

RSACONFERENCE2014

FEBRUARY 24 - 28 | MOSCONE CENTER | SAN FRANCISCO

Share.
Learn.
Secure.

Capitalizing on
Collective Intelligence

neurōhacking

Taming your inner curmudgeon



SESSION ID: MASH-W01

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VP of Engineering, Consulting CISO
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Who are we and why
are we doing a
mindfulness talk



Our story in 5 minutes or less

Mike and JJ – two ordinary infosec Joes who discovered something cool. How we started, why, and how it's helped.



An industry riddled with negativity

Why are we so grumpy, skeptical and critical?

- ◆ Infosec is tiring, frustrating, we get few wins and a good day is a day nothing happens. It's hard to quantify and measure success.
- ◆ Our analytical traits create a physiological state of the brain that makes it nearly impossible to think creatively and move from impasses to insights during problem solving.

Proposing a solution

- ◆ There have been many talks on burnout and negativity in the industry, but few (if any) solutions proposed.
- ◆ Here, we're proposing the most simple and effective solution, accessible to every person.
- ◆ We (and many other technology and security pros) have found and applied mindfulness practices with great success.

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Overcoming Our Nature



Is this you?

- ◆ Are you tired of feeling **exhausted**?
- ◆ Do you feel overworked and **overwhelmed** daily?
- ◆ Are there **never enough hours** in the day?
- ◆ Does your **to-do list fill up** faster than you can clear it off?
- ◆ Is your always **inbox overflowing**?
- ◆ Tired of **not being heard** in the boardroom?
- ◆ Annoyed with **vendors** trying to pull one over on you?

You are not alone...

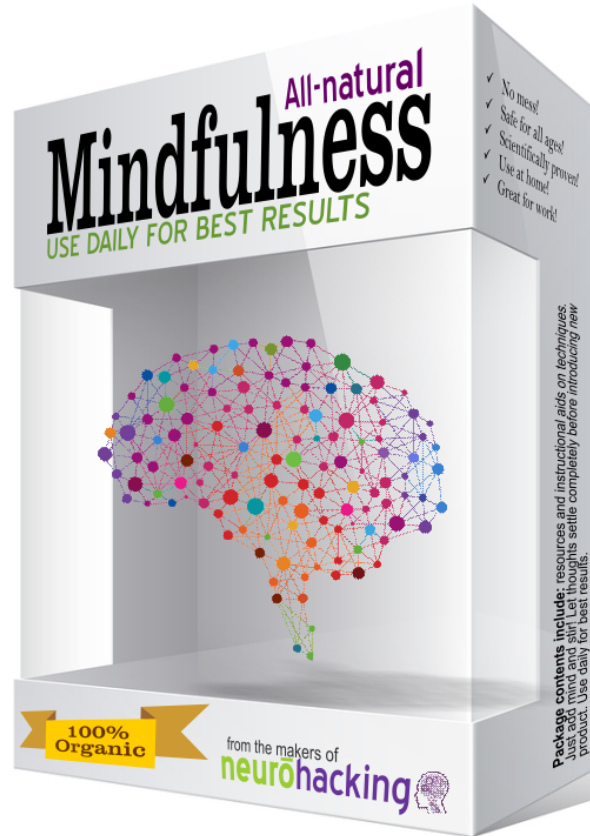
- ◆ Most people that you know feel this way.
- ◆ Few feel comfortable talking about it.
- ◆ Even fewer take action to address it.
- ◆ There is a path forward (if you choose to follow it).



<http://www.flickr.com/photos/nouspique/4783603430/>



Free shipping!
Great as a gift!



#neurohack

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We know...

- ◆ We know it seems being grumpy is so much cooler than being happy.
- ◆ We know some of you think mindfulness, meditation and similar practices are closely linked to “crystal sucking” and “vortex seeking”
- ◆ We know you’re grumpy and skeptical, and it may take some convincing. We’re up for the challenge.



Request of mindful attention

- ◆ We'd like to ask for everyone's attention during the next 50 minutes. Please turn off or at least silence and store cell phones and other electronic devices.
- ◆ Don't live Tweet. Don't send texts. Don't check email. It'll be there when we're done.
- ◆ This is your first exercise in practicing mindfulness!



