

Nutrition Tips & Tricks for the Home

How to maximize nutrients in your food and optimize immunity without following any strict diets



Dr. Rachel Ong, ND
June 2020



Make Your Macros Count

Start simple with the [USDA MyPlate guide](#).

History of USDA Food Guides

1916 to 1930s: “Food for Young Children” and “How to Select Food”

- Established guidance based on food groups and household measures
- Focus was on “protective foods”

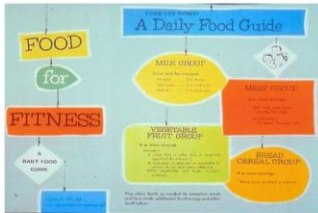
1940s: A Guide to Good Eating (Basic Seven)

- Foundation diet for nutrient adequacy
- Included daily number of servings needed from each of seven food groups
- Lacked specific serving sizes
- Considered complex



1956 to 1970s: Food for Fitness, A Daily Food Guide (Basic Four)

- Foundation diet approach—goals for nutrient adequacy
- Specified amounts from four food groups
- Did not include guidance on appropriate fats, sugars, and calorie intake



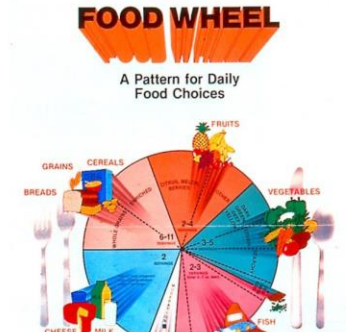
1979: Hassle-Free Daily Food Guide

- Developed after the 1977 Dietary Goals for the United States were released
- Based on the Basic Four, but also included a fifth group to highlight the need to moderate intake of fats, sweets, and alcohol



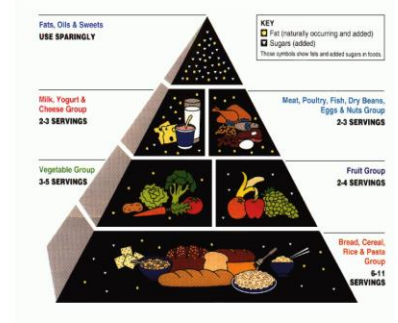
1984: Food Wheel: A Pattern for Daily Food Choices

- Total diet approach—Included goals for both nutrient adequacy and moderation
- Five food groups and amounts formed the basis for the Food Guide Pyramid
- Daily amounts of food provided at three calorie levels
- First illustrated for a Red Cross nutrition course as a food wheel



1992: Food Guide Pyramid

- Total diet approach—goals for both nutrient adequacy and moderation
- Developed using consumer research, to bring awareness to the new food patterns
- Illustration focused on concepts of variety, moderation, and proportion
- Included visualization of added fats and sugars throughout five food groups and in the tip
- Included range for daily amounts of food across three calorie levels



2005: MyPyramid Food Guidance System

- Introduced along with updating of Food Guide Pyramid food patterns for the 2005 Dietary Guidelines for Americans, including daily amounts of food at 12 calorie levels
- Continued “pyramid” concept, based on consumer research, but simplified illustration. Detailed information provided on website “MyPyramid.gov”
- Added a band for oils and the concept of physical activity
- Illustration could be used to describe concepts of variety, moderation, and proportion

