



# Sugar Awareness and Better Brain Health

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Greater WI Agency on Aging Resources

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# Objectives for today

## Understand...

- The affects of refined sugar on your body
- The Gut-Brain Connection
- Differences between various types of sugar
- How to minimize the risk of leaky gut

## Awareness...

- Why we reach for sugar- Triggers- need to find root cause(s)
- Role of other nutrients on brain health
- How much you are consuming daily-How to read and compare food labels

## Substitutions...

- Recipes & modifications
- Practical Tips & Resources
- Sample meal ideas
- Group Sharing of ideas 😊

# Reality Check....

- Two hundred years ago, the average American ate only 2 pounds of sugar a year.
- Today, the average American consumes almost 152 pounds of sugar in one year.
- This is equal to 3 pounds (or 6 cups) of sugar consumed in one week!





Understand...



“Every molecule in your brain was on your fork. Your gut directly impacts your mental health.”

Emma Mcadam, Licensed Marriage and Family Therapist

# Refined sugars consumption is also linked with impaired cognitive functions

- Ingestion of sugar contributes to reduced insulin resistance and glucose tolerance, which in turn could be related to cognitive impairment.
- A diet high in saturated and refined sugar also associated with poorer memory performance and similar ([Francis and Stevenson, 2013](#)).
- Another study resulted that a high intake of sugar and saturated fat was connected with lesser performance on the neuropsychological memory task than that recorded a lower intake of sugar and fat.
- The results showed that the cognitive effects were perhaps due to the diet rather than weight gain or related disorders ([Francis and Stevenson, 2011](#)).

## High sugar intake also has significant impacts on brain health.



Studies have found that diets high in sugar increase the risk of dementia, Alzheimer's disease, stroke, impaired cognitive function, mood disorders and depression, and impulsivity and generalized anxiety disorders.



Excess sugar intake may replace healthful fats, vegetables, and other nutrient-dense foods in the diet, affecting the brain's health.



Sugar also promotes production of proinflammatory compounds that affect not only the body but also the brain.

# What Are Added Sugars?

- Just like it sounds, added sugars aren't in foods naturally—they're added.
- **They include:**
  - Sugars and syrups that food manufacturers add to products like sodas, yogurt, candies, cereals, and cookies
  - Sugar you add yourself—like the teaspoon of sugar in your coffee
- Some foods have sugar naturally—like fruits, vegetables, and milk. The sugars in these foods are **not added sugars**.





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## Refined Vs Raw Sugar

- Comes from plant sources, such as cane or beets.
- The harvested plants are cleaned and cooked, and the sugary juices are extracted. The liquid is further processed until the liquid crystalizes. The crystals are spun to remove the liquid, which becomes molasses, leaving behind dried sugar crystals
- While table sugar is white, **raw sugar** is light brown because it is less refined and, as a result, contains more of the natural molasses present in sugar cane. Table sugar that is made from sugar cane undergoes additional refining to remove molasses
- Refined sugar that comes from cane or beets is usually sucrose, the combination of glucose and fructose.
- **Low-fat foods may often have high sugar content to add flavor lost by reducing fat.**

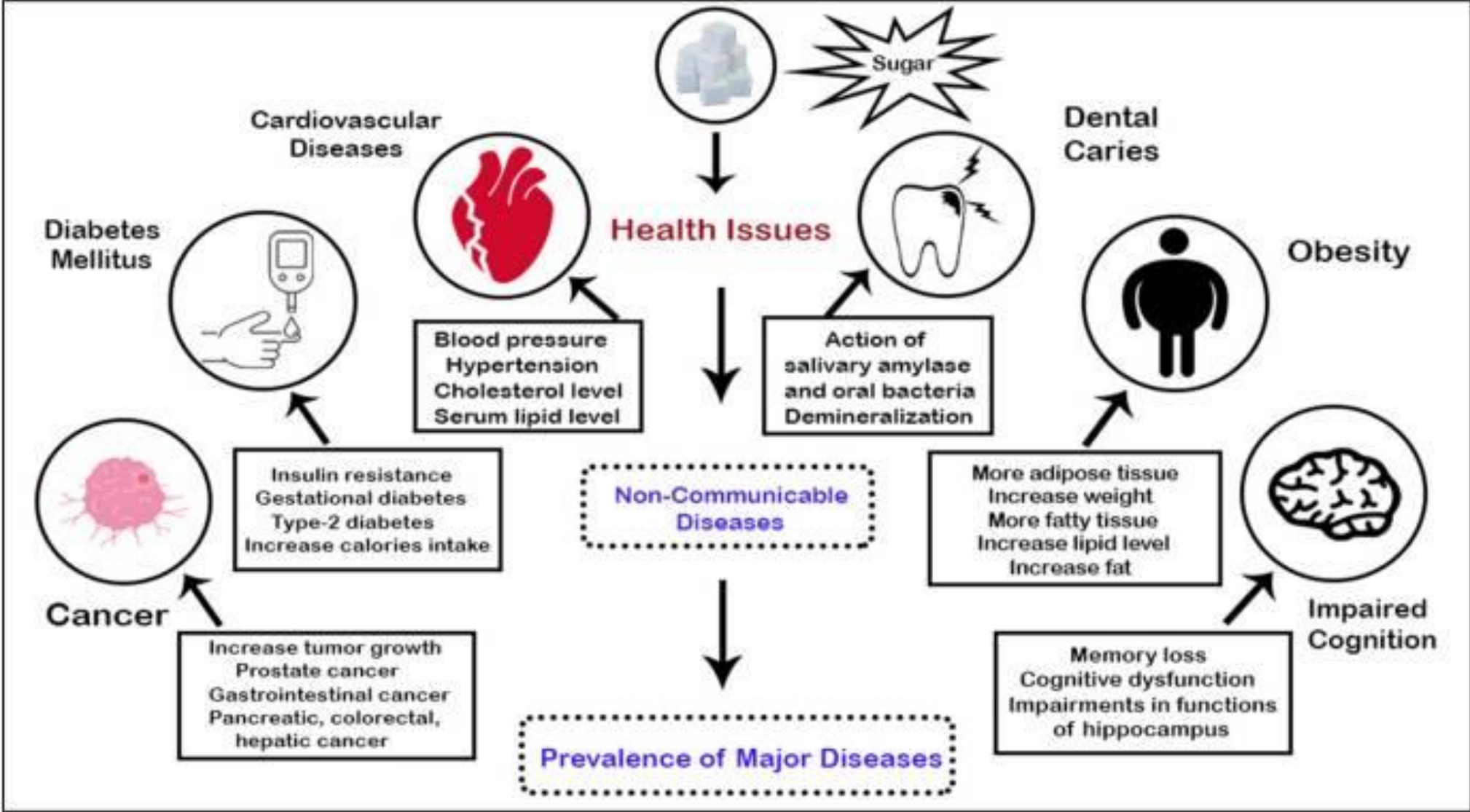
# Did you know?

