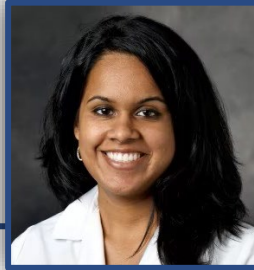


Wellness Workshop: Nutrition & Meal Prep for the Whole Family

August 28, 2024





Dr. Sheila Kumar

*National Institute of Diabetes and
Digestive and Kidney Diseases*

Dr. Kumar trained at Johns Hopkins University for her undergraduate degree and received her MD from Yale University. She then completed her internal medicine residency at Columbia University, followed by Stanford University for her gastroenterology fellowship, where she also obtained her MS. Her interests are in colorectal cancer, health disparities, and training the next generation of gastroenterologists. She is the Principal Investigator for an NIDDK protocol- "Evaluation of Patients with Gastrointestinal Disease." Dr. Kumar is also involved in several collaborative projects with investigators within NIDDK, as well as other institutes within the NIH.



Amber Courville

*National Institute of Diabetes and
Digestive and Kidney Diseases*

Amber Courville, PhD, RDN is currently a Staff Scientist with the Energy Metabolism Section and Human Energy and Body Weight Regulation Core at NIDDK. She has over 15 years' experience planning highly controlled metabolic diets for research protocols at both the United States Department of Agriculture Beltsville Human Nutrition Research Center and at the NIH Clinical Center. Dr. Courville's main research interests are the regulation of food intake, energy and macronutrient metabolism and body composition. Her current research focuses on the effect of dietary interventions on human energy metabolism and obesity.



Leslie Pont

*NIH Office of Research Services
Program & Employee Services
DATS Amenities Branch*

Leslie Edsall, MA, CHES is currently the Program Manager for NIH Wellness programs. She has over two decades of experience in Healthcare Communication, Coaching & Fitness, Health Education, Mindfulness and Well-being. Leslie holds a Master's in Organizational Leadership from Gonzaga University and several certifications. She is passionate about employee well-being and improving organizational culture. Her current projects include applying a holistic approach to wellness at NIH, fostering resilience through well-being, and building a community of belonging for the NIH community.

Agenda

- | | |
|---|------------------------------|
| 1 | Understanding the Microbiome |
| 2 | How to Build a Healthy Plate |
| 3 | Meal Prep Tips and Tricks |
| 4 | Resources |

Let's Share!

By the end of our workshop:
Add your favorite recipes (*website or app*) or meal
planning ideas into the anonymous
Google Doc shown in the chat feature

Basics of Nutrition

- **Carbohydrates:** Fuel your body with immediate energy.
- **Protein:** Provides essential amino acids for building muscle, skin, blood, and brain structures.
- **Fat:** Contains essential fatty acids and is used for specific functions.

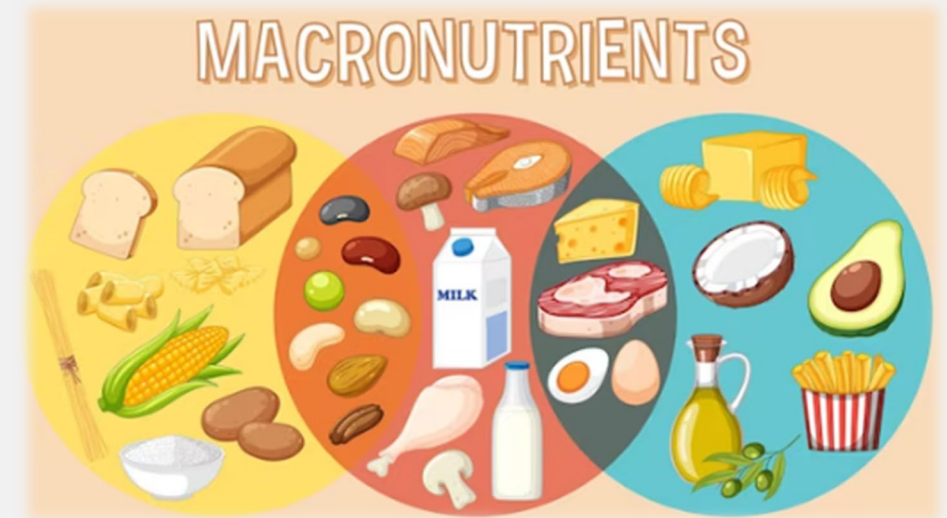
Calorie Content of Macronutrients

- Carbs: **4** calories per gram / **45-65%** of daily calories
- Protein: **4** calories per gram / **10-35%** of daily calories
- Fat: **9** calories per gram / **20-35%** of daily calories

