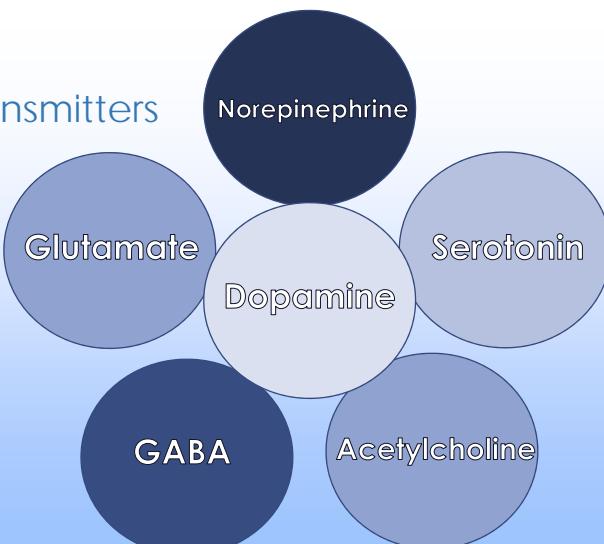


Lifestyle Strategies for Depression and Anxiety

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September 12, 2019



Our Neurotransmitters



Causes?

- ▶ Situational
- ▶ Chemical
- ▶ Chronic Low Grade Inflammation
- ▶ Nutrient deficiencies
- ▶ Gut dysbiosis
- ▶ Other disease states

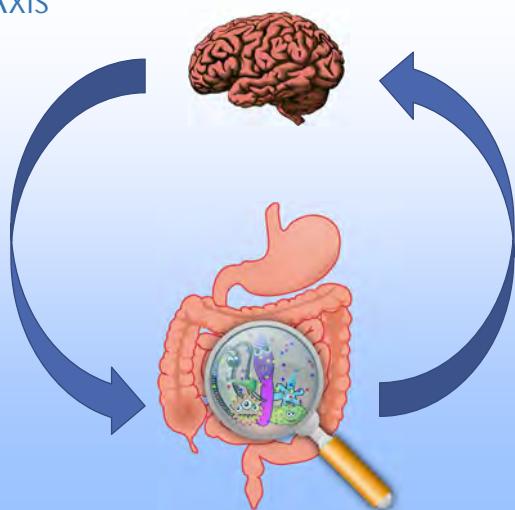
▶ TALK TO YOUR HEALTHCARE PROVIDER!

Brain Derived Neurotrophic Factor

- ▶ BDNF
- ▶ Controls and promotes growth of new neurons
- ▶ Plays a role in neuroplasticity

▶ Goal: INCREASE BDNF

Gut-Brain Axis



Microbiome and Mood

- ▶ Help with the production of molecules like serotonin
- ▶ Influence immune system
- ▶ Digest parts of your food
- ▶ Produce nutrients
- ▶ Influenced by food, medications, stress, environment, etc.
- ▶ Dysbiosis = depression, anxiety, and many other issues



Strains with research

- ▶ Lactobacillus:
 - ▶ Rhamnosus
 - ▶ Brevis
 - ▶ Salivarius
 - ▶ Lactis
 - ▶ Acidophilus
 - ▶ Casei
 - ▶ Helveticus
 - ▶ Gasseri
 - ▶ Platarum
 - ▶ Bulgaricus
- ▶ Bifidobacterium:
 - ▶ Infantis
 - ▶ Bifidum
 - ▶ Lactis
 - ▶ Longum
 - ▶ Coagulans
 - ▶ Animalis
- ▶ Streptococcus thermophilus

Food and Mood

- ▶ **Standard American Diet INCREASES risk**
- ▶ A 2010 Study: *American Journal of Psychiatry*
 - ▶ participants showed a 35% reduced risk for major depression and a 32% reduced risk for anxiety disorders with a healthy diet consisting of vegetables, fruit, beef, lamb, fish, and whole-grain foods
- ▶ A 2009 study: *Archives of General Psychiatry*
 - ▶ those who adhered most closely to a Mediterranean dietary pattern had a 52% reduced risk of depression.
- ▶ 2017 SMILES Trial
 - ▶ Significantly improved depression scores following a Mediterranean type diet

Antidepressant Nutrients and Foods

LaChance and Ramsey, World Journal of Psychiatry Sept. 2018

- ▶ Iron
- ▶ Omega-3 fatty acids (EPA and DHA)
- ▶ Magnesium
- ▶ Potassium
- ▶ Selenium
- ▶ Several B vitamins: Thiamine, folate, B6, and B12
- ▶ Vitamin A
- ▶ Vitamin C
- ▶ Zinc

Animal foods	Plant Foods
Oyster	Watercress
Liver, organ meats	Spinach
Poultry giblets	Mustard, Turnip or beet greens
Clam	Lettuces (red, green, romaine)
Mussels	Swiss Chard
Octopus	Fresh Herbs (cilantro, basil, parsley)
Crab	Chicory Greens
Goat	Pummelo
Tuna	Peppers

Just eat more fruits and veggies!

