MINDFULNESS AND THERAPEUTIC STRESS RELIEF STRATEGIES FOR PEOPLE OF ALL AGES

Relax
Manage Stress
Thrive

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THE SCIENCE OF MEDITATION

New Age mumbo jumbo? Not for millions of Americans who meditate for health and well-being. Here's how it works.

Actress Heather Graham has been practicing Transcendental Meditation since 1991.
Objectives:

- Identify levels of student stress and burnout
- Describe stress basics, physiology, neuroendocrine, vagal, pathways
- Learn and practice several relaxation basics—let’s have fun
What are your biggest stressors?

- The phenomenon of medical student stress
- Loss of empathy and compassion
- Signs and symptoms of burnout in up to 70%
What are your biggest life stressors?

- Family and social issues
- Health issues
- Financial issues
- Spiritual and/or existential issues
- Being a medical student
What are your sources of stress

- Family and social issues
- Spiritual and existential issues
- Health issues
- Financial issues
- Navigating medical school issues
How the Non-Physical (emotion) becomes physical (disease)

Perception of Stress

↑ Corticotropin Releasing Factor (CRP)

↑ Cortisol

↑ Glucose

↑ Insulin & Growth Hormone

Stress Eating

Carbo Craving

Neutro-Protein Y (NPY)

Cancer

Heart Disease

Diabetes

Pre-Diabetes
Physiological changes in stress causes:

- Heart rate
- Metabolism
- Blood pressure
- Breathing rate
- Muscle tension

Central Nervous System

Stimulates release of hormones, neurotransmitters & neuropeptides

Pupils: dilate, increased visceral perception

Thyroid Gland

Reduces TSH production & T4 to T3 conversion

Cardiovascular

Accelerates heart rate, blood pressure & clotting factors

Stronger contractions, oxygen & nutrients to brain & skeletal muscles.

Lungs

Relaxes bronchi

To take in more oxygen. Harder, rapid breathing

Liver

Stimulates glucose release

Increased fuel needs

Colon

Alters motility & gut flora

Clearance of toxic matter may occur

Reproduction

Growth & function inhibited

Muscle Tissue

Muscles contract

Tension increases, heart and rectum contracts

Mouth

Inhibits salivation

Skin

Blood moves inwards to heart & muscles

Skin: clammy, sweating, cool or heats, Hair: stands on end

Spleen

Stimulates red & white blood cell release

Blood volume may increase between 300-400%

Digestion

Inhibits activity & motility alters secretions

Decreased nutrient, absorption, enzyme output and oxygenation

Adrenal Glands

Stimulates secretion of

ex Cortex: cortisol & DHEA

Glucocorticoids for adaptation, energy, recovery

ex Medulla: adrenaline & noradrenaline

Catecholamines for hyper sensitive awareness - alertness, enhanced vigilance, mental arousal, attention

Urinary

Relaxes bladder

Blood volume increase

Metabolism

Accelerates glucose availability

Protein & fat breakdown

Mobilises amino acids & free fatty acids for fuel

Cell Receptors

Decreases insulin sensitivity

Blood pH

Becomes more acidic with increased oxidative stress

Immune

Suppresses innate immune activity

Disease-fighting WBCs redirected to skin & lymph nodes
Stress hormone axis activation causes release and activation of:

- Hypothalamic-pituitary hormones--ACTH
- Adrenal cortex hormones--corticosteroids
- Adrenal medulla hormones--epinephrine, norepinephrine
- Alteration in post-synaptic, sympathetic tone
- Alterations in vegetative state paired with adaptive value of **flight-or-fight response**
Multi-tasking?  

Stressed?
or Mindful?
A few mindfulness exercises

• Three empty breaths

• Observe the color BLUE...

• SILLY WALKING
Just Three Breaths

- As many times a day as you are able, give the mind a short rest. For the duration of three breaths ask the inner voices to be silent. It’s like turning off the inner radio or TV for a few minutes. Then open all of your senses and just be aware---of color, sound, touch, and smell.

- Let’s try this NOW
Observe the Color **BLUE**

- Silly walking
  
  **HTTP://WWW.YOUTUBE.COM/WATCH?V=IQLQFXUK7W**

- Appreciate your hands

- Mindful driving

Several times a day, especially when your state of mind is not optimal, do a silly walk of some kind...watch what happens to your state of mind or mood when you walk in a silly way.
Pick Just ONE thing

“You know what the secret to life is? One thing. Just one thing. Once you figure it out, you stick to that... everything else don’t mean s—.”