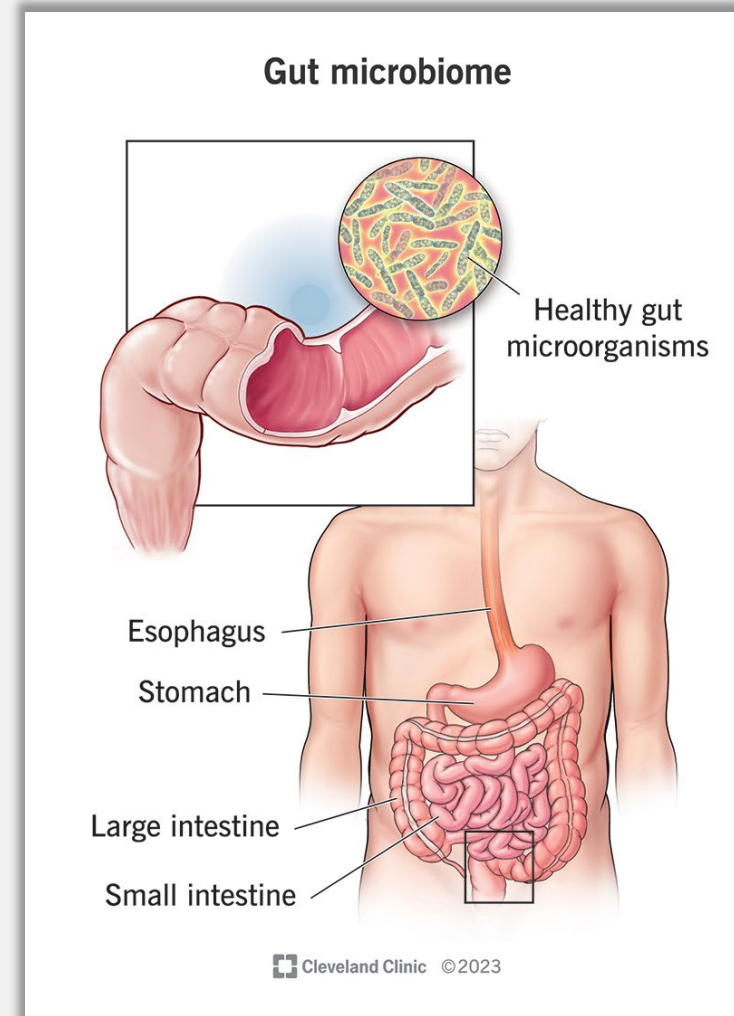
USDA.gov Guidelines

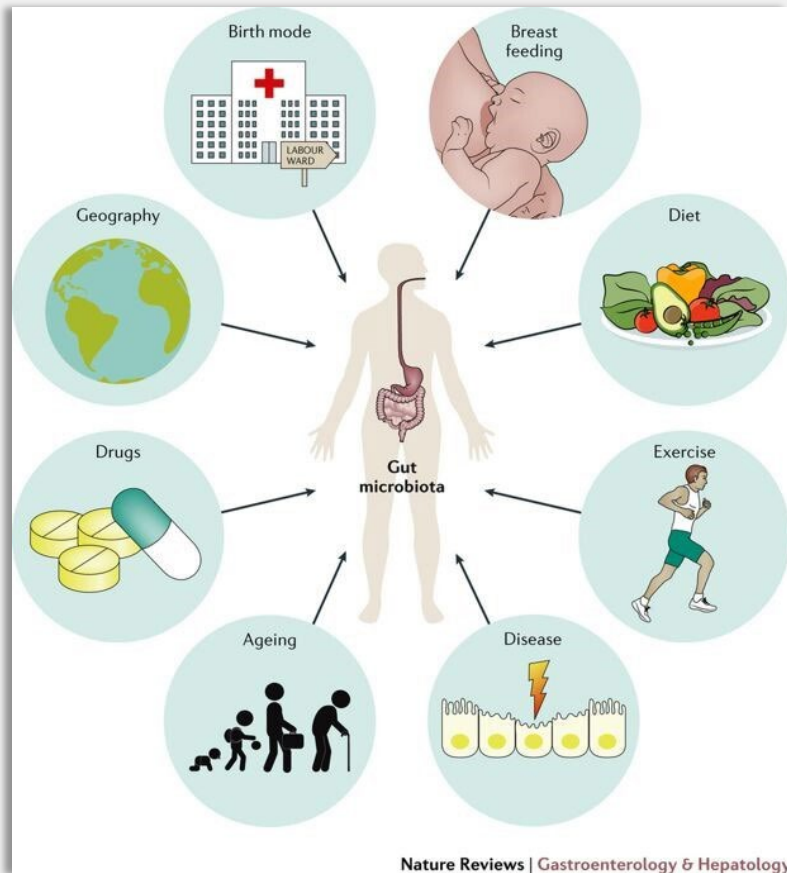
Adults and children, USDA recommends at least 130 grams of carbs/day

- Recommended daily allowance (RDA) / considered the necessary amount to provide your brain with enough glucose to *function*.

