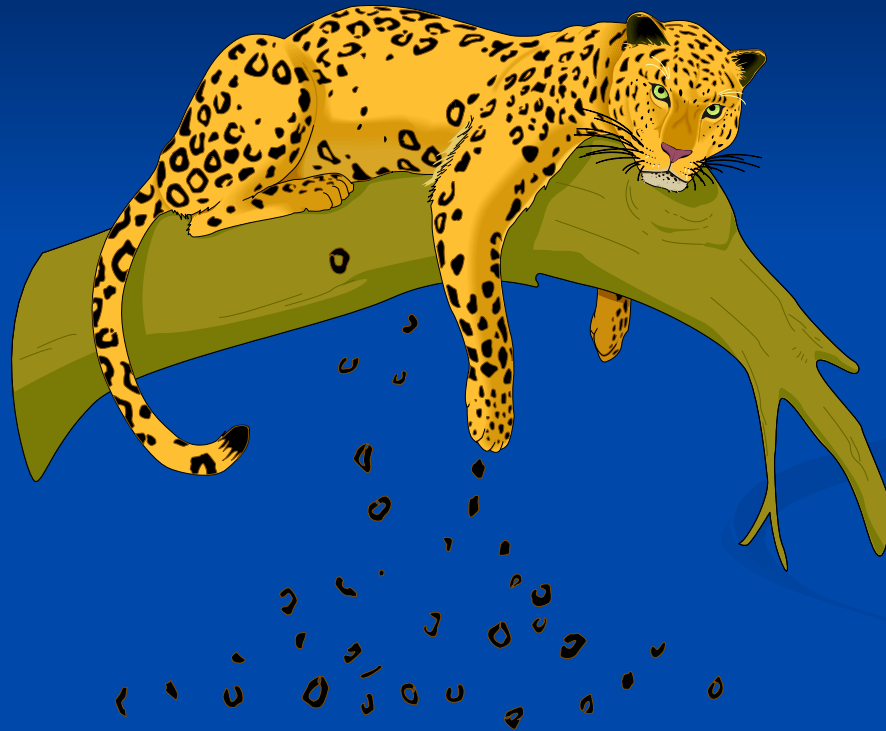


# Building Resiliency through Relaxation Techniques

Laura Malloy, LICSW  
Benson Henry Institute at MGH



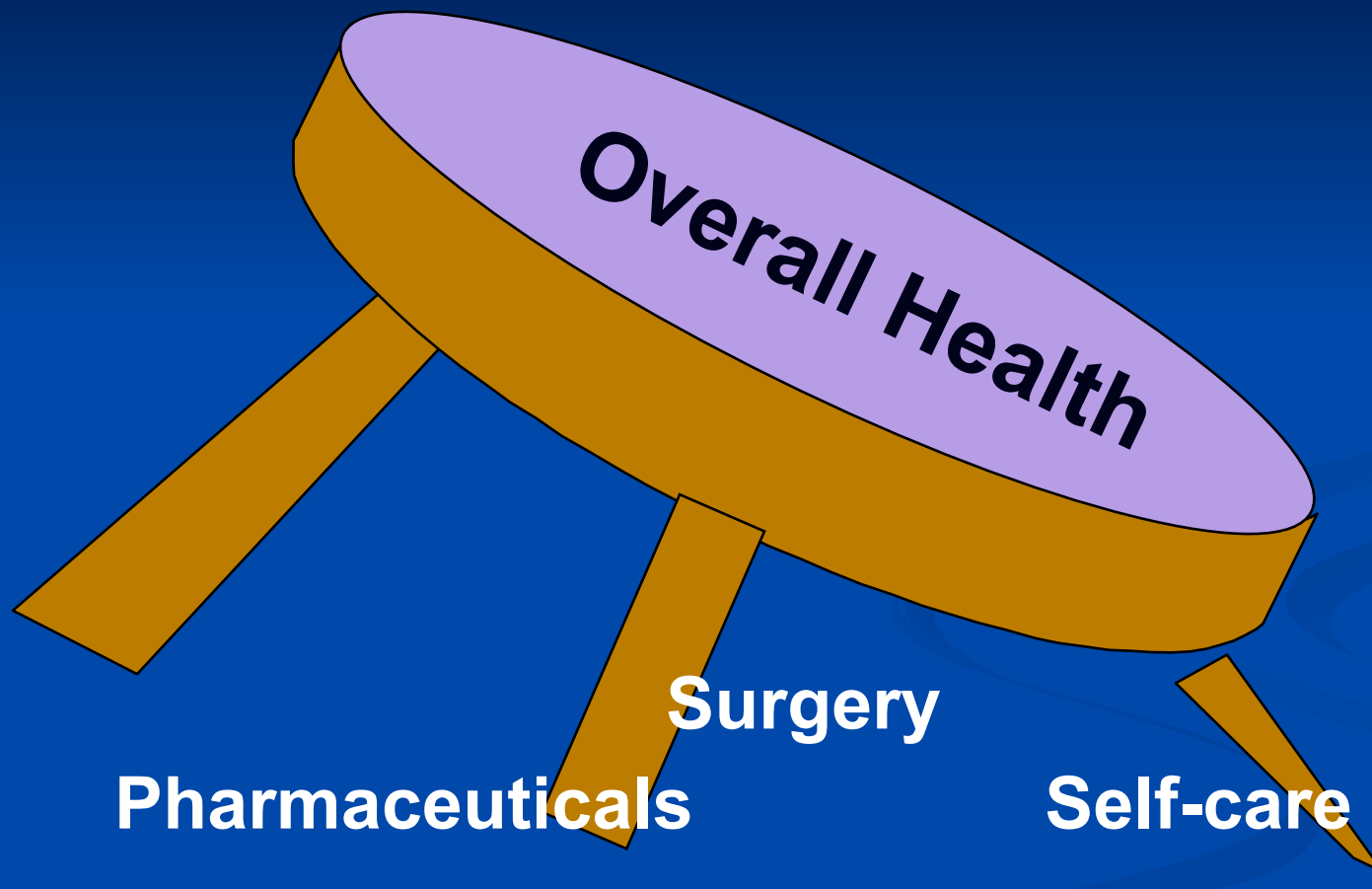
I think I'm having Stress!



## History of Benson Henry Institute (formerly Mind/Body Medical Institute)

- 1988 - evolved from 25 years of pioneering work in the field of Behavioral Medicine by Dr. Herbert Benson, faculty member of Harvard Medical School
- Clinical Programs (Cardiac Wellness, Medical Symptom Reduction, Cancer, Lighten Up, Fertility, Menopause)

