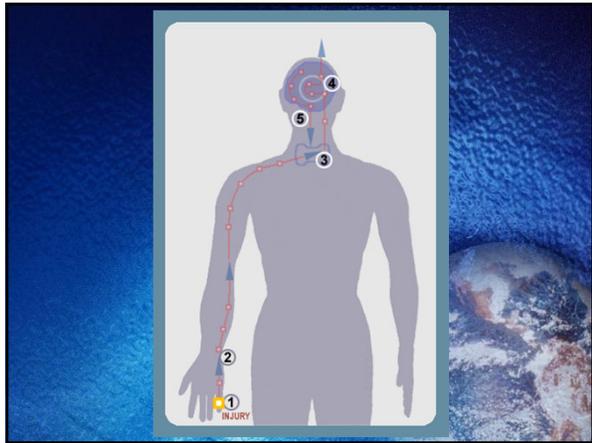
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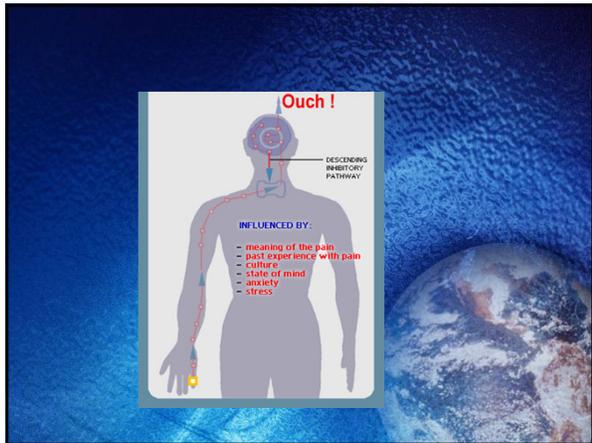
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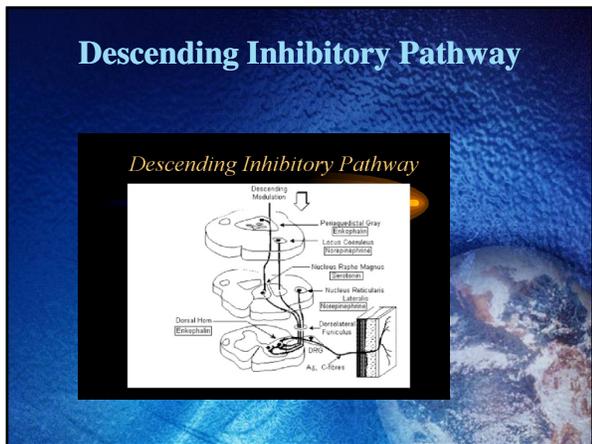
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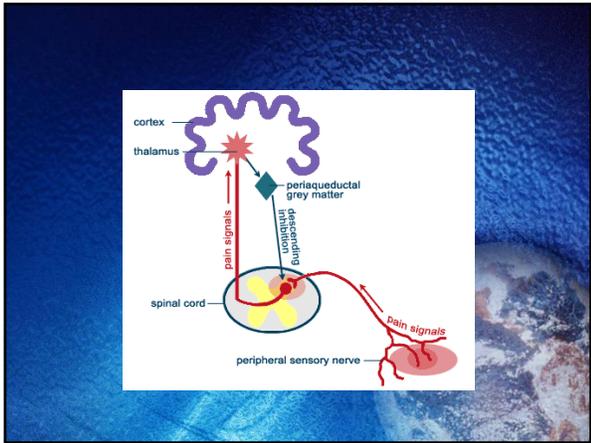
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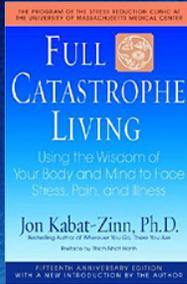
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## Mindfulness-Based Stress Reduction (MBSR)



Stress Reduction Clinic,  
UMASS Medical Center,  
established 1979

- 8-week program, 2 hours per week, plus a full day of practice
- Educational, not therapeutic orientation

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## What is Mindfulness-Based Stress Reduction?

