



Proactively Manage Your Stress and Protect Your Brain

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What Are the Key Steps Used to Improve Cognitive Function?



- Add brain boosting foods and lower glycemic load
- Meet essential nutrient needs
- Add physical and mental fitness
- Proactively manage stress
- Avoid brain toxins
- These have become the five steps in my Better Brain Solution program

Is Stress Always Harmful?

- Some stress may keep us sharp
- Sudden severe stress starts clear protective physiological mechanisms

Such as your response to being attacked by a lion



Increased clotting, inflammation, heart rate, blood pressure, blood sugar levels, and adrenaline production that could save our lives

Excessive Chronic Stress Is Harmful



- Excessive stress sets off the same alarm mechanisms that protects us from an attack, but doesn't stop

Excessive Chronic Stress Is Harmful

- Over an extended timeframe, prolonged stressors...
 - Whittle away our muscle and bone mass
 - Harm our cardiovascular system and brain cells
 - Increase our pain and symptoms of anxiety



Sustained Stress

- Decreases DHEA production over time
- Increases cortisol production and accelerates aging
- Lowers cognitive function and decreases memory capacity
- Is strongly associated with increased Alzheimer's risk



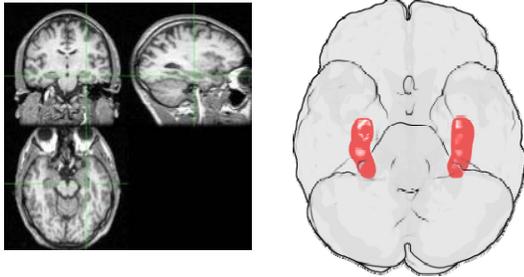
Low DHEA Levels

- Normal DHEA-S levels are typically 200 ug/dL or more. My stress patients who function well have levels of 100-200. Those who are stressed and fatigued are <100.
- Symptoms include:
 - Fatigue
 - Depressed Libido
 - Low drive (exercise)
 - Can also lead to low testosterone levels, as DHEA is converted into 3 parts testosterone and 1 part estradiol

Cortisol Levels Increase With Chronic Stress

- Cortisol depletes bone mass, increasing your risk of fractures
- Depletes your muscle mass
- Adds fat to your waistline and your

Hippocampus; The Memory Center of the Brain



Cortisol Levels Increase With Chronic Stress

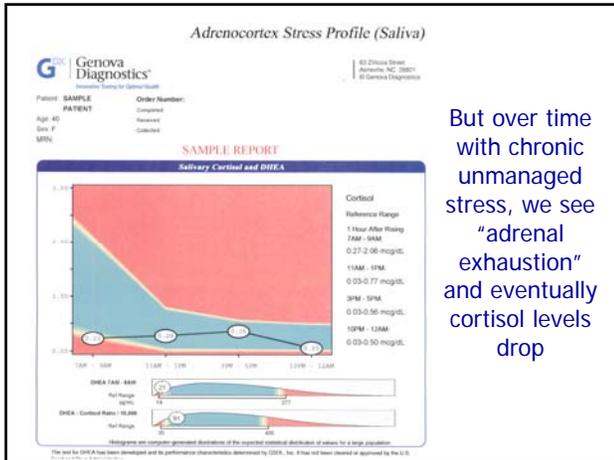
- Increases blood sugar levels and insulin resistance
- Cortisol depletes bone mass, increasing your risk of fractures
- Depletes your muscle mass
- Adds fat to your waistline
- Cortisol adversely impacts other hormone levels, especially for women

Measuring Your Stress Response

- Measure a fasting cortisol level (blood)
 - Normal range with most labs is 4-20, but anything above 10 should be considered elevated
- Salivary levels are a better reflection of intracellular levels
 - Measure 4 salivary cortisol levels over a 24 hour period:
 - 7am, noon, 4 pm, 10-11 pm



Initially with chronic unmanaged stress, am cortisol levels will be elevated



But over time with chronic unmanaged stress, we see “adrenal exhaustion” and eventually cortisol levels drop

Chronic Unmanaged Stress Increases the Risk for:



Depression

Anger and Hostility



Depression

- Depression refers to depressed brain biochemical function
- Depression may or may not be associated with sadness
- Depression can be caused by a mixture of genetic, environmental, and tragedy causes