# The Three-Legged Stool





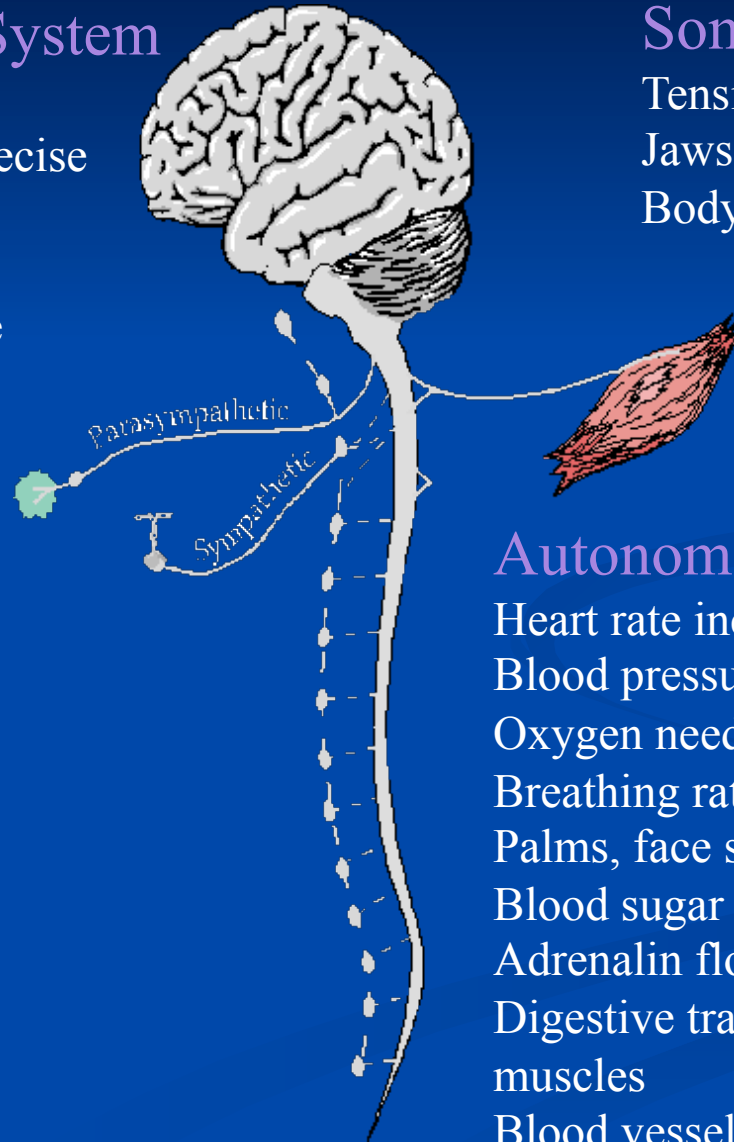
# Stress

The perception of a threat to the physical or psychological well-being and the perception that the individual's responses are inadequate to cope with it.

# How Fear Affects the Whole Body

## Central Nervous System

Perception - Narrowed  
Memory - Coarse, Imprecise  
Learning - Blocked  
Conditioning - Defense  
Expectancies - Negative  
Tone - Flee or Destroy



## Somatic Motor System

Tension  
Jaws Clench  
Body Braces for Action

## Autonomic Nervous System

Heart rate increases  
Blood pressure increases  
Oxygen need increases  
Breathing rate increases  
Palms, face sweat  
Blood sugar increases  
Adrenalin flows  
Digestive tract shuts down blood to muscles  
Blood vessels constrict in hands

# Physical Stress Warning Signs

Headaches

Insomnia

Low back pain

Fatigue

Sexual problems

Cold hands and feet

Neck and shoulder pain

Nausea

Stomachaches

Heart palpitations

Hypertension

Restlessness

Dizziness

# Emotional Stress Warning Signs

- Irritability and anger over small things.
- Restlessness and inability to relax.
- Worrying about things that worrying won't help.
- Bursting out in tears over small things.
- Difficulty concentrating.
- Depression and isolation.

# Spiritual Stress Warning Signs

- Life has no meaning and purpose.
- Lost capacity to be kind and empathic.
- Loss of a sense of connection to self and others.
- Belief that acquiring more and more things will bring you happiness.
- Not practicing altruism.
- Not content just to be quiet.



I'm not eating. I'm self-medicating.

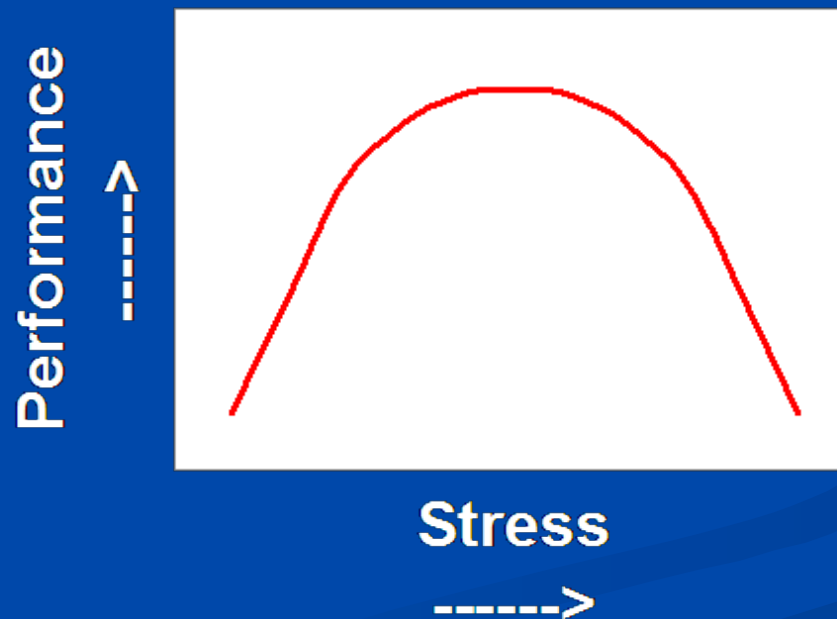


# Stress Disinhibition Effect

As the stress level rises, so does the likelihood of anxiety reducing behaviors, even if they are self-damaging in the long run.