- ▶ Evolution of Well-being and Happiness after Increases in Consumption of Fruits and Vegetables (Am J Public Health. 2016 Aug)

Increase produce = Improve mood



Food Goals

- ▶ Nutrient dense
- ▶ Anti-inflammatory
- ▶ Low glycemic
- ▶ High fiber



Details of food goals

- ▶ Low glycemic real, whole foods based eating plan
- ▶ Protein with each meal (needs vary 0.8g/kg-1.5g/kg body weight)
- ▶ 8-10 servings of a colorful variety of non-starchy vegetables per day
- ▶ 2 servings of whole fruit per day (colorful variety)
- ▶ High quality oils and fats (think avocados, extra virgin olive oil, raw nuts and seeds)
- ▶ Omega-3 rich fish 3 times per week (Wild salmon, sardines, mackerel, herring)
- ▶ Nutrient dense carbohydrates (whole grains, starchy vegetables, legumes) 1-3 servings per day
- ▶ Lots of antioxidant rich herbs and spices
- ▶ Fermented foods at least 4 times a week (kraut, kimchi, etc.)

Fermented Foods

- ▶ Research shows:
 - ▶ Direct protection of intestinal barrier
 - ▶ Direct activation of neural pathways between gut and brain
 - ▶ Direct microbial produced neurochemical production (GABA, etc.)
 - ▶ Prevention of stress-induced alterations to overall microbiota
 - ▶ Modulation of neurotropic chemicals (including BDNF)
- ▶ Kraut, Kimchi, yogurt, kefir, miso, etc.
- ▶ A small amount daily
- ▶ Start slow



Nutrients

- ▶ May have increased need, essential for optimal brain health
 - ▶ Omega-3 Fatty Acids: EPA and DHA
 - ▶ Antioxidants
 - ▶ Magnesium
 - ▶ Chromium
 - ▶ Selenium
 - ▶ Zinc
 - ▶ Calcium
 - ▶ Iron
 - ▶ B vitamins
 - ▶ Vitamin D



Omega-3 Fats

- ▶ Most researched nutrient for depression and anxiety
- ▶ Essential for brain function
- ▶ Anti-inflammatory
- ▶ 3 servings per week omega-3 rich fatty fish



Antioxidants

- ▶ Oxidative damage
- ▶ Increased need - stressed, depression, anxiety



Highest sources of antioxidants	
Berries	Blackberries, blueberries, cranberries, raspberries, elderberries
Chocolate	Cocoa powder, 70% or higher dark chocolate, cacao nibs
Herbs/Spices	Ginger, turmeric, basil, cilantro, cinnamon, cumin, oregano, parsley, rosemary
Tea/coffee	Black tea, coffee, espresso, green tea, matcha, oolong, rooibos, white tea

- ▶ Eat the rainbow! Variety of colorful produce daily!

Minerals

- ▶ Magnesium
 - ▶ "relaxation mineral"
 - ▶ Dark chocolate, nuts, seeds, leafy greens, avocados, beets, beans
- ▶ Chromium
 - ▶ Needed for serotonin production
 - ▶ Broccoli, cinnamon, nuts, seeds, green beans, prunes, pasture raised meats, seafood (especially shellfish)
- ▶ Selenium
 - ▶ Inverse relationship to anxiety and depression
 - ▶ Brazil nuts, cashews, sunflower seeds, tuna, oysters, sardines, garlic, dark chicken meat

Minerals

- ▶ Zinc
 - ▶ Low levels associated with chronic anxiety and depression
 - ▶ Oysters, seafood, poultry, liver, grass fed beef and lamb, egg yolk, fish, pork, turkey, pumpkin seeds, lentils, sesame seeds, dark chocolate
- ▶ Calcium
 - ▶ Regulated neurological functions, deficiency linked to anxiety
 - ▶ Dairy products, tahini, almonds, leafy greens
- ▶ Iron
 - ▶ Needed for synthesis of neurotransmitters
 - ▶ Red meat, poultry, seafood, tempeh



