

Neuroinflammation

Part 5

Activating the brain

- Decreases NI, increases mitochondrial biogenesis
- When injury occurs - causes signs and symptoms related to that area of injury
 - So we stop doing it
 - Decreased activation to that area → neurons will have less mitochondria there
 - With priming in that area - then these neurons can be destroyed
 - So we need activation!!
- Will go through various areas

Activating the brain

- Frontal
 - Lumosity! Best way to activate frontal and medial temporal lobes
 - Best to prevent dementia overall - especially with APOE4 risk
 - Goal - improve scores
- Frontal Precentral Motor (Area 4/6)
 - Perform motor skills with involved limb
 - Chinese balls, juggle, finger dexterity
 - Do what's hard
- Broca's
 - Speech therapy or complex pronunciation (tongue twisters)
 - 99 Tortuous tricky tough tongue twisters

Activating the Brain

- Parietal Somatosensory
 - Body realization exercises
 - Bring awareness to breathing - 3 deep breaths as you mindfully tune into your body position. Start a body scan top head to tip toes. Working up to down.
 - Then feel it cold - moving - etc...
 - Perceive position, cold/hot, vibrating, moving
- 39/40 Parietal Inferior
 - Tetris
 - Math Apps
 - Orientate App

Activating the Brain

- Temporal Lobe (41,42)
 - Actively listen to music
 - Focus on an individual instrument, voice, tempo, pitch, rhythm
 - Right - unpredictable jazz - novel music
 - Left - familiar music you can sing to
- Temporal (22) Auditory
 - No general exercises
- Medial Temporal and hippocampus
 - Luminosity
- Occipital
 - Color visualization exercises
 - Chakra color app
 - This can help light sensitivity

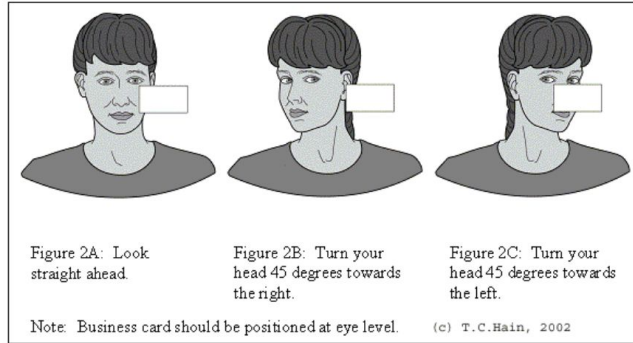
Brain activation

- Cerebellum

- Balance/stability exercises
 - Yoga, Bosu ball, balance board
 - Vestibular rehab
 - If a certain posture worsens - stop!
 - Practice a pointed Rhomberg

- Vestibulocerebellum

- Common to injury, gluten, etoh sensitive
- Anxiety with movements, crowds
- Movement - causing nausea
- Visual fixation with head rotation (with white background)
 - 2 hands out in front - thumbs together and up
 - Yes/no/maybe - alphabet with nose while staring at thumbs



Brain Activation

- Vestibulocerebellum
 - 2 paths
 - Vagus - digestion
 - Midbrain - sympathetic activity - burns bs, increased HR, nocturnal hypoglycemia
 - Nystagmus - sign of brain injury
 - Exercises - vagal will help!
- Basal Ganglia Direct Path
 - Where Parkinsons hits
 - Complex burst activity
 - Jump jacks, burpees, boxing, kickboxing, dancing, rapid targeting with limbs
 - Duck mouth with hands
- Basal Ganglia Indirect Path
 - No general exercises

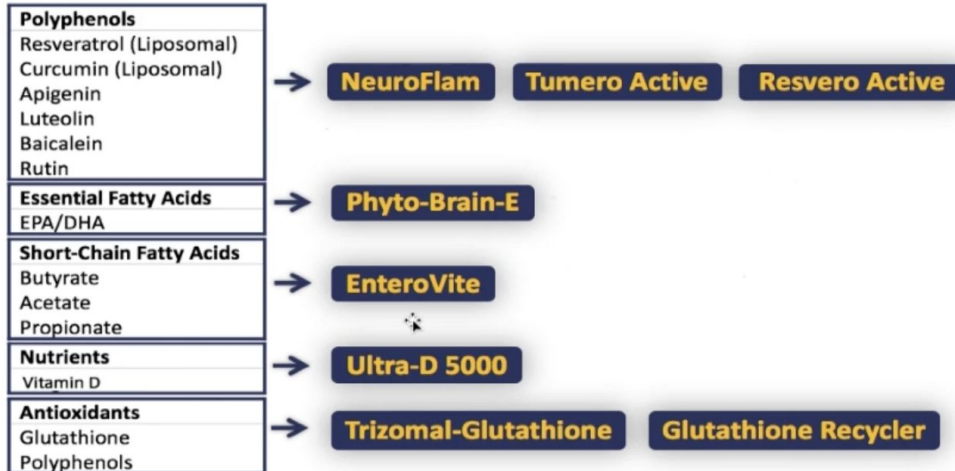
Monitoring

- Monitor how long to fatiguing
 - Read, drive, standing up, etc..
 - Endurance is the first to change if you are on the right track
- Videos if needed on your phone
- Have you had as many episodes? As bad? As long?
- More good days than bad?
- Remember it is slow progress
 - 5 tacks in the bottom of the foot - remove 1 - change diet - still have 4 tacks
 - Takes awhile to pull all tacks
- Endurance game - ups/downs - trial and error

Treatment

- Transient - better with level I care
- Chronic/primed - need to do level I,II
- Luminosity - 30-60 minutes
- Involve family and friends to help
- Systematize their life
 - Processes and organization
 - Someone you know or hire
 - Accountability and process
- With frontal lobe issues - sometimes lack motiv/follow-thru
 - So we need help!

NUTRACEUTICAL MANAGEMENT OF NEUROINFLAMMATION



SLEEP AND NEUROINFLAMMATION

Cannot Stay Asleep

- Typically From Lack of Glycogen Due to Hypoglycemia Lifestyle
- Can Occur from Loss of Brain Dampening Pathways

Cannot Fall Asleep

- Typically Occurs from ↑ Cortisol or ↑ Catecholamines
- Promoted by Insulin Resistance Lifestyle
- Can Occur from Loss of Brain Dampening Pathways

Cannot Get Enough Sleep

- Suggests Significant Neuroinflammation or Nocturnal Hypoxia
 - Consider Trial with CPAP
 - Manage Neuroinflammation

