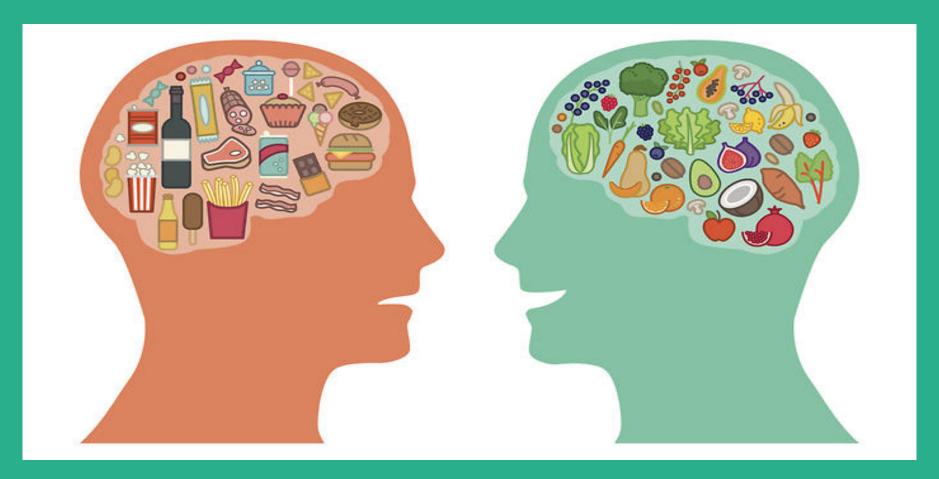
FOOD, MOOD, & GPA



Presenter: Zeina Ghoul, LLPC

Objectives

- Reflect on your past and current food choices
- Learn how food choices may impact your mood and academic performance
- Address barriers to healthy food choices
- Create a plan to build nutrition habits that supports academic performance

Mom: How is your first month at the college going? Are you eating healthy?

Me:



11pm:Can't sleep because of too much caffeine. Feels depressed - wastes time on Netflix to mask feeling and crashes

9:15am

Woke up late – no time to pack a healthy meal

Rushes to Zoom class

6:30pm
Starving. Misses class, picks up Chick-fil-A

Case Study 18 year old female 15 olbs sedentary lifestyle 10am

Groggy in class -grabs a zombie Frappuccino after

3pm Feels tired, ready for a nap

11:30pm Amped up and ready to study after class

2pm

Doesn't have anything healthy to eat. Picks up

Panda Express

12pm

Sugar crash! Can't focus.

"Maybe some food will perk me up?"

Grande Zombie Frapp w/Whole Milk & Cinnamon Raisin Bagel

Your Starbucks Meal **Nutrition Facts** Serving Size Calories 715 Calories From Fat 177 **Amount Per Serving** Total Fat 19g 29% Saturated Fat 10.6g 53% Trans Fat 0.3g Cholesterol 55mg 18% 624mg 26% Sodium **Total Carbohydrates** 129g 43% Dietary Fiber 4g 16% 74g Sugars 16g 32% Protein 15% Vitamin A Vitamin C 0% 4% Calcium 26% *All percent daily value figures are based on a 2,000 calorie diet. Nutritional information source: Starbucks

Broccoli Beef Fried Rice, Veggie Spring Roll, Medium Mist Iced Tea

Serving Size	?	
Calories	830	
Calories From Fat	270	
	Amount Per Serving	% Daily Valu
Total Fat	30g	46
Saturated Fat	5.5g	28
Trans Fat	0g	
Cholesterol	132mg	44
Sodium	1910mg	80
Total Carbohydrates	120g	40
Dietary Fiber	7g	28
Sugars	12g	
Protein	24g	48
Vitamin A		0
Vitamin C		0
Calcium		0
Iron		0

Chicken Deluxe Sandwich, Large Dr. Pepper, Medium Waffle Fries

Serving Size	?	
Calories	990	
Calories From Fat	369	
	Amount Per Serving	% Daily Value
Total Fat	41g	639
Saturated Fat	10.5g	530
Trans Fat	0g	
Cholesterol	75mg	25
Sodium	1915mg	80
Total Carbohydrates	120g	40
Dietary Fiber	8g	329
Sugars	41g	
Protein	36g	729
Vitamin A		30
Vitamin C		179
Calcium		229
Iron		21