## Refined carbs/sugars

- Rapid metabolism --> less glucose for brain use
- Hypoglycemia --> increased fight or flight response, which triggers anxiety/symptoms of anxiety (elevated HR, shaking, sweating)

Greger M, Stone G. *How Not to Die: Discover the Foods Scientifically Proven to Prevent and Reverse Disease*. Flatiron Books; 2015. Aucoin M, Bhardwaj S. Generalized Anxiety Disorder and Hypoglycemia Symptoms Improved with Diet Modification. *Case Reports in Psychiatry*. 2016;2016:1-4. doi:<https://doi.org/10.1155/2016/7165425>

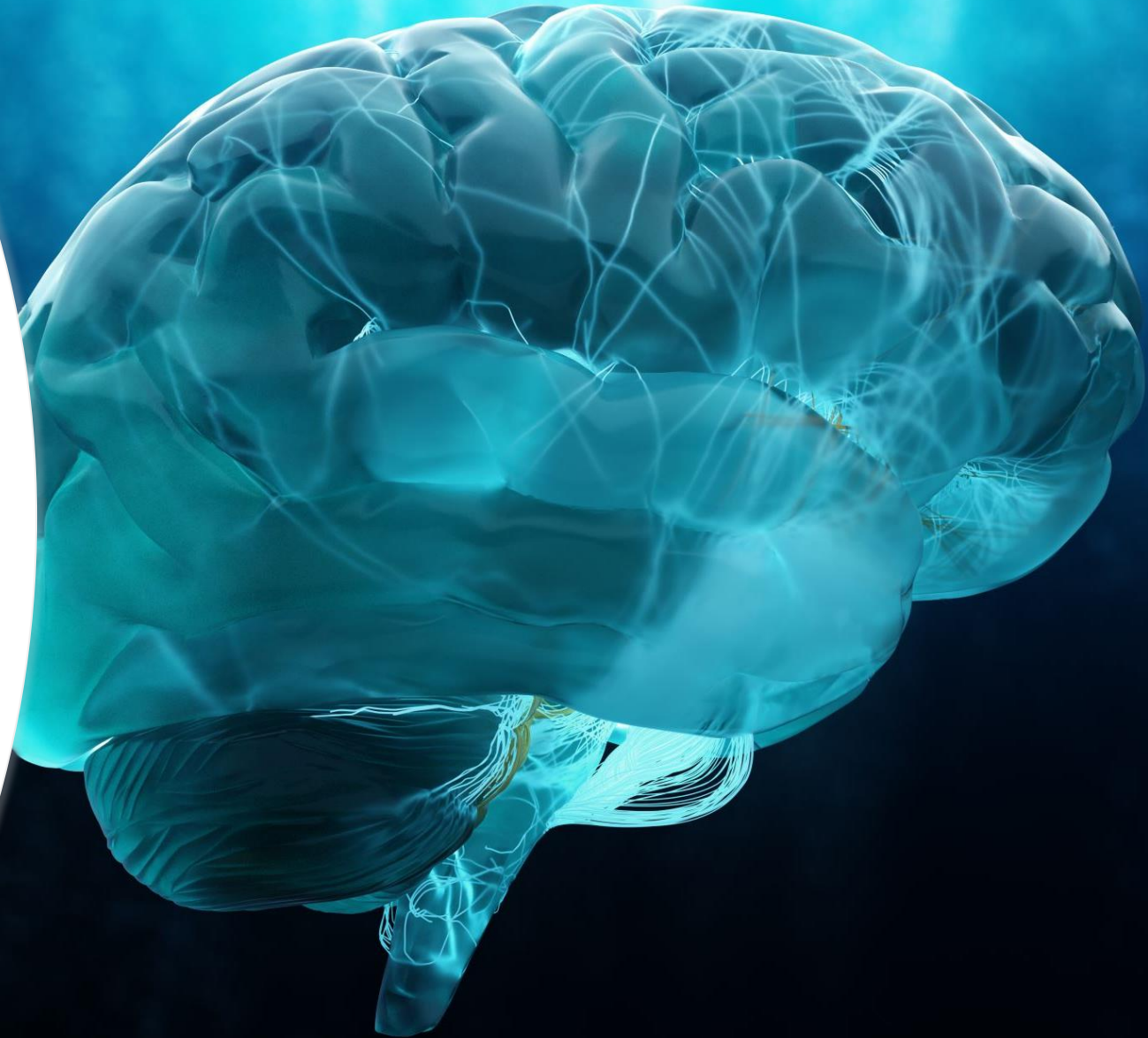
# Mechanism of major health problems caused by refined sugar.



# Nutritional Psychiatry: Your Brain on Food

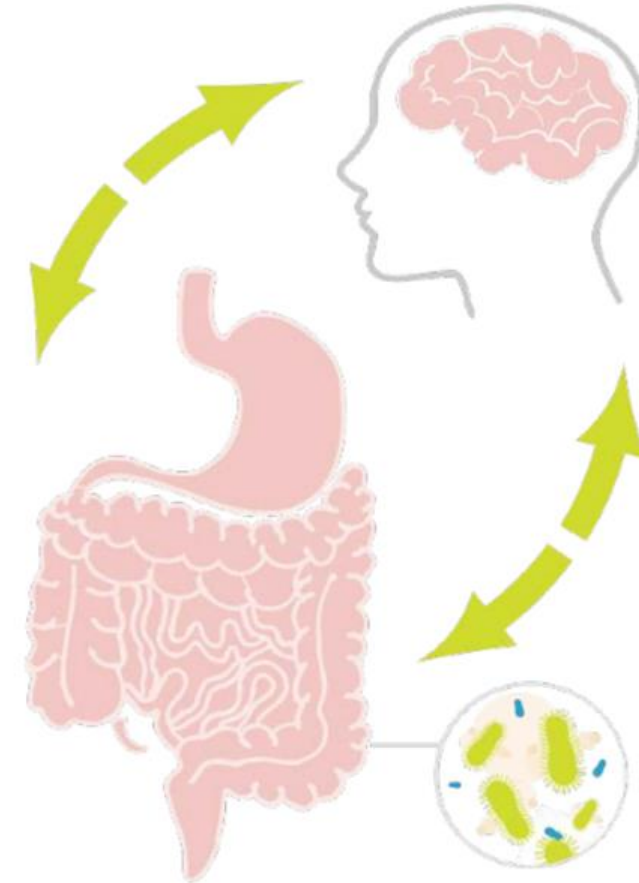
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- What you eat directly affects the structure and function of your brain and mood.
- Diets high in refined sugars are harmful to the brain and worsen your body's regulation of insulin, **they also promote inflammation and oxidative stress.**



# Gut Brain Axis

- The bidirectional communication between the digestive tract and the brain.
- **The ability of the gut microbiota to communicate with the brain is emerging as an exciting concept in the relationship between health and disease.**
- The gastrointestinal tract and nervous system are constantly communicating with each other in a bidirectional relation which is influenced by the immune system, the hypothalamic-pituitary axis and gut microbiota.



