OWM Nutrition Genome Summary Glen Shaikun

**Mood / Memory**

Low Serotonin production- higher stress perception, IBS, depression and compromised episodic memory.

* Moderate intensity aerobic exercise
* Green or black tea
* Tryptophan, prebiotics, probiotics, B2, B6, B12, and folate
* Meditation
* Ginkgo biloba

Lower Gaba production: sleep/ calm hormone

* B6, Taurine, Mg, Vitamin C, Lithium
* Endurance exercise, yoga, meditation, deep sleep
* DHA, Green tea, Low glycemic diet
* Lion’s Mane Mushroom
* Acetylcholine
* Bifidobacterium longum
* Intermittent fasting
* Progesterone
* Healthy testosterone + estradiol

**Brain Health**

Lower cannabinoid levels:

Higher anxiety and stress perception. Less “ blissful”

* Endorphins 🡪 enhance cannabinoids
  + Running and biking >30 minutes
  + Strenuous hiking at high altitude
* Stress reduction techniques
  + Meditation, Yoga, Deep breathing
* Avoiding pesticides
* CBD oil
* Red clover tea (women)
* Kaempfero
* Cacao
* Genistein
* Echinacea
* 7-hydroxyflavone (parsley, onions, berries, tea, and citrus fruits)
* Beta-caryophyllene (cloves, rosemary, hops)

**Heart Health**

Higher incidence of heart disease:

* Increase intake of fruit and vegetables

Blood pressure dysregulation due to poor saturated fat processing

* Inhibition in bilberry, grapes, allicin (raw garlic), cinnamon, and jasmine
* Total fat intake below 37%
* Limiting saturated fat to 22g per day
* Raw garlic extract
* Potassium
* Vitamin D
* Resveratrol
* Curcumin

Higher need for optimal vitamin D levels for heart disease prevention

* Vit D levels between 60-80

Higher need for K2 for reversal of arterial calcification

* Take VitD/ K2 supplement from OWM

**Master gene Apoe: E3/3**

* Most common ApoE in agricultural communities
* Extended cognitive fitness and enhanced expression of anti-aging sirtuins
* Improved HDL and LDL profile
* Improved ability to repair synapses and neural protection
* Higher viral protection

**Stress Response:**

Increased adrenaline production: elevated stress response

* Deep breathing methods( box breathing), magnesium, Vitamin C
* Look at COMT gene function
* Stress relief
* Adaptogens( Ashwagandha, Cordyceps, Reishi)

COMT: dopamine and estrogen processing

* FAST: Fast metabolizer
  + Better response to high pressure situations with the ability to be more emotionally resistant and calm in a crisis
  + Thrive in response to certain stressors with enhanced cognitive performance due to elevation of dopamine and adrenaline
  + Perform well on tasks demanding cognitive flexibility, but not demanding focused attention
  + Lower dopamine can affect executive function and problem-solving abilities
* Increasing catecholamine intake
  + Coffee, black tea, green tea, red wine, chocolate, citrus, bananas, berries, vanilla 🡪 slow down enzyme
  + Meditation, Balanced Blood Sugar, Vit D, Omega-3-Fatty Acid, Fiber, High-intensity exercise, low media exposure

**Tissue/ Genetic repair :**

Slower collagen repair / turn over

* Vitamin C and **B6**
* Zinc, Copper
* Glycine, proline, lysine
* Cryotherapy

Poor processing capacity of betablockers, antidepressants and opioids.

Lower Vo2Max( tissue oxygenation)

* Ashwagandha
* Eluethero root
  + Adapten-All supplement contains both
* Cold exposure

**General Inflammation :**

Poor processing of oxidative stress from environmental toxins, plastics, etc.

* higher need for flavonoids, selenium, ginger, cumin, anise, fennel, caraway, cardamom, monitoring iron levels, Lion’s Mane mushroom,
* Deep breathing relaxation techniques (yoga, meditation, prayer) 🡪 assist catalase
* Boron, lutein, holy basil

Poor Glutathione production- lower antioxidant capacity- higher need for precursor Cysteine.

* Animal foods (because they’re high in cysteine)( lean cuts only due to poor saturated fat processing)
* Lutein
* Zeaxanthin
* Bilberry
* Lingonberry
* Vitamin C & Vitamin E Supplements
* DHA
* Zinc

Higher need for folate for healthier Nitric Oxide production( inflammation reduction, blood pressure control, brain function, and cancer protection)

* Methyl folate, Vit C, Selenium, Mg, B6, and L-arginine
* BH4 supplement Mood Assist from OWM

**Inflammation and Cancer :**

Higher association with colon cancer

* Vitamin C
* Garlic, Watercress, Ellagic acid, Dandelion
* N-acetyl cysteine
* Green tea

Higher need for Vitamin D as protection against prostate cancer.

Higher sensitivity to estrogen-higher risk of prostate cancer

* Apigenin (e.g., celery, parsley)
* phytoestrogens (berries, beans, and sourdough bread)

Depressed tumor suppressor gene for colon cancer

* Limit processed meat
* Vitamin C
* Niacin
* Reishi
* Zinc
* Selenium

Higher association with colon and lung cancer:

* Diet rich in antioxidants and vitamins (especially folate)

Higher genetic expression for prostate cancer:

* Lycopene (red fruit/ vegetables)
* Phytoestrogens
* Curcumin

***Cholesterol / Glucose Management***

Elevated glucose and insulin due to poor saturated fat processing:

* Monosaturated or polyunsaturated fats to replace saturated fat

APOA2 GENE- increased cholesterol due to poor saturated fat processing

* Less than 22g of saturated fat per day
* Standing desks / constant movement 🡪 stimulate LPL

Glucose effected by meal timing:

* Dinner before 7pm
* No late night snacks
* Breakfast after 7:30am

Take-away points:

Long endurance exercise beneficial for many positive genetic expressions

Limit saturated fat to less than 22g to help with lipid and glucose management

Increase Lycopene rich foods for cancer protection

Consider these supplements:

Zinc/Selenium for cancer prevention

B complex for cognitive optimization/ inflammation reduction/ cellular function

BH4 ( mood assist) supplement for mood support/ nitric oxide production

Adapten-All supplement for increased tissue oxygenation

VitD/ K2 for heart health and cancer prevention

Perfect Amino- supplement to compensate for increased amino acid need to collagen repair

Follow food recommendations for improvement of multiple essential genetic expressions