

**Working with the Body, Breath, and Mind to Find
Emotional Balance**

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Centering Practice

§ Find a comfortable sitting position

- Feet flat on the floor
- Sit upright, spine is tall
- Feel grounded through the sit bones, while lifting through the crown of the head and the heart
- Strong/stable skeletal body, relaxed muscular body
- Close your eyes, or have an unfocused gaze a few feet in front of you

§ Bring awareness to the present moment

- Scan the body, notice tension/comfort
- Connect w/ the breath – breathe nose-to-belly
- Notice any thoughts – past/future, judgment, sweep the mind clear, quiet the thoughts (focus on breath)
- Notice the quality/intensity of your emotions

Evidence Based Treatment

- § Scientific evidence has shown yoga to be effective in helping over 50 health conditions (Dr. Timothy McCall, 2011)
- § Mental health studies (# studies):
 - Autism (1)
 - Anxiety (13)
 - Obsessive Compulsive Disorder (OCD) (2)
 - Depression (8)
 - Post-Traumatic Stress Disorder (PTSD)(4)
 - Alcoholism/Addiction (3)
 - Attention-Deficit/Hyperactivity Disorder (ADHD) (1)
 - Eating Disorders (2)
 - Schizophrenia (4)
- § In 2012 there were 83 active studies using yoga as a treatment modality (NIH and NCCAM)

What is Yoga?

- § Originated 5,000 years ago in India
- § “Yoga” = to yoke together, unite
 - Integrate all aspects of the individual – body, mind, spirit
- § Physical poses did not become primary feature until 1900s
 - Yoga traditionally was focused on meditation, breathing, chanting
- § Goals:
 - Strong and flexible body free of pain
 - Balanced autonomic nervous system (control center)
 - Optimal function of physiological systems
 - § digestive, respiratory, circulatory, endocrine, nervous, immune
 - Develop calm, clear, and tranquil mind
 - Self-transformation, enlightenment
 - Improve overall quality of life
 - Reduce suffering.... Could yoga be the 1st Psychology???

“Rewire” Your Life

- § We are born with *tendencies*:
 - Neurology, body, mind, emotions, temperament
- § Life experiences & choices shape us over time
- § Rehearsed patterns of **thought & behavior** (CBT) become our “persona” ~ the way we are in life
- § Negative habits → emotional imbalance
- § Positive/Healthy habits → emotional balance
- § We can create a positive experience of life:
 - Commitment to new patterns
 - Repeatedly make **mindful** choices
- § Emotional Retraining

“Reprogram” the Mind

- § The Mind has a negativity bias
 - Learn/remember more easily from negative experiences than from positive (velcro vs. teflon)
- § Generating positive thoughts creates new neural circuits in the brain - “hardwire happiness”
- § You mind builds your brain thought by thought - “experience-dependent neuroplasticity”
- § Experiences affect gene expression
 - practicing relaxation increases expression of genes that regulate stress response (increase resiliency).

(Rick Hanson, PhD)

Yoga's Tools that Affect Well-Being

Postures (Asanas)

- reduce pain, injury, promote healing
- feel well physically = feel well emotionally

Breath (Pranayama)

- regulate nervous system (NS)

Relaxation

- ease + steadiness, awareness/release of tension
- calm nervous system, reduce stress

Meditation (1-pointed focus)

- quiet the mind, senses turn inward

Awareness/Attention Training

- **mindfulness**
- present moment, body/sensations/breath/mind/emotion
- notice w/o judgment/reaction

Positive Effects of Yoga

§ Yoga & Mindfulness have been shown to improve:

- Stress (lowers Cortisol)
- Depression
- Anxiety
- Anger
- Trauma (PTSD)
- Eating Disorders
- AD/HD (possible due to increasing dopamine; Mehta et al. 2012)
- Attention, Concentration, Memory, Learning, School Performance
- Insomnia
- Immune system function
- Cancer, Chemotherapy
- Obesity, Blood pressure
- Chronic pain, Injury

Why Does Yoga Work?

