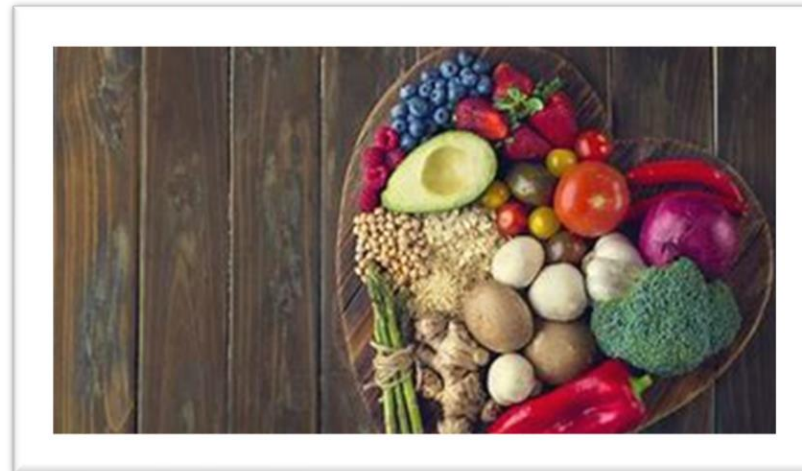


# Integrative Health Center Optimal Health Class Series

## **MEETING # 2 –PLANT BASED DIETS**

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# What is a plant-based diet?

...Plant-based focus on whole foods primarily from plants.



... Processed food veggie diet



# What is a plant-based diet?

Types of plant-based diets:

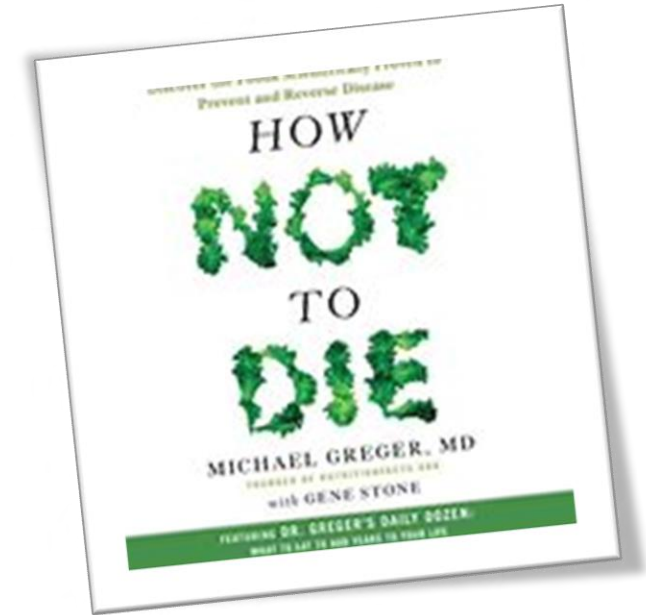
- **Vegan**
- Vegetarian
- Ovo-tarian
- Pescatarian
- Flexitarian/Nutritarian



# What is the Healthiest Diet?



<https://nutritionfacts.org/video/what-is-the-healthiest-diet>



# Why go Vegan?... Health!

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Whole food Vegan diets...

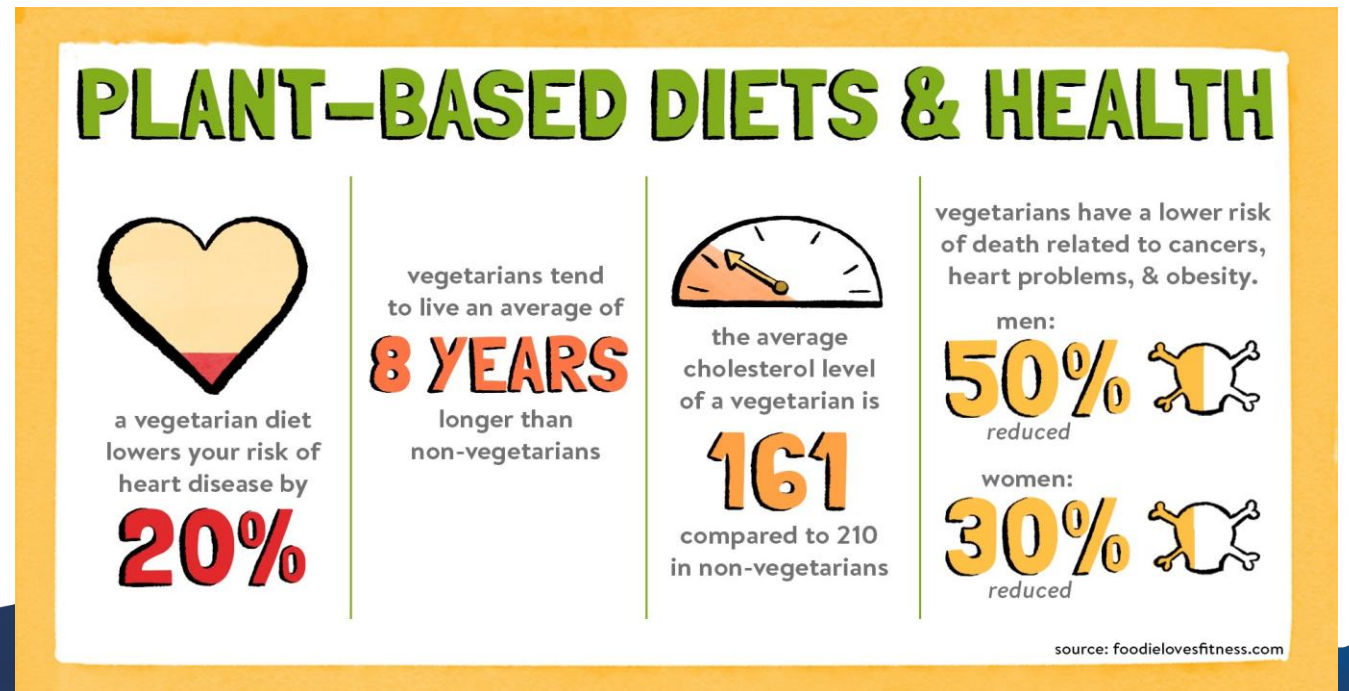
1. Provide more fiber, antioxidants & beneficial plant compounds
2. Higher in many micronutrients: K, Mg, Vitamins A, C, E
3. Promote weight loss & maintenance



