Recommendations – Optimizing the Lawyer Brain: Improve Well-being and Enhance Performance
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Articles: Killing Them Softly, Drink Like a Lawyer, & Food for Thought available at www.debraaustin.info

Nutrition to Build a Healthy Brain

Four Simple Ways to Start Eating Better
- Eat smaller frequent meals & snacks to maintain blood sugar levels
- Eat Big Salad Every Day
  - Dark Leafy Greens & other vegetables
  - Dress with Olive Oil & Vinegar
  - Avocado helps body absorb antioxidants from salad vegetables
- Drink Coffee, Tea & Water
  - Coffee & Tea contain antioxidants
- Snack on ¼ cup of a variety of Nuts because they contain different antioxidants

Eating Tips: Carbs
- Choose healthy carbs to limit their power to stimulate the Addict Brain
  - Fruits
  - Vegetables
  - Legumes
  - Whole Grains and Limited Cereal, Breads & Pasta
  - Limited Dairy Products
- Slash sugar consumption to
  - Reduce cravings
  - Improve Immune Function
  - Lower risk of Weight Gain, Diabetes, Heart Disease, Cancer, Glycation, & Extra Wrinkles
  - Use Stevia to Sweeten (but consider reduction over the long term)
- Consume a pound of produce a day
  - Antioxidants, Vitamins, Minerals & Fiber
  - Brain and Anti-aging Benefits
- Opt for Organic Produce
  - Avoid Pesticides
  - Environmental Working Group’s Dirty Dozen & Clean Fifteen Lists
- Obtain Vitamins & Minerals from Whole Foods
  - Fruits, vegetables, whole grains, and legumes contain them plus antioxidants & fiber

Eating Tips: Fats
- Pair Carbs with Healthy Fats to slow glucose conversion & feel satiated
- Embrace Healthy Fats to enhance brain efficiency & aid nutrient absorption
  - Monounsaturated Fats: Olive and Canola Oils & Avocado
  - Omega-3 Fatty Acids
    - Canola, Flax, & Hemp Oils
    - Flax Seeds, Chia Seeds & Walnuts
    - Fatty Fish: Atlantic Salmon; Anchovy; Sardines; Rainbow Trout; Coho Salmon; Bluefish; Striped Bass; Tuna, white, canned; Halibut; and Catfish, channel
- Snack on a variety of Nuts because they contain different antioxidants
- Improve Omega-3/Omega-6 Balance
  - Minimize Bad Oils: Corn, Soybean, Sunflower & Safflower
  - Reduce Meat and Increase Fish intake
  - Increase Omega-3 Fatty Acids
- Obtain Vitamins & Minerals from Omega-3 Whole Foods
Eating Tips: Protein
  o Reduce Meat and Increase Fish intake
    o Omega-3 Rich Fatty Fish: Atlantic Salmon; Anchovy; Sardines; Rainbow Trout; Coho Salmon; Bluefish; Striped Bass; Tuna, white, canned; Halibut; and Catfish, channel
  o If you eat Meat, a healthy portion is the size of your fist

Books: Eating Fewer Animal Proteins
  o Rip Esselstyn: The Engine 2 Diet (2009) and My Beef With Meat (2013)
  o Mayim Bialik: Mayim’s Vegan Table (2014)

Exercise
  • Enhances blood and oxygen flow
    o Improves blood flow deeper into body tissues
    o Increases blood volume in Hippocampus which maintains its health and function
    o Enhances distribution of food and elimination of waste
    o The Brain Requires
      ▪ 25% of calories consumed
      ▪ 20% of oxygen breathed
      ▪ 25% of body’s total blood flow
  • Increases & balances neurotransmitters
    o Dopamine (motivation, pleasure, meaning);
    o Serotonin (mood, anxiety, sleep);
    o Norepinephrine (mood, arousal, attention, perception, motivation).
    o GABA (slows & balances system; induces calm)
  • Stimulates production of Brain Derived Neurotropic Factor (BDNF)
    o Protein that helps
      ▪ Create new neurons
      ▪ Protect existing neurons
      ▪ Encourage synapses formation
    o BDNF production enhanced by
      ▪ Exercise, Calorie Reduction, Intellectual Stimulation, Curcumin (active ingredient in spice Turmeric), and Omega-3 Fat DHA

Sleep
  • 90 Minutes to 2 Hours to first REM Stage. During REM
    o Hippocampus & Amygdala very active
    o Communication between neurons at rate equal to or higher than when awake
    o Memory consolidation genes activated, which helps formation of new neural connections
  • Sleep Research
    o Subjects awakened during REM lost ability to learn new information
    o Loss of 1 night of sleep = 30% cognitive decline
    o Loss of 2 nights of sleep = 60% cognitive decline
    o Less than 6 hours of sleep for 5 nights in a row = 60% cognitive decline
  • Sleep Deprivation
    o Diminishes attention, working memory, executive function, quantitative skills, logical reasoning ability, mood, and fine & gross motor control
    o Accelerates Aging Process
    o Impairs ability to use fuel/food creating risk of diabetes and obesity
  • Naps Improve Cognition
    ▪ 26-minute nap improved NASA pilot performance by 34%
    ▪ 45-minute nap improved cognition for at least 6 hours
Contemplative Practices for Building Mental Strength – Become an Amygdala Whisperer