Nutritional information source: Chick-fil-A

Total Calories: 2,535 Estimated total calories needed to maintain weight at current energy expenditure: 1,934

Total Sugars: 1279

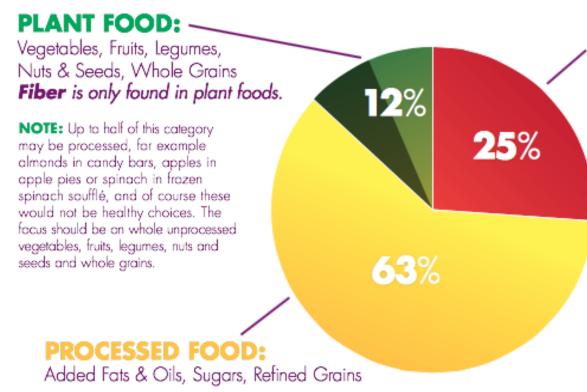
Total Fiber: 19g

Can you relate? Reflect on your food choices in the past. After eating certain foods, have you felt:

- •Tired?
- •Irritable?
- •Unfocused?
- Depressed?



U.S. FOOD CONSUMPTION AS A % OF CALORIES



ANIMAL FOOD:

Meat, Dairy, Eggs, Fish, Seafood **Cholesterol** is only found in animal foods. Animal foods are the PRIMARY source of saturated fat.

GUIDE TO HEALTHY EATING:

Much easier to understand than the USDA Food Pyramid, with no food industry influence.

Eat **LESS** from the animal and processed food groups and **MORE** whole foods from the plant food group.

In general, food from the animal and processed food group contribute to disease, while **WHOLE** foods from the plant group contribute to good health.

The Standard American Diet

Highly processed High in caffeine High in refined & **satu**rated fats Low in fiber

Low in whole fruits and vegetables

High in refined carbohydrates

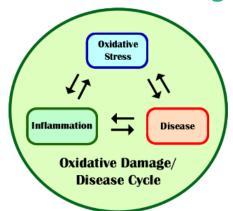
How much sugar is in your food?



https://www.youtube.com/watch?v=4kieTRLt8ks

Consequences of a Standard American Diet

- Inflammation → Oxidative stress
- Nutrient deficiencies (6)
- Weakened immune system
- Increased risk of depression and anxiety
 (1,2,5)
- Reduced hippocampal volume (3,4)
- Reduced level s of BDNF (3)



High GI vs Low GI Foods

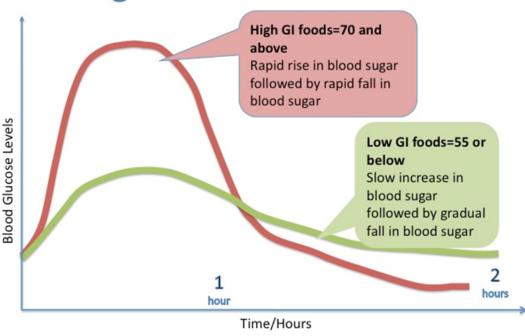


Image adapted from: www.gisymbol.com (University of Sydney)

Better Options

- Whole foods
- Unrefined fats and carbohydrates
- Fruits and vegetables
- Legumes
- Whole grains
- Water



Barriers to Healthier Food Choices



Problem: Emotional Eating

The Eight Traits of Emotional Hunger		
Emotional Hunger	Physical Hunger	
Sudden One minute you are ok the next you are obsessed with food.	It Comes On Slowly Hunger is gradual and progressive	
Food Specific All you can think about is "chocolate"	Not Food Specific You don't crave one food but food in general	
It's Obsessive One minute you are ok the next you are obsessed with food.	It's Physical You feel growling in your stomach	
Comes With An Upsetting Emotion Likely happen with a "situation"	You Aren't Obsessed You can wait to eat	
Urgent Urge to eat now!	It's Time To Eat it's likely been a while since you last ate	
Absent-Minded Eating You are not present with your food	You Are Present You chose your food with thought and enjoyment	
Don't Stop Eating Even When Full You are not present enough to feel fullness	You Can Feel Your Fullness You stop when full	
Guilt You feel bad that you eat this food or so much	No Guilt You ate because hungry and you move on.	