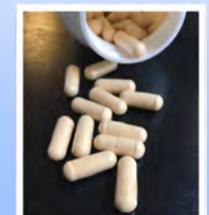
Vitamins

- ▶ B6 (pyridoxine)
 - ▶ Needed for neurotransmitter function
 - ▶ Chicken, tuna, salmon, beef, shrimp, nuts, seeds, bananas, carrots, spinach
- ▶ Folate (B9)
 - ▶ Needed for neurotransmitter production
 - ▶ Organ meats, leafy greens, sunflower seeds, asparagus, avocado
- ▶ B12 (cobalamin)
 - ▶ Needed for neurotransmitter production
 - ▶ Meat, seafood, dairy products
- ▶ Vitamin D
 - ▶ Also needed for neurotransmitter production
 - ▶ Sunlight! Liver, fatty fish, some mushrooms, cheeses, egg yolks

Supplements

Talk to an RD for individual recommendations

- ▶ Pure Encapsulations Magnesium Glycinate
- ▶ Nordic Naturals Omega 3
 - ▶ Ultimate Omega2x (highest concentration)
- ▶ Probiotics
 - ▶ Klaire Labs Target GB-X
 - ▶ Pure Encapsulations Probiomood
 - ▶ Designs for Health Probiophage DF
- ▶ High Quality Multivitamin
 - ▶ Thorne Basic Nutrients 2/day
 - ▶ Pure Encapsulations Pure Genomics



Specific Foods...in the research

- ▶ Eggs
- ▶ Salmon
- ▶ Leafy Greens
- ▶ Broccoli (and all cruciferous vegetables)
- ▶ Yogurt (and other fermented foods)
- ▶ Nuts/seeds
- ▶ Berries
- ▶ Dark Chocolate (70% or higher)
- ▶ Extra Virgin Olive Oil
- ▶ Green Tea
- ▶ Turmeric



Nutritional Insults to Brain Health

- ▶ Excess calories
- ▶ Nutrient Imbalances
 - ▶ Highly processed carbs
 - ▶ Oxidized fats, trans fats
 - ▶ Low omega-3 intake
- ▶ Unsafe Additives
 - ▶ Artificial colors, preservatives, artificial sweeteners
- ▶ Pesticides, herbicides



Caffeine

- ▶ Anxiety
 - ▶ Limit/avoid caffeine
- ▶ Depression
 - ▶ Limit to 2 cups before noon
- ▶ To avoid withdrawal slowly reduce intake
 - ▶ Go from 2 cups a day to 1 cup
 - ▶ 1 large to 1 small
 - ▶ Full caffeine to half-caf
 - ▶ Half-caf to black tea
 - ▶ Black tea to green tea



Alcohol

- ▶ False relaxation
- ▶ Increases depression
- ▶ Disrupts sleeping patterns
- ▶ Negatively impacts GI health
- ▶ If you already drink,
 - ▶ No more than: 1 drink per day for women, 2 per day for men
 - ▶ Choose red wine
- ▶ If you don't drink – don't start.



How we eat

- ▶ Sit down
- ▶ Take 5 slow deep breaths before first bite
- ▶ Slow down
- ▶ Chew well
- ▶ No screens
- ▶ No distractions

- ▶ Do the best you can.



Movement

- ▶ Decades of research behind mental benefits
- ▶ Find activities you enjoy
- ▶ Bonus if it's outside or with a group

- ▶ Overall goal
- ▶ DO something for some amount of time.



Sleep

- ▶ Essential to mental health: Crucial for brain function
 - ▶ Glymphatic system
- ▶ Watch caffeine intake
 - ▶ None after noon, may need to limit to 200mg per day or cut out 100%
- ▶ Eat balanced meals
 - ▶ Avoid glucose spikes
- ▶ Avoid nighttime eating
- ▶ Avoid excessive alcohol
- ▶ Cool and dark bedroom
- ▶ Limit electronics



Stress Management

- ▶ Guided meditations
 - ▶ Insight Timer
 - ▶ Headspace
 - ▶ Calm
- ▶ Breathing exercises
- ▶ Movement
 - ▶ Yoga
 - ▶ Tai Chi
 - ▶ Walking, etc.



Electronics

- ▶ Blue light impacts melatonin
- ▶ Certain aspects can be addictive
 - ▶ Linked to anxiety
 - ▶ Linked to depression
- ▶ Limit screen time
- ▶ Limit at night time
 - ▶ Or try blue light blocking glasses



HOW?

