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Your Brain Health and Brain Health Lifestyle ®

The single greatest system ever designed in the history of the universe is your brain. Your brain is responsible for your every thought, emotion, and behavior. Unfortunately we humans do not know much about our brains and it is time to change that.

Brain Basics:

- 1. Your brain weighs 2 to 4 pounds.
- 2. Your brain is comprised of 60% fat and is the fattiest system in your body.
- 3. Your brain consumes 25% of the blood from every heartbeat.
- 4. Your brain has two sides or hemispheres (left hemisphere and right hemisphere).

Left hemisphere helps you with language, detail, and analysis

Right hemisphere helps you with faces, spatial orientation, sounds.

5. Your brain has a Cortex and Subcortex.

Your Cortex is conscious and helps you learn, remember, communicate, Read, write, orient to space, process sensory information, and personality.

Your Subcortex processes subconscious motor or procedural behaviors such as dressing, driving, and typing on your computer.

Your Cortex and Subcortex interact as a beautiful symphony.

6. Your hippocampus is the structure in your brain (sits in the middle of each temporal lobe just under each temple on your skull) that enables you to learn.

New Ideas about Your Brain:

The human brain (like the animal brain) can generate new brain cells. This new brain cell development (neurogenesis) occurs in the hippocampus.

The human brain is now thought to have "neural plasticity" or be a system that is highly dynamic, constantly reorganizing, and malleable. It is shaped by environmental input.

Our brains need exposure to environments that are enriched, complex and novel. Environments that are passive and rote do not help the health of your brain.

Exposure to enriched environments across your lifespan will lead to new brain cell development and increased cellular connections ("**Synaptic Density**"). Synaptic Density or **Brain Resilience** may help to delay the onset of neurodegenerative diseases such as Alzheimer's and related dementias.

Your Brain Health

- 1. Brain health begins in the womb and needs to be promoted across your lifespan.
- 2. Engage in the novel and complex not the rote and passive.
- 3. Consider the following Brain Health Lifestyle to build up your brain reserve:

Five Domains of the Brain Health Lifestyle ®

Socialization (we connect on many levels)

Do not isolate or segregate, as you get older. People who isolate have a higher risk for dementia.

Join groups and social organizations in your community.

Maintain and build your friendship and family network.

Be forgiving and giving.

Develop hobbies.

Do not retire.

Ask about loneliness as it increases risk for dementia.

Surf the web.

Inquire about loneliness from loved ones.

Physical Activity (25% of the blood from each heart beat goes to your brain)

Walk between 7,000 and 12,000 steps daily. Walking several times a week reduces the risk of dementia.

Walk six miles a week.

Walk briskly each day for 30-45 minutes

Buy yourself a pedometer to remind yourself to walk and to keep track of your daily steps.

Dance as this is a behavior that reduces the risk of dementia.

Garden and Knitting reduce the risk of dementia.

Aerobic exercise will help the heart and thereby feed the brain with the necessary blood and oxygen. It also promotes cognitive functioning such as memory and is now believed to relate to positive structural changes in the brain.

Use both sides of your body more often: Become ambidextrous.

Physical exercise and computer exercise helpful

Yoga and hot Yoga

<u>Mental Stimulation</u> (it is all about the "novel and complex")

Learn a second and third language.

Read and write (use your nondominant hand) on a daily basis: the more complex the better.

Learn sign language as it increases IQ and increased IQ reduces the risk of dementia.

Consider Rosetta-Stone for learning a new language (<u>www.rosettastone.com</u>)

Play board games as board game playing reduces the risk of dementia.

Travel reduces the risk of dementia because it involves a new and complex environment.

Play a musical instrument (integrates and stimulates many different regions).

Listen to classic music as it helps to increase learning.

Go to <u>www.fitbrains.com</u> for a daily cognitive workout (Rosetta Stone-FitBrains)

Surfing the Internet

Problem solve (Consider Cross Examination by Robert Schoch at Amazon.com).

Attend a museum or cultural event.

Spirituality (Balance and neural energies)

Pray on a daily basis as it enhances your immune system.

Attend regularly a formal place of worship at it relates to better quality of life and longevity.

Learn to meditate in order to slow down. Animals exposed to environments that are too stimulating demonstrate slowed brain development. Meditation has been found to help combat many medical illnesses and chronic conditions.

Learn relaxation procedures with deep breathing and muscle relaxation.

Slow down and do not be afraid to say "no".

Develop "me time" for 30 minutes daily.

