



BEYOND QUINOA:

HEALTHY DIETARY STRATEGIES FOR ALL

PRESENTER:

MARY PURDY, MS, RDN

REGISTERED DIETITIAN NUTRITIONIST

DISCLOSURES PRESENTER: MARY PURDY, MS, RDN



Past Chair: Dietitians in Integrative and Functional Medicine

Host of The Podcast “Mary’s Nutrition Show”

Faculty at IFNA

Adjunct Faculty at Bastyr University

Independent Nutrition Consultant

LEARNING OBJECTIVES



Identify barriers that affect an individual's ability to engage in healthy eating patterns



Incorporate other elements of an individual's lifestyle into a conversation around diet



Craft and implement a personalized and budget friendly healthy plate for a case study patient

POOR DIET IS
DIRECTLY
RELATED TO
CHRONIC
DISEASES.

- Cancer
- Cardiovascular
- Diabetes
- “a diet full of excessive unhealthy foods, and not enough good foods, is associated with **one in five deaths worldwide**”

THE LANCET



ARTICLES | [VOLUME 393, ISSUE 10184, P1958-1972, MAY 11, 2019](#)

Health effects of dietary risks in 195 countries, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017

[GBD 2017 Diet Collaborators](#) [†] • [Show footnotes](#)

[Open Access](#) • Published: April 03, 2019 • DOI: [https://doi.org/10.1016/S0140-6736\(19\)30041-8](https://doi.org/10.1016/S0140-6736(19)30041-8)



FOOD AND NUTRITION ACCESS IN UNDERSERVED POPULATIONS

- Forty million people in the US, including 12.5 million children, are food insecure. (1)
- Globally, 821 million people are chronically hungry. (1)
- Not a shortage of food
- Poverty and Policy (or lack thereof) play a big role
- We aren't addressing the understand the underlying issue.

ACCORDING TO THE USDA (2)

- 23.5 million people live in food deserts
- 13.5 million of those are low income
- Lower income zip codes
 - 25% fewer supermarkets
 - 30% more convenient stores
 - Processed foods, high in fat and sugar and alcohol



1. <https://foodprint.org/issues/hunger-and-food-insecurity/>
2. <https://www.ers.usda.gov/data-products/food-access-research-atlas/documentation/>

Food Insecurity and the Impact on Health

According to the study *Hunger in America 2014*, which surveyed 60,000 Feeding America clients and 32,000 partner agencies:



24% of households had at least one member in poor health.



66% of households had to choose between food and medical care.



33% had a household member with diabetes.



58% had a household member with high blood pressure.

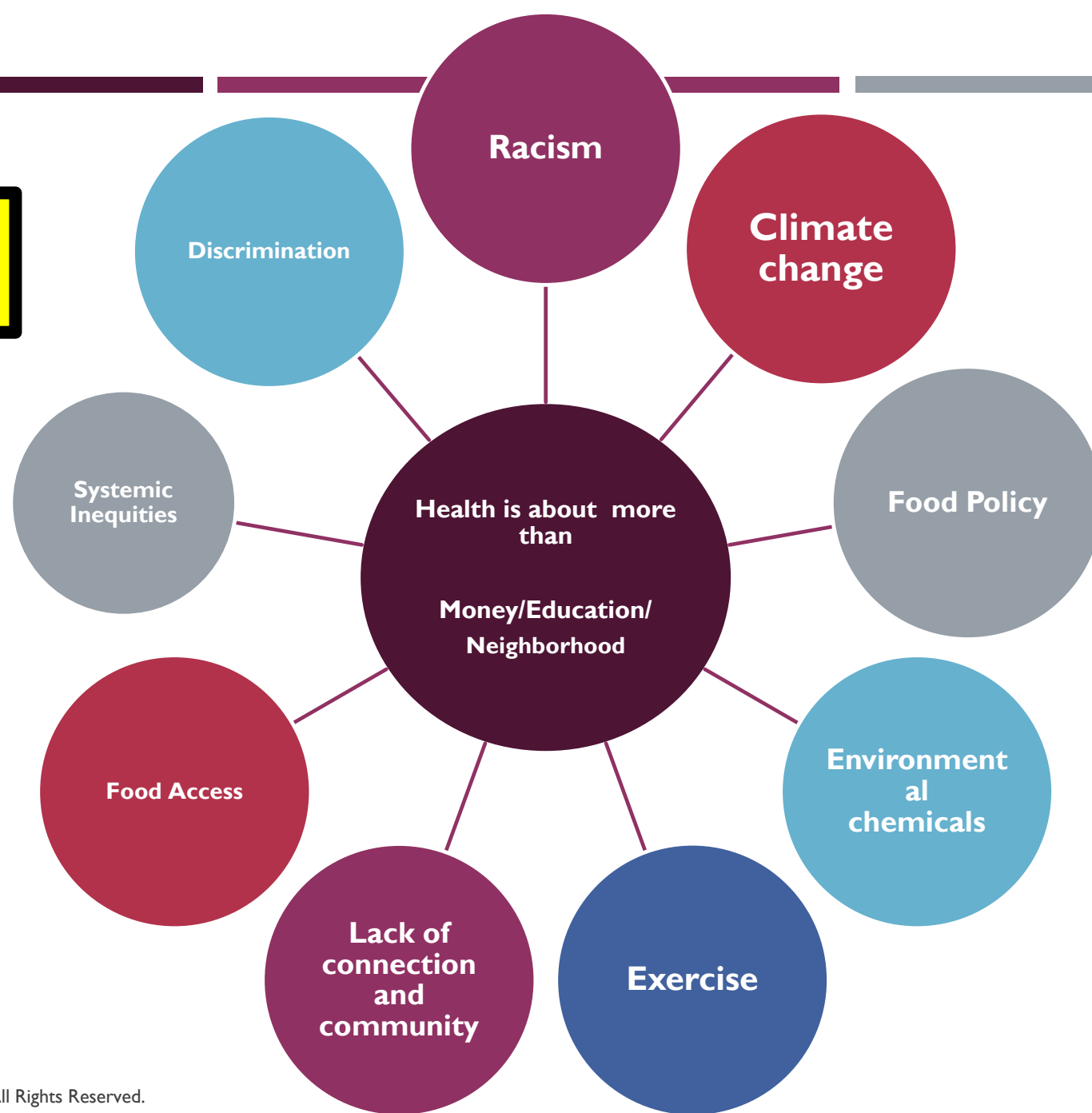
According to research conducted by Feeding America, food insecurity is associated with poorer physical and mental health outcomes.