Your fellow infosec pros and industry rock stars!



David Shearer
COO, (ISC)2

- Tai Chi
- Yoga
- Qigong

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Mindfulness and How it Helps Us



Words of Mindfulness...

Clarity

Attention

Meta-attention

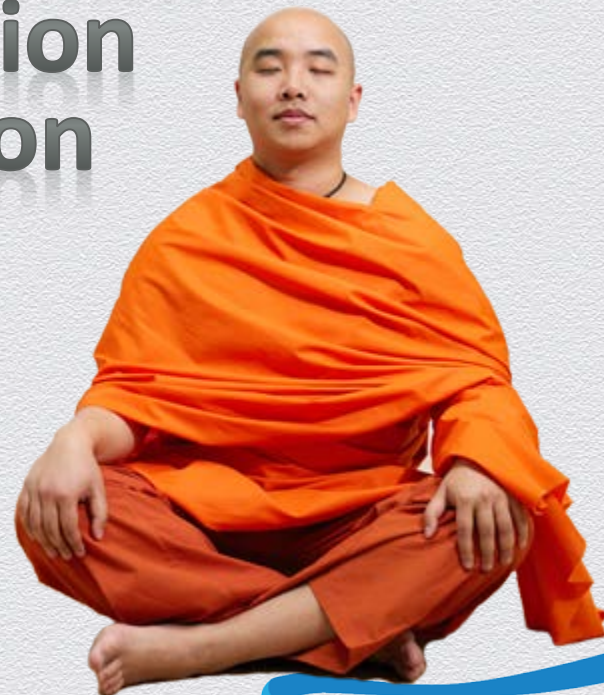
Situational control

Self-awareness

Living in the moment

Emotional intelligence

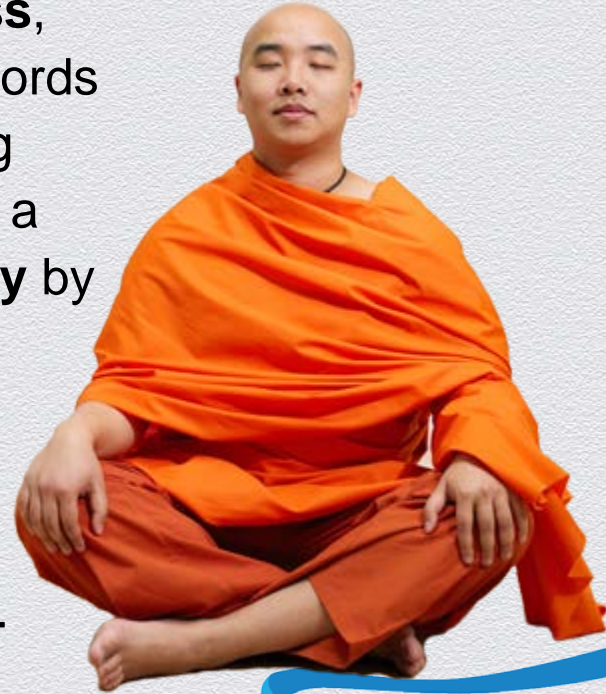
Meditation



Mindfulness Defined

Some call it **neuro-hacking**, some call it **mindfulness**, and in Eastern philosophies there are a plethora of words to describe both the actions and the benefits resulting from a shift in perspective. Concepts once viewed as a **bunch of hooey** now have their **results proven daily** by **scientific and medical research**, confirming what people knew 2,500 years ago.

You don't have to take our word for it,
grab your crystal and check this out...



Medical research studies



There's an **unimaginable volume** of medical research on mindfulness, ranging from documenting **novice** practitioners to **life-long meditators**. In all cases, mindful practices yielded **positive, measurable** (and at times, **visible**) results.