- Offered at >700 medical centers in U.S. and around the world
- 35+ years of research in a wide range of chronic clinical ailments
- Has its own journal for new studies in the area

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## Categories of Mindfulness

- Vipassana Meditation originating in ancient Buddhist Traditions over 2 millennia ago
- Mindfulness Based Stress Reduction
- Mindfulness Based Cognitive Therapy
- Mindfulness Based Eating

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## MBSR and Research



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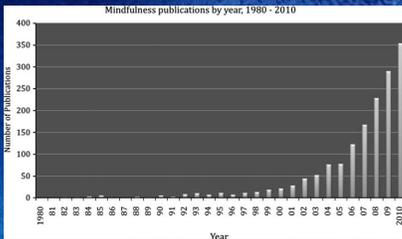
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## Research Growing



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## University of Toronto

- MBCT is as effective as anti depressants in preventing relapse from clinical depression (Segal and Teasdale, 2000)

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### MBSR and Pain

- Zeidan, Martucci, Kraft, Gordon, McHaffie and Coghill, 2011
- Meditation reduced all subjects pain intensity by 11-70%
- Meditation reduced all subjects unpleasantness rating 20-93%

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### Pain Relief

- Meditation modulates pain through several brain mechanisms
- The first ....
- Meditation significantly reduced pain related afferent processing

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### Limbic System

- Primitive system
- Contains the amygdala and the thalamus
- Responsible for our emotional responses to situations in our lives

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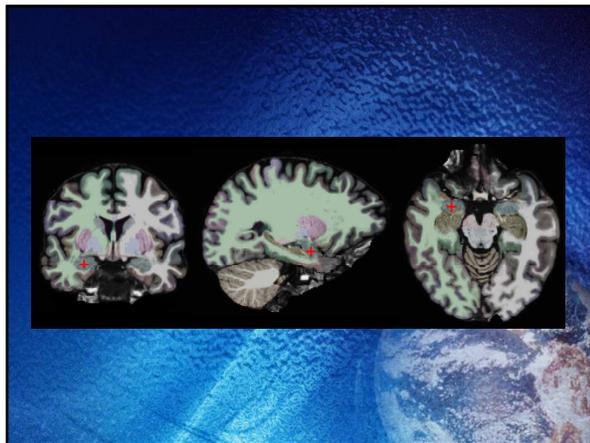
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### Thalamus

- Widespread deactivation of thalamus during meditation
- Filtering mechanism of ascending sensory information at the thalamic level
- Operates as a gatekeeper between the thalamus and the cortex

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- The second...
- Mindfulness meditation pain relief was directly related to brain regions associated with the cognitive processing of pain

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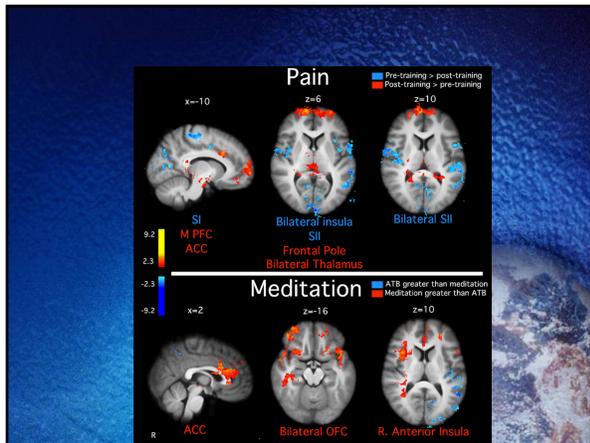
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### Morone, Greco and Weiner, 2007

- Compared MBSR group with a control
- MBSR group displayed significant improvements in Chronic Pain Acceptance Questionnaire – Total score and Activities engagement sub scale
- Improved physical function

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### Kerr et al, 2011

- Mindfulness meditation can significantly increase anticipatory alpha modulation (7-14 Hz)
- Changes in alpha rhythm has been associated with enhanced filtering of inputs to the primary sensory cortex
- Alpha modulation thought to play an active role in gating thalamocortical sensory transmission

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## What is Mindfulness?