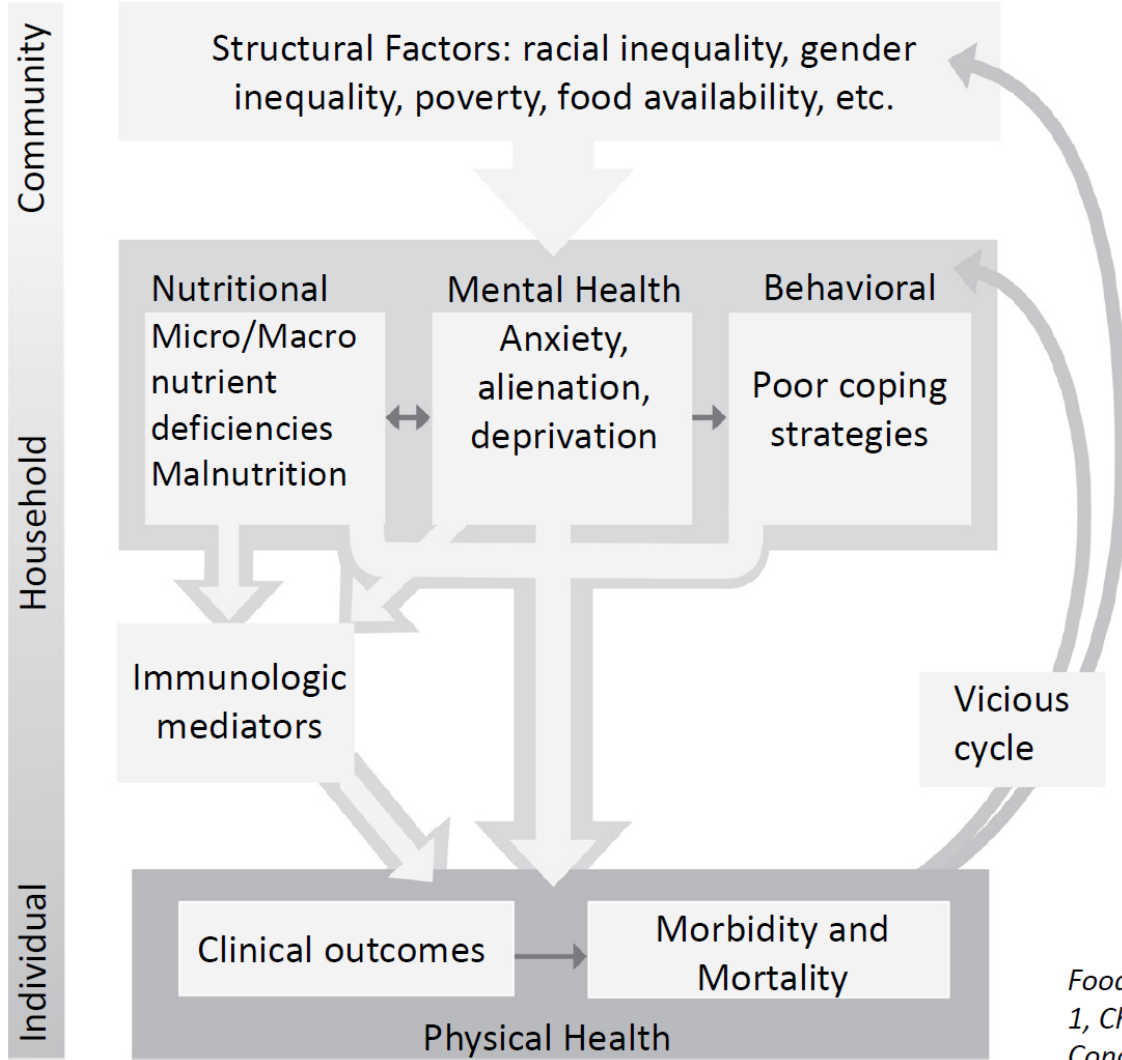


SOCIAL DETERMINANTS OF HEALTH

(LIMITED SCOPE?)

**Much more
than that**





Food Insecurity and Public Health, Edition: 1, Chapter: Food Insecurity and Health A Conceptual Framework, Publisher: CRC Press, Editors: Louise Ivers, pp.23-50



US National Library of Medicine
National Institutes of Health

PubMed ▼

Advanced

Format: Abstract ▼

J Acad Nutr Diet. 2015 Jul;115(7):1102-8. doi: 10.1016/j.jand.2015.01.001. Epub 2015 Mar 10.

Associations between depressive symptomatology, diet, body mass index among participants in the supplemental nutrition assistance program.

Flórez KR, Dubowitz T, Ghosh-Dastidar MB, Beckman R, Collins RL.

Abstract

BACKGROUND: Participation in the Supplemental Nutrition Assistance Program (SNAP) has been shown to increase food security, or access to adequate food; however, SNAP participation has also been associated with obesity among certain demographic groups (e.g., women, but not men and children), possibly due to poorer dietary quality. Depress

ASSOCIATION
BETWEEN
DEPRESSION AND
THOSE ON SNAP

CHICKEN OR EGG?

BEHAVIOR CHANGE IS
HARD.

ESPECIALLY WHEN
JUST MAKING ENDS
MEET IS PRIORITY OR
WHEN DEPRESSION IS
AN ISSUE.



“HEALTHY” LIFESTYLE DOESN’T HAVE TO = EXPENSIVE

- Food can still be medicine
- Not about fancy suppers and superfoods
- Don’t just Give them the WHY! Ask them what their Why is
- Increased risk of mortality associated with lack of life purpose

Association Between Life Purpose and Mortality Among US Adults Older Than 50 Years

Aliya Alimujang, MPH; Ashley Wiensch, MPH; Jonathan Boss, MS; Nancy L. Fleischer, PhD, MPH; Alison M. Mondul, PhD, MPH; Karen McLean, MD, PhD; Bhramar Mukherjee, PhD; Celeste Leigh Pearce, PhD, MPH

Abstract

IMPORTANCE A growing body of literature suggests that having a strong sense of purpose in life leads to improvements in both physical and mental health and enhances overall quality of life. There are interventions available to influence life purpose; thus, understanding the association of life purpose with mortality is critical.

OBJECTIVE To evaluate whether an association exists between life purpose and all-cause or cause-specific mortality among older adults in the United States.