# Why go Vegan?... Health!

Whole food Vegan diets...





4. Can lower blood sugar, insulin resistance & improve kidney function.
5. Protect against many cancers, lower the risk of renal disease & reduces inflammation.



# Plant Based Proteins

## ...9 essential amino acids

- Most plant-based proteins are inadequate in at least one
- Eating a balanced plant-based diet can easily meet these needs
- Plant sources of complete protein: quinoa, buckwheat, soy, seitan, Ezekiel bread

 Lysine	Lysine is concentrated in muscle tissue and promotes calcium absorption, bone growth, and collagen formation.
 Threonine	Found most commonly in meat, milk, and beans, threonine is vital to the folding and function of proteins.
 Methionine	Methionine is one of two sulfur-containing amino acids that play an important role in the formation of cartilage tissue.
 Other	Histidine, isoleucine, leucine, phenylalanine, tryptophan, and valine are the other six essential amino acids required to create new protein.

- But how much protein do I need??
- $0.8\text{g/kg weight} = 150\# \text{ person needs } 55\text{g/day}$

FOOD	AMOUNT	PROTEIN (GM)	PROTEIN (GM/100 cal)	FOOD	AMOUNT	PROTEIN (GM)	PROTEIN (GM/100 cal)
Tempeh	1 cup	34	10.6	Soy milk, commercial plain	1 cup	7-9	6.6
Soybeans cooked	1 cup	31	10.6				
Lentils, cooked	1 cup	18	7.8	Spaghetti, cooked	1 cup	7	3.7
Black, kidney & pinto beans & chickpeas cooked	1 cup	15	5.4-6.8	Almond butter	2 Tbsp	7	3.4
				Soy yogurt, plain	8 ounces	6	4.0
Tofu, regular	4 ounces	10	10.7	Bulgur, cooked	1 cup	6	3.7
				Sunflower seeds	1/4 cup	6	3.3
Quinoa, cooked	1 cup	8	3.7	Cashews	1/4 cup	5	2.9
Peanut butter	2 Tbsp	8	4.1	Spinach, cooked	1 cup	5	13.0
Almonds	1/4 cup	8	3.7	Broccoli, cooked	1 cup	4	6.7
Whole wheat bread	2 slices	8	5.4	Kale, raw	1 cup, chopped	2.9	8.7



# Plant Based Fats

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## Best fat choices...

- Omega 3 sources: Walnut, flax, pumpkin, & chia seeds, winter squash
- Omega 6 sources: Avocado, olive oil, peanut butter, & tofu

## Fats to limit/ avoid...

- Saturated & highly processed fats: Corn/ vegetable oil, palm oil, margarine



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# A note on soy....

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- Health benefits
  - Reduces risk of heart disease
  - May help with blood sugar, blood pressure, and inflammation
- Health issues
  - Food allergy to soy is common
  - Rarely a woman will be sensitive to the natural plant estrogens in soy
  - Non-organic soy contain pesticide residues (glyphosphates)



# Poll!: Who has had chia pudding?

## 3-Ingredient Chia Pudding

This 3-Ingredient Chia Pudding is made with almond milk, chia seeds & sweetener of choice; it's a healthy snack loaded with protein, fiber and healthy fats!