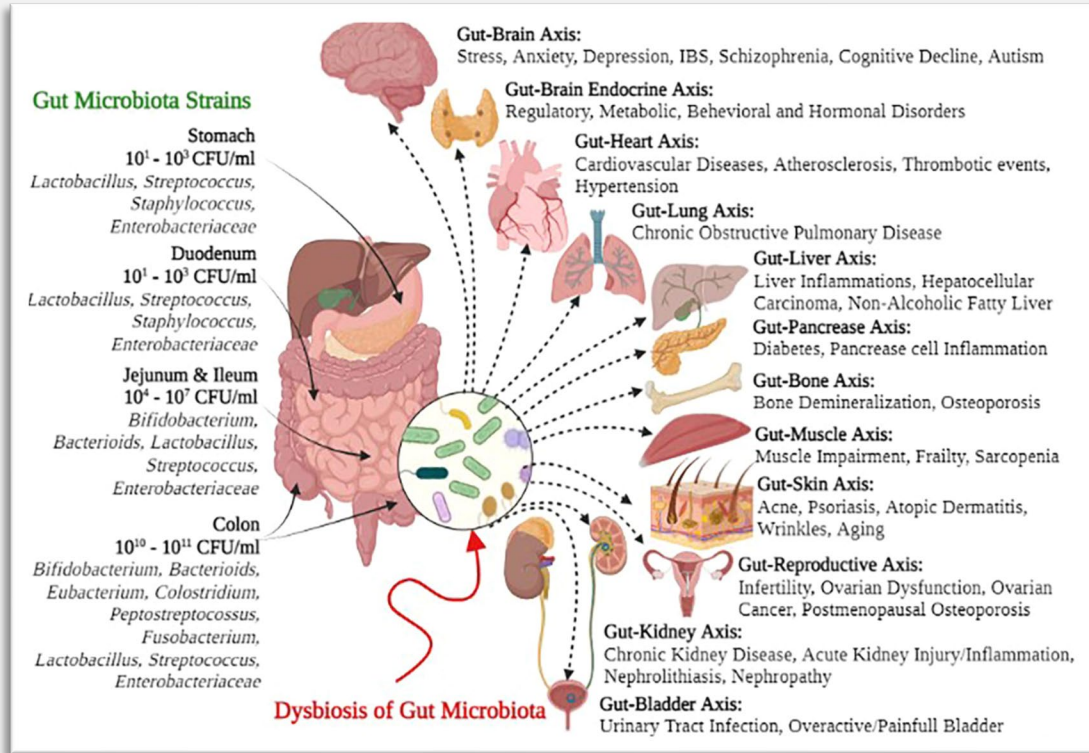


What is the Microbiome?