# What is the Gut-Brain Connection?

- The enteric nervous system (ENS) "the second brain" and the central nervous system (CNS) are constantly in communication
  - Digestion and mood are interconnected!

## "Gut reactions"

CNS = the brain and spinal cord

ENS = two thin layers of millions of nerve cells lining your gastrointestinal tract from esophagus to rectum

## ENS-CNS Connection

Therapies that help one may help the other

Gastroenterologists and primary care physicians often prescribe antidepressants to treat irritable bowel syndrome (IBS)

Why don't psychiatrists routinely ask about gut issues?



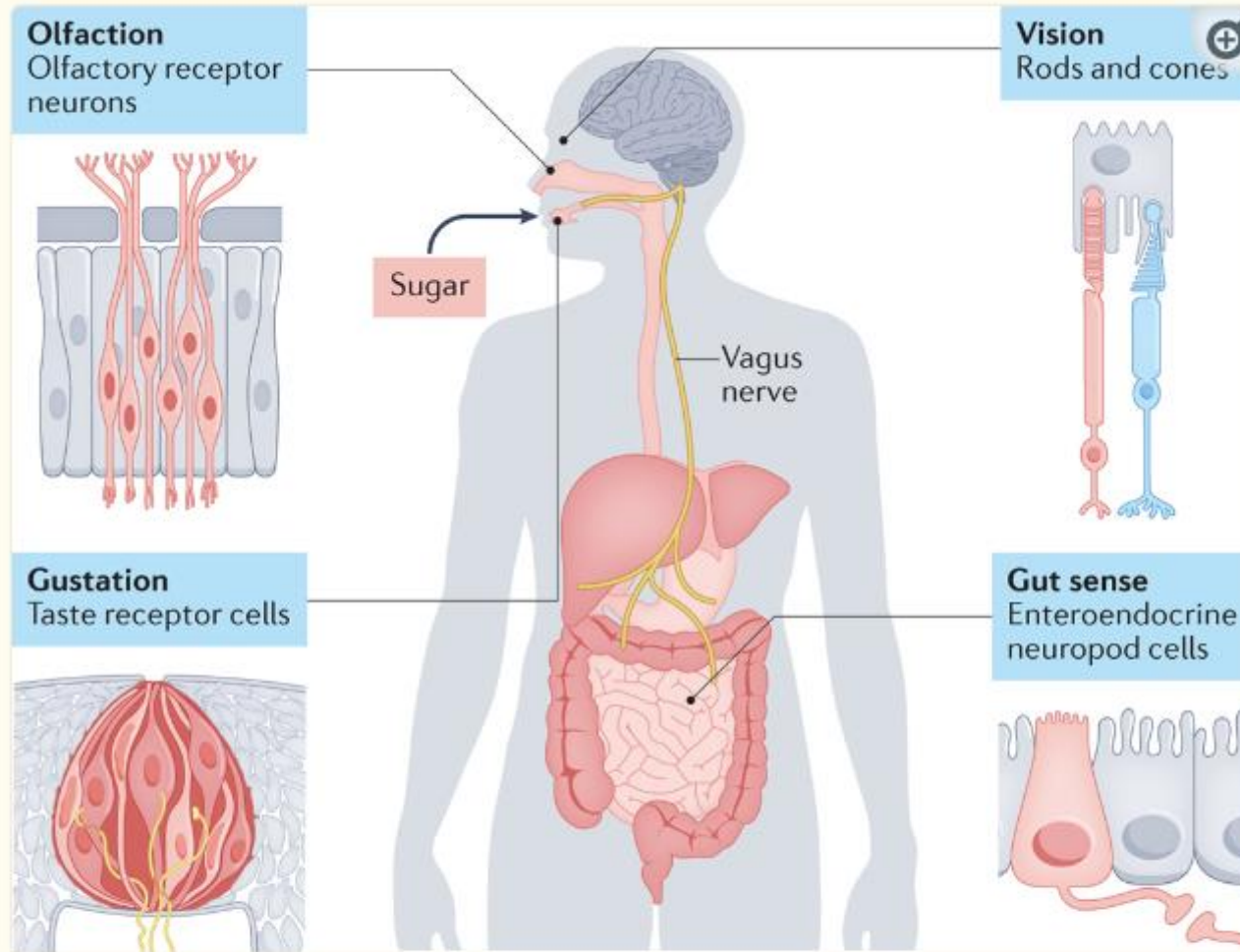


Fig. 4 |

**A model of neuroepithelial circuits for sugar sensing.**

Chemosensation through synaptic neural circuits occurs via rods and cones in the eye, olfactory receptor neurons in the nose, taste receptor cells in the tongue, and neuropod cells in the intestine. This forms a continuous sensory system that monitors sugar from the process of its foraging to absorption.

# How Foods Affect Your Mental Health

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- Serotonin is a neurotransmitter that helps regulate sleep and appetite, mediate moods, and inhibit pain.
- **About 95% of your serotonin is produced in your GI Tract.**
- Your GI tract is lined with a 100 million neurons. The function of these neurons is highly influenced by the billions of “good” bacteria that make up your intestinal microbiome.





# Sugar, Cravings, and Neurotransmitters

- Genes in part seem to regulate a strong desire for sugar. Variations in a specific chromosome are linked with a greater preference for sweets in some people.
- A person's diet when they're young also plays a role in how much they like sweets as an adult.
- **Sugar and fat** activate certain neurotransmitters in the brain. These neurotransmitters increase one's sense of reward, pleasure, and happiness.
- With regular sugar consumption, the brain learns to associate the stimulus with the reward. What's more, over time, higher amounts of sugar are needed to achieve the same level of reward or satisfaction



# Is Sugar Addictive?

- The American Psychiatric Association defines any type of addiction as “a brain disease manifested by compulsive substance use despite harmful consequence.” Note that a person has to meet only two of the following diagnostic criteria to receive an addiction diagnosis:
  - craving;
  - repeated attempts to quit or control use;
  - using larger amounts and for longer than intended;
  - social/interpersonal problems related to use;
  - hazardous use;
  - physical or psychological issues related to use;
  - tolerance; and
  - withdrawal symptoms.