Problem: No Time to Eat Healthy



https://www.youtube.com/watch?v=wLAAJPgyllU

Problem: Expenses

- The W Food Pantry: https://thew.wayne.edu/
- The Michigan Department of Health and Human Services: https://thew.wayne.edu/mdhhs
- Frozen fruits/vegetables
- Plan weekly meals and budget



\$5.99/16 oz



\$2.50/10 OZ

Total savings: \$2.25



\$1.99/160Z



\$0.99/12 OZ

Solution: Healthier food can be "cheap" too



Based on what we discussed, why do you think nutrition important to academic success?

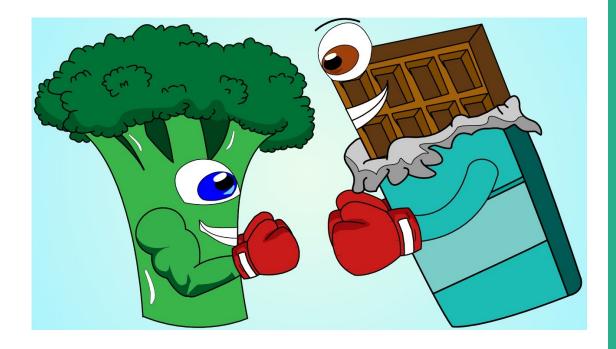
- Food intake can influence
 - Concentration
 - Ability to learn
 - Stress/mental health



Think/Pair/Share

In a group talk about the following:

- What are some nutrition goals you have?
- Why do you want to change?
- What steps can you take to create change?



Additional Resources

- https://www.foodandmood.org/
- https://nutritionfacts.org/
- Apps:
 - https://www.myfitnesspal.com/
 - <u>Healthy eating on the go:</u> <u>https://play.google.com/store/apps/details?id=com.jacobsmedia.foodtrip&hl=en</u>
 - Food Score: http://www.ewg.org/foodscores/
 - Nutrition Facts

References

- Jacka, F. N. et al. Association of Western and traditional diets with depression and anxiety in women. Am J Psychiatry, 167(3), 305-311 (2010).
- Jacka, F. N., Mykletun, A., Berk, M., Bjelland, I., & Tell, G. S. The association between habitual diet quality and the common mental disorders in community-dwelling adults: the Hordaland Health study. Psychosom Med, 73(6), 483-490 (2011).
- Jacka, F. N., Cherbuin, N., Anstey, K. J., Sachdev, P., & Butterworth, P. Western diet is associated with a smaller hippocampus: a longitudinal investigation. BMC Med 13, 215 (2015).
- 4. Molteni, R., Barnard, R. J., Ying, Z., Roberts, C. K., & Gomez-Pinilla, F. A high-fat, refined sugar diet reduces hippocampal brain-derived neurotrophic factor, neuronal plasticity, and learning. Neuroscience, 112(4), 803-814 (2002).
- 5. https://www.mealenders.com/how-diet-affects-your-brain/
- 6. https://www.rainbowrehab.com/food-for-thoughts-nutritions-role-in-proper-brain-development-and-cognitive-function/

General References

- Lieberman, H. (2003). Nutrition, brain function, and cognitive performance. Appetite, 40, 245–254.
- M. Vandewoude, P. Barberger-Gateau, T. Cederholm, P. Mecocci, A. Salvà, G. Sergi, E. Topinkova, D. Van Asselt Healthy brain ageing and cognition: Nutritional factors European Geriatric Medicine, Volume 7, Issue 1, 2016, pp. 77-85
- Elena Philippou, Dietary patterns and cognition: food for thought or ... still more thought necessary?, The American Journal of Clinical Nutrition, Volume 110, Issue 4, October 2019, Pages 801–802, https://doi.org/10.1093/ajcn/nqz203
- Strasser, B., Gostner, J. M., & Fuchs, D. (2016). Mood, food, and cognition: Role of tryptophan and serotonin. Current Opinion in Clinical Nutrition and Metabolic Care, 19(1), 55-61. doi:10.1097/MCO.000000000000237