Problems with Depression

- Depression decreases our drives
- People with untreated depression often eat poorly, exercise less, sleep poorly and feel worse
- Depression is associated with a high risk of heart attacks and strokes
- Depression can be deadly when untreated

Signs of Depression

(at least 4 out of 6 signs)

- Nothing seems fun anymore (*Anhedonia*) You do things, but they aren't fun like they used to be
- Decreased energy and concentration
- Poor sleep, awakening frequently without being refreshed in the morning
- Increased body aches
- Decreased drives (food, exercise, sex)
- Emotionally depressed, sad



Distinguishing Between Depression and Grieving

- Anyone can grieve from a loss
- Grieving displays good and bad days
 - Especially by events that trigger grief (holidays, birthdays, trips)
- With depression, everyday seems depressed
- Grieving can progress to depression

Treating Depression

- Same Better Brain 5-Step Guide
 - Food, nutrition, activity, stress Rx, Avoid toxins
- This combination often reverses depression
- If it doesn't respond, medications may be helpful
 - Medications normalize brain biochemistry. Treatment usually lasts 8-12 months
- Counseling compliments medications and can be essential, especially with a history of emotional trauma which is common

Stress Reduction

- Have a work out daily
- Get a good night sleep
- Proactively take steps to manage your stress
 - Take time for meditation and/or deep prayer
 - Use a software program called HeartMath
 - Find peace every day
 - Enjoy breathing techniques to reduce your stress
 - Recharge your batteries
 - Build intimacy and companionship in your relationships



Techniques For Stress Relief

Meditation (HeartMath)

Yoga

Massage

Counseling

Find Peace and Calm

Meditation &/or Prayer Provides
Rest & Restores Energy



- 15-20 minutes of focused meditation or deep prayer provides as much stage IV sleep brain waves as several hours of sleep
- Certain people with sleep disorders (e.g., fibromyalgia) fail to achieve adequate stage IV sleep
- Meditation can be very effective for chronic pain

Meditation



- It is not relaxation
- It requires focusing upon your body and the "moment", letting go of your thoughts
- You become focused, present in the now
- Prosper with 15-20 minutes of meditation or deep prayer daily

Meditation Will

- Lower blood pressure
- Reduce stress and lower cortisol levels
- Improve sleep
- Improve quality of life
- Decrease chronic pain

Meditation is perhaps the best studied treatment for chronic pain

Mini-Meditation Session

- Take 5-10 deep breaths, focusing upon your breathing
- Use reminders to cue you for when to take a session

HeartMath

- Heart Math provides bio feedback while attempting a meditation like practice
- Heart Math let's you know if you are calm or stimulated (the opposite of calm)
- You can plug to your phone and use as a relaxation tool
- While using the app, focus on being grateful, happy, and focus on breathing deep breaths in and out

Using HeartMath

- Improves stress reduction
- Improves blood pressure control
- Increases productivity
- Especially helpful for people who don't know how to get calm, or feel agitated when they try to meditate

Yoga

- Great blend of stretching and strength training
- Terrific focus upon breathing
- Great meditation moment once you are stretched and relaxed



Counseling

- People who can't achieve the goals they really want to reach often have hidden roadblocks they can't see
- Engaging with a skilled counselor for just 4-6 sessions can reframe how we see issues, helping to achieve goals
- Counseling often addresses old, unresolved business that hasn't yet reached a resolution



Find Peace Every Day

- 10-20 minutes
- Massage
- Gentle, soothing music
- Candlelight in the bathtub
- Meditation
- Limit stimulants and alcohol



Stimulants Detract From Stress Reduction

- Limit caffeine to 2-3 servings per day
- It takes 7 hours to metabolize 50% of the caffeine you ingest
- Green tea is better for alertness than coffee
- Limit alcohol to not more than 2 servings daily



Intimacy

- The more intimate relationships you have, the better your chance of health
- Intimacy doesn't mean sex; sex can be one part of intimacy

Human touch is an essential part of health and happiness
Contacts with our community also benefit our health



5-Step Guide to a Better Brain

- Step 1: Fabulous Foods
- Step 2: Essential Brain Nutrients
- Step 3: Physical and Mental exercises
- Step 4: Stress management
- Step 5: How to avoid brain toxins

Combine as many steps as feasible.