

The P.O.W.E.R to **Change Your Health Destiny**



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You are not your diagnosis, your DNA,
your past history nor simply the product of
your parents' actions.

--*Rather*--

You are a living breathing being and part
of a living breathing environment that is
constantly changing.

*You have the capacity
to change,
should you
choose.*

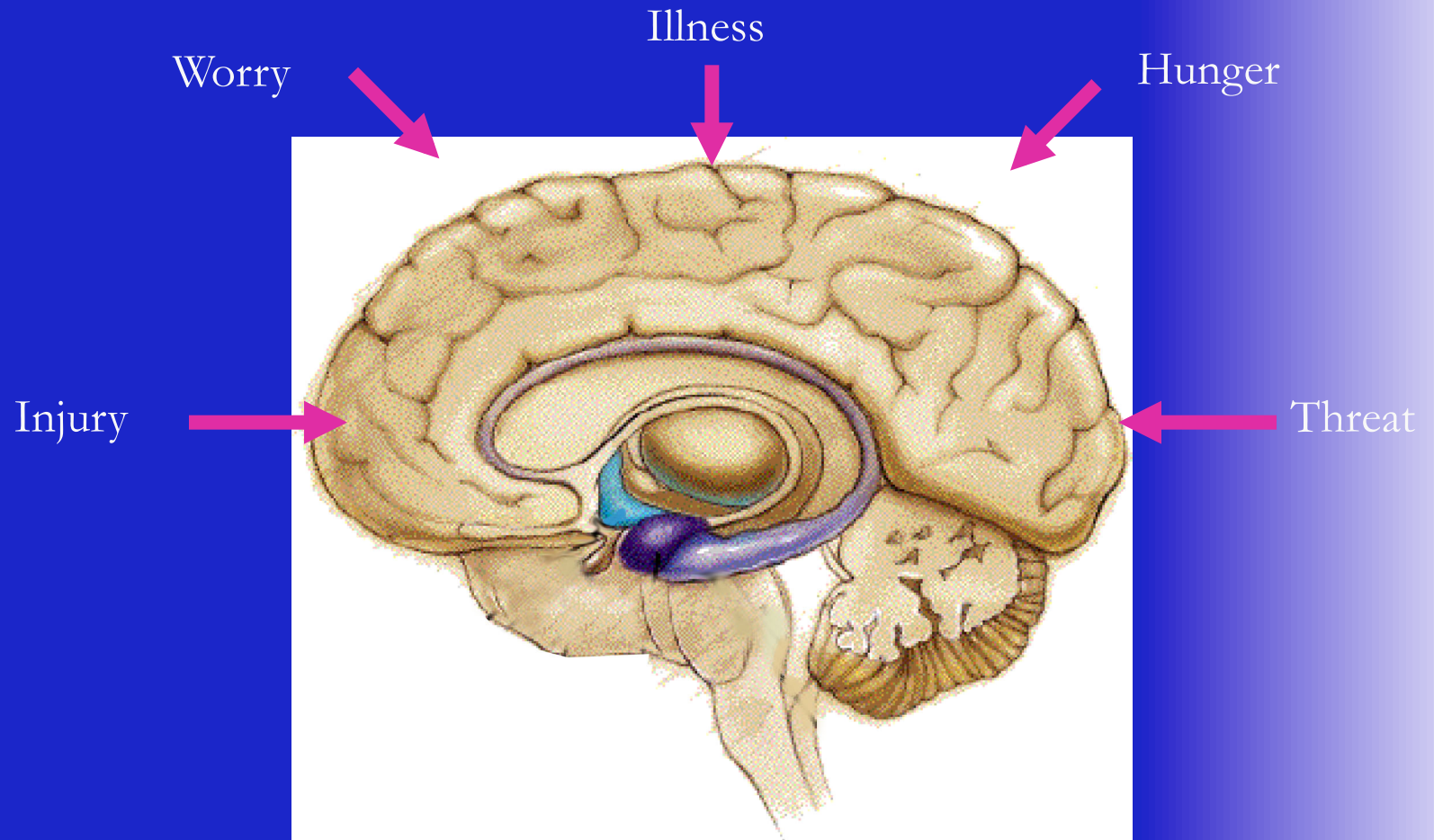
Stress: Manageable vs. Unmanageable

- A physiological threat or challenge to an individual's state of balance.
- Can be experienced as physical, psychological, or emotional discomfort to alert the individual to initiate *change*.
- Deemed unmanageable when the perception is that the individual's responses are inadequate to cope with that threat and cannot make the necessary change.