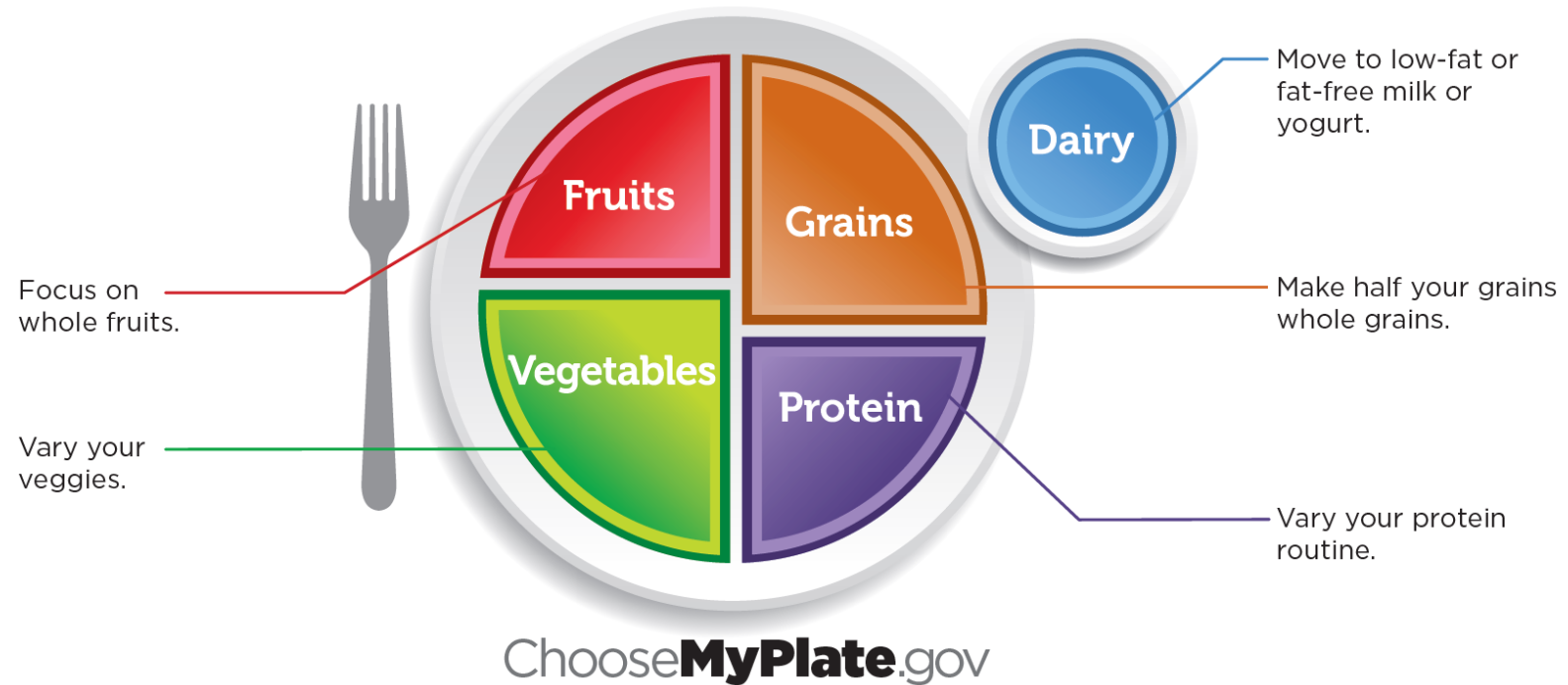




2011:

MyPlate, MyWins: Make it yours

Find your healthy eating style. Everything you eat and drink over time matters and can help you be healthier now and in the future.



Limit

Limit the extras.

Drink and eat beverages and food with less sodium, saturated fat, and added sugars.



MyWins

Create 'MyWins' that fit your healthy eating style.

Start with small changes that you can enjoy, like having an extra piece of fruit today.



Focus on whole fruits and select 100% fruit juice when choosing juices.

Buy fruits that are dried, frozen, canned, or fresh, so that you can always have a supply on hand.



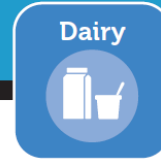
Eat a variety of vegetables and add them to mixed dishes like casseroles, sandwiches, and wraps.

Fresh, frozen, and canned count, too. Look for “reduced sodium” or “no-salt-added” on the label.



Choose whole-grain versions of common foods such as bread, pasta, and tortillas.

Not sure if it's whole grain? Check the ingredients list for the words “whole” or “whole grain.”