- ▶ Start slow
- ▶ Pick one thing at a time
- ▶ Ask for help



Resources at SAS

- ▶ Work/Life
 - ▶ Strategies and resources
 - ▶ EAP – 8 free therapy sessions
- ▶ RFC
 - ▶ MBSR
 - ▶ Yoga, Tai Chi, videos – at your desk yoga, breathing exercises, etc.
- ▶ HCC
 - ▶ Health Care Provider
 - ▶ Biofeedback

Be kind to yourself

I am taking steps to get done what is reasonable. I am healing and my body is working toward rebalance.

Summary

- ▶ Eat real, whole foods
- ▶ Prioritize sleep
- ▶ Move on a daily basis
- ▶ Talk to someone



Things you can do today

- ▶ Go for a walk
- ▶ Drink an extra glass of water
- ▶ Add an extra serving of vegetables at your next meal
- ▶ Talk to a friend or make an appointment with a therapist

Thank you!

Please contact us if you need more guidance or individualization.

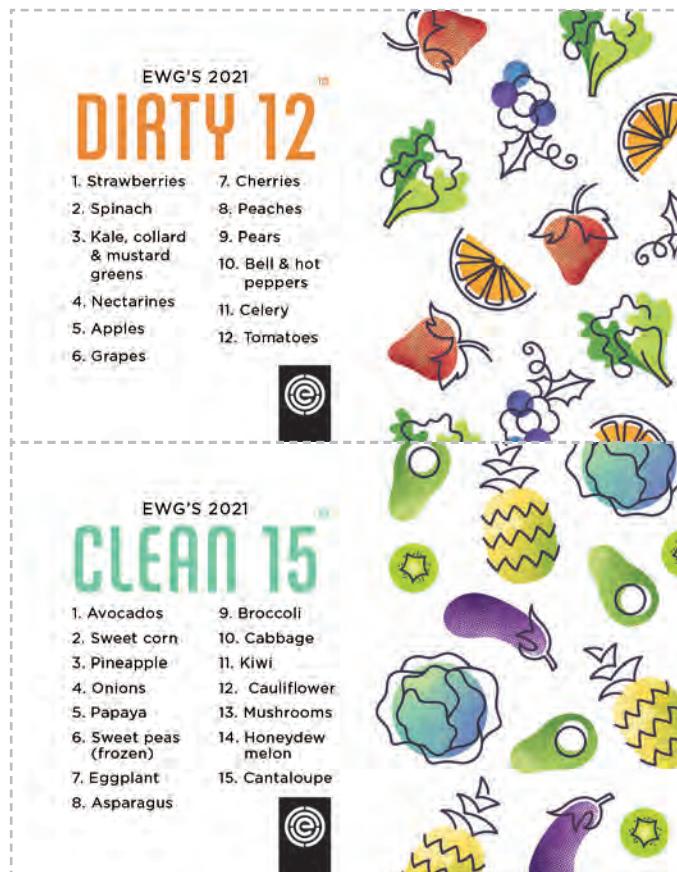
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EWG'S 2021

SHOPPER'S GUIDE TO PESTICIDES IN PRODUCE

✂ CUT ALONG LINE



INSTRUCTIONS:

1. Cut along outside line.
2. Fold along middle line.

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Sleep Hygiene



Sleep hygiene is the term used to describe good sleep habits. Considerable research has gone into developing guidelines and strategies designed to enhance good sleeping, which can provide long-term solutions to sleep difficulties.

Sleep Hygiene Tips

Mindfulness

Mindfulness is purposely paying attention in the present moment without judgment. It helps you become less reactive and 'this frame of mind' can help you fall into a tranquil state of slumber.

- **Get Regular.** Train your body to sleep well by going to bed and getting up at more or less the same time every day (even weekends & vacations!).
- **Find Your Breath!** Deep breathing calms your central nervous system. When your mind starts to chatter, acknowledge the thoughts and shift your focus to your breath.
- **Practice Guided Relaxation.** This is a gentle technique that directs you to move through different regions of your body and invite relaxation with your breath. Do this any time, day or night.
- **Try Restorative Yoga Before Bed.** This helps with the mind/body connection and allows your whole self to relax before trying to fall asleep.
- **Use Essential Oils.** Using your senses is a great way to cultivate better sleep. Try spraying lavender on your pillow or use in a diffuser in your bedroom.