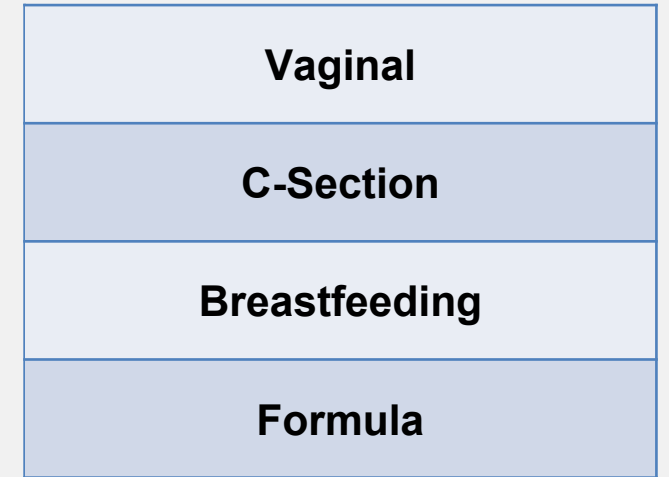
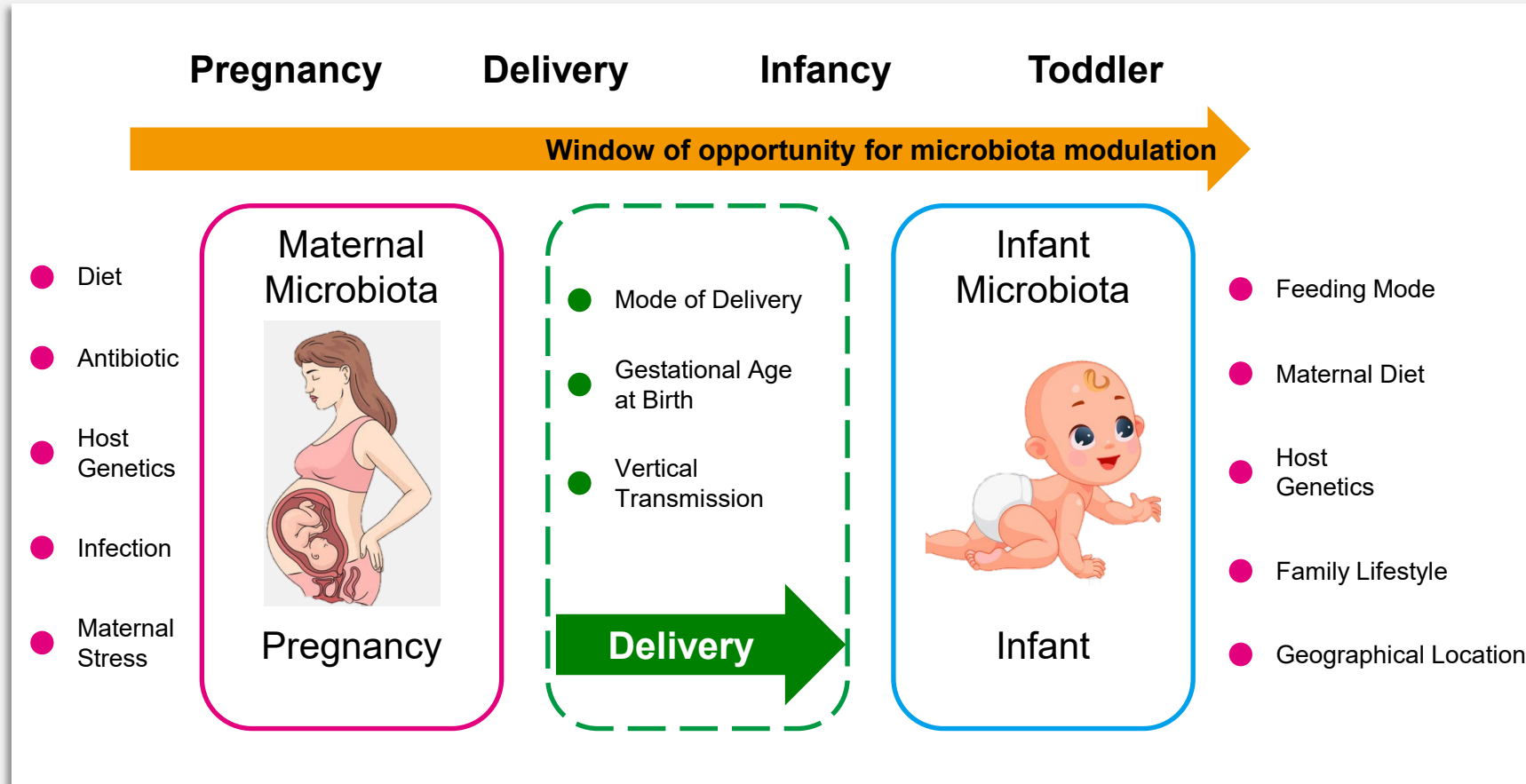


Diet
Antibiotics
Infection



Health and the Microbiome

- Higher microbiome diversity can be good
- Health issues that have been linked with microbiome:
 - **Immune system**
 - IBD
 - Allergies
 - Eczema
 - Rheumatoid arthritis
 - **Other diseases**
 - Obesity
 - Cystic fibrosis
 - Fatty liver
 - Mental health