Integra

Ganpat T

Author

Abstract

Yoga therapy

Managers in

Results: The

MATERI

Yog numerous conditions that are caused or exacerbated by stress [3]–[6]. Mind-body approaches that elicit the RR include: various forms of meditation, repetitive prayer, yoga, tai chi, breathing exercises, progressive muscle relaxation, biofeedback, guided imagery and Qi Gong [7]. In addition to decreased oxygen consumption [8]–[10], other consistent physiologic changes observed in long-term practitioners of RR techniques include decreased carbon dioxide elimination

Brain Imaging Analysis Can
Identify Participants under
Regular Mental Training

It was possible to identify whether a participant belonged to the regular meditator or non-meditator group with 94.87% accuracy (37 participants from 39, $p < 0.001$, accuracy estimated from first-level leave-one-subject-out) using SVM analysis of the volumetric data from several brain regions.
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3389014/>

KEYWOR

PMID

Im

mea perspective switching [51]. ... exhibit decreased interference in the Stroop [49], [50] tests, and Hayling [53] tasks in the sense of decreased automatic and habitual

RE For instance, Matthews and Williams [23] evaluated the effects of a TCC (Tai Chi) program on cognitive performance in older adults and found TCC has benefits (p for the tasks involved in executive function.

71-11-2011

well-being in the short- and long-term.

program.

nges
otional

Medical research studies



Scientists document brain activity using...

- **fMRI** (functional magnetic resonance imaging), via blood flow
- **EEG** (Electroencephalography), via electrical signals/waves
- **DTI** (Diffusion Tensor Imaging), via water flow in white matter

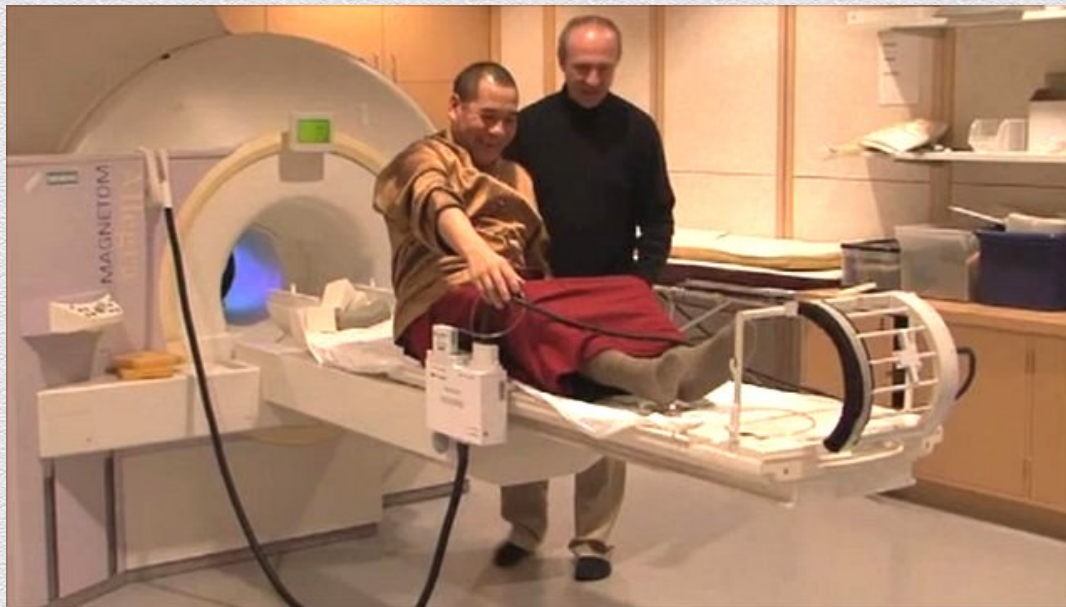
The field of neuroscience is changing drastically right now.

Buddhist monks **ESPECIALLY** love scientific research, and help any chance they can.

Medical research studies



Medical research studies



Medical research studies



Medical research studies show...



Increase grey matter

Faster task switching

Higher cognitive scoring

Regulate emotion

Increased attention

Decrease cortisol

Reduced stress

Protects from mental illness

Reduced skin rashes

Reduce depression

Increased working memory

Control PTSD

Mindfulness prescribed for...



- ❖ Stress, burnout
- ❖ Concentration, memory
- ❖ Chronic pain
- ❖ Weight loss, healthy eating
- ❖ Breaking addiction
- ❖ Physical conditions
- ❖ Anger management
- ❖ Leadership training
- ❖ A.D.D and variations
- ❖ Psychological conditions
- ❖ Fear, anxiety, coping, PTSD
- ❖ Depression
- ❖ Insomnia
- ❖ ... and a thousand other ailments



What do these guys have in common?