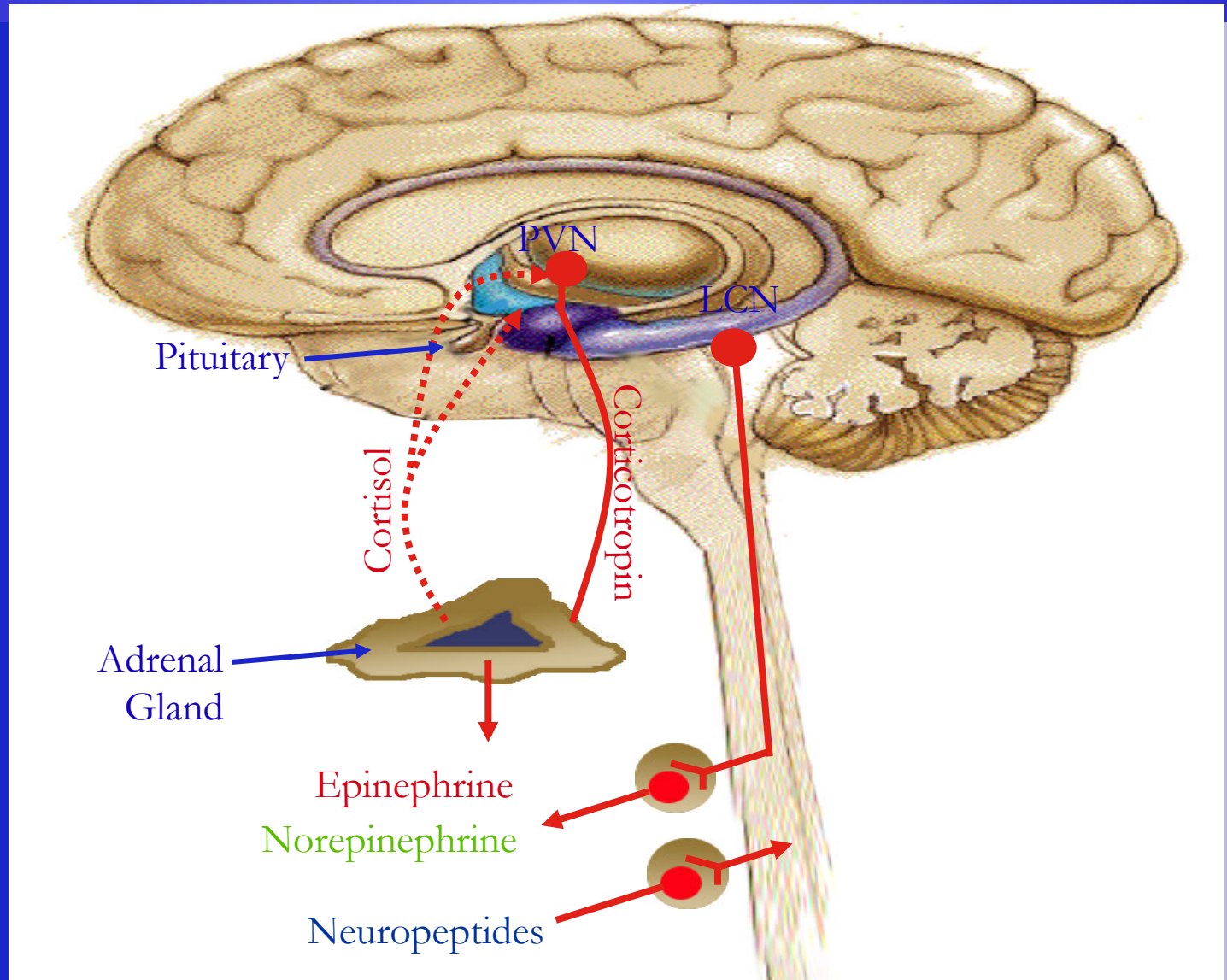
The Stress Response & Allostasis

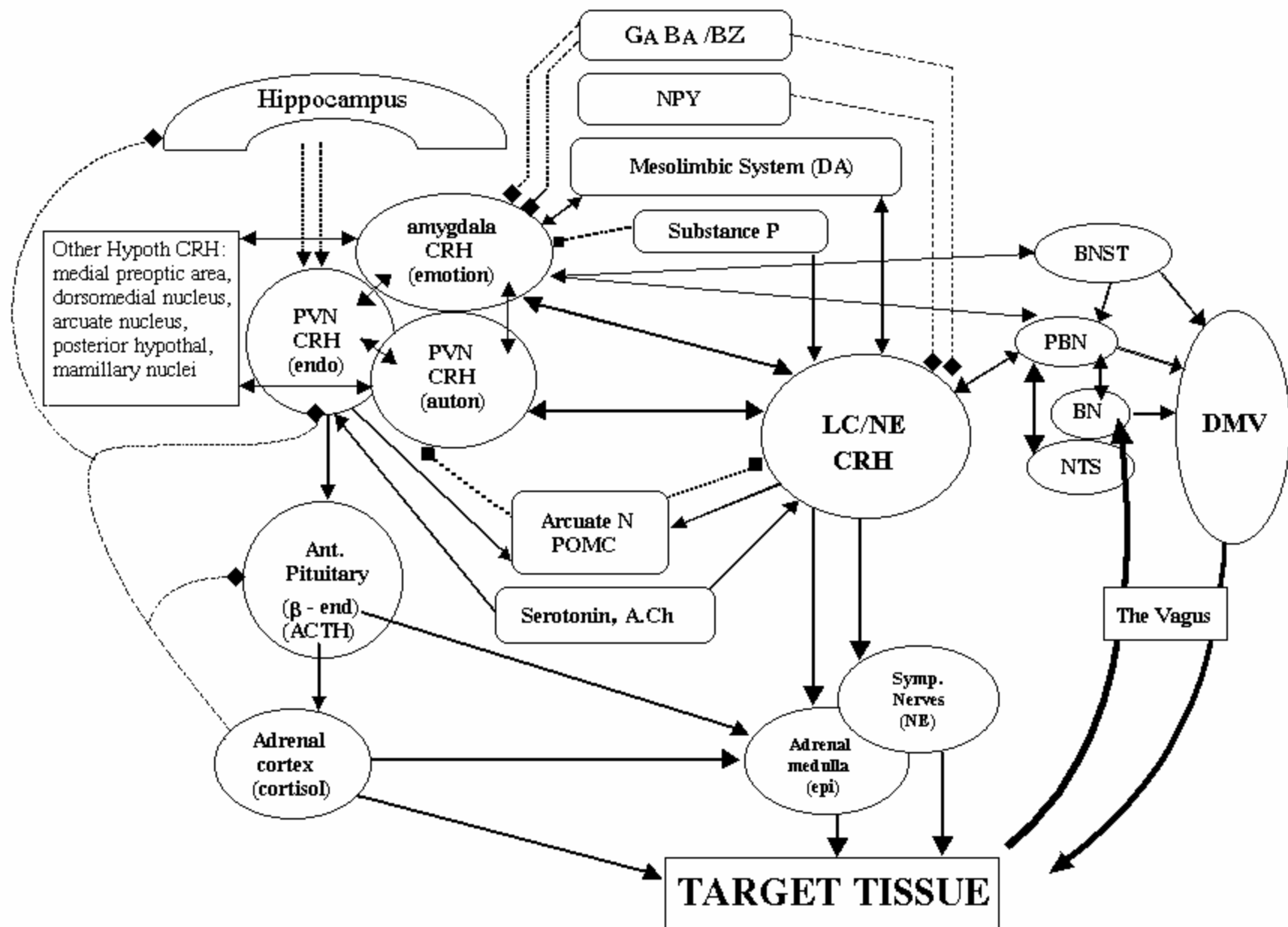
- ◆ The stress response evolved as an adaptive mechanism to preserve homeostasis = allostasis (achieving stability through change)
- ◆ Allostatic load: price the body pays over long periods of time for adapting to challenges (McEwen)
- ◆ The load is larger when challenges are not taken care of.
- ◆ Maladaptive coping behaviors that help attain reward without relief lead to a bigger load.