# Factors that may impact gut microbiota composition + diversity during life stages (Older Adults)

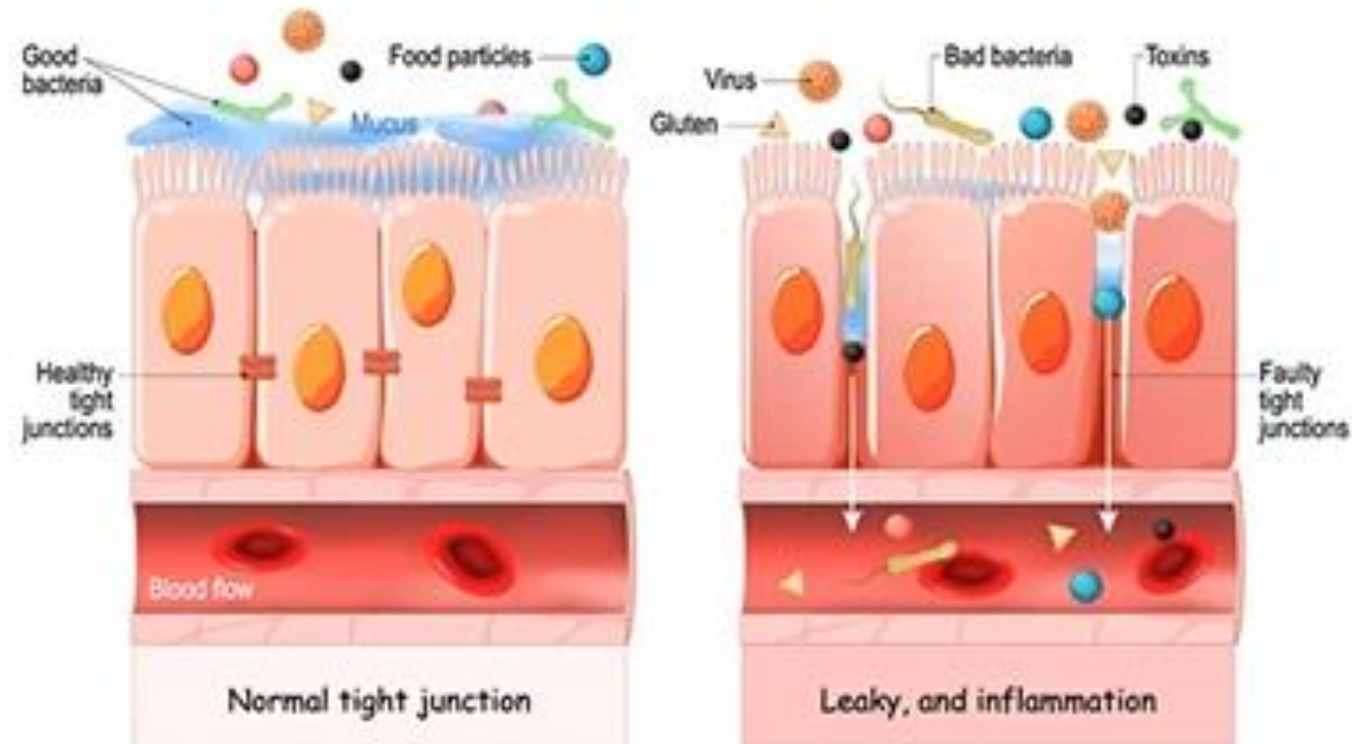
- Diet
- Lifestyle
- Age related illnesses
- Hospital stays