- § Decreases Sympathetic Nervous System arousal
 - “Stress Response”
 - “Fight/Flight/Freeze”
 - § Fight – Anger
 - § Flight – Anxiety
 - § Freeze – Depression
 - Most mental health problems relate to an over-stimulated SNS, which also affects physical health
- § Increases Parasympathetic Nervous System function
 - “Relaxation Response”
 - “Rest and Digest”

Research Evidence

- § 2011 meta-analysis of peer reviewed, published research from 1990-2009 found yoga:
 - enhance muscular strength, body flexibility
 - improve respiratory and cardiovascular function
 - promote recovery from addiction
 - reduce stress, anxiety, depression
 - reduce chronic pain
 - improve sleep patterns
 - enhance overall well-being and quality of life
- § Yoga facilitates characteristics of friendliness, compassion, and greater self-control, while cultivating a sense of calmness and well-being.
- § Sustained practice leads to changes in life perspective, self-awareness and improved sense of energy to live life fully and w/ genuine enjoyment.
- § Yoga produces a physiological state **opposite to that of the fight-or-flight stress response** and with that interruption in the stress response, a sense of balance and union between the mind and body can be achieved.

Immune System Effects

- § 2013, University of Oslo (N=10)
- § Blood draws immediately before/after exercise
- § 1 hr. nature walk plus 1 hr. listening to jazz or classical music
 - Changed the expression of 38 genes in immune cells
- § 2 hrs. yoga, breathing exercises, meditation
 - Changed the expression of 111 genes in immune cells
- § 14 genes affected by both activities, suggesting similar biological effects
- § Yoga has more widespread effects on the immune system at a molecular level

Increases GABA

§ 2007 study

§ 1 hr. of yoga vs. 1 hr. of reading

§ MRI of brain

§ GABA (gamma-aminobutyric acid)

– increased by 27% in yoga group

– no change in reading group

§ Low GABA levels linked to anxiety/depression

Journal of Alternative and Complementary Medicine; Vol. 13, No. 4; Boston University School of Medicine

Vagus Nerve

§ Yoga (and deep breathing) mechanically stimulates the vagus nerve:

- “Wanders” from brain, down either side of neck, connects at heart, and connects to ALL major organs
- Largest nerve in the body
- Controls motor and sensory functioning
 - § brings info back to the brain
- Regulates heart rhythms
- Stimulates Parasympathetic NS, calms Sympathetic NS
- Vagus Nerve Stimulation (VNS):
 - § pacemaker-like device surgically implanted in chest
 - § used to treat seizures
 - § since 1997 used for treatment-resistant Major Depressive Disorder

Trauma and the Body

§ Common features of all traumas:

- Alienation and disconnection from the body
- Reduced capacity to be present in the here and now

§ Low Heart Rate Variability (HRV)

- Related to self-control, regulating emotions and impulses
- Linked to those easily thrown off balance, emotionally reactive
- Increased risk for depression, cancer, heart disease

§ Yoga:

- Increases HRV
- Builds awareness/respect/appreciation for our bodies
- Teaches us present moment awareness

Mind-Body Connection

- § Mind's *version* of reality affects the body
 - Perceived threat causes fight/flight/freeze response in body
 - The mind can misperceive “threat” – thought, tension, internal state
- § Body systems influence the mind (2-way relationship):
 - Heart/circulatory system
 - Respiratory system (shallow, irregular mouth breathing)
 - Musculoskeletal system (tension/relaxation/posture)
 - Immune system/illness
 - Endocrine system (hormones)
- § “Both the body and mind participate in constructing positive or painful emotional experiences” (Forbes, 2011)
- § The brain “learns” to be anxious/depressed through repeated patterns of thought, body movement, behavior
 - All things we can learn to exert some degree of control over (CBT)

Steps Toward Balance

- § Regulate the Breath
- § Relax the Body
- § Develop mental focus
- § Learn to stay present with direct experience

~ All of which are developed through yoga ~

§ Gain knowledge and then **PRACTICE**

- With **repeated** practice of a skill, the brain forges new neural pathways = experience-dependent neuroplasticity
- What we DO shapes our brain
- The mind, brain, body, and **emotional patterns** are capable of change...