Try Yoga and hot yoga.

Try Tai Chi.

Sleep

Yawn more regularly

Natural Daylight and Design Lighting

Fasting for 24 hours (if medically able)

Repeat words of love, joy, forgiveness, and peace frequently.

<u>Nutrition</u> (foods affect your mood, energy, and cognition)

Eat 80% of what you intend to eat at each meal. Reasonable caloric restriction can increase your longevity.

Eat one meal a day with family or friends.

Eat with utensils and you will eat less and also eat healthier foods.

Increase your intake of Omega 3 fatty acids. This includes fatty fish such as salmon, sardines, and herring. Several ounces of salmon weekly reduce the risk of dementia. Walnuts and unsalted nuts are also good for you.

Eat 8 ounces of fish weekly.

Increase your intake of antioxidants. This includes Vitamins C and E. Colored fruits (grapes, apples, cantaloupe, and berries) and vegetables are good for you. The FDA recommends five servings of fruit and vegetables a day.

See (see <u>www.mymoxxor.com/drpaul</u>) for information on supplement that combines both omega 3s and antioxidants and speak to your doctor about supplements.

Decrease your intake of processed foods and red meats. Lean meat such as chicken breast without skin is relatively okay. A recent study found mice who consumed a diet with high levels of fat similar to fast foods evinced the markers of Alzheimer's in the brain at death.

Green leafy vegetables are good for you.

Drink more water daily.

Eat one sit down meal with others a day. This activity provides many brain boosting effects at once (classic music, language, eating with utensils, slowing down, eating healthier foods).

Eat "real foods."

Limit the poison.

Dr. Nussbaum's Application of Brain Health in Society (some examples)

Education

International center for leadership in education: <u>www.LeaderEd.com</u> (Dr. Nussbaum is Senior Advisor for Brain Health)

Destination Imagination (www.globalfinals.org)

Business

Brookdale/Emeritus

www.emeritus.com (Dr. Nussbaum is National Director of Brain Health) www.brookdale.com

Fitbrains<u>www.Fitbrains.com</u> (Dr. Nussbaum is Chief Scientific Officer) Rosetta Stone (see www.Rosettastone.com)

<u>WWW.RC21x.com</u> (Cognitive assessment tool: enter DRNUSS20 at checkout for discount).

Memory Training Centers of America (www.memorytrainingcenters.com)

Peachtree Roofing (<u>www.peachtree</u> roofing.com)

www.Fitminds.com (Company for the caregiver)

Organizations

MetLife Foundation Alzheimer's Foundation of America (Prevention) (www.AFA.org) (Dr. Nussbaum serves as Chief Advisor on Brain Health)

Alzheimer's Association American Society on Aging National Library Association AARP (Dr. Nussbaum serves as a leader on brain health)

<u>Health Care</u>

Brookdale/Emeritus Assisted Living (<u>www.brookdale.com</u> or <u>www.emeritus.com</u>) (Dr. Nussbaum serves as National Director of Brain Health)

Highmark Memorial Hospital of South Bend University of Pittsburgh School of Medicine

<u>Media</u>

Body and Soul Reader's Digest Better Homes and Gardens Major Newspapers National and regional news PBS KDKA Woman's Day Men's Health Boston Globe New York Times CBS Affiliates MSN APA Monitor Pittsburgh Post Gazette Others

<u>Retail</u>

Peachtree roofing (www.peachtreeroofing.com)

Begin Your Brain Health Lifestyle ® Today!!

You can schedule Dr. Nussbaum to speak to your organization, conduct a webinar, or provide onsite consultation on Brain Health by calling (724) 719-2833 or emailing him (drnuss@me.com).

Order his 2013 DVD Save Your Brain at <u>www.amazon.com</u> (published by Pines Education Center in Sarasota, Florida).

Order his 2010 book Save Your Brain published by McGraw Hill can be ordered through <u>www.Amazon.com</u>.

Order Dr. Nussbaum's 2009 **book** Your Brain Health Lifestyle: Application to School, Library, Corporate and Home Settings (2nd Edition) (1-800-827-7903).

Nussbaum, P.D. (2011) Neuroscience of the aging brain: Perspectives on brain health and lifestyle. <u>Generations, 35</u> (Guest Editor). See www.asaging.org

Visit <u>www.paulnussbaum.com</u> for other information and brain health products such as his online education tool, and digital brain health survey.

Visit <u>www.brainhealthctr.com</u> for a tour of Dr. Nussbaum's new brain health center.

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