



# Mental Health Related to Nutrition



Our Mission

*EMPOWERING  
INDIVIDUALS* TO  
INVEST IN  
THEMSELVES AND  
THEIR OVERALL  
WELLNESS IN  
PURSUIT OF LIVING  
THEIR BEST LIVES.

# Kelly Springer

Kelly is a graduate of West Virginia University with a BS degree in Nutrition and earned her Master's degree in Health Education from SUNY Cortland. Kelly formerly worked as the Division Dietitian at Wegmans Food Markets and as a clinical dietitian at Auburn Hospital working in bariatrics, critical care, and nutrition support. She began Kelly's Choice in 2012 with a vision to empower people to invest in their own health and wellness in order to live their best lives. Kelly's Choice now functions as a comprehensive nutrition and health company that offers private nutrition counseling, workplace wellness, educational webinars, media appearances, and brand partnerships. The company has grown exponentially since its inception and is headed in an exciting direction to reach a wider audience and change the conversation surrounding what it truly means to be healthy.



# Quick Facts

- 1 in 5 US adults experience mental illness each year.
- 1 in 20 US adults experience serious mental illness each year.
- 1 in 6 US youth aged 6-17 experience a mental health disorder each year.
- 50% of all lifetime mental illness begins by age 14, and 75% by age 24.

## *Annual prevalence among U.S. adults, by condition:*

- Borderline Personality Disorder (BPD): 1.4%
- Bipolar Disorder: 2.8%
- Posttraumatic Stress Disorder (PTSD): 3.6%
- Major Depressive Episode: 8.3%
- Anxiety Disorders: 19.1%

# What is Mental Health?

According to the CDC, an individual's emotional, psychological, and social well-being. Mental health is just as important as physical health and mental health-related disorders can increase the risk for many physical health complications, including but not limited to diabetes, heart disease, and stroke. Likewise, chronic diseases can also increase the risk of mental illness.



# What Causes Mental Health?

- Adverse childhood experiences (ex: trauma, witnessing or experiencing abuse of any kind).
- Bereavement.
- Severe or long-term stress.
- Experiences related to chronic medical conditions, such as cancer or diabetes.
- Biological factors; chemical imbalances in the brain.
- Use of alcohol and drugs.
- Unemployment or losing your job; homelessness/poor housing.
- Social isolation or loneliness.

# Nutrition and Mental Health

Eating high-quality foods that contain lots of vitamins, minerals, and antioxidants nourishes the brain and protects it from oxidative stress, or the free radical waste produced when the body uses oxygen, which can damage cells.

Your brain is always ON! It is in charge of thoughts and movements, breathing and heartbeat, senses. This means your brain requires a constant supply of fuel. And that "fuel" comes from the foods you eat.

# Gut Brain Barrier

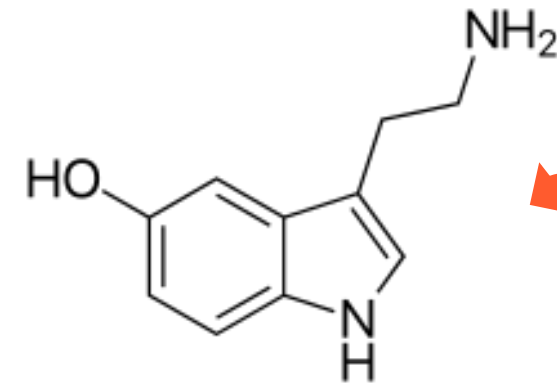
The gut is an important organ with digestive and immune regulatory function which consistently maintain the microbiome ecosystem. The gut microbiome cooperates with the host to regulate the development and function of the immune, metabolic, and nervous systems.

The gut closely connects with the central nervous system through dynamic bi-directional communication along the gut brain axis. Microbial changes in the gut can influence brain physiology and behavioral cognitive functions.

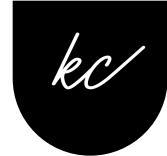
# Let's Talk Neurotransmitters

The human brain is extremely complicated. Chemicals called neurotransmitters (and hormones) help your brain understand, evaluate, and communicate what you experience, sense, feel related to stimuli.