# Performance: Yerkes-Dodson Law

Drs. Yerkes and Dodson (1908), described the relationship between stress and performance:



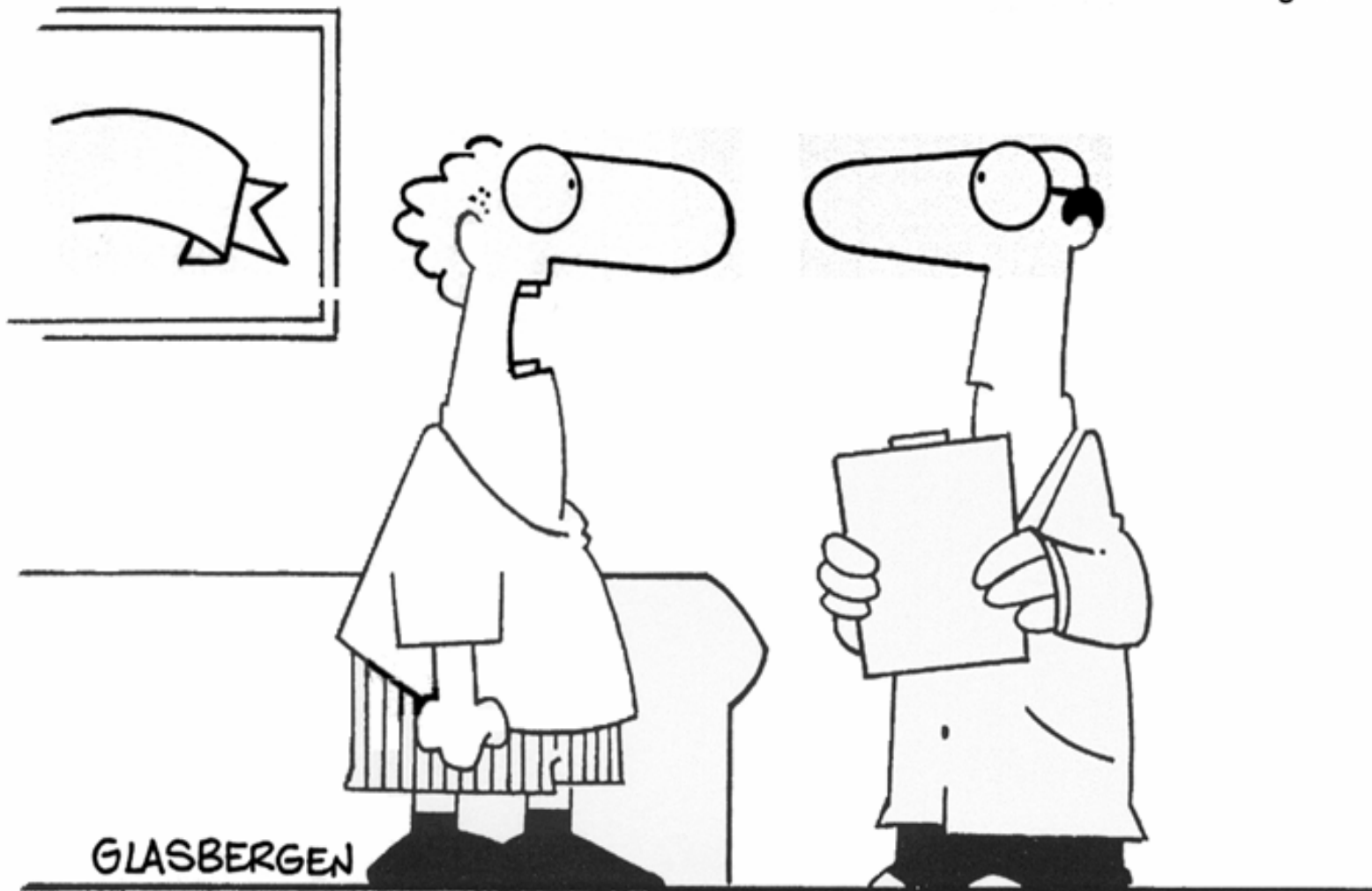


# Resilient vs. Maladaptive Responses to Stress

In a resilient response, arousal reactions return to normal after the stressor is dealt with. In maladaptive responses to stress, the arousal reaction continues even after the stressor has been dealt with. In other words, the set point or baseline of arousal reactions is steadily moved upward.