-Curly
Raisin’ your consciousness
Awareness

Awakening

Authenticity

Awe
Relaxation Response

- Results in a decrease in these physiological effects
The Short Course in Relaxation Therapy

- BREATHE!!
- FOCUS..........................
Basic Steps to Elicit the *Relaxation Response*

1. Focus word
2. Sit quietly in comfortable position
3. Close your eyes
4. Relax muscles
5. Breath slowly, naturally, repeat focus word
6. Assume passive attitude
7. Continue 10-20 minutes
8. Daily practice
9. When distracting thoughts occur, return to focus word, breathing
Techniques of Eliciting the *Relaxation Response*

- Diaphragmatic breathing
- Meditation
- Body scan
- Mindfulness
- Repetitive prayer
- Repetitive exercise
- Progressive muscle relaxation
- Yoga, tai chi stretching
- Imagery
BIODOTS

Violet 94.6°F. - Very relaxed

Blue 93.6°F. - Calm

Turquoise 92.6°F. - Relaxing

Green 91.6°F. - Involved (nml)

Yellow 90.6°F. - Unsettled

Amber 89.6°F. - Tense

Black 87°F. - Very Tense
"I’m learning how to relax, doctor—but I want to relax better and faster! I WANT TO BE ON THE CUTTING EDGE OF RELAXATION!"
Styles of Coping

- **Direct action**: actions to alter, master, or flee stressor
- **Palliation**: when direct action is not possible
  - *ego defenses*: denial, rationalization
  - *medications* to reduce anxiety, BP, etc...
- **relaxation exercises/meditation**
- **cognitive exercises/restructure thoughts**
- **physical exercises/deep breathing**
What Can Be Done About Stress?

- Biological interventions
- Psychological interventions
- Social interventions

"It's just something I do every day at 5:00 to get rid of stress before I go home."
Biological Interventions

- Exercise
- Improved nutrition
- Proper sleep
- Relaxation techniques
  - progressive relaxation
  - self hypnosis
  - meditation
- Medications
Psychological Interventions

- Coping skills training
- Identifying and preparing for stressful events
- Evaluating cognitions and expectations
- Assistance in stopping unhealthy behaviors
  - smoking cessation
  - weight control
  - drug and alcohol treatment
Social Interventions

- Identifying and implementing social supports
- Social skills training
- Family and group psychotherapies
How do you unwind?

- Scream
- Get sick
- Get drunk
- Go to sleep
Yoga in India

Asanas with Props

The ancient yogis used logs of wood, stones, and ropes to help them practice asanas effectively. Extending this principle, Yogacharya Iyengar invented props which allow asanas to be held easily and for a longer duration, without strain.

Yogacharya Iyengar in Setubandha Sarvangasana

This version of the posture requires considerable strength in the neck, shoulders, and back, requiring years of practice to achieve. It should not be attempted without supervision.
Yoga in Wisconsin....
Or do you….

- Laugh
- Work on a hobby
- Play sports
- Meditate
- Pray
- Spend time with family and friends
- Spend time in nature
All Effective Stress Management Programs Recommend Some or All of the Following

- Exercise
- Mind-body approaches
- Time management (prioritizing)
Remember to Use These Simple Techniques

- Deep breathing/focus
- Mindfulness
- Muscle relaxation
- Music/Movement
- Meditation/Imagery
Mindfulness as “Minis”

- Pay attention to your breathing as you awake and through the day
- Notice physical signs of tension
- Take some mindful breaths to release tension
- Pay intense attention to present moment
4-7-8 Breathing

- BREATHE IN for the count of 4
- HOLD for count of 7
- EXHALE slowly for the count of 8—Whoosh
- REPEAT X4
Reasons to Learn Mindfulness and Stress Management

- To avoid burnout, compassion fatigue, loss of empathy
- To better enjoy your quality of life, your educational experiences day to day
- To learn useful techniques to share with patients who are suffering from effects of COVID and other sources of stress
5 Lessons in Life from Dr. Seuss

1. Today you are You, that is truer than true. There is no one alive who is Youer than You.

2. ‘Why fit in when you were born to stand out?

3. You have brains in your head. You have feet in your shoes. You can steer yourself any direction you choose.

4. Be who you are and say what you feel, because those who mind don’t matter and those who matter don’t mind.

5. Today I shall behave, as if this is the day I will be remembered.

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