The Stress Response



The HPA Axis & the Stress System

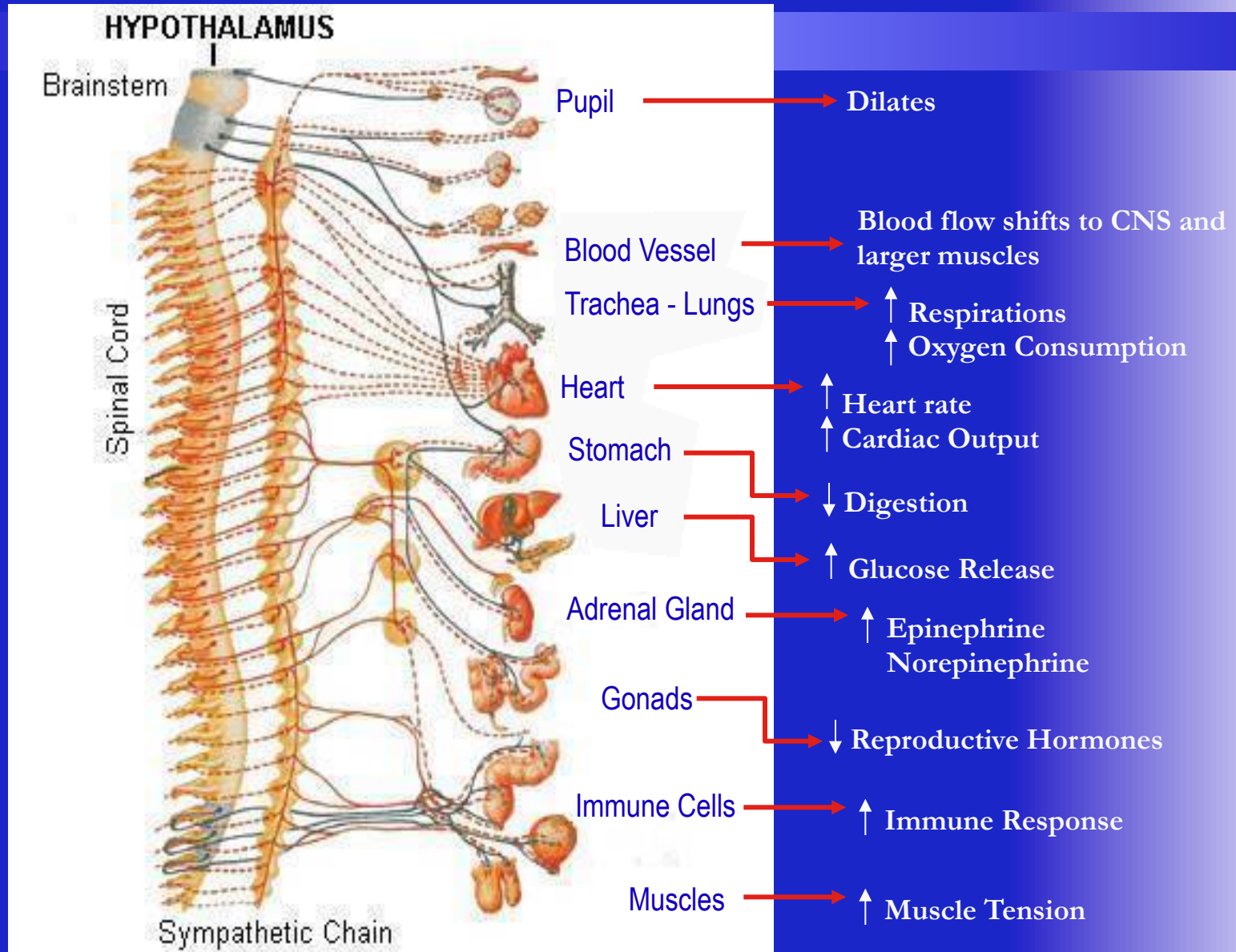




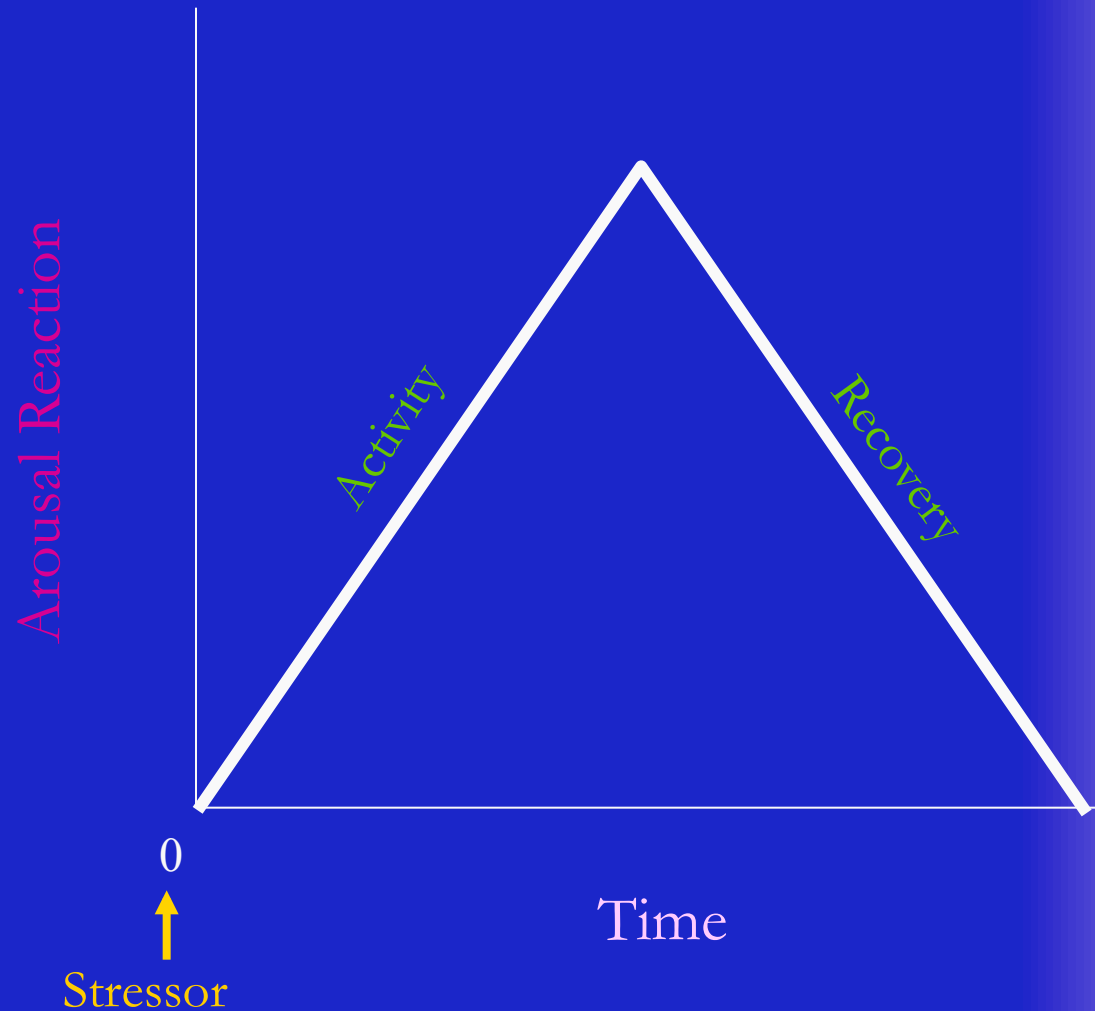
Central Activation

- ◆ Heightened arousal & Hyper-alertness
- ◆ Hyper-cognition, Hyper-vigilance & Heightened attention
- ◆ Euphoria (or dysphoria)
- ◆ Heightened analgesia
- ◆ Suppression of feeding
- ◆ Suppression of reproduction