DESIGN, SETTING, AND PARTICIPANTS The Health and Retirement Study (HRS) is a national cohort study of US adults older than 50 years. Adults between the ages of 51 to 61 were enrolled in the HRS, and their spouses or partners were enrolled regardless of age. Initially, individuals born between 1931 and 1941 were enrolled starting in 1992, but subsequent cohort enrichment was carried out. The present prospective cohort study sample was drawn from 8419 HRS participants who were older than 50 years and who had filled out a psychological questionnaire during the HRS 2006 interview period. Of these, 1142 nonresponders with incomplete life purpose data, 163 respondents with missing sample weights, 81 participants lost to follow-up, 1 participant with an incorrect survival time, and 47 participants with missing information on covariates were excluded. The final sample for

Key Points

Question Does an association exist between life purpose and all-cause or cause-specific mortality among people older than 50 years participating in the US Health and Retirement Study?

Findings This cohort study of 6985 adults showed that life purpose was significantly associated with all-cause mortality.

Meaning Life purpose is a modifiable risk factor and as such the role of interventions to improve life purpose should be evaluated for health outcomes, including mortality.

+ Supplemental content



LET'S TALK ABOUT NUTRITION BASICS:



Eating a more “Whole Foods” (real foods) Diet when possible has benefit



Balance and moderation are key



ONCE THE “WHY” IS UNDERSTOOD, EDUCATION CAN BE A GAME CHANGER:

Three main “Macronutrients” (Although food is much more than that!)

Carbohydrates, Fats, Protein

COMPLEX CARBS – WHAT DO THEY DO?

- Provide energy to body and brain
- Contain fiber and important vitamins and minerals that support health
- Keep you full and satisfied
- Help with GI function
- Support healthy cholesterol and blood sugars
- Excess refined carbs/sweets – can deplete energy, lead to lack of focus, unhealthy, empty calories
- ***Relate it to their WHY***

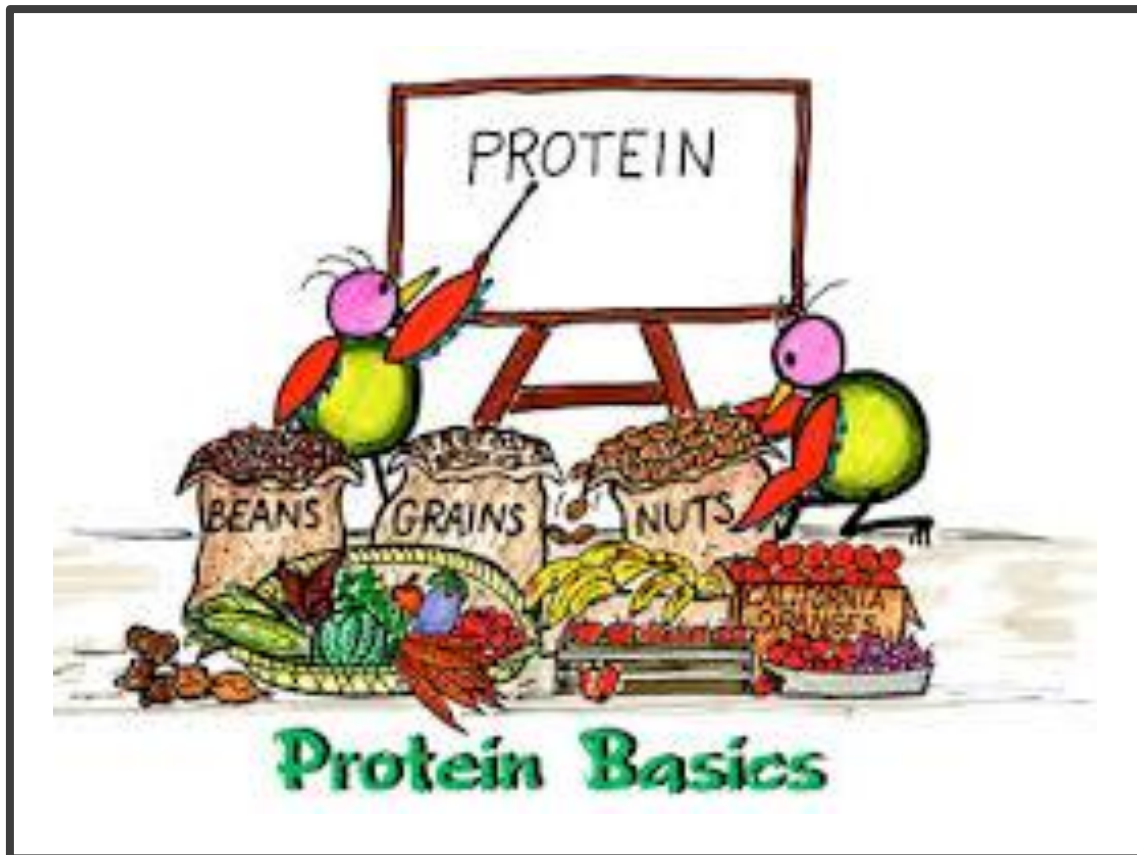


INEXPENSIVE HEALTHY CARBOHYDRATE OPTIONS



- **The bulk aisle:** Deals on grains, flours, beans, dried fruit, dried pasta, polenta (Oats and beans are cheapest)
- Purchase the amount you need or stock up
 - Plan ahead
 - Dried items keep well in airtight containers
- **EASY AND CHEAP:** Whole grain breads, oatmeal and pasta –often available at local drugstore or convenient stores
- **HELPING WITH CHANGE FROM REFINED CARBS:** ASK: “What do you love about _____”
 - Discuss Alternatives: Nuts in place of chips

PROTEIN – WHY IMPORTANT?



- A building block needed to build skin cells, hair, blood, organs, muscles
- Maintains a strong immune system
- Helps your body repair, from paper cuts to broken bones
- Balances blood sugar
- Supports healthy mood
- Can help reduce sugar cravings
- ***Relate it to their WHY***

HOW MUCH PROTEIN DOES ONE NEED?

- Varies from person to person
- Healthy, active people need around 1 gram of protein per kilogram of their healthy body weight
 - Divide weight in pounds by 2.2 to get weight in kilograms
 - Example: 150 lbs. = 68 kg, so daily protein need = 68 grams
 - Simple = A little less than $\frac{1}{2}$ their typical body weight
 - If overweight - work with a more “ideal body weight”
- Aim for **15-25 grams** of protein **per meal** and **5-10 grams** of protein in **a snack**
- 2 eggs = 14 grams
- 1 cup beans/lentils = 15-18 grams
- $\frac{1}{4}$ cup nuts = 4-7 grams
- 3 ounces meat = 21 grams
- 8 oz yogurt = 10-25 grams
- 8 oz cottage cheese = 25 grams
- 3 ounces tofu = ~10 grams
- 1 cup edamame = 15 grams
- All foods have some protein in them.