Stress Management

Ever noticed how much better you sleep on vacation away from the stresses of life? Your overall stress level affects your sleep and unfortunately the Sleep-Stress Cycle is far too familiar for many of us.

- **Re-frame Your Thinking.** Our thoughts control our feelings so changing the way you think often changes the way you feel. When you experience a strong feeling, take a moment to write down and what you were thinking. Brainstorm other thoughts and see if it changes how you feel.
- **Try Coping Strategies.** Talk about your feelings, write in a journal, change the way you look at a situation, develop new ways of doing things, etc.
- **Create a Reverse Bucket List.** Write down everything you've accomplished instead of a list of things you haven't done but want to do.
- **Practice Gratitude.** This can help you be more positive, increase happiness and improve sleep!

Exercise

Regular daily movement, physical activity, or exercise helps reduce stress and 'tires out' your body making it easier to fall asleep quickly and to stay asleep.

- **Get Moving!** Start small by gathering your supplies (gym clothes, shoes, etc.) and schedule your workout for the day and/or week.
- **Make it Fun!** Try different activities (walking, dance, fitness classes, strength training, etc.) and do something you enjoy and will look forward to.
- **Try Different Times of Day.** Figure out what time of day is best for you, your family and your sleep.
- **Avoid Exercise 2 hours Before Bed.** Exercise increases your core temperature which makes it harder to calm your nervous system and fall asleep.
- **Aim for 150 minutes of Exercise Weekly.** This amount is recommended to improve sleep quality.

Nutrition

Some food, nutrients and habits enhance sleep while others act as stimulants that can impair sleep.

- **Consume Any/All Caffeine BEFORE 12:00 noon.** This includes caffeine from food and beverages. Aim for <200mg of caffeine daily (the amount in 10 ounces of coffee) as caffeine is a stimulant.
- **Maintain Healthy Glucose Levels.** When glucose spikes and crashes, your energy levels wax and wane. "Anchor" all feedings by pairing protein and healthy fat with intact whole grains and/or unprocessed carbohydrates.
- **Eliminate Sugar and Processed Carbohydrates.** These foods can impair your ability to fall asleep due to the spike and crash in glucose that occurs.
- **Increase Magnesium Rich Foods.** Aim for 3-4 servings daily of foods like beans, greens, nuts and seeds. Magnesium, the "relaxation" mineral, is necessary for calming and relaxing the body.
- **Avoid Food and Drink 3 hours Before Bed.** When your body is digesting, it isn't resting. Going to bed on an empty stomach can also be distracting, so plan your meals and snacks accordingly.
- **Eliminate Alcohol Late in the Evening.** Alcohol disrupts sleep so avoid it 4-6 hours before bed.

Physical Environment

Changing your physical environment and routine can drastically improve sleep.

- **Use Your Bed for Sleep and Sex.** Nothing else!
- **Put Down Your Phone, Computer and TV.** Avoid electronics an hour before bedtime.
- **Create a Sleep Ritual.** Decide what activities work for you to transition to bed- take a relaxing bath or do breathing or stretching for 10 minutes, put on soft music, etc. Signal your body that it's sleep time!
- **Turn Down the Lights & Adjust the Thermostat.** Create a calm, inviting environment. The cooler the better when it comes to sleep!
- **Write it Down!** Keep a pen and paper by your bed and write down your thoughts for the morning.

Sleep Hygiene Tip List



This checklist is intended to be a guide for strategies you can do throughout the day to help promote better sleep. **Pick 3-4 strategies to focus on at a time.** Try to pick 1 strategy from each category and then as they become habits, gradually incorporate more of the other strategies into your daily routines.

MORNING



- ☐ Wake mindfully and peacefully
- ☐ Before you rise, breathe and notice your body
- ☐ Practice re-framing your thinking (during shower)
- ☐ Schedule your workout
- ☐ Consume any/all caffeine BEFORE 12:00 noon

DURING THE DAY



- Practice guided relaxation
- Practice deep breathing
- Maintain a healthy glucose level
- Eliminate sugar and processed carbs, especially at bedtime
- Increase magnesium rich foods
- Identify one coping strategy for one current problem
- Start or add to a reverse bucket list
- Workout (>2 hr before bed)
- Refrain from using your bed for anything but sleep and sex

EVENING



- Eat a small serving of whole, unprocessed carbs with dinner**
- Stop eating and drinking at least 3 hours before bedtime**
- Eliminate alcohol late in the evening**
- Add extra time to sleep during difficult exercise days**
- Turn down the lights**
- Turn down the volume**
- Adjust the thermostat**
- Turn off the TV**
- Put down the phone and computer**
- Stretch gently**
- Practice restorative yoga**
- Write in a sleep journal**
- Spray pillow with lavender**
- Write down three things you are grateful for**



“For breath is life, and if you breathe well you will live long on earth.”