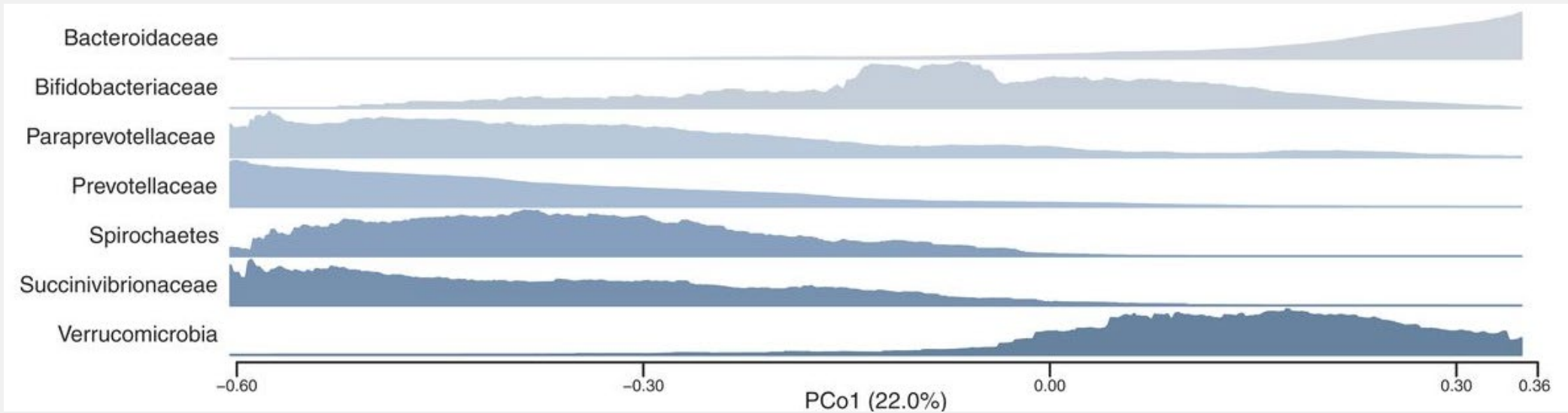
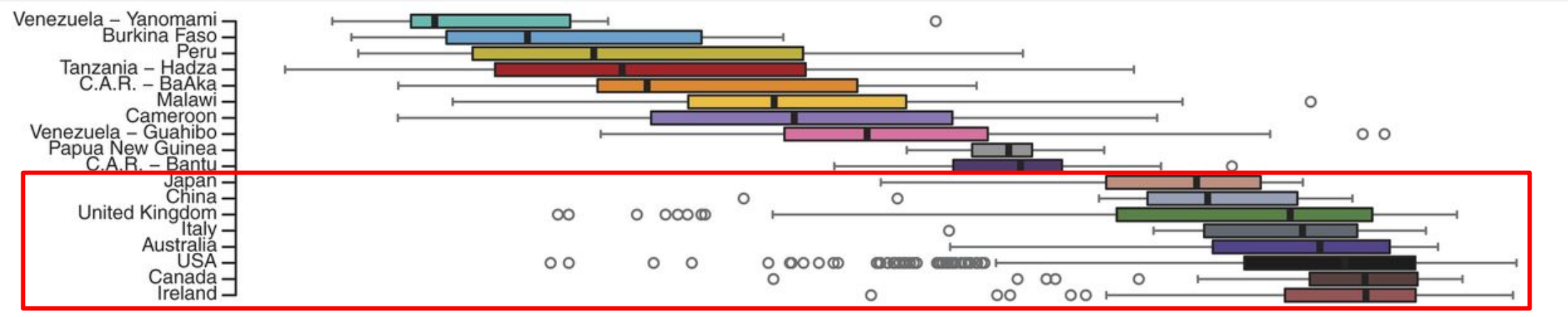
Pets have increased microbial
diversity