HEALTHY INEXPENSIVE PROTEIN OPTIONS: MOSTLY VEGETARIAN



- Eggs: \$3-\$6 for 6 servings
- Cottage Cheese = \$3-\$5 for 4 servings
- Peanut butter = \$3-\$5 for 10 servings
- Beans, lentils, nuts, seeds
 - Bulk or canned! \$1-\$3 for 2-4 servings
 - Frozen already cooked
- Soy foods are also inexpensive options
 - \$2-\$4 for two servings or more
 - Go for **unprocessed**

Side note: Better for the Planet!

LESS EXPENSIVE MEAT OPTIONS

- Combine with cheaper proteins like beans – Chili/soups
- Chicken sausages = \$5 for 4 servings
- Buy meat on sale and freeze it
- Canned tuna or sardines = \$3 for 2 portions
- Buy whole chickens or turkeys instead of parts
 - Make stock from the bones



FAT – WHY DO WE NEED IT?

- Protects and cushions organs
- Stores and provides energy
- Aids in absorption of fat-soluble vitamins
 - A, D, E and K
- Provides flavor and enjoyment to food
- Provides satiety and fullness
- Slows digestion, helps stabilize blood sugar
- Important for brain health
- ***Connect to their why.***



FOCUS ON HEALTHY FATS

- **Essential Fatty Acids: Omega 3 & 6's**

- Fish, nuts, seeds and their butters
- Help support heart and brain
- EDUCATE: Mindful of excess oils – refined and processed
 - Unhealthy calories and possibly inflammatory in large amounts

- **Monounsaturated Fats**

- Olive oil
- Olives
- Almonds
- Avocados
- Canola Oil - cheaper



- **Avoid Trans fats or “partially Hydrogenated oils”**

- Processed foods
- Raise cholesterol, contribute to blood sugar issues
- Inflammatory

- **Mindful of Saturated fats**

- **Sources:** animal products like meat, cheese, butter and coconut, palm, peanut and cotton seed oils
- “How could you see yourself getting in more _____/less_____?”
- “What are some options?”

HEALTHY INEXPENSIVE FATS

- Purchase high quality oils when they are on sale – watch for coupons
 - Check drug stores for less expensive olive oil
- Purchase raw nuts and seeds
 - Roast, toast or flavor at home!
 - Sunflower and Pumpkin seeds are less expensive
 - Peanuts and nut butter
- Olives can be inexpensive
- Ripe Avocados on sale – make guacamole





WHY FRUITS AND VEGETABLES?

- Provide a variety of vitamins and minerals – Vitamins C and B, potassium, etc.
- Full of antioxidants to enhance immune system function and promote optimal wellness
- Provide energy
- Contain fiber & fluids
- Sweetness
 - A natural dessert!

Connect to their why

“What is your favorite fruit/vegetable? What did you love as a kid?”

CHEAPER FRUIT AND VEGGIE OPTIONS (*YES, PICKLES ARE VEGETABLES!*)



- Buy Frozen/canner fruits and veg
- Jarred Veggies and Salsas
- Vegetable juices
- Buy Dried Fruit
- ADD less expensive (but healthy!) vegetables like cabbage and carrots to salads, stir-fries and soups
- Purchase hardy fruits and Veg that last in the fridge: Hardy like carrots, potatoes, cabbage, apples,
- Fermented vegetables: sauerkraut, kimchi, pickles
 - Support GI function
 - Flavor
 - Satiety
 - “Where could you see yourself adding these?”

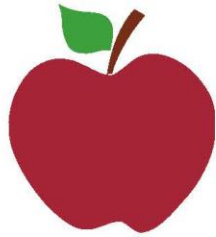
REALITY CHECK

Gas Station:

- Veggie Drink: \$1.99
- “Energy Drink”: \$2.59

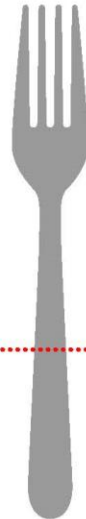


Bastyr Healthy Plate



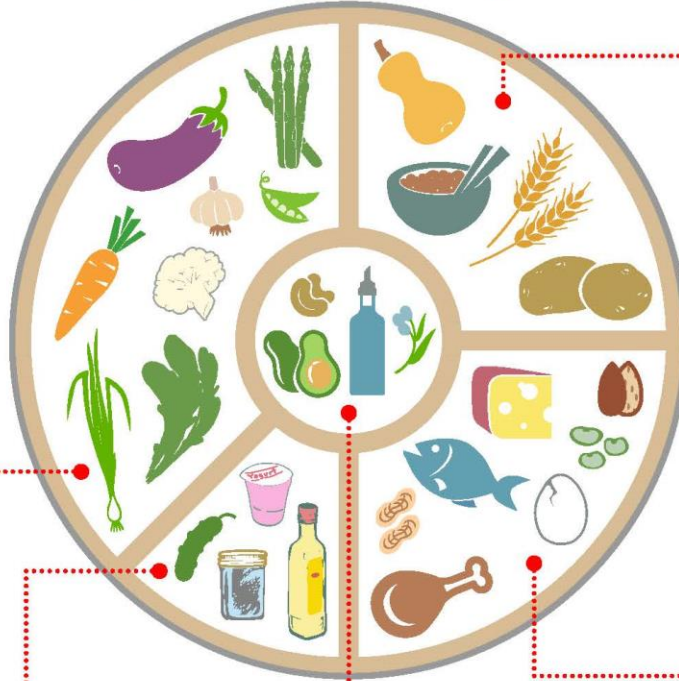
FRUITS

Consume a variety of fruits each day with meals, snacks or as a healthy dessert choice.



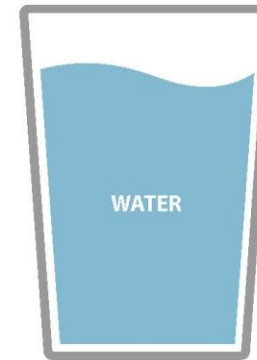
VEGETABLES

Fill your plate with a variety of raw and cooked vegetables. Include at least one green vegetable and one other color of vegetable with every meal.



WHOLE GRAINS & STARCHES

Include high-fiber whole grains such as brown rice, quinoa, oats, whole grain breads and pastas or starchy vegetables like sweet potatoes and squash. Limit refined grains: white rice, white breads and pastas.



DIGESTIVES

Fermented foods such as sauerkraut, yogurt, miso, tempeh, kimchi, apple cider vinegar, kombucha, kefir and lacto fermented vegetables can aid in immune function, digestion and support the normal flora of the digestive tract.

HEALTHY FAT

Includes fats from whole foods such as avocado, nuts, seeds and fatty fish. Use cold pressed oils such as olive and sesame for dressings and marinades and olive oil, coconut oil and butter for cooking and baking.