Tim Ryan
POLITICIAN



Steve Jobs
BUSINESS MAN



Blair Walsh
PRO ATHLETE

Notable public figures advocating mindfulness



- ◆ Arianna Huffington
- ◆ Padmasree Warrior, CTO of Cisco Systems
- ◆ Congresswoman Tulsi Gabbard
- ◆ Jeff Weiner, CEO of LinkedIn
- ◆ Evan Williams, Cofounder of Twitter
- ◆ Plus, Rupert Murdoch goes transcendental
- ◆ ...and many more, just open a magazine!

THEY DO THIS!

Corporations implementing mindfulness programs



- ◆ Google
- ◆ General Mills
- ◆ Zappos
- ◆ Facebook
- ◆ Apple
- ◆ McKinsey & Company
- ◆ Deutsche Bank
- ◆ Procter & Gamble
- ◆ Aetna



Corporations implementing mindfulness programs



At every building in General Mills' sprawling campus, there's a **meditation room**. Among General Mills' **senior execs** taking a meditation course...

- ◆ **80%** reported a positive change in their ability to **make better decisions**
- ◆ **89%** said they became **better listeners**



In another organization, research with business managers show...

- ◆ **Yoga reduced insomnia and anxiety by 66%** and
- ◆ ...reduced **depression** by more than **85%**

Your fellow infosec pros and industry rock stars!



Chris Hoff
@beaker
Juniper

@beaker



#neurohack



@jolly



@michaelwilde



@securityincite



SecuritySCAPE
IT Security Made Simple
2012

hman, SecLrosis
@securityincite

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Your fellow infosec pros and industry rock stars!



Dennis Kuntz

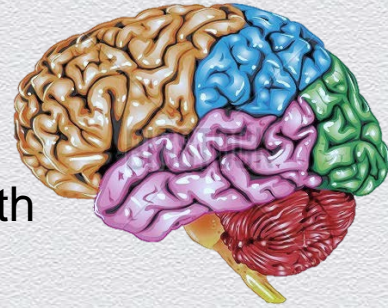
Accuvant

- Tai Chi
- Yoga
- Qigong

We can fix infosec grumpiness

Mindfulness and meditation help us address the underlying physiological and analytical issues we have as infosec pros.

- ◆ Clears the pre-frontal cortex (PFC) for better data processing
- ◆ Opens us to accepting new people as “friend” instead of “foe”
- ◆ Lets us activate parts of the brain associated with insight
- ◆ Helps us process and organize the daily “newness” we deal with
- ◆ Creates understanding of the brain’s physical needs
- ◆ Gives us a chance to respond instead of reach



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Getting Started with Mindfulness



Great Starters

- ◆ Basic breathing and breath awareness
- ◆ Exercises of attention and self-awareness
- ◆ Two-minute exercises
- ◆ Eight-minute meditation

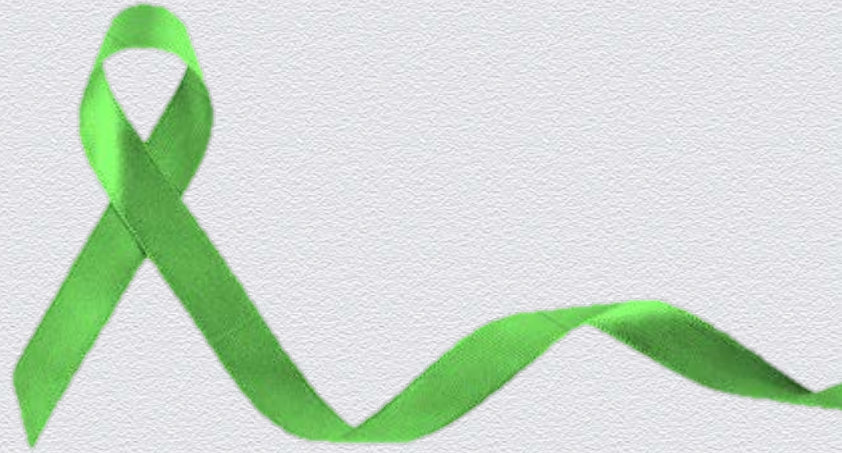
Basic breathing and breath awareness



- ◆ Breathing exercises used by snipers, women in labor, and for stress reduction for decades.
- ◆ Practice by taking in three deep, relaxing breaths.
- ◆ Advanced practices use scientific ratios of inhalation and exhalation for specific purposes.