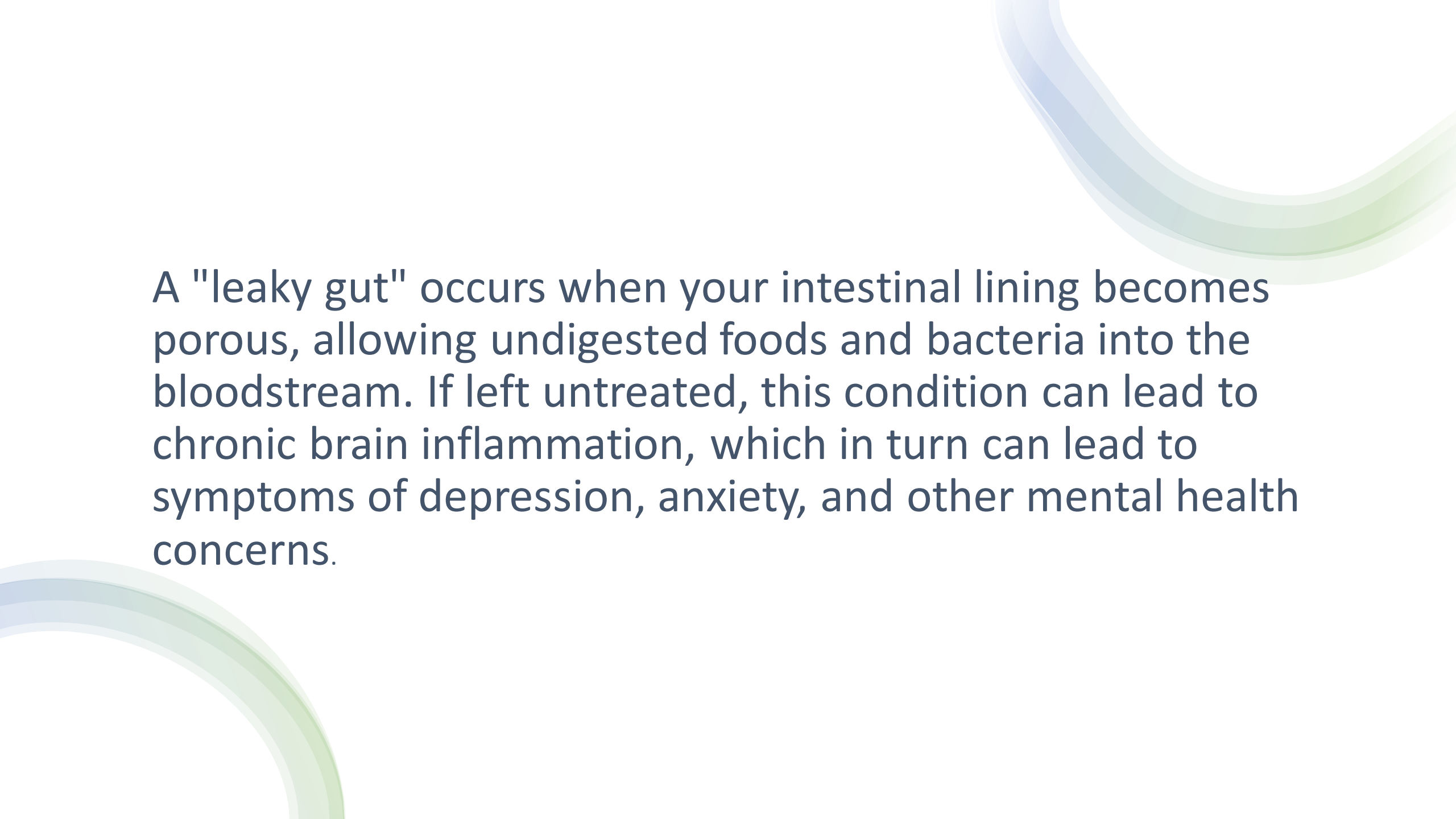
- Hygiene
- Menopause
- Drugs

# Leaky Gut = Inflammation/Immune Upregulation

- Prebiotics
- Probiotics
- Postbiotics

- Antibiotics
- Sugar
- Toxins
- Gluten



A decorative graphic consisting of several overlapping, curved lines in shades of light blue and light green, positioned in the top right and bottom left corners of the page.

A "leaky gut" occurs when your intestinal lining becomes porous, allowing undigested foods and bacteria into the bloodstream. If left untreated, this condition can lead to chronic brain inflammation, which in turn can lead to symptoms of depression, anxiety, and other mental health concerns.

# As we age, more prone to leaky gut. What can we do to minimize risk?

## CHO Audit. (We have too many of the wrong kinds of CHOs)

- What is already in your home? Look at the food label. Pay attention to serving sizes.
- On the food label: Total Sugars > 5 grams
- “Flour” listed in the first 3 ingredients

## Avoid Artificial Sweeteners, they are not the solution.

- When society switched from Coke to Diet Coke, we saw an increase in DB.
- Artificial sweeteners really damage the microbiome!
- Non-Nutritive Sweeteners not as much damage to the microdome (Stevia)
  - But Could be damaging in large quantities.

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## Types of Sugar

- **Fructose:** Found in fruits
- **Glucose:** Found in honey, fruits and vegetables
- **Lactose and galactose:** Found in milk and dairy products
- **Maltose:** Found in barley
- **Sucrose:** Table sugar; a combination of glucose and fructose found in plants



# Artificial Sweeteners Packets

- Pink contain saccharin (Sweet 'N' Low®)
- Blue contain aspartame (Equal®)
- Yellow contain sucralose (Splenda®)
- Green contain stevia (Truvia®)
- White contain sugar





**Dates** are emerging as a replacement for refined sugar. There is great possibility and potential to produce date fruit syrup for usage as a replacement for sucrose in food products. Research has shown the strong contribution of dates to human health.

Against Alzheimer's Disease

A rat study suggests that supplementing the diet with date fruits may help with delaying the onset of Alzheimer's Disease as well as reducing the risk of slowing down the progress of this disease.

([Subash et al., 2015](#))

Source of minerals

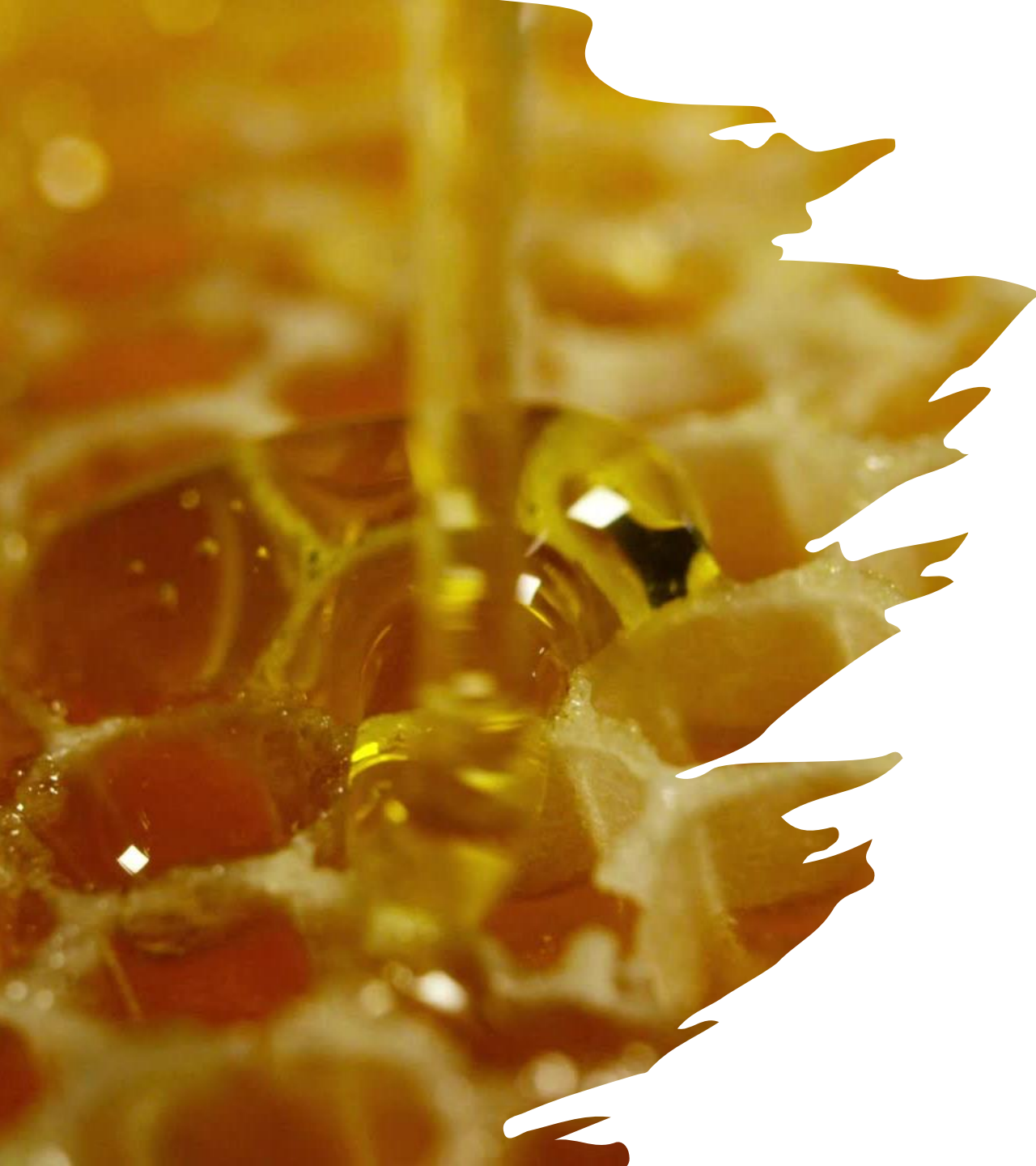
Consuming 100 g of dates (~4-5 dates) bring about 15% of recommended daily allowance of various important minerals, including copper, iron, calcium, magnesium and potassium. Dates also contain generous amounts of vitamin B2 and B3 and total phenolic contents