PROTEINS

Include a variety of healthy plant proteins such as legumes, nuts and seeds, and animal proteins like fish, poultry, eggs and dairy. Select organic, free-range or grass-fed animal proteins when possible.

BASTYR CENTER
FOR NATURAL HEALTH

*the teaching clinic
of Bastyr University*

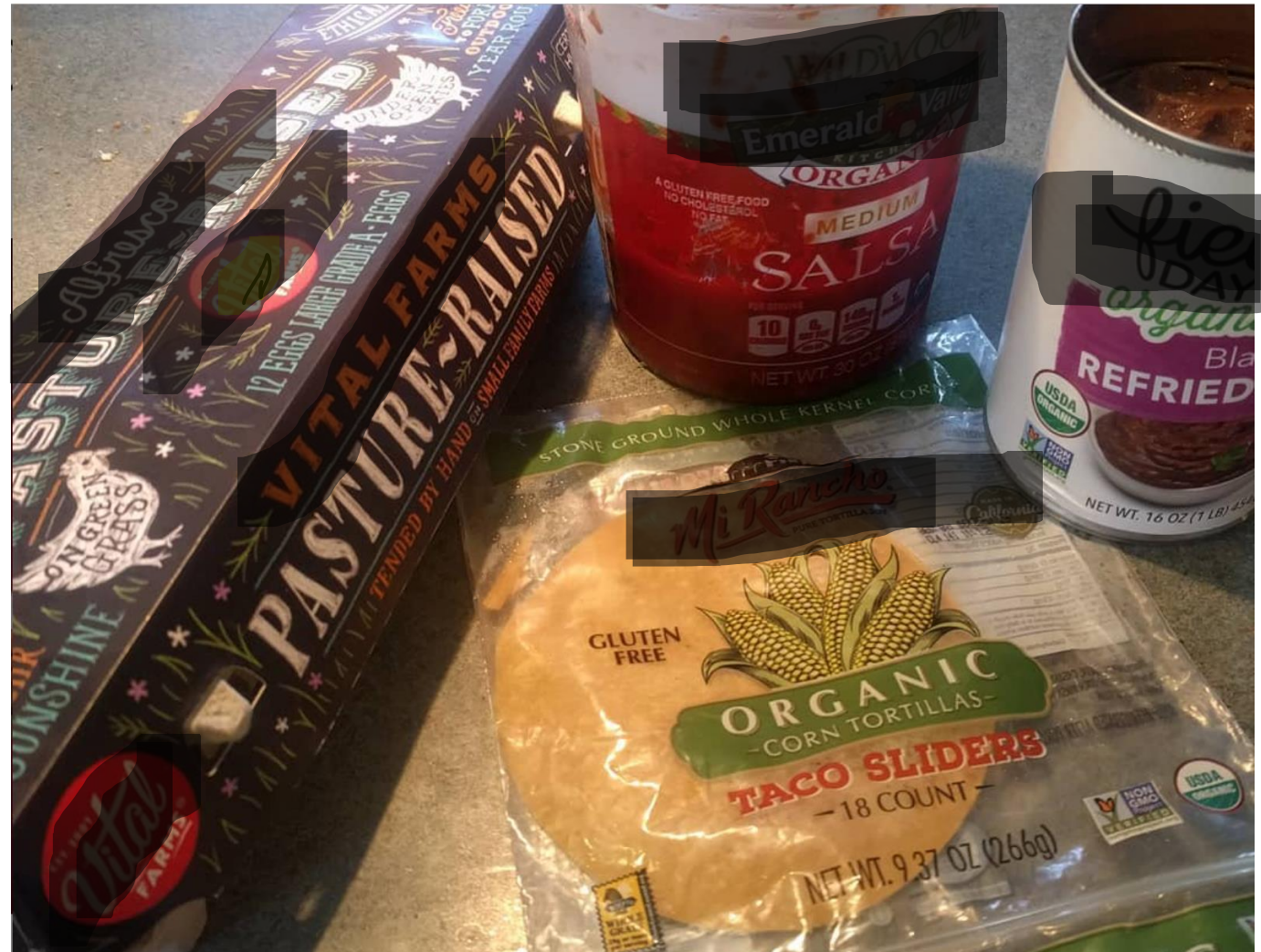
www.BastyrCenter.org

SIMPLE/EASY MEALS



CHEAP MEAL

- Dozen Eggs: \$6
- 12 Tortillas: \$3
- 16 oz Refried beans \$2
- Salsa: \$3
- 6 servings at \$14 = \$2.33
- Egg McMuffin = \$3.99
- 2 Soft Tacos from Taco Bell = \$2.38





Shop store brands

Stock up on things on sale & seek out coupons & deals



Buy in bulk



Purchase food that lasts in the fridge and on shelves

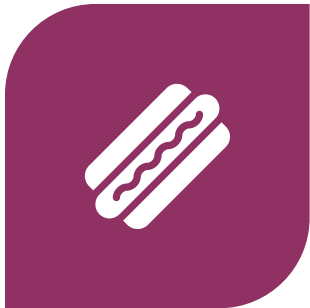
Canned, frozen, Hardier veg: cabbage, carrots, potatoes



