

Dr. Amen's Simple Formula for Increasing Brain Reserve

Lesson 12 Guided Notes

HOW THE BRAIN BECOMES DAMAGED

Many things hurt the brain; thus, treating these conditions can help boost brain reserve:

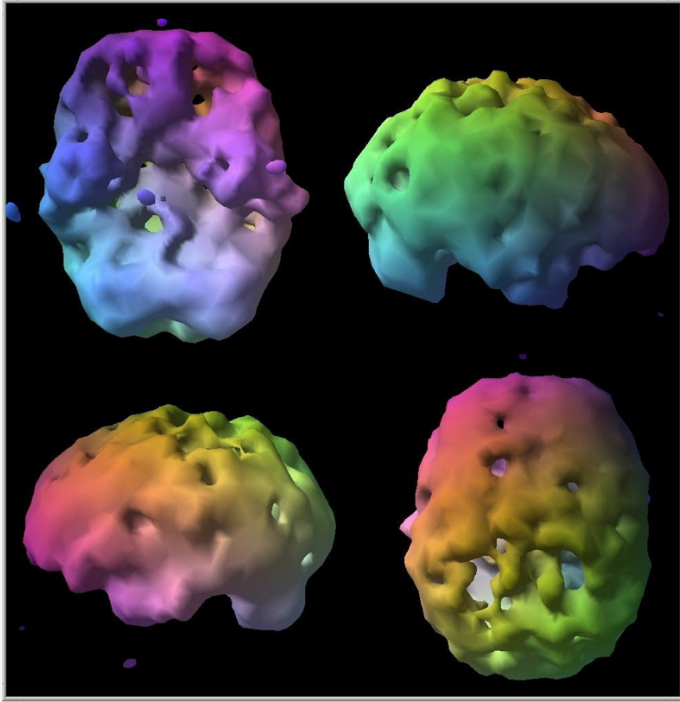
- Brain injuries and exposure to toxins
- Drugs, alcohol, nicotine, and caffeine
- Obesity, diabetes, and high blood pressure
- AGEs (advanced glycation end-products)
- Insomnia and sleep apnea
- Low hormones
- Chemotherapy
- High sugar/SAD diet, lack of exercise, and chronic stress
- Untreated psychiatric disorders
- Making poor decisions; having an unhealthy peer group
- Not understanding one's own brain vulnerabilities

The brain is 50% visual, so images can help motivate patients to want to improve their brain health.

- Tools such as SPECT and qEEG can help patients see where areas of improvement are needed.
- Tapping into a patient's emotional centers can motivate them to become healthier.
- Ask the question: Why do you want a great brain?
- Have them find anchor images that remind them why they care about having a healthy brain.

COMMON CULPRITS

- **Regular consumption of alcohol:**
 - Can cause fatty liver disease
 - Damages neurons, especially in the cerebellum
 - Interferes with the absorption of blood insulin
 - Evokes hypoglycemia
 - Can convert healthy forms of estrogen into unhealthy forms
 - And much more!
- **Overuse of caffeine:**
 - Constricts blood flow to the brain
 - Increases cortisol and anxiety
 - Interferes with sleep
 - Decreases adenosine
 - Increases white matter hyperintensities (associated with brain aging)
 - Increases risk of diabetes



When observing a toxic appearance on the scans, understanding a patient's history, including lifestyle and behaviors, health conditions, and overt exposure to toxins, can help identify the underlying pathophysiology and make the differential diagnosis. Conditions to assess for include:

- Drug and alcohol use
- Environmental toxin exposure
- History of chemotherapy
- Infections
- Low thyroid function
- Hepatic/kidney failure
- Anoxia
- Anemia
- Certain medications (i.e., benzodiazepines)



BRAIN-HEALTHY HABITS

Brain-healthy habits can help boost brain reserve, including:

- Make good decisions and have a positive peer group.
- Live in a clean environment and eat a great diet.
- Have good physical health, maintain a healthy weight, and get 7-8 hours of sleep each night.
- Engage in new learning.
- Learn to kill those ANTs (automatic negative thoughts).
- Exercise regularly and manage stress.
- Take simple supplements like a multivitamin, omega-3s, and vitamin D.

Abnormal Hormone Levels

Abnormal hormone levels in women can mimic certain psychiatric symptoms or behaviors so it can be helpful to measure estrogen, progesterone, testosterone, thyroid function, insulin and cortisol. Hormones can be boosted naturally with the right nutrition:

- Increase fiber intake.
- Eliminate sugar and foods that quickly turn to sugar.
- Eat organic and avoid meat raised with hormones and antibiotics.
- Avoid exposure to plastics.