([Nadeem et al., 2019](#))

# Sweet Sorghum

- Sorghum can be used as a subs for refined sugar, sorghum juice contains macro and microelements (especially potassium, calcium, and manganese) and amino acids, which make sorghum an important nutritional product ([Abdelmuti and Taiseer Hassan, 2019](#)).
- <https://powerfulpairings.com/> Pulses, sorghum, and bread products are Powerful Pairings that bring balance, taste, and nutrition to the center of the plate.
- By combining these wholesome foods, it is easy and convenient to make every bite count throughout the year.





# Honey

- Honey is a naturally occurring sweetener that has a complex composition.
- It consists of about 200 components, mainly comprising sugars (75% are monosaccharides, 10–15% are disaccharides with traces of other sugars).
- Moreover, there are other components such as water, enzymes, proteins, phenols, vitamins (especially B vitamins), minerals, organic acids, and solid particles from harvesting.
- More than 38% of fructose and about 30% of glucose are found in honey.
- High sucrose levels may show that there might be addition of some adulterants and cheap sweeteners, or early harvest indicating that sucrose did not get completely converted into fructose and glucose

([da Silva et al., 2016](#))



# Summary

- Natural sugars are found in fruit as fructose and in dairy products as lactose.
- Dairy products with lactose include milk, yogurt and cheese, which are also high in protein.
- Remember that your body is getting sugar from other sources, too. It breaks down carbohydrates—found in breads, pastas, potatoes and rice—into simple sugars, which then turn into glucose.
- Create a healthy relationship with food as the overall goal instead of trying to completely avoid all sugars. Be Aware!
- Rather than obsessing over grams and teaspoons of sugar, focus on reducing added sugars by limiting access to products that contain them. This first step begins awareness.



Awareness...



# Sugar, Sugar Everywhere...

- The average American consumes about 17 teaspoons of sugar daily, while an analysis from the U.S. Department of Agriculture estimates the average is as high as [34 teaspoons a day](#).
- These numbers are up to six times higher than those [recommended by the American Heart Association](#), which suggests
- **no more than 6 teaspoons (25 grams of sugar) a day for women**
- **9 teaspoons (38 grams of sugar) a day for men.**

The average American has about 22 tablespoons of added sugar each day. 4 grams of sugar = 1 teaspoon

An easy tool to help you figure out how much added sugar is in your food



# Pay attention to how eating different foods makes you feel.

- While you are eating it
  - After a few minutes, few hours, the next day
  - Write it down to find root cause.
  - Try eating a “clean diet” for 2-3 weeks (cutting out all processed foods and sugar). See how you feel?
  - Then slowly introduce foods back into your diet 1 by 1 and see how you feel.
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- <https://www.health.harvard.edu/blog/nutritional-psychiatry-your-brain-on-food-201511168626>





Let's Compare Products!

# Ketchup Comparison

| Nutrition Facts     | Amount/serving                               | % DV                  | Amount/serving        | % DV      |
|---------------------|--|-----------------------|-----------------------|-----------|
|                     | <b>Total Fat</b> 0g                          | <b>0%</b>             | <b>Total Carb.</b> 1g | <b>0%</b> |
| Sat. Fat 0g         | <b>0%</b>                                    | Fiber 0g              | <b>0%</b>             |           |
| Trans Fat 0g        |  | Total Sugars <1g      |                       |           |
| <b>Cholest.</b> 0mg | <b>0%</b>                                    | Incl. 0g Added Sugars | <b>0%</b>             |           |
| <b>Sodium</b> 190mg | <b>8%</b>                                    | <b>Protein</b> 0g     |                       |           |
| <b>Calories</b> 10  | Vit. D 0% • Calcium 0% • Iron 0% • Potas. 0% |                       |                       |           |

About 52 servings per container

**Serving size 1 Tbsp (16g)**

**Calories per serving 10**

**INGREDIENTS:** TOMATO CONCENTRATE FROM RED RIPE TOMATOES, DISTILLED WHITE VINEGAR, SALT, NATURAL FLAVORING, ONION POWDER, SUCRALOSE\*, SPICE. \*NOT NORMALLY FOUND IN KETCHUP

| Nutrition Facts     | Amount/serving                               | % DV                  | Amount/serving        | % DV      |
|---------------------|--|-----------------------|-----------------------|-----------|
|                     | <b>Total Fat</b> 0g                          | <b>0%</b>             | <b>Total Carb.</b> 5g | <b>2%</b> |
| Sat. Fat 0g         | <b>0%</b>                                    | Fiber 0g              | <b>0%</b>             |           |
| Trans Fat 0g        |  | Total Sugars 4g       |                       |           |
| <b>Cholest.</b> 0mg | <b>0%</b>                                    | Incl. 4g Added Sugars | <b>7%</b>             |           |
| <b>Sodium</b> 180mg | <b>8%</b>                                    | <b>Protein</b> 0g     |                       |           |
| <b>Calories</b> 20  | Vit. D 0% • Calcium 0% • Iron 0% • Potas. 0% |                       |                       |           |

About 53 servings per container

**Serving size 1 Tbsp (17g)**

**Calories per serving 20**

**INGREDIENTS:** TOMATO CONCENTRATE FROM RED RIPE TOMATOES, DISTILLED VINEGAR, HIGH FRUCTOSE CORN SYRUP, CORN SYRUP, SALT, SPICE, ONION POWDER, NATURAL FLAVORING.

| Nutrition Facts   |              |
|---|--------------|
| about 53 servings per container                                     |              |
| <b>Serving size 1 Tbsp. (17g)</b>                                   |              |
| <b>Amount per serving</b>   |              |
| <b>Calories</b>   | <b>20</b>    |
|   | <b>% DV*</b> |
| <b>Total Fat</b> 0g   | <b>0%</b>    |
| Saturated Fat 0g  | <b>0%</b>    |
| Trans Fat 0g  |              |
| <b>Cholesterol</b> 0mg  | <b>0%</b>    |
| <b>Sodium</b> 160mg   | <b>7%</b>    |
| <b>Total Carbohydrate</b> 5g  | <b>2%</b>    |
| Dietary Fiber 0g  | <b>0%</b>    |
| Total Sugars 4g   |              |
| Includes 3g Added Sugars <b>6%</b>                                  |              |
| <b>Protein</b> 0g   |              |
| Not a significant source of vitamin D, calcium, iron, and potassium |              |
| * % DV = % Daily Value  |              |

# Food Choices for Mental Health

Focus on nutrient-dense foods over empty calories

Increase consumption of omega-3 rich foods  
PUFAs, essential fatty acids, omega-3s

Increase consumption of fruits, vegetables, whole grains, lean proteins

Limit alcohol and caffeine

Focus on balance of protein, fiber, and fat at meals and snacks for blood sugar stabilization



# Modifications, Substitutions and Tips



# Practical Applications

- Mediterranean-style or MIND diet with focus on anti-inflammatory foods
- Add in fermented foods and Prebiotic, Probiotic and Postbiotics
- Focus on overall diet and increased consumption of nutrient-dense foods from a variety of food groups
- Small changes add up. Take 1 step at a time to reduce added sugars.