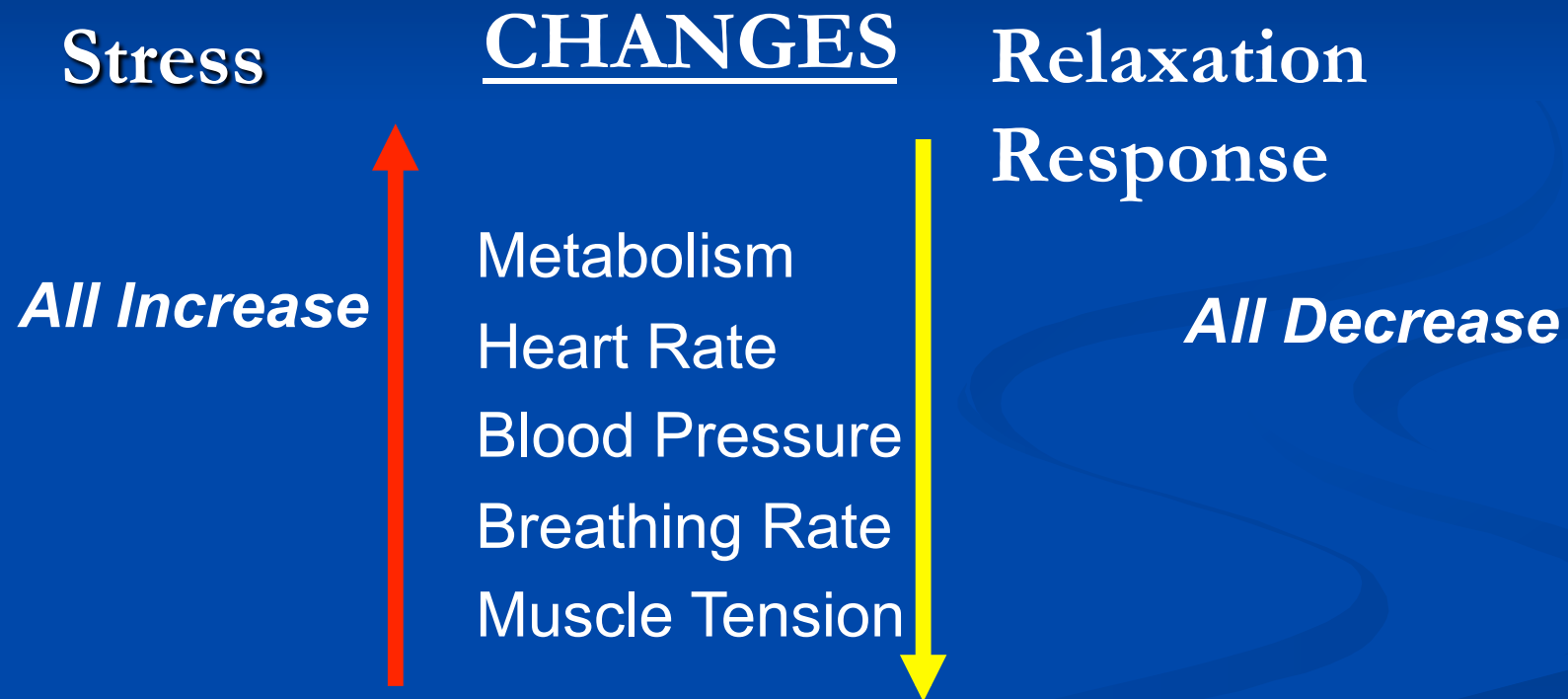
# The Relaxation Response



**“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!*”**

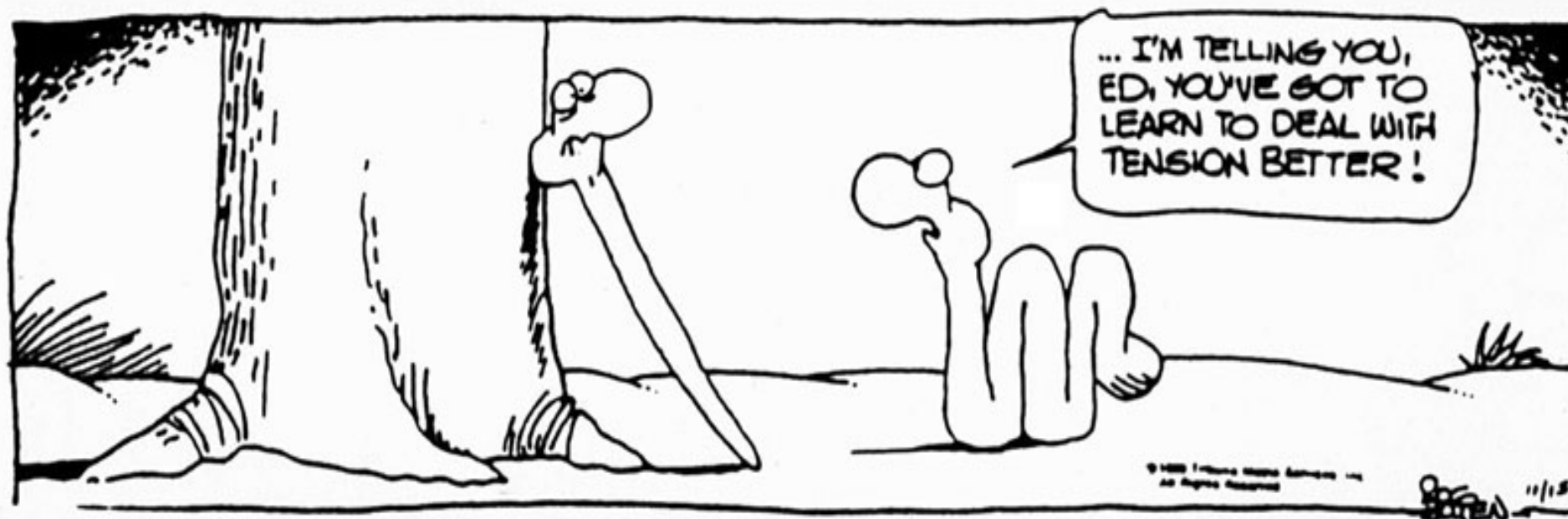
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# The Relaxation Response is the Opposite of the Stress Response



## Remember:

The stress response is automatic, but the relaxation response is voluntary and requires practice.