Choose low-fat (1%) or fat-free (skim) dairy. Get the same amount of calcium and other nutrients as whole milk, but with less saturated fat and calories.

Lactose intolerant? Try lactose-free milk or a fortified soy beverage.



Eat a variety of protein foods such as beans, soy, seafood, lean meats, poultry, and unsalted nuts and seeds.

Select seafood twice a week. Choose lean cuts of meat and ground beef that is at least 93% lean.

Daily Food Group Targets — Based on a 2,000 Calorie Plan

Visit SuperTracker.usda.gov for a personalized plan.

2 cups

1 cup counts as:

- 1 large banana
- 1 cup mandarin oranges
- ½ cup raisins
- 1 cup 100% grapefruit juice

2½ cups

1 cup counts as:

- 2 cups raw spinach
- 1 large bell pepper
- 1 cup baby carrots
- 1 cup green peas
- 1 cup mushrooms

6 ounces

1 ounce counts as:

- 1 slice of bread
- ½ cup cooked oatmeal
- 1 small tortilla
- ½ cup cooked brown rice
- ½ cup cooked grits

3 cups

1 cup counts as:

- 1 cup milk
- 1 cup yogurt
- 2 ounces processed cheese

5½ ounces

1 ounce counts as:

- 1 ounce tuna fish
- ¼ cup cooked beans
- 1 Tbsp peanut butter
- 1 egg

Water



Drink water instead of sugary drinks.

Regular soda, energy or sports drinks, and other sweet drinks usually contain a lot of added sugar, which provides more calories than needed.

Activity



Don't forget physical activity!

Being active can help you prevent disease and manage your weight.

Kids ≥ 60 min/day

Adults ≥ 150 min/week



MyPlate, MyWins

Healthy Eating Solutions for Everyday Life

Choose MyPlate.gov/MyWins

Center for Nutrition Policy and Promotion

May 2016

CNPP-29

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Caution with Dairy

“Cow's milk allergy was diagnosed in 79 patients, all of whom had signs and symptoms of allergies other than milk intolerance. In addition to difficulties with infant feeding and diarrhea, clinical features included constipation, vomiting, intestinal colic, growth retardation, psychological disturbance, as well as eczema and **asthma**. All were reversible after milk withdrawal, which suggests that the allergic basis of such symptoms may have been underestimated. In most cases, one or both parents were atopic and the child had been bottle-fed from birth. There were no breast-fed children of non-atopic parents in this series.”

[Buisseret PD. Lancet. 1978](#)

Resources for Tracking Micronutrients

- [MyFitnessPal](#) (free, iOS; Android)
- [MyMacros+](#) (\$2.99; iOS)
- [MyNetDiary](#) (Free; iOS, Android)
- [MyPlate Calorie Counter](#)
(Free; iOS, Android)
- [Start Simple with MyPlate](#)
(Free; iOS, Android)



Photos: MyFitnessPal



Quality Matters When It Comes To Groceries

Getting the most bang for your buck while grocery shopping.



Let's Talk About Pesticides

- Nearly 70 percent of the fresh produce sold in the U.S. contains residues of potentially harmful chemical pesticides, according to [EWG's analysis](#) of the latest test data from the federal Department of Agriculture.
- Whether organic or conventionally grown, fruits and vegetables are critical components of a healthy diet. However, many crops contain potentially harmful pesticides, even after washing, peeling or scrubbing, which the USDA does before testing each item.
- Glyphosate, or Roundup, the most heavily used pesticide in the U.S., high levels can be found in several grains and beans, such as oats and chickpeas, due to its [increasing use as a pre-harvest drying agent](#).
- Additional resource are available from the [American College of Occupational and Environmental Medicine](#). **The Journal of Occupational and Environmental Medicine (JOEM)** is a leading scientific, peer-reviewed monthly publication in the specialty of occupational and environmental medicine. It serves as an indispensable source to in-depth, clinically oriented research articles and technical reports that keep readers up-to-date on cutting-edge medical developments in the field.