Eating Patterns & Foods to  
Limit for Mental Health

# Dietary Patterns to Follow

Mediterranean-  
style diet

DASH-style diet

Anti-  
Inflammatory  
diet

Flexitarian-style  
diet

Plant-based  
diet

# Feeding the Microbiome

- **Strive for 9 cups of veggies a day!**
  - 3 cups leafy greens
  - 3 cups sulfur “stinky” in case they veggies
  - 3 cups of other colorful veggies

## Fiber and Prebiotics

### Probiotics

- **Sauerkraut and Kimchi**
- **Yogurt and kefir**
  - Watch for added sugars (negates probiotic benefit)
  - Removing the fat concentrates the milk sugars
    - Less effective as a psychobiotic
    - Proportion of lactobaccillus reduced
  - Add vitamin D
- **Good Bacteria helps your gut digest and absorb nutrients and they also affect the degree of inflammation throughout your body as well as your mood and energy level.**



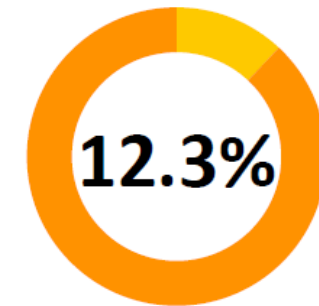
# Current Dietary Intakes

- Percentage of U.S. adults meeting fruit and vegetable intake recommendations is low
- 2019: 12.3% and 10.0% of surveyed adults met fruit and veg intake, respectively
  - Hispanic adults had highest fruit intake
  - Adults aged 51 years and older had highest fruit intake
  - Males generally have lower fruit intake
  - Adults living below or close to the poverty level have lowest vegetable intake

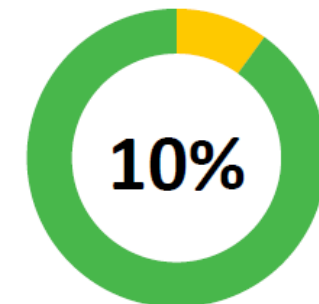
**In WI 6.3% of adults 65 + get 2 or more fruits and 3 or more veggies per day.**

SOURCE: CDC, Behavioral Risk Factor Surveillance System, 2021

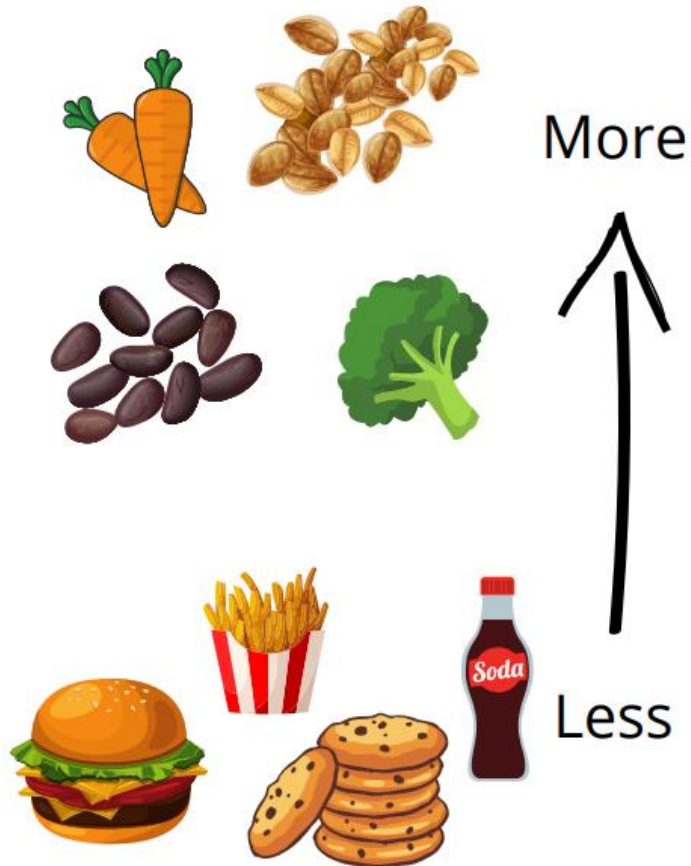
Fruit Intake



Vegetable Intake



# Eat More Plants!



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Western diet + low-grade intestinal inflammation are implicated in a growing number of immune-mediated inflammatory diseases

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Higher intake of animal foods, processed foods, alcohol and sugar, associated with higher levels of intestinal inflammatory markers + corresponds to an inflammatory microbial environment

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Plant-based foods are linked to short-chain fatty acid (SCFA)-producers, microbial metabolism of polysaccharides and a lower abundance of pathobionts

# 7 Secrets to Vegging Out

Make Every  
Calorie  
Count



# Prebiotics and Probiotics

- **Prebiotics** are food, ingredients, supplements, products, and more that support the wanted beneficial bacteria in our microbiome by providing an ideal nutritional source for the bacteria.
- Artichokes, asparagus
- Bananas, barley, berries
- Chicory, garlic, green vegetables
- Legumes, linseed, oats, onions
- Tomatoes, wheat.