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## Awareness is Continuous

- The “triangle” of awareness:
  - Body sensations
  - Thoughts
  - Emotions
- But we don't always bring attention to our awareness
  - Much of the day, we're on autopilot
  - Attending to the body/breath brings us into the present moment — immediately

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## Autopilot....



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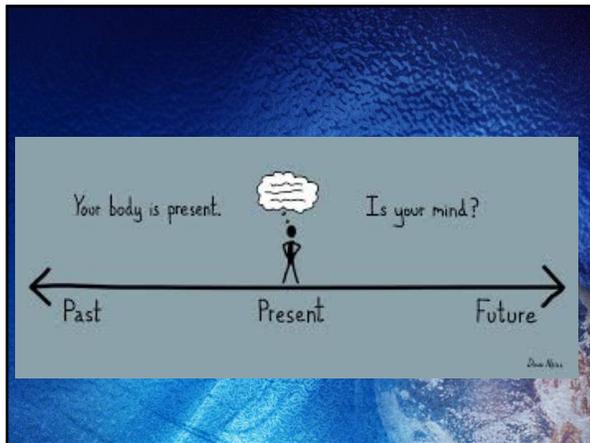
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## Mindfulness Begins With Attention

- Jon Kabat-Zinn defines mindfulness as attention that is:
  - Intentional
  - Moment-to-moment
  - Non-judgmental

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- Paying attention
- On purpose
- In a particular way
  
- Non judgmental attention to present moment experience

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### Interwoven aspects of a cyclic process

- Intention
- Attention
- Attitude

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### Attention

- Observing moment by moment experience
- A return to things in themselves
- Attending to the contents of our consciousness, moment by moment

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### Attitudes

- Acceptance
- Nonjudging
- Openness
- Curiosity
- Trust
- Kindness
- Nonstriving
- Patience
- Letting go
- Gentleness

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## What happens in Mindfulness

- A shift in perspective
- Through meditation practice, intentionally paying attention with acceptance and openness (attitude) we experience a shift in perspective.

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## Re perceiving

- A shift in perspective

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## Re perceiving

- Rotation of consciousness
- Disidentify with the contents of consciousness and able to see freshly with objectivity and clarity
- Rather than be immersed in the drama of our story, we are able to stand back and witness it

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- The phenomena contemplated are distinct from the mind contemplating them
- Daniel Goleman

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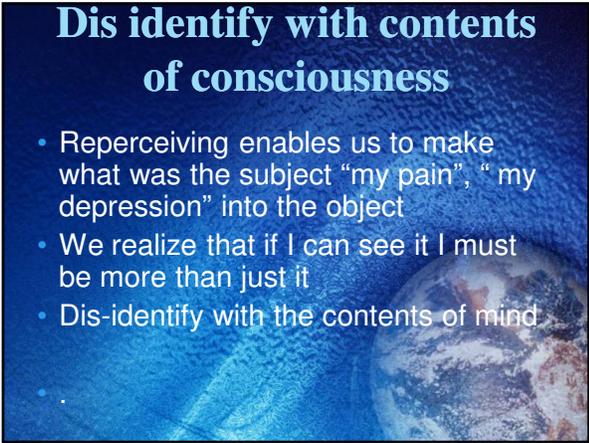
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### Dis identify with contents of consciousness

- Reperceiving enables us to make what was the subject “my pain”, “ my depression” into the object
- We realize that if I can see it I must be more than just it
- Dis-identify with the contents of mind
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### Resources

- MBSR British Columbia  
[www.mbsr.bc.ca](http://www.mbsr.bc.ca)
- Center for Mindfulness in Medicine, Health Care and Society  
<http://www.umassmed.edu/cfm/index.aspx>

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**“Compared to what we ought to be, we are only half awake.”**

...William James



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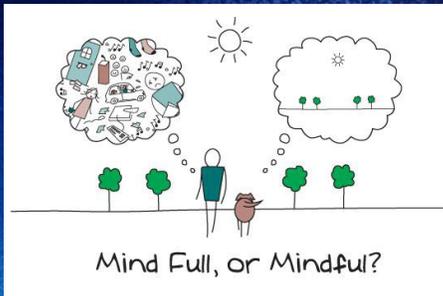
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Mind Full, or Mindful?

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