Buy fewer packaged foods

8 WAYS TO EAT HEALTHY AND SAVE MONEY

8 WAYS TO EAT HEALTHY AND SAVE MONEY



**PACK LUNCH/BRING
FOOD/SNACKS** WITH YOU –
FREEZE WATER BOTTLE FOR A
COLD PACK



AVOID BUYING DRINKS –
BRING WATER BOTTLE



**EATING HIGHER FIBER
FOODS** = BEING FULLER =
SAVING MONEY



COOK MORE AT HOME

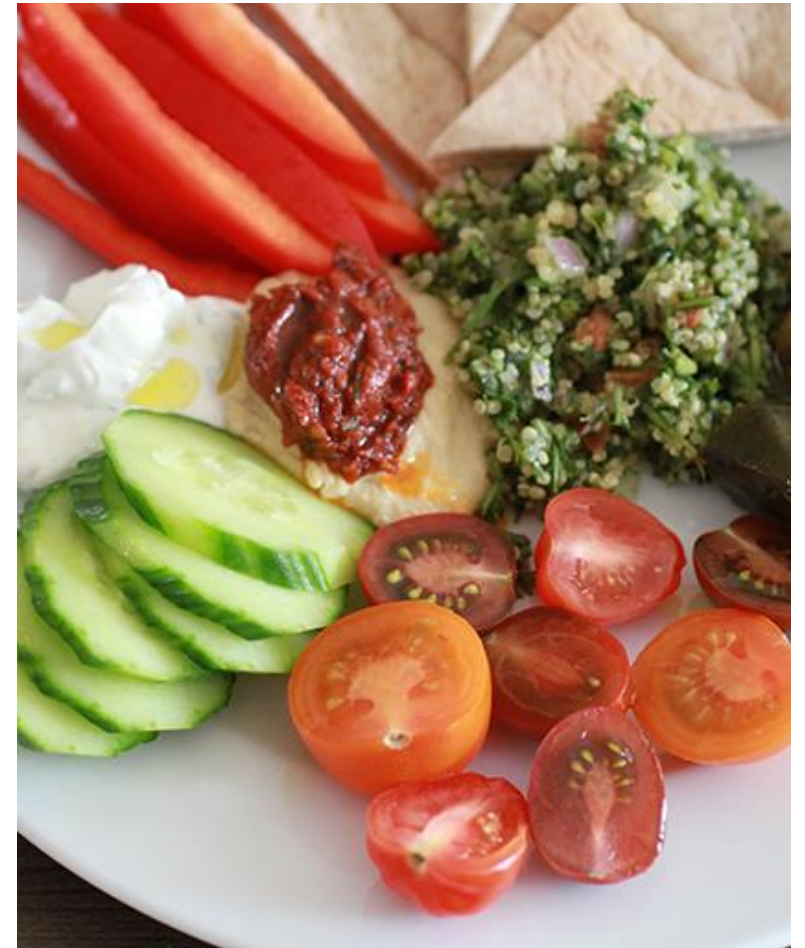


IN SHORT?

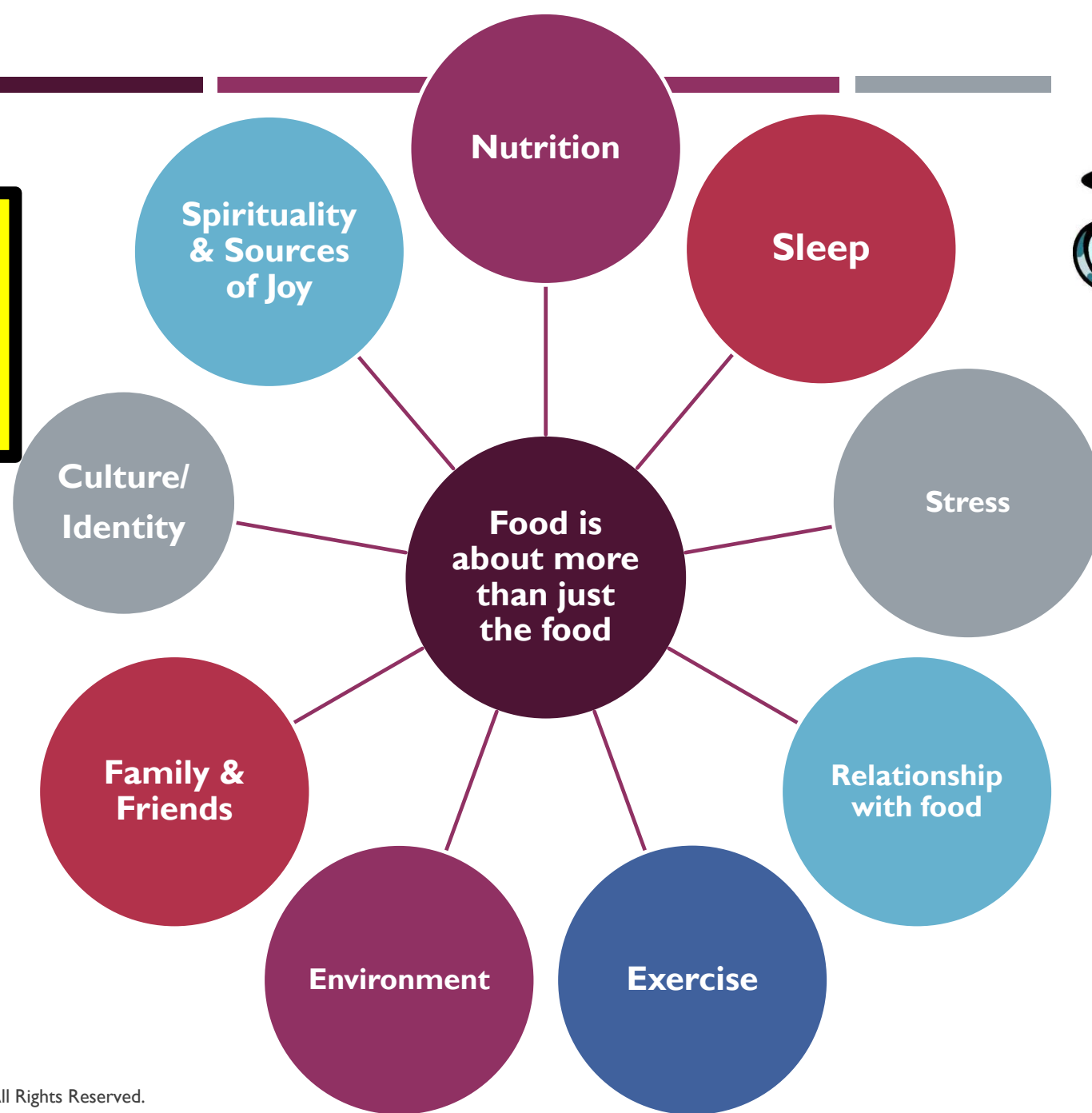
COOK MORE AT HOME
WHENEVER POSSIBLE!

IDEAS FOR YOUR PRACTICE:

- Offer grocery store tours – compare prices, show labels, shop on periphery
- Brainstorm about meal items in their pantry
- Connect around culture associated foods or meal rituals
- **Podcast & Book:** “Good and Cheap”– eating on \$4/day
 - <https://www.splendidtable.org/episode/588>
- **Feeding America:** Find Your Local Food Bank:
<https://www.feedingamerica.org/find-your-local-foodbank>
- Encourage making healthier choices at less healthy places
 - Crafting a Healthy Meal from 7-Eleven/McDonald's/Your local drugstore
– Look at a menu list together.