**Probiotics** are food, ingredients, supplements, products, and more that contain the wanted beneficial bacteria.

- Kefir, kimchi
- kombucha , miso
- Pickles, sauerkraut
- sourdough bread, tempeh
- yogurt

# Nutrients for Mental Health

- Omega-3 fatty acids
- Iron
- Magnesium
- Antioxidants/flavonoids
- B-vitamins
- Choline



# Resources

- Nutrition and Brain Health (3 diets that have been shown to benefit the brain). <https://www.alz.org/news/2019/food-for-thought>
- Gut-Brain Connection (Axis)
  - This is a great 2 minute video that would be good to include with a brief explanation. <https://youtu.be/oym87kVhqm4>
  - IBS Focus:
    - These are both about 1 minute . I like this one better <https://www.youtube.com/shorts/uqlfmHu3tcE> but this version may resonate with some <https://www.youtube.com/shorts/obHTJQFoXm8>
  - Is Brain Fog Caused by your Gut Microbiome?  
<https://youtu.be/Sgc5b5dr9mg> (~35 Min)

| Sample Meal and Snack Ideas | Day 1   | Day 2   |
|-----------------------------|---|---|
| Breakfast                   | Plain Greek Yogurt with flax and chia seeds and fruit<br>Avocado Toast (Whole Wheat)<br>Green Tea   | Oatmeal with berries & cinnamon<br>(Peanut butter stirred into oatmeal)<br>Citrus Fruit<br>Soy Milk<br>Coffee   |
| Lunch                       | Tuna on a bed of fresh spinach with green onions,<br>marinated artichoke hearts, olives, walnuts, carrots,<br>feta with balsamic vinaigrette<br>Water with lemon or cucumber slices | Roasted Beet or Garlic Hummus with fresh<br>veggies and whole wheat crackers<br>Turkey Sandwich on Whole Wheat<br>Steamed Broccoli<br>Iced Green Tea or water with fruit, veggies or<br>herbs infused |
| Dinner                      | Salmon<br>Baked Potato with skin<br>Roasted Asparagus<br>Mixed Green Salad with tomato and other veggies<br>with roasted pumpkin seeds<br>Iced Green Tea                            | Chili made with beans, onions, tomatoes<br>Sourdough Bread<br>Banana and Walnuts<br>Frozen Greek yogurt with fruit<br>Coffee  |
| Snacks                      | Kefir or Kombucha or Banana   | Roasted Nuts  |

# Recipe Resources

- Recipes for 1 or 2 people in the Eat Well, Age Well Cookbook <https://gwaar.org/eat-well-age-well>
- <https://foodhero.org/healthy-recipes>
- <https://www.myplate.gov/myplate-kitchen/recipes>



# Modify or Try New Recipes

| High Sugar Food                          | Consider...  | Options                           |
|--|--|-----------------------------------|
| Baked Goods                              | Why are you wanting this food?   | Spices<br>Fruit<br>Yogurt<br>Heat |
| Spaghetti<br>Sauce/Ketchup/Yogurt        | Reading and comparing labels   | Low or Zero Added Sugar           |
| Reduce the amount of sugar in the recipe | Substituting refined sugar with a natural sugar or mashed fruit<br>(Banana/unsweetened applesauce) | Honey<br>Maple Syrup              |

# Cacao Vs Cocoa

Cacao beans are dried, fermented, and heated at a low temp. The heat separates the fatty part of the bean from the rest.

## **Pros:**

- More antioxidants
- Cacao nibs are great sub for choc. Chips.

## **Cons:**

- Not as sweet as cocoa

Cocoa is harvested the same way as cacao but heated at a high temp, the final product is much sweeter than cacao.

## **Pros:**

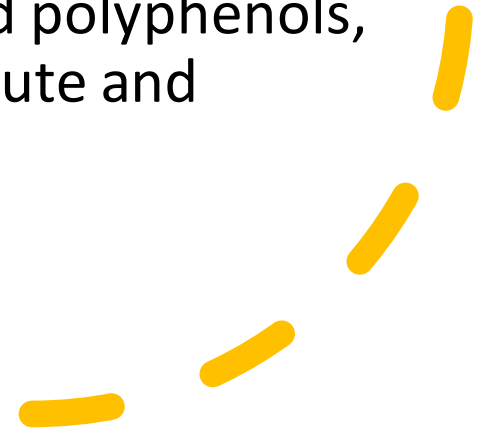
Sweeter for tasting  
Better for baking.

## **Cons:**

More processed, decreasing antioxidants and nutrients

# Health Benefits of Cocoa and Cacao

- Raw & Unsweetened version have 0 grams of sugar.
- Excellent source of fiber
- Source of plant-based protein
- Full of minerals such as potassium, magnesium and iron.
- Aids in sleep, lowers stress, & reduces blood sugar levels.
- Can help reduce the risk of high blood pressure and plaque buildup in the arteries.
- Rich source of plant compounds called polyphenols, which help reduce the risk of many acute and chronic diseases.
- Rich in antioxidants.



# Peanut Butter Brownie Recipe (No Added Sugar)

## Ingredients

- 3 bananas or 1 ½ cup mashed
- ½ cup nut or seed butter of your choice
- ½ cup cacao or cocoa powder

## Directions

- Mash bananas.
- Add nut butter and cacao powder to the mashed bananas.
- Mix well.
- Line a baking dish with parchment paper, add the batter.
- Bake at 350 degrees for 17-25 minutes.



# Ride the Crave Wave...

- When are you most likely to crave sweets.
- Studies suggest cravings tend to be higher before a meal than after.
- Adding in more nutrient-dense snacks in between meals may help.
- If you are used to something sweet to end a meal, eating more slowly and including fruit as the last course may be helpful.



# Mind-Body Interventions

- Promising because they directly impact the gut-brain axis.
- There is a direct connection between GI health and mental health.
- Many mind-body relaxation/stress management techniques are effective for reducing stress and anxiety and increase overall feeling of wellness.
  - Yoga
  - Meditation
  - Breathing exercises

# Tips for Reducing Added Sugar Intake

- Choose plain yogurt with no added sugar, stir in fresh or frozen fruit or unsweetened applesauce or pumpkin puree and add a dash of cinnamon.
  - Choose cereals with <5% DV of added sugar and add fresh fruit.
  - Add fruit or veggies to water, seltzer, herbal tea or coffee to boost flavor.
- 
- Try  $\frac{1}{4}$  cup unsweetened fruit, 1 cup fresh fruit or 1 oz square of 75% dark chocolate.
  - When baking, reduce the amount of sugar by  $\frac{1}{4}$  to  $\frac{1}{2}$ . OR substitute half the amount with unsweetened applesauce or mashed ripe bananas.
  - Use a baby spoon to savor small bites of a small portion.



# Summary

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- As the gut microbiome science is still in its infancy, the role will continue to evolve
- An individual's gut microbiome is as unique as their fingerprint—and individualized treatments will likely be key to success
- Eat a variety of foods with minimal processing and sneak in nutrients. Be aware of added Sugars.
- Lifestyle factors can impact our gut microbiome, such as:
  - Stress management
  - Sleep hygiene
  - Plant-rich diet
  - Exercise



Your taste buds will adjust to less sweetness and your sweet cravings should lessen.

Be Aware and Enjoy the journey!