

Nutrition to Support Brain Health Cheat Sheet

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Objectives: Describe the role of diet on brain health and recovery

Explain the value of gut integrity and microbiome health in brain function

List the functional applications of brain-boosting foods

Nutrition directly influences the brain's ability to function and repair, and is critical for maximizing recovery after a brain injury

 "How to Feed a Brain" by Cavin Balaster

How does nutrition impact brain health? Through the gut-brain axis, the gut itself, and the microbiome

 **The gut-brain axis**->feed forward/feedback loop between the gut and the brain managed by wired and wireless communication

 **The gut and gut lining**-> interface between outside world and inside world
->responsible for absorption of nutrients, water, electrolytes and protection from toxins and microbes
->managed by a single cell epithelial layer, or gut lining
->gut lining can become permeable because of effect of a brain injury and related challenges

 **Microbiome**->living component of the gut; refers to collection of bacteria that live in the gut and are responsible for synthesis of nutrients, production of neurotransmitters, immune cell regulation and management of unwanted toxins
->need plentiful and diverse bacteria for healthy microbiome

Nutrition relates to the micro and macro nutrient profile being absorbed by the body

 **Micronutrients include the vitamins, minerals and phytochemicals**
->building blocks for cellular function; only way to get them is through what we put in our bodies

 **When you are deficient in micronutrients, your brain/body cannot function normally**

 **Support your brain through nutrient dense foods**
->whole foods
->real food over supplementation
->variety
->quality does matter (good, better, best)



Real whole foods are more bioavailable

- >the portion of food that is actually absorbed and used by the body
- >impacted by gut integrity and microbiome health



Focus on vegetables, healthy fat, clean protein

- >9 cups of veggies a day (3 greens, 3 colored, 3 sulfur)
- >fat is essential for life; also needed to absorb some nutrients



Need omega 3 fatty acid

- >best source is fatty fish
- >key for nerve regeneration, immune health, helps to balance gut bacteria, helps to restore gut integrity



Fermented foods key for microbiome health

- >support population of good bacteria by kombucha, sour pickles, kimchi, water kefir



Herbs and spices improve taste and packed with nutrition

- >a little goes a long way due to concentrated volume of micronutrients



Avoid sugar, highly processed seed oils, chemicals, food dyes, hormones, antibiotics, pesticides

- >contribute to gut lining breakdown, disrupts the microbiome, increases inflammation, does not support brain health