Breathing ~ Pranayama

§ Shallow, irregular breathing

- Increase heart rate
- Raise blood pressure
- Speed up the mind
- Cause nervous system to be out of balance
- Increase anxiety and depression

§ Regulated breathing

- Lower heart rate
- Decrease blood pressure
- Calm an anxious mind, invigorate a depressed mind
- Bring nervous system back into balance
- Support emotional balance

§ Allow yourself to receive the gift of oxygen 😊

Breathing for Emotional Balance

§ Mouth breathing

- Is our “emergency” response
- Draws air to upper lobes of lungs
 - § Stress receptors stimulate Sympathetic NS
- Increases heart rate, respiration
- Body has to work harder to get enough oxygen - wastes energy
- Unfiltered, cold, dry air irritates throat, increases chance of infection

§ Nasal breathing is most effective

- Draws air to lower lobes of lungs where:
 - § 60-80% blood cells are located - receive oxygen, exchange gas
 - § Parasympathetic NS receptors concentrated
- Quiets, calms, steadies the mind
- Relaxes - stress response/emotions/body/nervous system
- Lowers heart rate, blood pressure
- Filters, warms, moisturizes air into lungs - immune support

Breath and Mood

§ Breath patterns vary according to emotion

- Anger = short and quick
- Fear/Anxiety = retain breath, irregular
- Sadness/Upset = long and deep
- Happiness = slow, relaxed, regulated

§ Having people breathe in certain patterns induces emotion

“If you want to use yoga to heal emotional pain, you must find out where it resides in your body and learn to take your breath there.” ~ Ana T. Forrest



Breathing Techniques

§ Calming:

- Nose-to-belly – feel rise/fall of belly (also ribs and chest)
- 1:2 breath ratio – inhale:exhale
- Left nostril breathing – in left, out right – circular (helps insomnia)
- Alternate nostril breathing – out/in left, out/in right
- Smile Breath – drop chin to chest on exhale and smile

§ Energizing:

- Breath of Joy – 3-part inhale, arms in front, to side, up above, exhale as you swing arms down, “Ha”
- Power Hara – hands to shoulders, 2-part inhale (twist left/right),
 - swing arms out on 2-part exhale (twist left/right, “ha/ha”)
- Pulling Prana – inhale arms up, exhale pull down in fists, 1:1 ratio
- Bellows Breath – 1sec. inhale, 1 sec. exhale
 - § Focus on exhale, pulling belly back to spine
 - § 1 minute meditation – close eyes, feel effects
- Right nostril breathing – in right, out left (not good if client has mania)

“On Breathing”

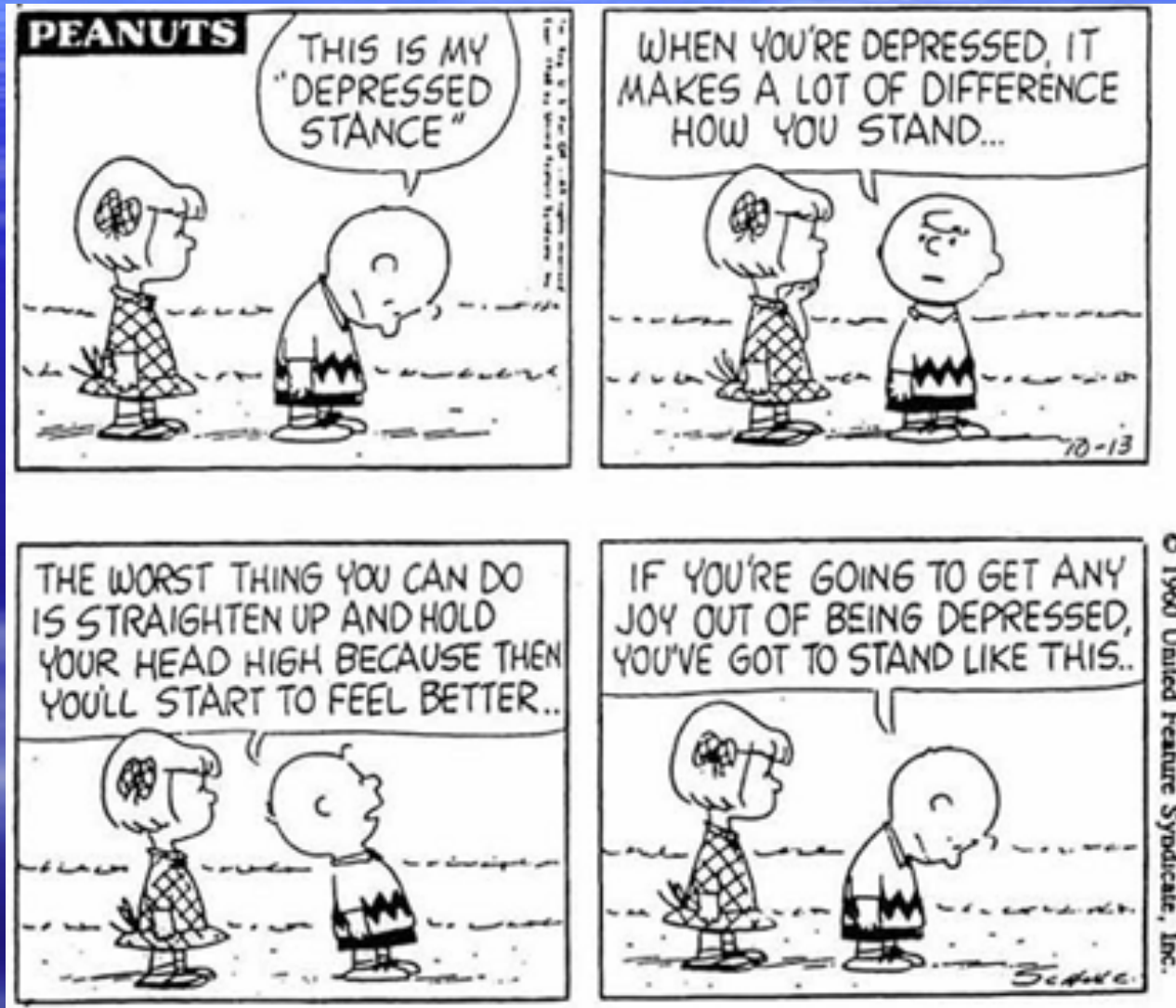
Breathing in, I know I'm breathing in.
Breathing out, I know I'm breathing out.
As the in-breath grows deep,
The out-breath grows slow.
Breathing in makes me calm.
Breathing out makes me ease.
With the in-breath, I smile.
With the out-breath, I release.
Breathing in, there is only the present moment.
Breathing out, it is a wonderful moment.
~Thich Nhat Hanh