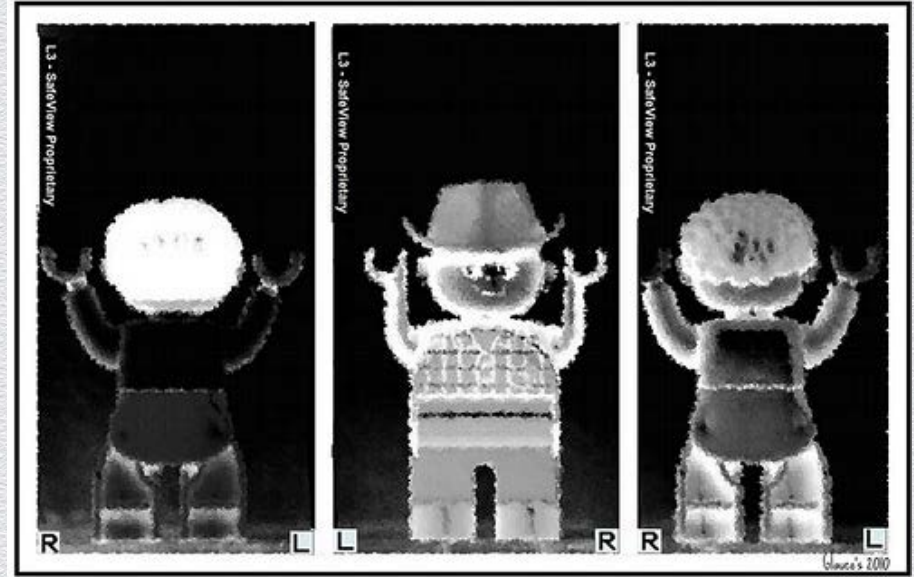
Exercises of attention and self-awareness, including a body scan for tight spots

- ◆ Relaxation and stillness that lets you look “inside” and notice tightness in the body.
- ◆ Stress manifests first physically, and can be recognized early if we’re paying attention.
- ◆ The “body scan” is an easy method to apply here.



Body Scan

- ◆ Core practice in Jon Kabat-Zinn's highly successful Mindfulness-Based Stress Reduction (MBSR)
- ◆ Systematically bring moment-to-moment non-judging attention to different parts of our bodies.



<http://www.flickr.com/photos/glukgluk/4300469799/>

Two-minute exercises

- ◆ You can do a lot in just 2 minutes!
- ◆ Depending on your goals, there are a variety of 2-minute exercises to relax your brain and dig in to a problem.



Loving Kindness



- ◆ Popular meditation technique
- ◆ Create good wishes for others, thereby creating the mental habit of kindness.
- ◆ Let's try...

Eight-minute meditation

- ◆ Victor Davich wrote a book, which is really an “intro to meditation.”
- ◆ In 8 minutes you can completely quiet your mind.
- ◆ It's like hitting a reset button or taking a 20-minute nap.



What am I going to eat tonight?
I wonder if Sarah turned in that report on time.
My nose itches.
Oh, God, my nose REALLY itches!

Notes for Noobs

Remember mindfulness doesn't require cushions, lotus position or crystals.