There is a possible link
between human and pet
microbiome



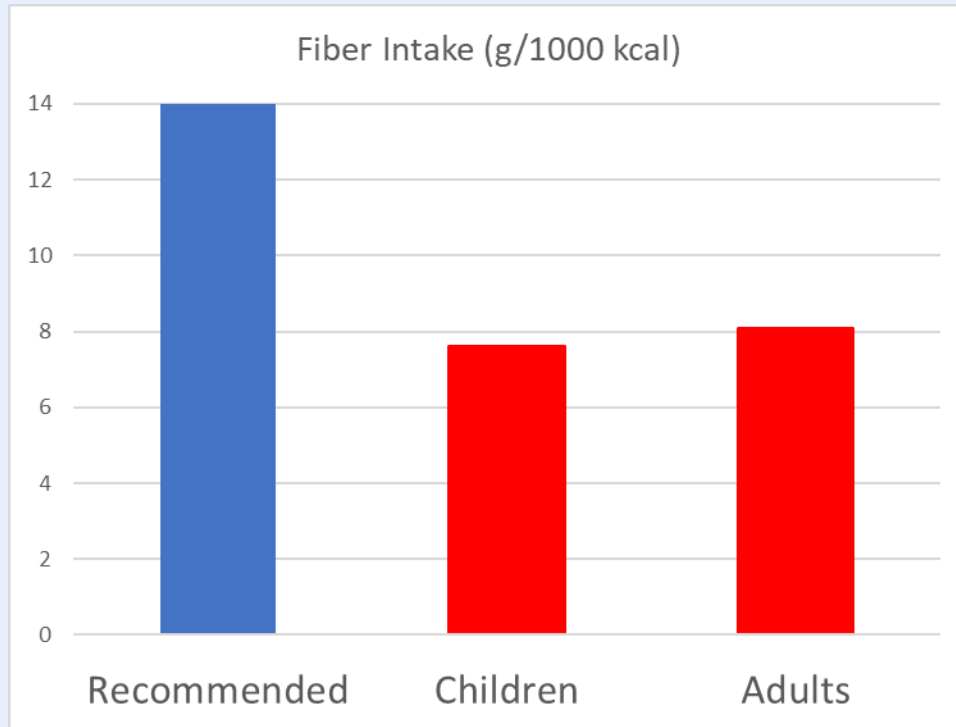
How to Build a Healthy Plate

Influence Of Diet And Lifestyle On Gut Microbiota



Smits et al., *Science* 2017

What We Eat In America Survey (2017-2020)



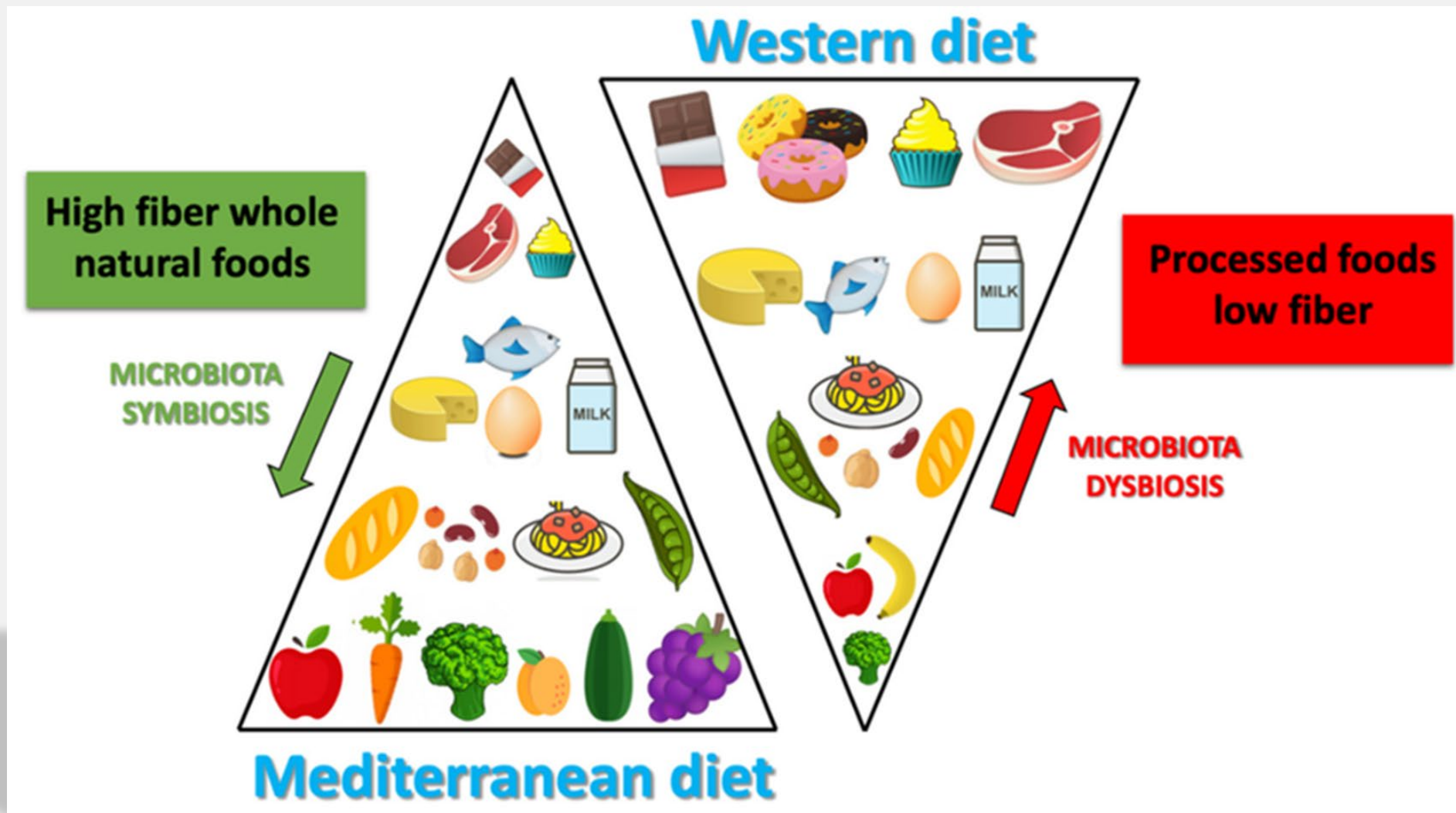
Children need **daily fruits and vegetables** for healthy growth and brain development