In, out, deep, slow, calm, ease, smile, release,
present moment, wonderful moment.

Physical Practice ~ Asana

- § Embrace the concept - your body is a vehicle for emotional healing
- § Build new body experiences that differ from anxiety and depression
- § Yoga tells all systems of your mind-body network that you are NOT anxious or depressed
- § Balances nervous system
- § Helps us attend to our direct experience
- § Shifts mental patterns – quiet mind, 1-pointed focus
- § Accesses the roots of our suffering

Posture and Mood





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Strike a Pose!

High-Power Poses

§ Viramudra – superhero position

- Broad stance, hands to hips, lift through the heart, chin raised a bit, smile

§ Jayamudra – victory position

- Throw your arms up above you as if you just won the GOLD metal, smile
- Even blind athletes tend to do this when they win

§ CEO pose

- Hands interlocked behind head, chest broad, feet up

Posture and Mood

- § 42 participants randomly assigned to High-Power Pose or Low-Power Pose
 - Held for 2 minutes
- § Saliva test before and 17 minutes after pose
- § Low-Power Pose (arms crossed, shoulders hunched, closed):
 - 17% increase in cortisol (stress hormone)
 - 10% reduction in testosterone (memory, concentration, libido, energy)
- § High-Power Pose (arms out/up, chest broad, chin up, smile):
 - 15% decrease in cortisol
 - 25% increase in testosterone
- § “Fake it until you ***become*** it!”

Dana R. Carney, Amy J.C. Cuddy, and Andy J. Yap. (Psychological Science, 2010 Harvard)

Mindfulness

§ Paying attention

- non-judgmentally,
- to what is happening to us,
- in the moment.

§ Awareness w/o the “good” vs. “bad” labels

- Sensory Experience (touch, hear, see, smell, taste)
- Breath
- Thoughts
- Emotions
- Social Interactions

It's not what you see,
It's how you see it.

“Peace is the result of retraining your mind to process life as it is, rather than as you think it

Mindfulness Practice

- § When something difficult happens:
 - Observe the sensation with “strategic acceptance”
 - § Not hopeless resignation, but w/o resisting or judging
 - § Label the experience, “I am feeling....” – “name it to tame it”
 - Let go of the negative
 - § Clear the mind, release tension from body
 - Direct the mind towards positives
 - § Appreciation, successes, the feeling of being treated with respect, your good qualities and intentions
 - § Stay with positive sensations, soak in the feeling, really notice/embrace the good moments, breathe, relax, smile...
 - Let it be (acceptance), let it go (negative), let it in (positive)

Body-Breath-Mind Exercise

- § Inhale arms up, exhale prayer hands to the heart
- § Neck roll – right ear to right shoulder, left ear to left shoulder
- § Cat/Cow – flexion/extension of spine
 - Smile Breath on exhale!