- ◆ Finding what works for you
- ◆ Practice
 - ◆ When
 - ◆ What
 - ◆ How

More resources at
NeuroHacking.Org

Resources for Starters

More resources at
NeuroHacking.Org

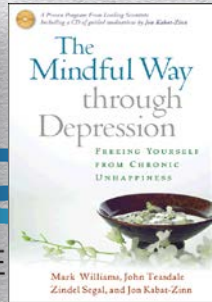
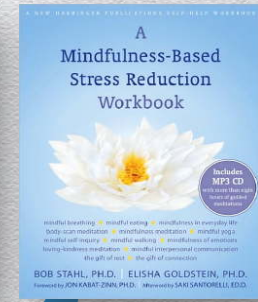
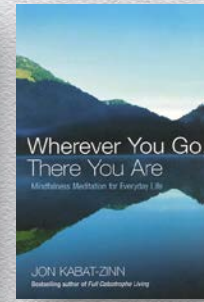
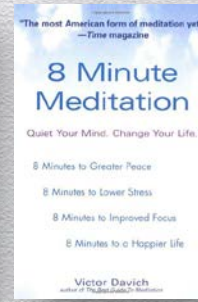
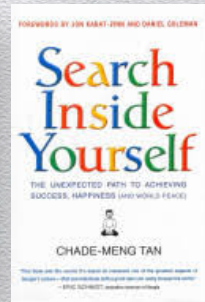
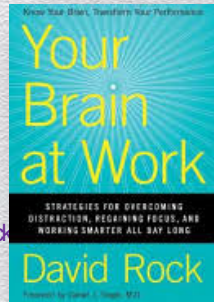
See our resources for a full list of books, websites, people, forums

◆ Books

- ◆ Your Brain at Work
- ◆ Search Inside Yourself (the Google curriculum)
- ◆ A Mindfulness-Based Stress Reduction Workbook
- ◆ The Mindful Way through Depression: Freeing Yourself from Chronic Unhappiness



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More Structured Techniques



Mind-based practices

These practices focus on attention and are usually fixed/seated meditation style, but may be applied as part of a moving meditation or body exercise.

- ◆ Zen practice
- ◆ MBSR (mindfulness based stress reduction)
- ◆ Auditory, binaural waves, music
- ◆ Meditative yoga
- ◆ Qigong
- ◆ Autogenic, guided imagery

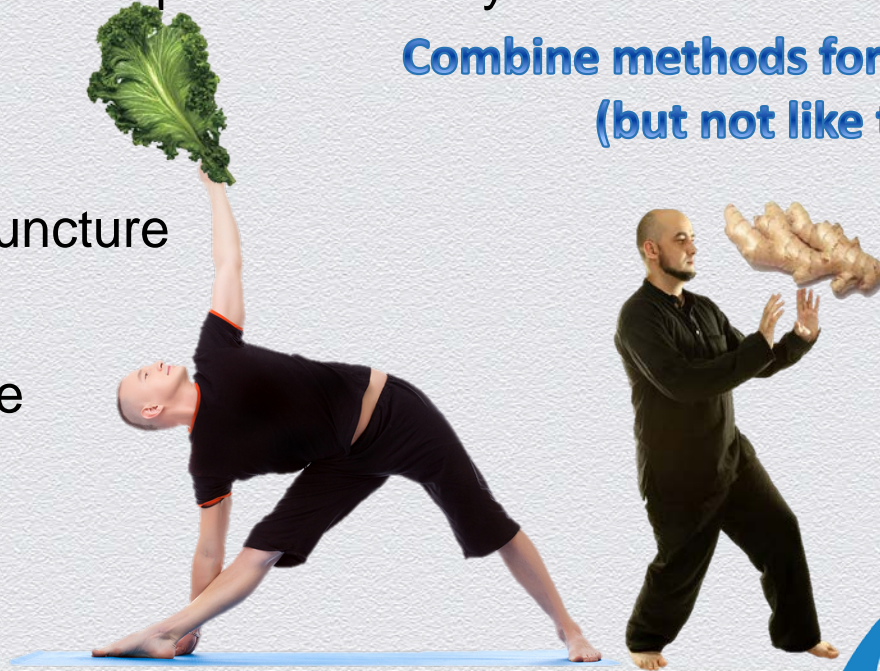


Body-based practices (mindful body integration)