Among children aged 1-5 years*

- 🥕 1 in 2 did not eat a daily vegetable
- 🍎 1 in 3 did not eat a daily fruit

Give your child a strong start — include fruits and vegetables with meals and snacks every day

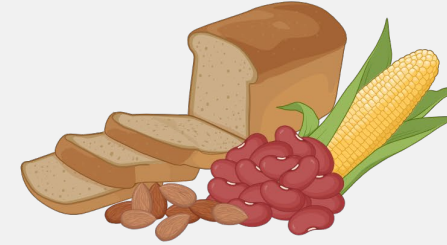
 bit.ly/mm7207a1 FEBRUARY 17, 2023  *2021 National Survey of Children's Health



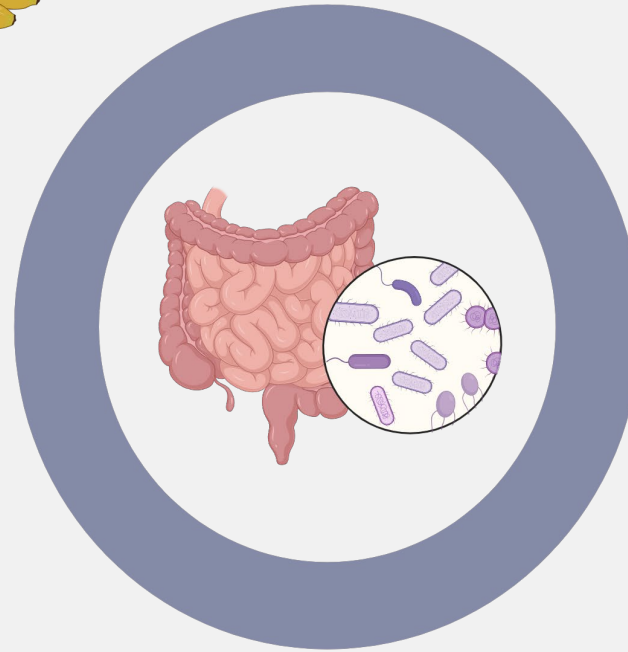
Merra et al., *Nutrients* 2021. <https://doi.org/10.3390/nu13010007>



Fruits and Vegetables



Whole Grains, Legumes,
Nuts and Seeds



Probiotic Foods



Polyphenol-rich Foods

Meal Prep Tips and Tricks

How to Meal Prep

- Plan Out What You Need For The Week
 - ❑ Shopping list, recipes, bulk cooking
 - ❑ Use websites or mobile apps which are designed to help with weekly planning
 - ❑ Try using apps: Myplate.gov, Mealtime Meal Plans and Recipes, Plan to Eat, Plate Joy
- Engage Children In Meal Prep
 - ❑ Encourage them to explore recipes they want to help make
 - ❑ Bring kids grocery shopping
 - ❑ Talk your kids through the taste of each ingredient
- Minimize Highly Processed Foods
 - ❑ Shop the perimeter of the grocery store
 - ❑ Shop only from the ingredient list
 - ❑ Minimize snacks and focus on whole meals
- Include Fiber in Your Meals
 - ❑ Focus on fruits, vegetables, and whole grains
 - ❑ Incorporate nuts and seeds into your meals
 - ❑ Choose a high fiber breakfast



Four More Strategies for Meal Prep

#1

Prep protein/veggies/carbs to use in a variety of ways

- Cook large batch of chicken/protein
- Large batches of quinoa or brown rice
- Roast veggies to combine w/other side dishes
- Cut up veggies for salads/dip



#2

Assemble & avoid stove top

- Slow cooker/pressure cooker meals (can also be frozen)
- Marinated chicken/meats
- Air fryer for meals or sides
- Convection oven for meals



#3

Pre-portion things out

- Homemade trail mix
- Hummus w/mini-snack bags of veggies
- Create portion sizes of fresh fruits & a side of yogurt
- Snack-size veggie chips



#4

Pre-cooked meals – grab from fridge and reheat as needed

- Breakfast – steel cut oats, egg muffins, overnight oats
- Lunch – mason jar salads, turkey taco bowls, soup/chili
- Dinner – sheet pan meals, stir fry meals, and more

Side Dishes

[Crispy Paprika Butter Beans](#)

Combine the rich, smokey notes of paprika (*optional*) with creamy protein-packed butter beans to create a delicious and nutritious snack.