# The Basic Elements for Eliciting the Relaxation Response

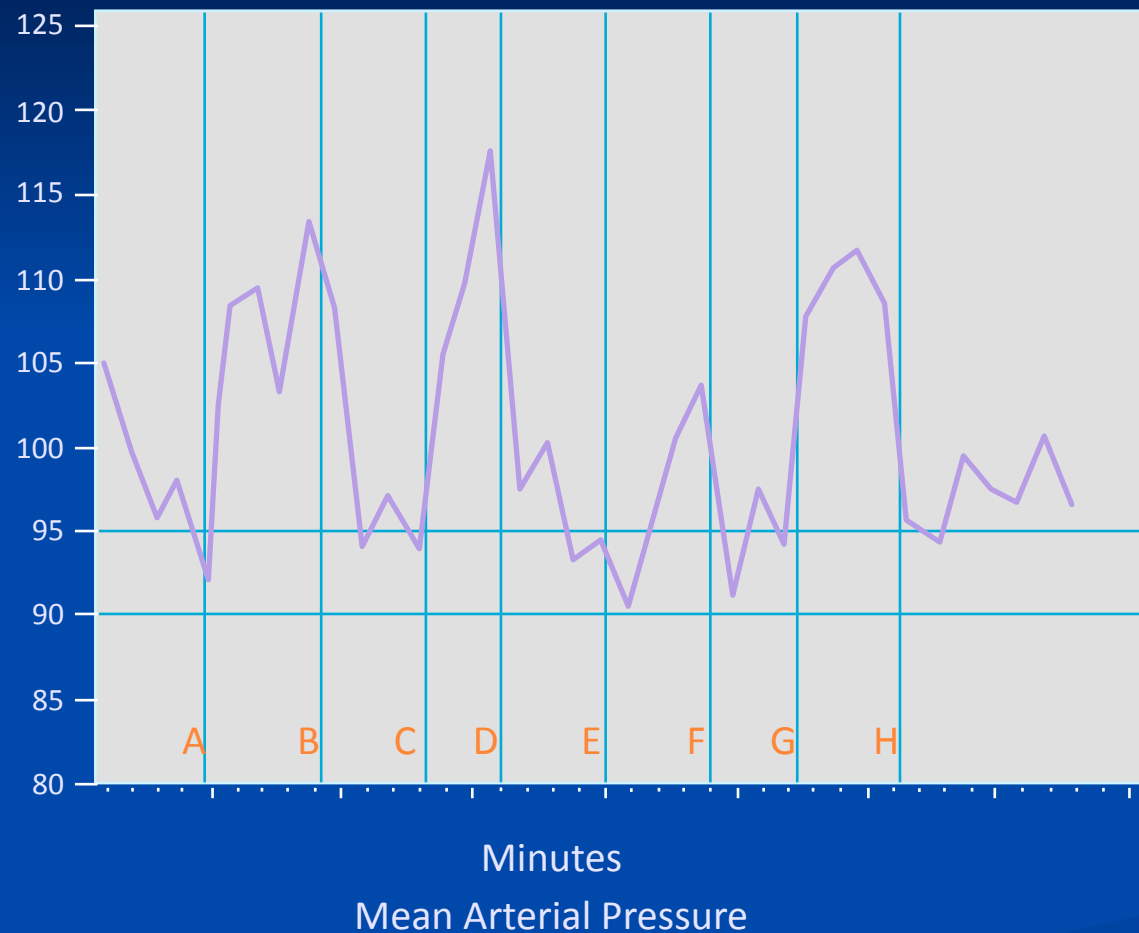
- A comfortable position
- A quiet environment
- \*\*Passive mental attitude
- \*\*Repetition of a simple mental stimulus (a word, phrase or image)

\*\* Two Basic Components

# Benefits of the Relaxation Response

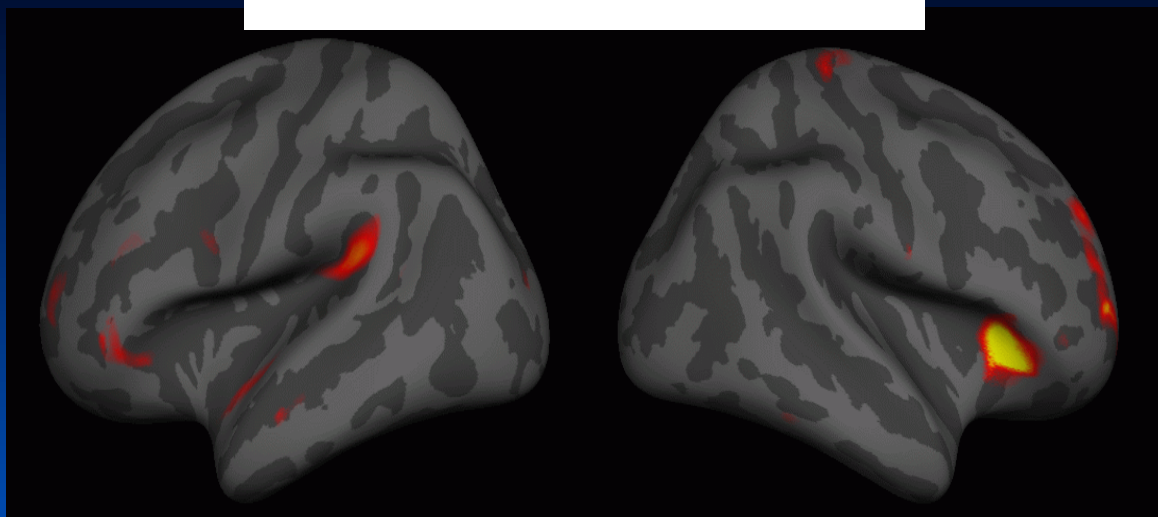
- Reduces muscular tension
- Quiets the mind
- Increases ability to focus
- Gets us out of our conditioned responses
- Promotes creative problem-solving