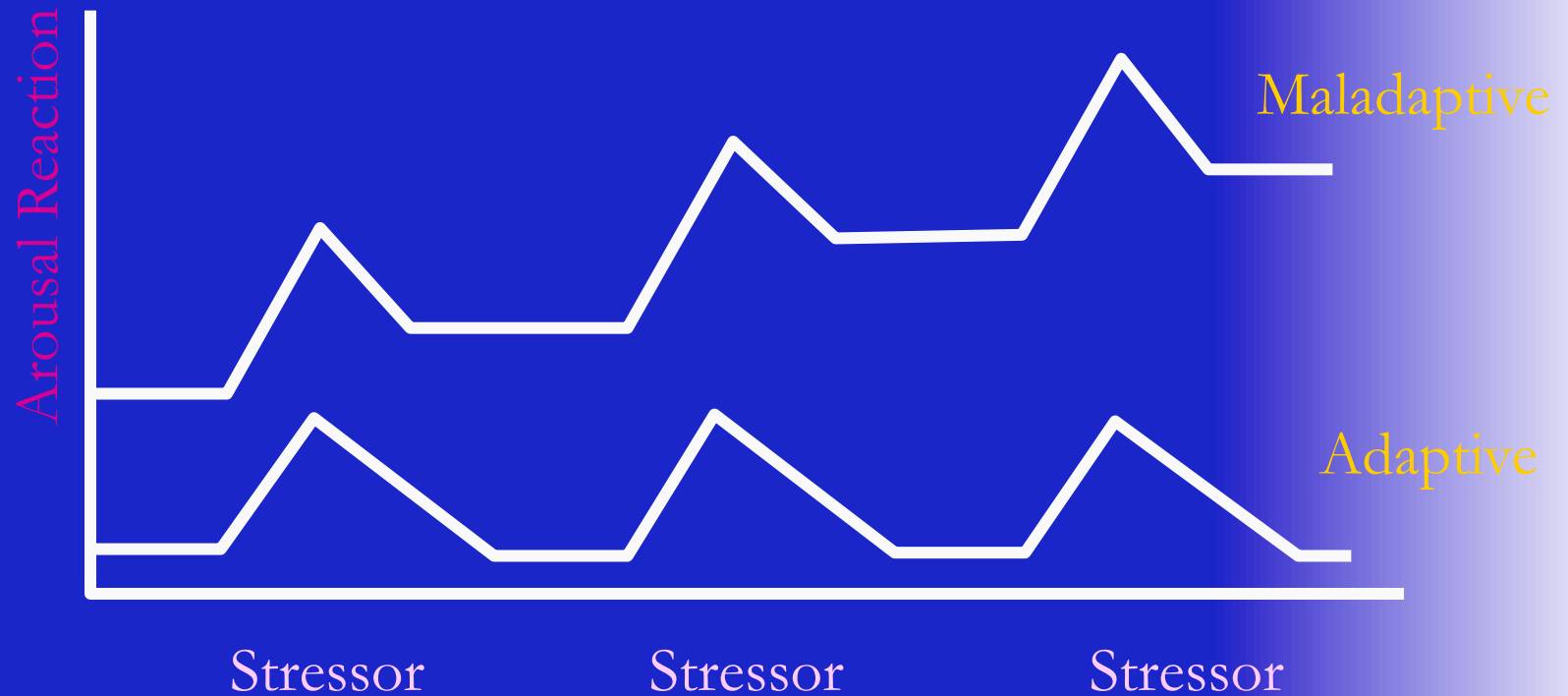
Stress Response System



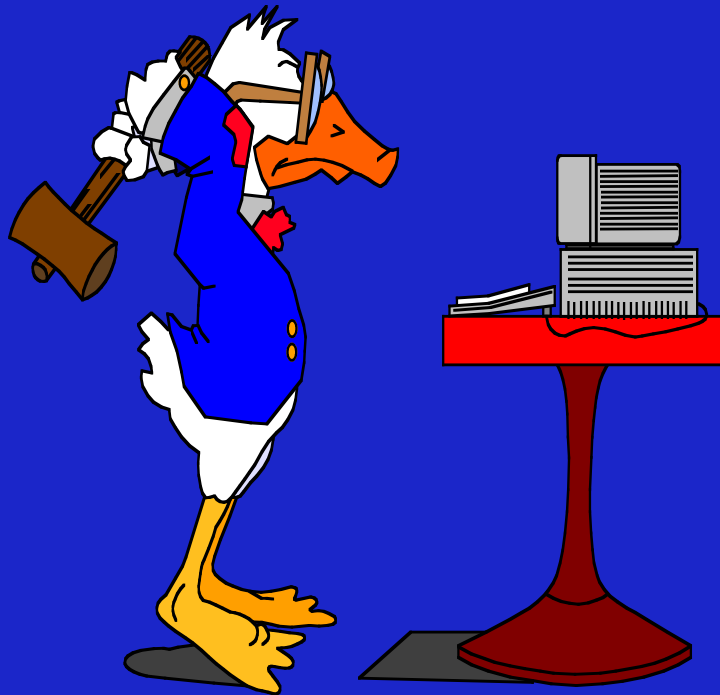
Adaptive Coping



Adaptive vs. Maladaptive Responses to Stress



Hyper-reactive Stress Response



- ◆ Hyperarousal disorders
- ◆ Gastrointestinal disorders
- ◆ Hormonal disorders
- ◆ Musculoskeletal disorders
- ◆ Inflammatory disorders
- ◆ Metabolic disorders
- ◆ Cardiovascular disorders
- ◆ Respiratory disorders

“Burn Out”



- ◆ Specific hypothalamic neurons unresponsive
- ◆ compensatory hyperactivity of other mediators (i.e. cytokines)
- ◆ Lack of arousal, fatigue, irritability
- ◆ Chronic fatigue, fibromyalgia, RA, PMDD, SAD

The Stress Response & the Aftereffects

- Negative conditioning
- Negative beliefs and emotions
- Unconscious and conscious assumptions and predictions
- Automated behaviors and maladaptive coping
- Allostatic load: mind and body burdened
- Illness

Factors Influencing the Allostatic Load

- ◆ Individual genetic vulnerability
- ◆ Influence of social environment and behaviors (includes early and later life events)
- ◆ Influence of individual culture and/or belief system
- ◆ Results of critical changes at one point in life
 - ◆ Timing of event
 - ◆ Magnitude and/or duration of stressor
- ◆ Influence of individual emotional makeup and development
- ◆ Influence of nurturance and love received, especially in early life

Stopping the Cycle

- ◆ Reprogram underlying beliefs.
- ◆ Redirect the focus away from negative emotional state.
- ◆ Restore the Infrastructure and variability:
 - Exercise
 - Nutrition
 - Relaxation response/ meditation/mindfulness
 - Cognitive strategies & positive psychology
 - Social support, love and connection
 - Humor
 - Sleep
 - Spiritual beliefs, nature