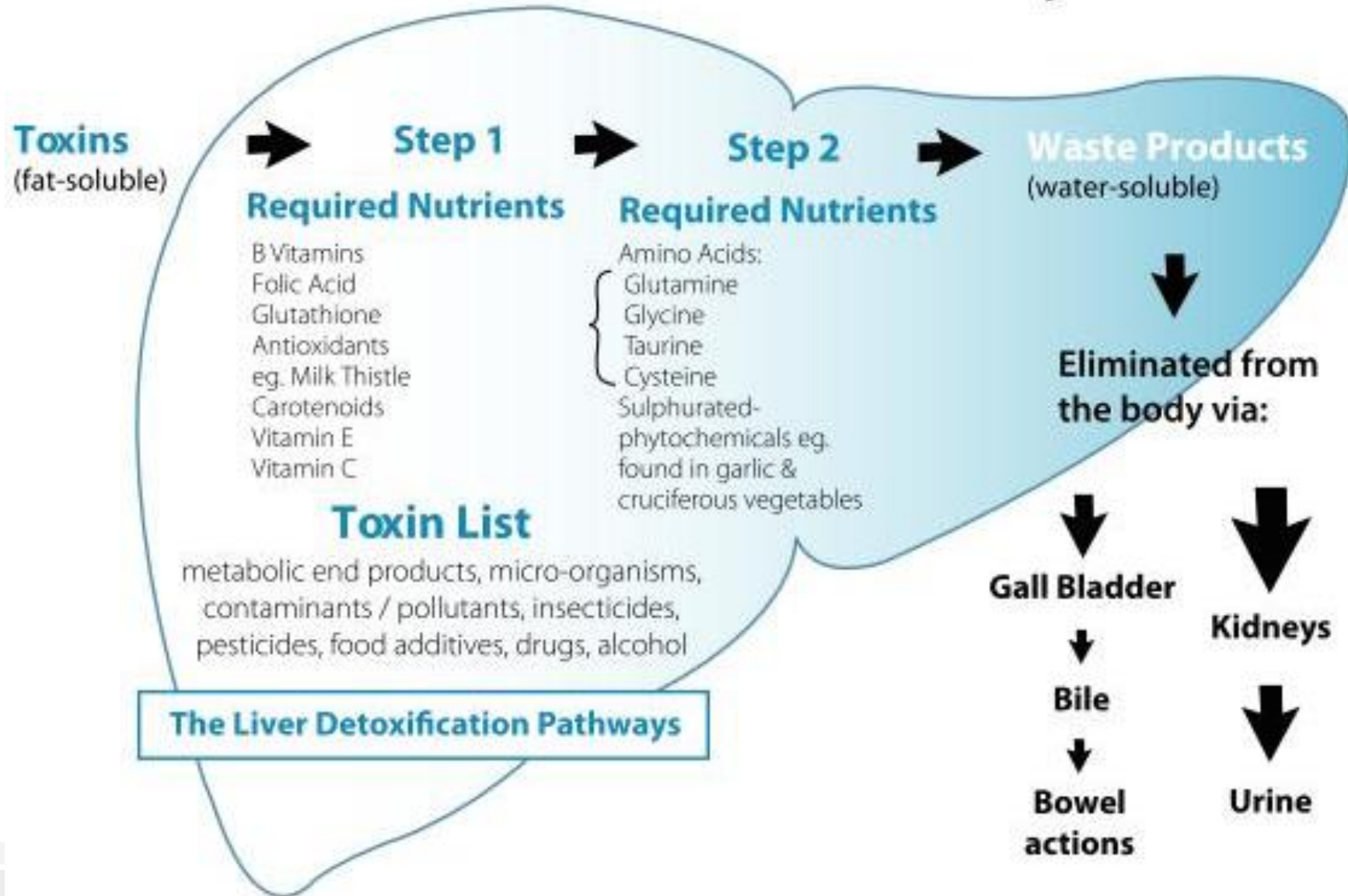


Toxic Responses

Contributions from Marianne Marchese, ND & Jaclyn Bain, ND

- Toxic responses can be **Reversible** or **Irreversible**
- Reversibility is determined by:
 - Tissue involved
 - Length of exposure
 - Magnitude of toxic insult
 - Toxicity of substance
- **Reversible** : Liver, intestinal mucosa, blood cells, etc are rapidly regenerating tissues
- **Irreversible**: CNS damage, carcinogenic processes, teratogenesis are typically **not** reversible

Detoxification Pathways





Toxic Responses

Contributions from Marianne Marchese, ND & Jaclyn Bain, ND

- **Direct Actions of Xenobiotics***:
 - Cell replacement
 - Ex. Normal cellular structure → Fibrosis
 - Damage to an enzyme system or protein synthesis
 - Reactive chemicals in cells
 - DNA damage
- **Indirect Actions of Xenobiotics***:
 - Modification of biochemical pathways
 - Disruption of nutrition
 - Physiological alterations

*Foreign chemical substance found within an organism that is not normally naturally produced by or expected to be present within that organism.



Toxic Effects

Contributions from Marianne Marchese, ND & Jaclyn Bain, ND

- **Effects are dependent on the toxicant, exposure, dose, and excretion**
 - Inflammation
 - Necrosis
 - Enzyme Inhibition
 - Mitochondrial Damage
 - Lethal synthesis
 - Lipid Peroxidation
 - Oxidative Damage
 - Immune-mediated Hypersensitivity Reactions
 - Immuno-suppression
 - Neoplasia
- **Organ Specific**
 - Hepatotoxicity
 - Nephrotoxicity