[Rainbow Rolls with Satay Dip](#)

These rainbow rolls are nutritious, packed with fiber, versatile and easy to make. Use whatever veggies and herbs you have, and the dip is key.

[Fermented Foods for Better Gut Health](#)

Harvard Health article on fermenting foods for a healthy dose of probiotics.

Meal Ideas

[White Bean Soup with Pasta](#)

Combine onion, celery and carrots to flavor this white bean soup. Keep a store-bought bag of the mix in your freezer to ensure you have some on hand without worrying about it going bad.

[Chipotle Chicken Quinoa Burrito Bowl](#)

Grilled chicken coated in an (optional) spicy chipotle glaze. Load it with vegetables and quinoa in place of rice to add nutrition for a healthier dinner.

Dessert Options

[Tahini & Chocolate Chip Cookies](#)

Tahini is a great source of copper, iron and calcium which can be missed in many standard diets.

[Homemade Sour Fruit Gummies](#)

Healthy, made with fresh fruit and fruit juice, unsweetened gelatin and sweetened with honey. Full of vitamin C, great for immunity and the gut healing, fun to make and a delicious fruity treat.

Try these top hydrating, microbiome-boosting foods.
Percent hydration, from highest to lowest:

Vegetables:

Lettuce (96%)
Celery (95%)
Cucumber (95%)
Zucchini (94%)
Tomatoes (94%)
Bell Peppers (92%)
Cauliflower (92%)
Cabbage (92%)
Spinach (91%)
Kale (90%)
Broccoli (89%)
Carrots (88%)

Fruits:

Watermelon (92%)
Strawberries (91%)
Cantaloupe (90%)
Honeydew (90%)
Peaches (89%)
Oranges (88%)
Grapefruit (88%)
Pineapple (86%)
Apples (85%)



Liquids:

Coconut Water (95%),
Broths & Soups (~92%)
Skim Milk (91%)
Soy/Nut Milks (90%)



Probiotic-based:

Plain Yogurt (88%)
Cottage Cheese (80%)





Eight Tips to Drink More Fluids

1. Drink a glass of water at the following times:
 - Upon waking
 - With meals/after dinner
 - With snacks
 - Before, during, after exercise
2. Add fruit, herbs or cucumber slices to water to add flavor
3. Drink sparkling water
4. Herbal teas, unsweetened iced tea
5. Buy a large reusable cup and set a goal of how much/daily
6. Limit sugary beverages when trying to hydrate
7. Choose water (add lemon, lime) or sparkling water dining out
8. Track it on an app

More Gut-friendly Meal Prep Recipes

5 Make-Ahead Fruit & Greek Yogurt Parfaits

<https://projectmealplan.com/make-ahead-fruit-greek-yogurt-parfait-ideas-to-try-for-breakfast/>

Slow Cooker Apple Cinnamon Oatmeal

<https://fitfoodiefinds.com/slow-cooker-apple-cinnamon-steel-cut-oats/>

Mason Jar Salads

<https://www.ambitiouskitchen.com/four-mason-jar-salads-with-just-bare-chicken/>

Spicy Chicken with Rice and Beans

<https://pinchofyum.com/spicy-chicken-meal-prep>

Ground Turkey Stir-fry

<https://www.budgetbytes.com/ground-turkey-stir-fry/>

[https://www.gastrojournal.org/article/S0016-5085\(24\)05000-5/fulltext](https://www.gastrojournal.org/article/S0016-5085(24)05000-5/fulltext)

<https://pubmed.ncbi.nlm.nih.gov/37074174/>

<https://pubmed.ncbi.nlm.nih.gov/30859338/>

<https://patient.gastro.org/probiotics/>

Let's Keep Sharing!

What are your favorite recipes (website or app)
for meal planning ideas?

Enter in the Google Doc: shown in the chat

Prioritize Your Wellness and Join the **Wellness@NIH Community!**

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(NIH employees only)



Learn about resources
to help turn hours at
work into active parts
of a healthier life