**Connection
to food and
other lifestyle
factors**



SLEEP AND NUTRITION

- 7–19 percent of adults in the United States reported not getting enough rest or sleep every day.
- Linked to many chronic health problems, including heart disease, kidney disease, high blood pressure, diabetes, stroke, obesity, depression and Alzheimers. 1,2,3,
- Affect on mood and productivity
- Affects what and how much we eat.
 - Poor sleep -> higher levels of Grehlin (hunger hormone) and lower levels of Leptin (the full hormone) -> overeating (1)
 - Food Choices shift
 - People crave more carbs and yet less insulin sensitive



1. NIH, 2018;
2. Bubu et al 2017
3. AHA 2016

SLEEP SOLUTIONS

■ Some Reasons for less optimal sleep

- Diet: Caffeine, Alcohol. Too few/too many cals or liquids. Simple carbs before bed
- Environment: Blue light,
- Poor Sleep Hygiene
- Over stimulation
- Stress/Anxiety



■ Possible Solutions

■ ASK:

- Tell me about your sleep.
- What role does sleep play in your life?
- How important is sleep to you?
- What do you notice about your eating patterns when you don't sleep well?

■ DISCUSS:

- Sleep hygiene/Bedtime/wind-down routine
- Realistic Electronics/Blue light exposure
- Intake of stimulants (food, exercise) before bed or overall dietary make up.
- Physical Activity

STRESS AND NUTRITION



■ ISSUES:

- Choices are different when we are stressed.
- Cravings increase
- High Cortisol levels can impact heart health
- Can affect how we digest
- Can impact blood sugars.

■ ASK:

- “What are your sources of stress”?
- “What helps reduce your stress”?
- “What impact does stress have on your eating”?
- Help them connect the dots

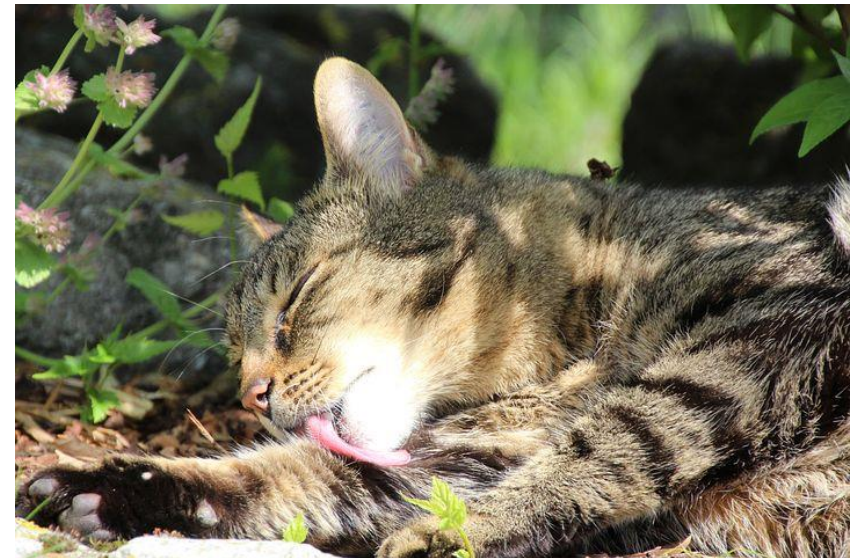
STRESS AND NUTRITION

■ POSSIBLE SOLUTIONS:

- Deep breaths (also before or during meals) ALWAYS FREE!
- Visualization/Meditation/reflection/prayer (1)
- Time in nature (can help to reduce stress/ or parks if they have one nearby (2)
 - Picnic outside if warm
- Encourage them to do more of whatever helps them to relax.
- Include these practices around meal time

■ EDUCATE AND COUNSEL

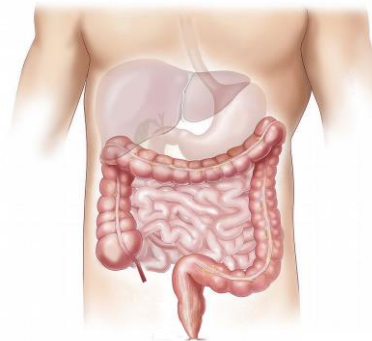
- Sugary and refined carbs can exacerbate stress
- Nutrient dense foods can also support stress levels
- Effect of caffeine and alcohol



1. Systems Biology 2016.
2. Razani, 2018

DIGESTION SUPPORT

- **Ask** about bowel movements:
 - Enough Fiber?
 - Enough Fluids?
- **Connect** dots between Digestive Complaints and diet – bloating, pain, gas, etc.
- **Discuss:** Diet diary/Triggers



- **IDEA/POSSIBLE SOLUTIONS:**
 - Experiment with removing foods
 - Trial adding in more fiber or herbs/spices
 - Some other healthy nutrients to boot
 - Slow down eating
 - Chew

EXPLORE RELATIONSHIP TO FOOD

- Food is very personal.
- Hear their story
- ASK:
 - “What is your relationship to food?”
 - “What does food mean to you?” History? Childhood?
 - “What do you crave?” “When?”
 - “How do you feel about your intake of _____”
- POSSIBLE SOLUTIONS:
 - Talk with/explore with patient his/her relationship with food.
 - Explore negative self talk and encourage neutral talk
 - Encourage awareness of patterns and behavior
 - Nothing can change if we aren’t aware
 - Ensure that they aren’t skipping meals or lacking balance in meals that can increase cravings.
 - Reminder: Balanced plate



EATING ENVIRONMENT & MINDFULNESS

- About creating intention with eating process
- Bringing awareness that can result in: 1,2,3,4
 - Better food choices,
 - Reduced quantity
 - Improved digestion
 - Improved overall relationship with food
 - Understanding triggers
 - Improving health conditions
 - A moment of calm to the day.
- **ASK:**
 - What is your eating environment like?
 - How are you eating? **Where** are you eating?
 - What happens when you eat less mindfully

■ POSSIBLE SOLUTIONS:

- Encourage patient to eat slowly and chew – improves digestion and satisfies hunger
- “Ask how could they see themselves bringing mindfulness to their meals”
- “What would the benefit be?”
- Create a positive environment around eating.
 - Deep breaths before meal
 - Gratitude before meals
 - Light candle?
 - Connect with family/friends around the table

1. Timmerman, 2017;
2. Singh, 2014;
3. Adam, 2007;
4. Ouwens, 2009



CULTURE/IDENTITY + CULTURAL PRACTICES AROUND FOOD

- Culture and Identity can help with feeling connected
- Often associated with family/friends/ritual
- Potential spiritual aspect to it.

- Going back to Traditional Diets can improve health outcomes 1,2,3

- **ASK:**
 - What does food mean to them culturally or from an identity perspective
 - What are traditional foods they used to eat/ are eating? Would like to eat again?