These neurotransmitters and hormones have specific jobs with each being activated in a certain way, signaling certain emotions, and stimulating certain areas of your brain to react.



**DID YOU KNOW? 90% of your serotonin is found in your gut?**



# HAPPY CHEMICALS

## Neurotransmitters

### Serotonin

Serotonin is a chemical that carries messages between nerve cells in the brain through the body. Key roles in sleep, digestion, wound healing, blood clotting, etc.

Eating more tryptophan-containing foods, getting more sunlight, getting more exercise, and lowering your stress level.

### Dopamine

Dopamine is a chemical messenger, communicating messages between nerve cells in the brain and the rest of the body. Also acts as a hormone.

Increases removal of sodium and urine from body, reduces insulin production in the pancreas, slows gastrointestinal movement, and protects GI lining.

### Endorphin

Endorphins are chemicals, or hormones, the body releases when it feels pain or stress. They attach to the brain's reward centers and carry signals across the nervous system.

Eases symptoms of depression and helps with stress and anxiety. These endorphins boost the release of dopamine in your body!



# Nutrients to Focus On

- Complex Carbohydrates & Fiber
- Lean Proteins
- Omega 3 Fatty Acids
- Prebiotics & Probiotics
- Iron
- Folate/Folic Acid
- Antioxidants Vitamin C & Vitamin E

# Complex Carbs

- Complex carbohydrates boost serotonin levels and even have a calming effect.
- Current studies indicate a positive association between complex carbohydrates and apt mental health whereas simple, processed carbohydrates to be one of the reason for deteriorating mental health (Amjad et al, 2021).

**FOODS: brown rice, quinoa, sweet potatoes, and starchy vegetables like green peas and turnips**



# Fiber

- Prebiotics and fermentable fiber are important contributors to mental health as they feed the probiotics in the human gut.
- Current studies indicate that these nutrients have positive effects on reducing anxiety, depression and stabilizing levels of healthy bacteria in the gut.

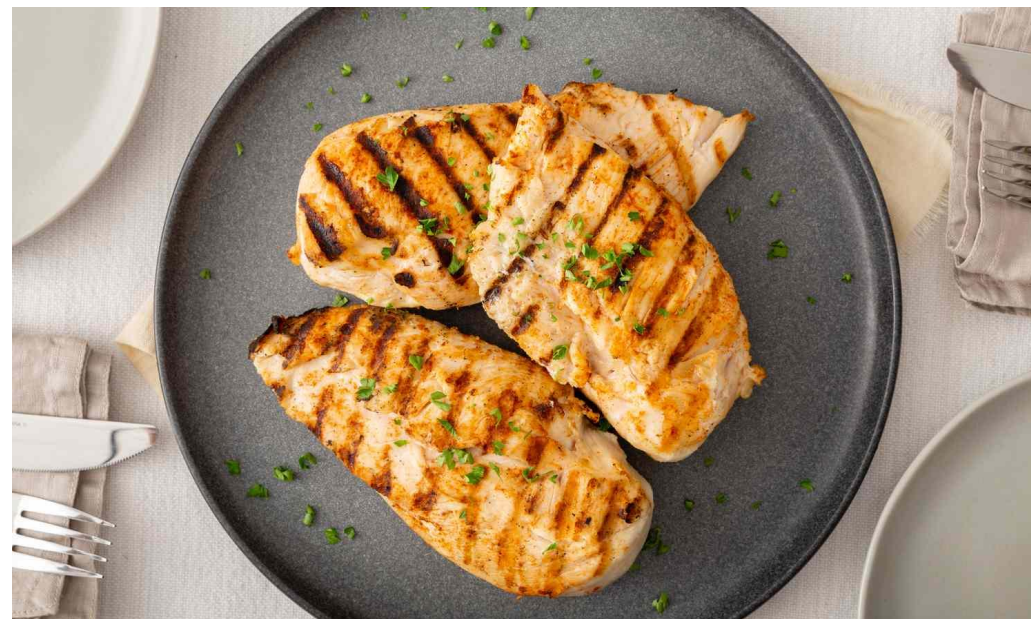
**FOODS LIKE: artichokes, onions, garlic, chia seeds, flax seeds, bananas, oatmeal**



# Lean Proteins

- Foods rich in protein contain amino acids to help produce key neurotransmitters in preventing and treating depression and anxiety.
- Current studies indicate lean protein sources can help balance serotonin levels in the body; this neurotransmitter regulates your mood and helps with sleeping, eating, and digesting.