P.O.W.E.R

Pause

Optimize your awareness

Witness your physiology

Examine your emotions, thoughts,
actions and beliefs

Release, relieve and restore balance and
infrastructure

Exercise

- Associated with decreased mortality and morbidity
- Associated with a decrease in anxiety and depression
- Improves cognitive functioning
- Increases levels of circulating dopamine, beta-endorphin, and serotonin
- Both exercise and relaxation increase levels of CRH and improve mood
- Increases neurogenesis in the hippocampus
- Powerful antioxidant

Chronic Stress and Nutrition

- ◆ Lowers levels of serotonin, stimulating cravings for sweets and fats
- ◆ Decreases the brain's ability to utilize glucose
- ◆ Chronic fat intake associated with elevation of cortisol, similar to chronic stress
- ◆ Chronic simple sugar intake associated with increased risk of cardiovascular disease and diabetes, as it drives insulin production, fat storage, inflammation and oxidative stress.
- ◆ Loss of balance of GI ecosystem

Healthy Nutrition

- ◆ Follow the Mediterranean diet (or versions of) as an anti-inflammatory diet.
- ◆ Limit sugar and other low fiber carbohydrates.
- ◆ Avoid trans-fats and add in essential fatty acids like omega-3 fish oils and alpha-linoleic acids.
- ◆ Add in probiotics or eat more fermented foods.

Social Support

- ◆ Facilitates coping with crises and adaptation to change
- ◆ Offers a sense of belonging and elements of reciprocity
- ◆ Improves health and possibly prolongs life
- ◆ More likely to stick to plan

Sleep

- ◆ Modest sleep loss is associated with increased secretion of proinflammatory cytokines
- ◆ Short or refracted sleep is associated with decreases in circulating GH levels
- ◆ Short sleep duration is associated with reduced leptin, elevated ghrelin and increased appetite

Cognitive behavioral therapy

- ◆ Improves depression and anxiety
 - Found to be as effective as antidepressants
- ◆ Improves sleep
 - Found to be as effective as sleep medication
- ◆ Improves quality of life, including experience of pain due to cancer and/or arthritis, reduces stress