1. Gabriel, 2018;
2. Sproesser, 2018;
3. Popkin, 2012

ENCOURAGE COOKING/MEAL PREP: THE GREAT CONNECTOR



- Better for Health
- Relationship with and Connection to food
 - Purchase an herb plant if possible.
- Connection to community
- Connection to culture and tradition
- Way to slow down and be mindful
- Saves money
- Reduces waste

CASE STUDY: ROSA

- Filipina woman; 41 years old; Working 2 jobs. Works in Hospital Cafeteria during day & Cleans at Long Term Care Facility at night. Very stressed; depressed
- **Med Issues:** High blood pressure, Depression.
- **Medications:** Metoprolol, SSRI
- Currently overweight. 5'6, 205lbs. Usually 160 lbs. Not comfortable in her body
- **SOCIAL HX:**
 - **2** daughters in high school. Husband also working two jobs.
 - Wants to go back to school to be a nurse. Loves her family. Misses her parents and sisters back in Philippines

CASE STUDY FOR ASSESSMENT: LISA

- **Supps:** Centrum Multivitamin (sporadic)
- **Sleeps:** 4-6 hours per night. Not very restful. Up at 4am to get to job at 6am. Bed at 10 or 11pm.
- **Stress & Social Connections:** High stress; Parents both unwell. Very little time to do the things she enjoys or spend time with family or friends. Sundays and every other Monday off. Goes to church when can. Fairly religious.
- **Exercise:** Cleaning at job
- **Energy:** low
- **Environment:** Lives in a low income neighborhood. Not many grocery stores. One park about 1 mile away
- **GI FUNCTION:** Bloating
- Other Questions for her to help fill out her picture and connect the dots?

LISA: TYPICAL DAY OF MEALS

BKFST: Eats at hospital cafeteria. Danish/Bagel and cream cheese 2 cups coffee with 2 scoops of coffee mate & 2 T of sugar. Sometime skips if is too busy. Just has coffee

Snack: orange or banana

Lunch: Hospital cafeteria Turkey & bacon sandwich on white bread with lettuce, tomato, cheese, 1T mayo on white roll+ bag of potato chips. Or fettuccini alfredo and green beans. Sweetened Iced black tea

Snack: Bag of M & M's. Snapple.

Dinner: Fast food while on the way to second job. Eats in car: cheeseburger and fries or Chicken Teriyaki

Dessert or snack when gets home: Bites of Adobo - pork braised in garlic, vinegar, oil and soy sauce,

Bevs: 1 bottle of water

OTHER NOTES: Eats quickly



PONDER & CONSIDER



- How might her diet be contributing to her other issues?
- How might her lifestyle be affecting her dietary choices?
- Where might there be an easy swap?
- How could traditional dietary patterns play a role?
- Where might mindfulness be helpful?
- Where could you begin to help make changes?

QUESTIONS?



Dietitians in Integrative and Functional Medicine

eat right. a dietetic practice group of the Academy of Nutrition and Dietetics



Podcast/Webseries:

- “Mary’s Nutrition Show”

www.MaryPurdy.co

Mary@MaryPurdy.co

Available on iTunes

JUST A FEW RESOURCES

1. American Community Garden Association <https://www.communitygarden.org/>
2. Second Harvest Food Bank in Santa Clara <https://www.shfb.org/>
3. <https://www.fns.usda.gov/> - for food benefits
4. Mindful Eating Meditation - <https://www.thecenterformindfuleating.org/FREE-Meditations/>

REFERERNCES

- Adam, T. Cet al. Stress, eating and the reward system. *Physiology & behavior*, 2007; 91(4), 449-458.
- Alimujiang et al. Association Between Life Purpose and Mortality Among US Adults Older Than 50 Years. *JAMA Netw Open*. 2019;2(5):e194270.
- Bubu OM, et al. Sleep, Cognitive impairment, and Alzheimer's disease: A Systematic Review and Meta-Analysis. *Sleep*. 2017 Jan 1;40(1). doi: 10.1093/sleep/zsw032.
- Hunger and Food Insecurity. FoodPrint.org. <https://foodprint.org/issues/hunger-and-food-insecurity/> Accessed July 2019
- Florez KR, et al. .Associations between depressive symptomatology, diet, and body mass index among participants in the supplemental nutrition assistance program. *JAcadNutrDiet* . 2015;11(5):1102-1108.
- Gabriel AS, et al. The Role of the Japanese Traditional Diet in Healthy and Sustainable Dietary Patterns around the World. *Nutrients*. 2018 Feb; 10(2): 173.
- Health effects of dietary risks in 195 countries, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet*. 2019;393(10184):1958-1972.
- Systems Biology Research Study Reveals Benefits of Vacation and Meditation. MtSinai.org. <https://www.mountsinai.org/about/newsroom/2016/systems-biology-research-study-reveals-benefits-of-vacation-and-meditation>; Accessed July 2019.
- NIH: Sleep Deprivation and Deficiency National Heart, Lung, and Blood Institute. 2018. Accessed July 2019
- NIH: Why Sleep Is Important. National Heart, Lung, and Blood Institute. 2018. Accessed July 2019

REFERERNCES

- Ouwens, M.A et al. Possible pathways between depression, emotional and external eating. A structural equation model. *Appetite*, 2009. 53(2), 245-248.
- Popkin BM, Adair LS, Ng SW. NOW AND THEN: The Global Nutrition Transition: The Pandemic of Obesity in Developing Countries. *Nutr Rev*. 2012 Jan; 70(1): 3–21.
- Razani, N, et al. Effect of park prescriptions with and without group visits to parks on stress reduction in low-income parents: SHINE randomized trial. *PLoS One*. 2018; 13(2): e0192921
- Singh, M. Mood, food, and obesity. *Frontiers in psychology, Front Psychol*. 2014 Sep 1;5:925
- Sleep Duration and Quality: Impact on Lifestyle Behaviors and Cardiometabolic Health: A Scientific Statement From the American Heart Association doi: 10.1161/CIR.0000000000000444 *Circulation*. 2016;134:e367-e386. Accessed July 2019
- Sproesser G, et al. What Constitutes Traditional and Modern Eating? The Case of Japan. 25, ; *Nutrients*. 2018 Feb; 10(2): 118.
- Systems Biology Research Study Reveals Benefits of Vacation and Meditation. *Mount Sinai*. August 2016.
- Timmerman et al. Self-management of dietary intake using mindful eating to improve dietary intake for individuals with early stage chronic kidney disease. *J Behav Med*. 2017 Oct;40(5):702-711.
- The Center for Mindful Eating. The Center for Mindful Eating - Guided Mindful Eating Meditations.
- USDA Economic Research Service. Documentation. <https://www.ers.usda.gov/data-products/food-access-research-atlas/documentation/> Accessed July 2019