**FOODS LIKE: eggs, lentils, white fish, skinless white meat, tofu, lean cut beef**



# Omega 3 Fatty Acids

- The 3 main omega 3s are alpha-linolenic acid (ALA), eicosatetraenoic acid (EPA), and docosahexaenoic acid (DHA).
  - ALA is found mainly in plant oils.
  - DHA and EPA are found in fish and other seafood.
- Research indicates individuals who consume more omega 3s have a lower risk of Alzheimer's disease, dementia, and other problems with cognitive function.

**FOODS LIKE: avocado, olive and canola oil, walnuts, mackerel, herring, seeds**



# Prebiotics

- Prebiotics are a form of dietary, plant fiber that feed the friendly "good" bacteria in your gut, that is not affected by temperature or acidity.
- Prebiotics FEED Probiotics!
- Research indicates prebiotic foods have been found to reduce anxiety levels and even improve mood and sleeping habits.

**FOODS LIKE: bananas, apples, oats, asparagus, leeks, soy beans, chicory root**



# Probiotics

- Probiotics are LIVE bacteria!
- Probiotics digest food, keep bad bacteria from making one sick, support the cells lining the gut, and synthesizing vitamins.
- Research indicates probiotics introduced within the gut brain axis offer therapeutic roles of mediating symptoms in major depressive disorder.

**FOODS LIKE: fermented foods like pickles and kimchi, yogurt, buttermilk, kombucha**



# Iron

- An essential component of hemoglobin, myoglobin, and enzymes in cellular metabolism and DNA replication.
- Iron plays a role in function of central neurological, autoimmune, endocrine, and cardiovascular systems.
- Evidence supports iron as a crucial component in cognitive functioning.
- Accounts for myelination of white matter and function of neurotransmitters like dopamine, norepinephrine, and serotonin

**FOODS LIKE: whole grains, dark leafy greens, nuts, seeds, dried fruit**



# Folate

- Supplementation with folate may help reduce depression symptoms.
- Depressive symptoms are the most common neuropsychiatric manifestation of folate deficiency.
- Research displays low/deficient serum or RBC folate levels in 15–38% of adults diagnosed with depressive disorders.
- Supplementation with folate may be found to play an important role in effective antidepressant treatment.

**FOODS LIKE: legumes, broccoli, Brussels sprouts, asparagus, citrus fruits, mango, papaya, eggs, liver**



# Vitamins C and E

- Vitamins C and E are antioxidants!
- These vitamins help to prevent other compounds from being oxidized and scavenge the body's harmful free radicals.
- Oxidative damage in the brain causes nervous system impairment; has been implicated in depression, anxiety disorders and high anxiety levels.
  - Vitamin C and E help to remove the free radicals that cause this stress.

**FOODS LIKE: avocado, spinach, broccoli, papaya, kiwi fruit, black currants**



# FUNCTIONAL

## Let's Talk About FOODS

### What?

Functional foods are defined broadly as foods or beverages that provide more than simple nutrition; they supply additional physiological benefits to the consumer.

Minimally processed, whole foods along with fortified, enriched or enhanced foods, can all be functional foods.

### How?

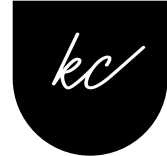
These foods provide protein for muscle repair, carbohydrates for energy, and vitamins and minerals for cell function. They can reduce risk of heart, renal, gastrointestinal, and neurological diseases and disorders.

### Examples:

Oat bran fiber aid in reducing the risk of heart disease.

Soy protein associated with reducing the risk of coronary heart disease.

Fatty acids found in fish and fish oils play role in reducing inflammation and maintaining nervous system integrity.



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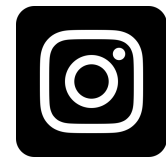
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Thank you

You are  
great. We  
mean it.