 - Pulmonotoxicity
 - Dermatotoxicity
 - Neurotoxicity
 - Endocrine Toxicity



How to Minimize Toxic Exposure in Your Food

- Whenever possible, buy organic foods.
 - <https://www.ewg.org/foodnews/dirty-dozen.php>
 - <https://www.ewg.org/foodnews/clean-fifteen.php>
- Beef should be grass fed and grass finished.
 - <https://grassrunfarms.com/blog/organic-vs-grass-finished-vs-grass-fed-beef-difference/>
- Seafood should be wild caught. Avoid farm raised seafood.
 - <https://www.healthline.com/nutrition/wild-vs-farmed-salmon#bottom-line>
- When buying organic is not possible, scrub and rinse produce thoroughly before consumption.
 - <https://www.wikihow.com/Rid-Your-Produce-of-Pesticide-Residue>
- Additional Grocery Guides
 - <https://www.youtube.com/user/flavcity>
 - <http://www.eatwild.com/index.html>

EWG'S 2020 DIRTY 12™



- | | | |
|-----------------|-------------|--------------|
| 1. Strawberries | 5. Apples | 9. Pears |
| 2. Spinach | 6. Grapes | 10. Tomatoes |
| 3. Kale | 7. Peaches | 11. Celery |
| 4. Nectarines | 8. Cherries | 12. Potatoes |



EWG'S 2020 CLEAN 15™



- | | | |
|---------------|------------------------|--------------------|
| 1. Avocados | 6. Sweet Peas (Frozen) | 11. Broccoli |
| 2. Sweet Corn | 7. Eggplant | 12. Mushrooms |
| 3. Pineapple | 8. Asparagus | 13. Cabbage |
| 4. Onions | 9. Cauliflower | 14. Honeydew Melon |
| 5. Papaya | 10. Cantaloupe | 15. Kiwi |





Cooking for Immune Support

Enhance the nutrients in your meals with only a few extra steps.