—Sanskrit Proverb

Breath is vital. When we are stressed, happy, or exercising, breath causes a feedback loop for that physical state. However, breathing can be either voluntary or involuntary—which means that we can affect our physical state. Being conscious and breathing in a particular way can lead to deep relaxation, decreased pain, and improved mental state.

Abdominal breathing, also called diaphragmatic breathing, changes the oxygenation levels in your body as well as strengthening the diaphragm. Many people feel calmer and more centered afterwards, and it may help to reduce negative emotions. Since it can be practiced anytime, anywhere, for free, and has been associated with a host of positive physical effects, why not try it today?

Get Started

- Sit or lie down comfortably, with your feet flat on the floor. Put one hand on your upper chest, and the other on your abdomen, just under your ribcage. Feel yourself breathing and become aware of how deeply or shallowly you are breathing
- Take a deep breath, feeling your abdomen rise as you breathe. Your upper hand should move very little, while your abdomen lifts your other hand. Imagine a feeling of warmth as the breath moves from your mouth, down your throat, into your lungs, and your diaphragm expands.
- Hold the breath for a count of four.
- Exhale slowly through your nose for a count of four.
- Inhale slowly to a count of four, feeling the warmth of your breath and your abdomen rising. Try to keep your chest relatively still. Hold the breath for four, then exhale slowly, and repeat.



Reflect

- Consider how your body feels different from before practicing conscious breathing. Are your shoulders more relaxed? Do your thoughts feel any different?

Repeat

- Five minutes is a good amount of time to affect your physiology, decrease anxiety, and improve mental state. However, even one or two abdominal breaths can be helpful! Although best learned sitting or lying down, any time you can consciously breathe is an opportunity, including standing in line at the grocery store.

As you become proficient in abdominal breathing, you may want to tense your abdomen slightly at the end of the exhale, to push out the remaining air. If lying down, you can also try putting a book on your abdomen and lifting it with your breath.

Over time, you may not need to involve your hands. Some people use visualizations, for instance, a half circle that represents in the inhale and hold, and a semicircle finishing the loop for the exhale and hold. Other people repeat a word as a mantra, like peace or joy, letting that word center their thoughts.

Practice whenever you can. Because of how abdominal breathing affects your mental state, it may be especially useful when you are stressed out, tired, frustrated, or confused. Abdominal breathing can help you to relax, reset, and refocus.

Lifestyle Strategies for Depression and Anxiety

The following recommendations are helpful for improving symptoms related to depression and anxiety. Make sure to talk to your health care provider about all your options.

- Eat real, whole foods
- Avoid Inflammatory foods
- Support a healthy microbiome
- Get adequate quality sleep
- Move daily
- Manage your stress

Food and Optimizing Mood

1. Low glycemic real, whole foods-based eating plan

- Prevent glucose spikes and crashes
- High nutrient density

2. Protein with each meal

- Needs vary (0.8-1.5g/kg body weight)
- Adequate protein for neurotransmitter production

3. 8-10 servings of a colorful variety of non-starchy vegetables per day

- Variety of antioxidants, fiber and essential nutrients

4. 2 servings of a colorful variety of whole fruit per day

- Variety of antioxidants, fiber and nutrients
- Limited to 2 servings to keep glucose in check

5. High quality oils and fats with each meal

- Such as avocado, extra virgin olive oil, raw nuts and seeds, etc.
- Provides essential fatty acids, fat soluble nutrients
- Provides satiety and helps keep glucose levels stable

6. 3 servings of omega-3 rich fish per week

- Such as wild salmon, sardines, mackerel, herring, etc.
- Provides essential fatty acids, EPA and DHA, which are vital for optimal brain health

7. 1-3 servings of nutrient dense carbohydrates per day

- Such as whole grains, starchy vegetables, legumes, etc.
- Provides a good source of fiber and nutrients to round out carbohydrate needs

8. Lots of antioxidant-rich herbs and spices with each meal

- Loaded with nutrients to help combat oxidative stress and inflammation

9. Fermented foods at least 4 times per week

- Such as kraut, kimchi, etc.
- Start with small amounts
- Helps optimize your microbiome