Mindfulness
- Being fully aware of something and paying attention to the moment, with acceptance and without judgment or resistance
- The Research: Mindfulness
  - Improves
    - Information processing
    - Decision-making
    - Concentration
    - Productivity
  - Increases thinking brain volume & improves connections between brain regions
  - Improves immune function
  - Promotes emotional intelligence
  - Decreases distraction
  - Reduces stress & anxiety
- Mindfulness Activities and Practices
  - Mindful Movement: yoga, tai chi & qigong
  - Three Questions Mindfulness Practice
    - When is the most important time? Now, because it is the only time which you have some control over.
    - Who is the most important person? The person you are interacting with.
    - What is the most important thing to do? Do your best to serve the person you are interacting with.

Meditation
- The Research: Meditation
  - Enhances productivity, learning, and health
  - Increases thinking brain volume
  - Improves attention, mood, and compassion
  - Strengthens immune system
  - Decreases stress-related cortisol
  - Improves disease & disorders
    - Cardiovascular, Asthma, Type II Diabetes, PMS, chronic pain, insomnia, anxiety
- Tips from Google’s Chade-Meng Tan
  - Like weight training, growth in meditation comes from resistance
  - When your mind wanders and you bring it back, your attention grows stronger
  - Lesson: there is no such thing as a bad meditation
- Doesn’t Require Large Time Commitment to be Beneficial
  - Students who practiced for 10 minutes per day for 2 weeks improved GRE scores (2013)
  - 15 minutes daily improved decision-making (2013)

Books on Mindfulness & Meditation
- The Mindful Athlete by George Mumford
- Search Inside Yourself & Joy on Demand by Chade-Meng Tan

Mindfulness Meditation (Enhance Attention & Focus – Chade-Meng Tan)
- Easy Way: Bring gentle and consistent attention to your breath for 2 minutes, and when your attention wanders, bring it back
- Easier Way: Sit without an agenda for 2 minutes, shift from doing to being
Loving-kindness Meditation (Enhance Empathy & Compassion)

<table>
<thead>
<tr>
<th>Think of Yourself</th>
<th>Think of a Loved One</th>
<th>Think of a Difficult Person</th>
<th>Think of All People or Beings</th>
</tr>
</thead>
<tbody>
<tr>
<td>May I be happy.</td>
<td>May you be happy.</td>
<td>May you be happy.</td>
<td>May you be happy.</td>
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<tr>
<td>May I be well.</td>
<td>May you be well.</td>
<td>May you be well.</td>
<td>May you be well.</td>
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<tr>
<td>May I be safe.</td>
<td>May you be safe.</td>
<td>May you be safe.</td>
<td>May you be safe.</td>
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<tr>
<td>May I be peaceful &amp; at ease.</td>
<td>May you be peaceful &amp; at ease.</td>
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</tr>
</tbody>
</table>

Empathy: Everyone is Going Through Something We Can’t See by Kevin Love
https://www.theplayerstribune.com/en-us/articles/kevin-love-everyone-is-going-through-something

Gratitude Practice
- Gratitude Journal OR Gratitude Reflection
  - Things you are grateful for
  - Things you are proud of
  - People who have helped you
- The Research: Gratitude
  - Over 100 studies, people who practice gratitude
    - Have more positive emotions
    - Accomplish more personal goals
    - Sleep better & feel more alert, enthusiastic, and energetic
    - Have lower blood pressure, and live 7-9 years longer

Yoga
- Increases GABA
  - Induces Calm & Improves Mood
  - Depression linked to low GABA
  - Highest GABA: Most Experienced & Most Frequent Practice

Never Too Late to Invest in Brain Health

Two new studies indicate that professionals should reduce their stress and invest in improved brain health. Data from 2,018 Framingham Heart Study participants, of an average age of 48, showed that participants with an elevated stress hormone cortisol level, performed worse on memory and other cognitive tasks than participants with average cortisol levels. Higher cortisol was also associated with smaller brain volume. i A second study on 160 sedentary adults over age 55 and at risk for cognitive decline showed that adding aerobic exercise, and better yet a combination of aerobic exercise and the heart-healthy DASH diet, improved their executive functioning. ii

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ii James A. Blumenthal, Patrick J. Smith, Stephanie Mabe, Alan Hinderliter, Pao-Hwa Lin, Lawrence Liao, Kathleen A. Welsh-Bohmer, Jeffrey N. Browndyke, William E. Kraus, P. Murali Doraiswamy, James R. Burke, Andrew Sherwood, Lifestyle and Neurocognition in Older Adults with Cognitive Impairments: A Randomized Trial, Neurology, December 19, 2018, online at http://n.neurology.org/content/early/2018/12/19/WNL.0000000000006784.