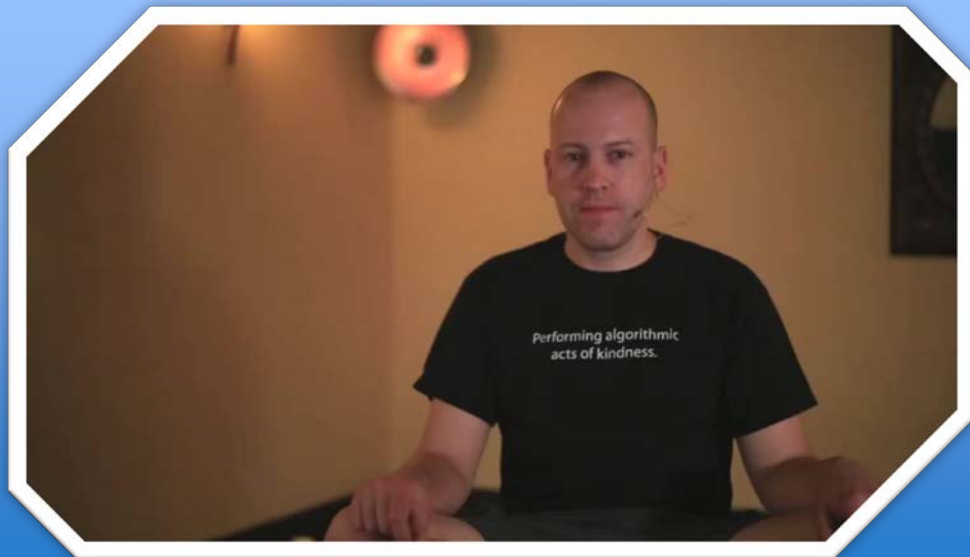
These practices are closely tied to meditation practices, but involve body movement. In many cultures, these body movements were designed to relax, open and prime the body and mind for meditation.

- ◆ Yoga
- ◆ T'ai Chi (Taijiquan)
- ◆ Acupressure, acupuncture
- ◆ Nutrition, herbs
- ◆ Integrative medicine
- ◆ Biofeedback

Combine methods for best results!
(but not like this)



Your fellow infosec pros and industry rock stars!



Michael Wilde
AKA "yogi wan kenobi"
Office of CTO, Splunk
- Yoga

Your fellow infosec pros and industry rock stars!



Little Wildes

Michael's kids meditating

It's never too early to
pass it on!

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Review and Call to Action



Review of content with key take-aways

- ◆ Mindfulness is a **way of hacking your brain** to make it more productive
- ◆ Mindfulness is **proven in science**, in practice, and throughout history
- ◆ Many of your **peers are already practicing** mindfulness – it's not weird!
- ◆ You can **start with just a few breaths** a day.
- ◆ Once you start applying these techniques, you'll find you're more productive, happier, less grumpy, thinking more clearly, and amazingly- additional time and space will materialize, allowing you to do more.

Challenge of Change

We invite you to start your mindfulness journey and commit to yourself something small and obtainable, done daily. Try one or several of these:

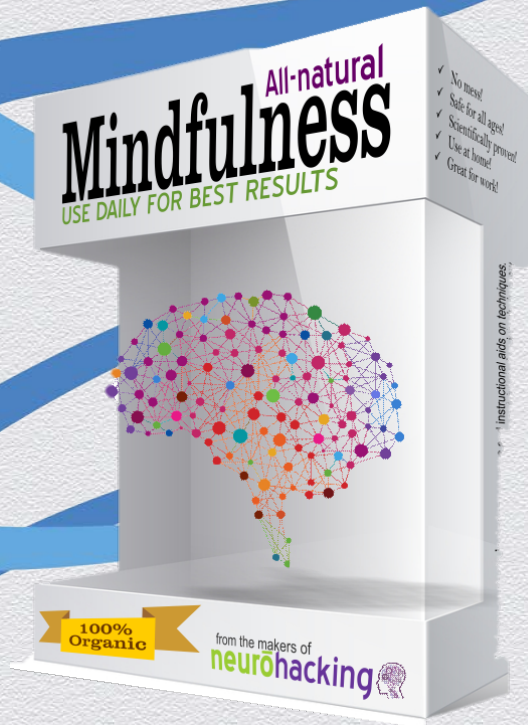
- ◆ Commit to taking 3 deep, mindful breaths each day, or
- ◆ Commit to spending 2 minutes a day in quiet preparation or reflection
- ◆ Commit to trying an 8-minute meditation in the next week

For more resources, follow us online at @jjx and @securityincite and look for #neurohack on Twitter and Facebook.

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Don't forget to stop by
our booth and get your
own box!

More resources at
NeuroHacking.Org



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