 <b>Course</b>	Snack
 <b>Cuisine</b>	American
 <b>Prep Time</b>	5 minutes
 <b>Total Time</b>	5 minutes
 <b>Servings</b>	1 serving
 <b>Calories</b>	155kcal
 <b>Author</b>	<a href="#">Yumna Jawad</a>

### Ingredients

- 2 tablespoon chia seeds
- 1/2 cup almond milk or milk of choice
- 1 teaspoon honey or other sweetener, optional
- Strawberries or other fruits for topping

### Instructions

1. Pour ingredients into a jar and mix well. Let settle for 2-3 minutes then mix again very well until you see no clumping.



4.96 from 485 votes

## Nutrition

Calories: 155kcal |  
Carbs: 16g | Protein: 4g  
Fat: 8g | K: 97mg |  
Fiber: 8g | Sugar: 5g |  
Calcium: 301mg |  
Iron: 1.9mg

~4g Omega-3 !!

C. Yes, a balanced, whole foods vegan diet easily offers adequate protein





## Micronutrient: Vitamin B12

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Functions: RBC production, DNA synthesis, nervous system protection

- Supplementation (important!):

- ✓ 50 mcg daily or 2,000mcg weekly

- ✓ Over 65/ breastfeeding : 1,000mcg daily  
(nutritionfacts.org)

- Mostly only consumed by animal sources
- **Plant food sources:** some nutritional yeast, fortified foods (milk, drinks, cereal), tempeh



## Micronutrient: Vitamin D

Functions: Ca & phosphorus absorption for bones/teeth, function of immune system, protection from diabetes & cancer

- Fat Soluble vitamin
- Deficiencies: osteoporosis, fractures, increased risk for CAD & cancers

- Plant food sources: shiitake mushrooms, almond milk, fortified juices & cereals



## Micronutrient: Calcium

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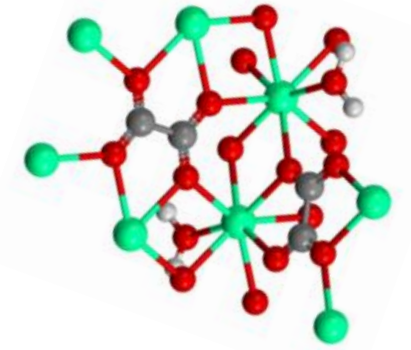
Functions: development and maintenance of bones & teeth; nerve and muscle function

- Can be bound by oxalates (Spinach)
- Deficiencies cause osteoporosis, muscle problems

- Plant food sources: tofu, leafy green vegetables, most beans

# Calcium Absorption & Oxalates

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Found in foods as...

- Bound oxalates (Ca oxalate)
- Free oxalates
- Effect of cooking
  - Decreases oxalate content
  - Effect on calcium not clear

High oxalate foods

- Spinach
  - 4X > oxalates than calcium
  - Only 5% calcium absorbable
- Beet/ greens, rhubarb, Swiss chard, endive, cocoa powder, sweet potatoes







## Micronutrient: Iron

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Functions: a part of hemoglobin (transferring O<sub>2</sub> in blood), energy metabolism, muscle function.

- Adding vitamin C to iron foods can improve bioavailability
- Deficiency: anemia & its symptoms, restless legs, & hair loss

- Plant food sources: most beans & nuts, dried fruit, fortified cereal
  - Cast-iron skillet & molasses



## Micronutrient: Zinc

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Functions: cell growth, immune system function/ wound healing, sexual maturation, night vision, co-enzyme

- Deficiencies: change in taste & smell, sexual maturation, growth retardation, increased infection

- Plant food sources: wholegrains, nuts, legumes, mushrooms, pumpkin, soybeans

## In Summary...



Plant based diets can include vegan, vegetarian, and omnivore diets...***Eat food, not too much, and mostly plants.***



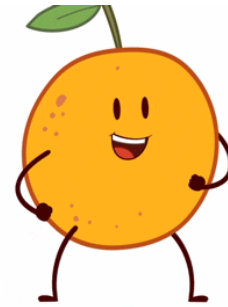
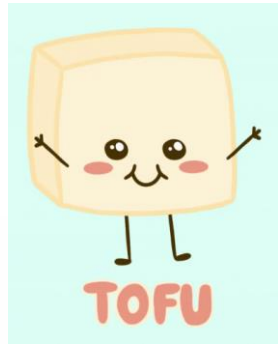
A plant-based diet has been proven to promote optimal health & prevent diseases



A vegan diet can meet all nutritional needs while increasing intake of fiber, EFAs, vitamins and minerals



Food is distinguished from “food like substances” which is most of what Americans eat.





# Time for activities!

1. Grab any vegan item from your kitchen
2. Share your item with the group... discuss
  - Why you chose/ bought this item?
  - Does it contain all essential amino acids?
  - Do you think the item is missing any essential nutrients? (vitamins/ minerals, etc.)
  - Would you consider this item healthy?
3. Can we make a balanced meal/ snack using everyone's items?
4. Presenter to share findings with the group.