- § Gentle seated twist – spine tall, hand to opposite knee
- § Hip opener – outer foot/ankle rests on top of opposite leg

- § Moving with Mindfulness
 - Present moment
 - Sensations in body
 - Breath
 - Aware of thoughts that come and go – sweep the mind clear

Meditation

- § Meditation = embracing and being present to any and all mind-body states without preferring one to another
- § A way of being – in the moment
- § Meditation is NOT
 - achieving a special result
 - altering our state of mind
 - controlling our thoughts
 - relaxation
- § You may experience:
 - § Frustration, boredom, discomfort, grief, sleepiness
 - § Not signs of “failure”
- § All sensations are worthy of kind & clear attention
- § It is not **what** arises in meditation, but how we **relate to** what arises
- § Investigate thoughts/feelings OR withdraw attention from negative
- § Overall goal = reduce suffering - shift perception of “discomfort”

Effects of Meditation

§ Reduce stress (thereby strengthening the immune system)

– University of Massachusetts Medical School, 2003

§ Reduce anxiety, depression, anger, confusion

Increase peace, calm, balance - Psychosomatic Medicine, 2009

§ Boost creativity and energy - Science Daily, 2010

§ Cultivate healthy habits that lead to weight loss – e.g. mindful eating

– Journal of Emotion, 2007

§ Improve digestion and lower blood pressure - Harvard Medical School

§ Decrease your risk of heart attack (by 48% at 5-year follow-up)

– The Stroke Journal, 2009

§ Decrease perception of pain and improve cognitive processing

– Wake Forest University School of Medicine, 2010

§ Improve your focus and attention

– University of Wisconsin-Madison, 2007

§ Increase the size of your brain! (esp. regions that regulate emotion)

– Harvard University Gazette, 2006 – hippocampus, the thalamus and the inferior temporal gyrus

– Brains of long-term meditators look 20 yrs. younger than non-meditators

– Increased gray matter in brain regions that regulate attention – more in-tune with ourselves and others (empathy) improves memory

Setting an Intention ~ Sankalpa

- § To have in mind a purpose, to direct the mind, to take aim.
- § Consciously drawing awareness to the direction you intend to go.
- § Think about - visualize/imagine/feel - what you want to create in life.
 - Characteristic (loving), state of mind (peaceful), lifestyle (balance)...
- § Be very specific. Be positive. Write it down.
 - Like writing a contract with yourself.
 - Gain clarity, activate the Law of Attraction.
- § Place your intention in a location important to you.
- § Or carry them in your pocket/purse to amplify their effect!

(Adapted from Jack Canfield)

Meditation Practice

§ Grounded

- Feel contact points between body and seat/floor/earth

§ Upright

- Tall spine, head balanced over tailbone, chest open

§ Relaxed

- Soften muscular body, face, eyes, jaw, shoulders

§ Scan body, notice sensations

§ Attention on Breath is your anchor in the moment

§ Check-in with the mind, notice emotions

§ Notice w/ friendly curiosity

- fluctuations of the mind - past/future, planning/worrying, storyline
- go back to the breath/sensations/present moment experience

§ Settle/clear the mind, allow thoughts to pass

Yoga = Mind-Body Medicine!

Quotes from Famous Yogis

“Yoga teaches us to cure what need not be endured and endure what cannot be cured.”

“Healthy plants and trees yield abundant flowers and fruits. Similarly, from a healthy person, smiles and happiness shine forth like the rays of the sun.”

~B.K.S. Iyengar~

“The success of Yoga does not lie in the ability to perform postures but in how it positively changes the way we live our lives and our relationships.”

“The quality of our breath expresses our inner feelings.”

“The ultimate goal of yoga is to always observe things accurately, and therefore never act in a way that will make us regret our actions later.”

~T.K.V. Desikachar~

“Have only love in your heart for others. The more you see the good in them, the more you will establish good in yourself.”

~P. Yogananda (*Autobiography of a Yogi*)~
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Namaste

My soul recognizes your soul.

I honor the love, light, beauty, truth and kindness
within you because it is also within me.

In sharing these things, there is no distance and no
difference between us.

We are the same.

We are one.

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