PERCEPTION

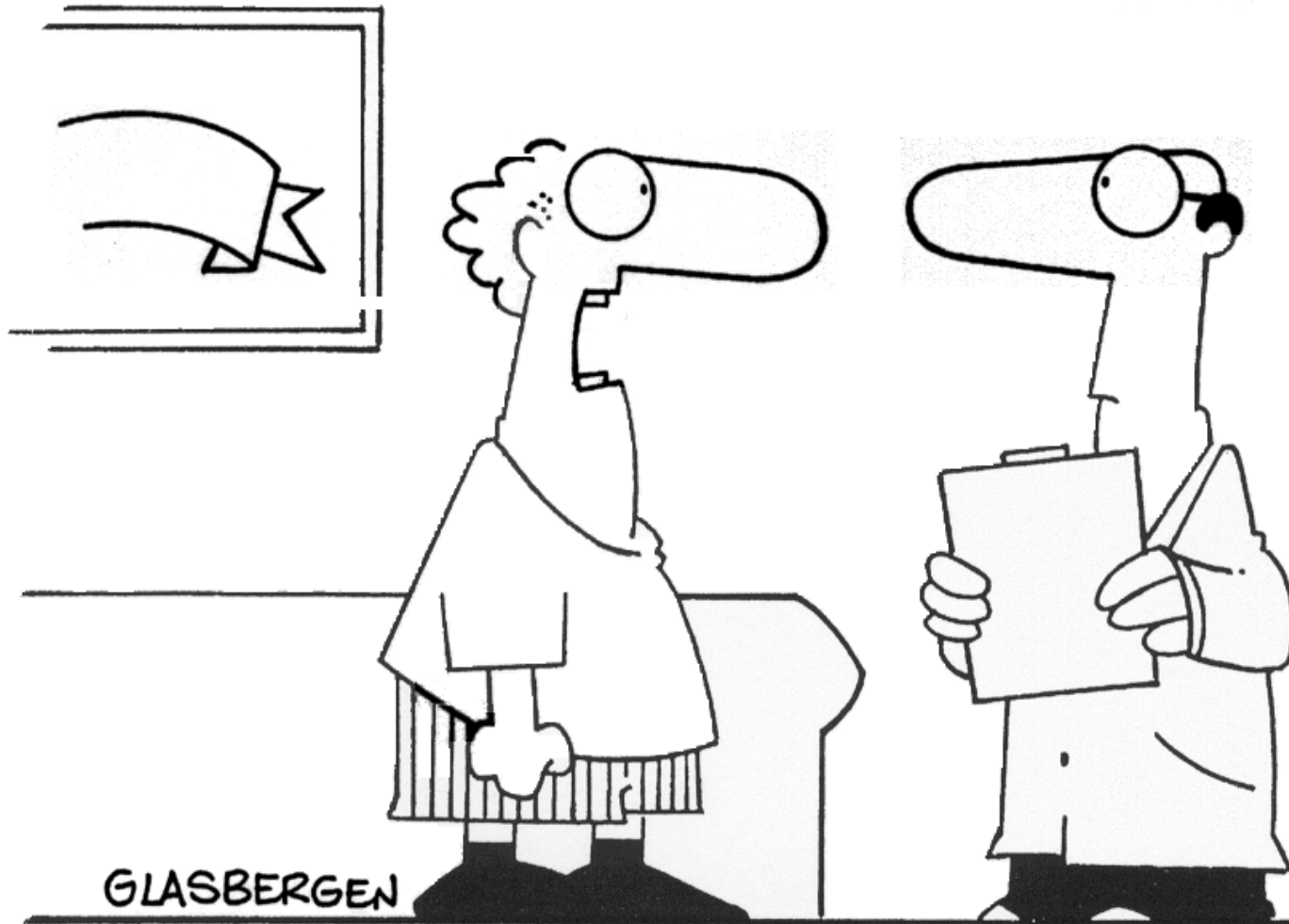


The Relaxation Response

- ◆ Decrease heart rate, blood pressure, breathing rate and metabolic rate
- ◆ Recuperate from harmful effects of stress and regain its natural ability to cope with additional stress
- ◆ Reduces limbic system arousal
- ◆ Synchronization of alpha and theta waves on EEG correlated with relaxed wakefulness and awareness
- ◆ Brain FMRI studies show involvement of neural structures involved with attention and arousal/autonomic control
- ◆ Down regulates adrenergic receptors

Techniques Used to Elicit Inner Stillness

- ◆ Sound
- ◆ Prayer
- ◆ Meditation
- ◆ Mindfulness
- ◆ Yoga Stretching
- ◆ Contemplation
- ◆ Body scan
- ◆ Diaphragmatic Breathing
- ◆ Imagery/Visualization
- ◆ Progressive Muscle Relaxation
- ◆ Repetitive Movement
- ◆ Self-hypnosis
- ◆ Autogenic training
- ◆ Dedicated silence



**“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!”***

Witness Your Physiology

Stress vs. Still

Examine and Redirect to change perception

- Unconscious beliefs direct stress response activation.
- Examining and redirecting the beliefs to ones that carry more trust will reduce stress response activity.
- Increasing the perception of trust improves positive expectation and the belief that a stress is manageable.

The Power of Trust, Love, and Expecting Good

- ◆ Stimulates reward circuits in the brain that reinforce positive behaviors and emotions.
- ◆ Keeps stress response better regulated.
- ◆ Trusting others allows feelings of being more trustworthy, enhancing bonding and social interactions and investing.
- ◆ Creates the placebo response.
- ◆ Love does it too.

The Placebo Response

- ◆ Defined as the measurable, observable, or felt improvement in health or behavior not attributable to a medication or invasive treatment.
- ◆ Evidence of placebo treatments shows real biological and physiological tensions associated with decreased stress response activity.
- ◆ Brain's dopaminergic reward systems helps drive placebo effect.
- ◆ Suggests you can use the mind to heal the body.

Brain Circuits and Love

- ◆ Reward circuits are brain areas that form feedback loops or circuits
- ◆ Positive signals, like Love, reinforce behaviors that produce pleasant sensations and positive feelings
- ◆ Studies show increased brain activity in regions of brain's reward system when individuals view pictures of loved ones

Oxytocin

- 
- ◆ Aggression
 - ◆ Relaxation and well-being
 - ◆ Anxiety
 - ◆ Stress response activity
 - ◆ cortisol release
 - ◆ Reproduction
 - ◆ Sensory processing
 - ◆ Memory processes and functions
 - ◆ Sociability

The SHIELD®

◆ Slow down

◆ Honor

◆ Inhale

◆ Exhale

◆ Listen

◆ Decide

Adaptive Coping Objective

- ◆ Reduced stress response activation.
- ◆ Perception to belief that stress is manageable.
- ◆ Improved emotional state.
- ◆ Better resilience.