- 0 → A: Baseline
- A → B: Talking
- B → C: Meditate
- C → D: Math Problem subtract by 13's
- D → E: Meditate
- E → F: Hand in ice water
- F → G: Meditate
- G → H: Talk about wife
- H → Meditate

Average Mean Arterial Pressure during the session was 100.3  
(Standard Deviation = 6.9) and ranged from 90 to 117

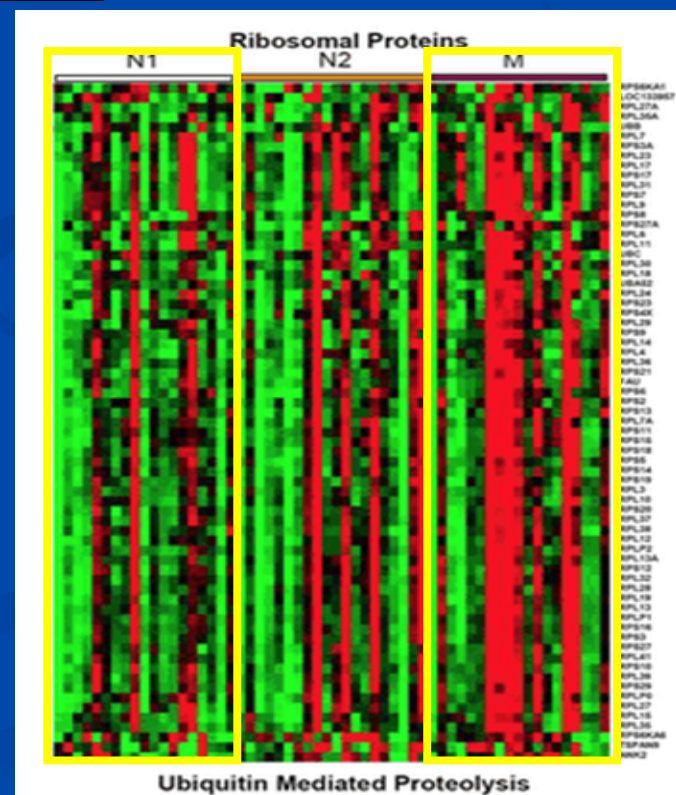


*Lazar, 2005*



*Dusek, 2008*

GENES



# Research

Meditation experience is associated with increased cortical thickness, Sara Lazar et al 2005

- 20 participants with extensive training in mindfulness meditation (7-9 yrs, 4-6 hrs/week)
- 15 control subjects with no meditation experience
- Thickness of cerebral cortex measured through MRIs

# Findings

- Brain regions associated with sensory, cognitive and emotional processing and attention were thicker in meditators than controls
- Results suggest that meditation may impact age-related declines in cortical size

# Research

- Elicitation of the RR alters gene expression, Jeff Dusek et al 2008
- People who practiced the RR for 3 years or longer had altered genes compared with those who did not practice the RR
- Suggests that those who practice RR have a greater capacity to respond to physical stress and the associated cellular damage

# The BHI Intervention

Reduces frequency of medical symptoms:

Headache

Abdominal pain

Visual disturbance

Backache

Dizziness

Chest pain

Nausea

Palpitations

Constipation

Insomnia

Diarrhea

Fatigue

# The BHI Intervention

Decreases severity of psychiatric symptoms:

Obsessive-compulsiveness

Interpersonal sensitivity

Depression

Anxiety

Hostility

# The BHI Intervention

Increases health-related factors:

Spiritual growth

Health responsibility

Physical activity

Nutrition

Interpersonal relations

Stress management



The techniques include a variety of ways to elicit the relaxation response including diaphragmatic breathing, guided imagery, and yoga practice.





# Thank You

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