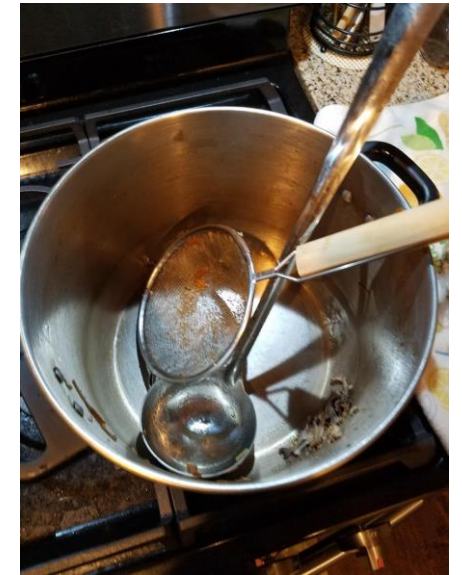


Medicine & Health with Dr. Paul Anderson, NMD

- Cooking for Immune Support: [Part 1 & Part 2](#)
 - What cooking methods, ingredients and combinations help nourish your body and immune system? In this show Dr. Anderson will share his favorite recipes, herbs and spices and food combinations for tasty, nutritious and immune supportive meals.
- Cooking for Immune Support: [Part 3 Sauces & Extracts](#)
 - In the third installment in the “Cooking for Immunity” radio topics DrA will look at the origins of sauces and extracts we use on food. Did they come from a particular need in cooking long ago? What are their modern counterparts? Do they have immune, health and nutritive potential? How can you make your own?
- Cooking for Immune Support: [Part 4 Herbs & Spices as Medicine](#)
 - In this program Dr. Anderson will continue his look at the things we eat, the way they are prepared and ingredients that support our immune function. “Kitchen Medicines” (aka plant and mineral additives we use to flavor food) will be discussed in their traditional, modern and culinary context. It turns out flavor is good for you!
- For additional resources to Dr. Anderson’s wealth of knowledge, please visit: <https://www.consultdranderson.com/>

Making Broth from Vegetable Scraps?

- Save (freeze) all the vegetable peels, skins, ends that you normally would not eat, in a gallon size freezer bag.
- When freezer bag is full, add scraps to large stock pot and fill with water.
- Add 2 tbsp vinegar and 1 tbsp. salt to stock pot.
- Simmer for 1-3 hours.
- Strain the solid pieces out of the broth.
- Ready for serving, or freeze for later use. [Broth freezing tips](#).

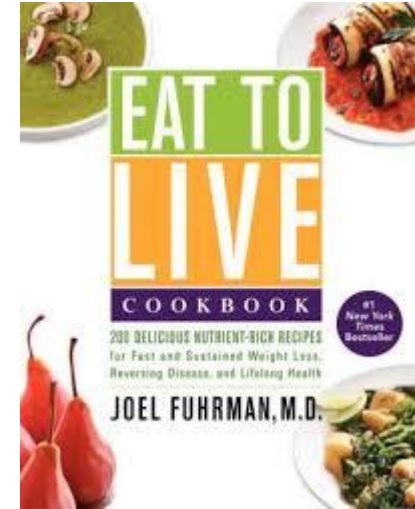




Resources for Nutrient Dense Recipes

- [“Eat to Live” by Joel Fuhrman, MD](#)
- [The Domestic Geek’s Inspired Eats](#)
- [Mind Over Munch](#)
- [Tasty](#)
- [MyPlate Kitchen](#)

inspired
eats



THE
domestic
GEEK



mind over munch®





Summary

- If nothing else, adjusting your daily macronutrient ratios will introduce more variety of nutrients into your body.
- Aim to consume 5 different natural colors of food every day.
- Drink at least half your weight in oz of water each day.
- Get the most out of your groceries by doing what you can to avoid toxic exposures to your food.
- Don't let anything go to waste. Be flexible with your meals and make use of every scrap in your food preparation.
- As always, please seek counsel from a trained healthcare professional for personalized dietary recommendations with regard to specific health conditions and lifestyle goals.

Questions? Thank you.