

## **Learning Objectives**

- 1. Define the various diets under a vegetarian umbrella (vegan, raw, plant-based, semivegetarian, lacto-ovo vegetarian, flexitarian)
- 2. Identify three reasons one might choose these diet patterns
- 3. List three nutrients of concern in a plant-based diet
- 4. Discuss three ways to work with plant-based eating disorder clients



### What is a Plant-Based Diet?

- Vegetarianism: a diet "that does not include meat (including fowl) or seafood, or products containing those foods"
- Lacto-ovo-vegetarianism: a diet "based on grains, vegetables, fruits, legumes, seeds, nuts, dairy products, and eggs"
- Lacto-vegetarianism: a diet which "excludes eggs as well as meat, fish, and fowl"
- Veganism (total vegetarianism): a diet which "excludes eggs, dairy, and other animal products" (ADA 2009)

What	is:	Pla	nt-Ra	sed	Di	e+?

- Pescatarian: does not include meat (including fowl) but does contain seafood
- Flexitarian: Eats all foods, but 'wakes up with the intention of being vegetarian'
- Meat Minimalist: Conscious effort to reduce animal protein intake
- Plant-Based: diet based on foods derived from plants, including vegetables, whole grains, legumes and fruits, but with few or no animal products.
- Raw: uncooked, unprocessed, mostly organic foods. Some eat unpasteurized dairy foods, raw eggs, meat, and fish. Your food can be cold or even a little bit warm, as long as it doesn't go above 118 degrees.
- Raw Vegan: does not include raw eggs, meat, fish or dairy-products.



### **Eating Disorder Overlap**

- Orthorexia Nervosa: "an unhealthy obsession with otherwise healthy eating. Literally means 'fixation on righteous eating'. Orthorexia [can] start out as an innocent attempt to eat more healthfully, but orthorexics become fixated on food quality and purity" (Kratina 2016).
- Anorexia Nervosa: "an eating disorder characterized by weight loss, difficulties maintaining appropriate body weight for height, age, and stature, and in many individuals, distorted body image. People with anorexia generally restrict the number of calories and the types of food they eat" (NEDA 2016)

# Overview of the Current Research

- Can you follow a plant-based diet and recover from an eating disorder?
- · Traditional dogma says no
- A study by Bardone-Cone et. al (2012) "found that nearly half of their participants with a history of disordered eating reported following a vegetarian diet at some point and cited weight control as a primary reason for this choice" (Barnett et. al. 2016).
- "Food rules", restrictive eating behaviors, and special diets may mask eating disorders by making social acceptable exclusions (pescatarian, vegan, paleo, gluten-free, etc.) (Barnett et. al. 2016)

#### On the Other Hand...

- A study by Timko, Hormes & Chubski (2012) "found that semivegetarians, as opposed to 'true' vegetarians, were more likely to report a disordered relationship with food" (Barnett et. al. 2016).
- The study done by Barnett et. al (2016) "suggests that even if highly engaged alternative food network (AFN) consumers are "obsessed" with healthy and pure foods, this preoccupation may not manifest in disordered eating behaviors" (Barnett et. al. 2016)
- environmental and animal welfare concerns are prominent motivating factors for adopting a vegetarian diet (Bardone-Cone et. al. 2012; Fox & Ward 2008; Barnett et. al. 2016)





## Restrained Eating & Vegetarianism in College Females (Appetite 2011)

- College-age women filled out questionnaires about their eating behavior and their attitudes toward food.
- The women were classified as vegetarian (including vegan), pescovegetarian, semi-vegetarian (no red meat), flexitarian (limited red meat), and omnivore.
- Semi-vegetarians and flexitarians showed more restrained eating behavior compared to both the omnivores and the vegetarians.
- The more restricted their diets -- the fewer animal products they ate—the less likely they were to show signs of disordered eating.

# Weight Control and Vegetarian Diets

- August 2012 issue of the Journal of the Academy of Nutrition and Dietetics on weight control and vegetarian diets.
- Women with a history of disordered eating are more likely to have been vegetarian for weight control reasons than women who had never had an eating disorder.
- Those who use vegetarianism as a way of reducing calories are more likely to experience disordered eating patterns compared to those who adopt vegetarian diets for other reasons.
- Vegetarian, especially vegan diets, are often promoted as a way to lose weight



#### **How Do We Counsel These Clients?**

- 2009 ADA position statement

"It is the position of the American Dietetic Association that <u>appropriately planned</u> vegetarian diets, including total vegetarian or vegan diets, are healthful, <u>nutritionally adequate</u>, and may provide health <u>benefits</u> in the prevention and treatment of certain <u>diseases</u>. Well-planned vegetarian diets are appropriate for individuals during all stages of the life <u>cycle</u>, including pregnancy, lactation, infancy, childhood, and adolescence, and for athletes"



#### Focus on Nutrients, Not Foods

· Adequate in certain nutrients, but lower in others (ADA 2009)

"Vegetarian diets tend to be lower in saturated fat and cholesterol, and have higher levels of dietary fiber, magnesium and potassium, vitamins C and E, folate, carotenoids, flavonoids, and other phytochemicals. These nutritional differences may explain some of the health advantages of those following a varied, balanced vegetarian diet. However, vegans and some other vegetarians may have lower intakes of vitamin B12, calcium, vitamin D, zinc, and long-chain n-3 fatty acids?

Nutrients To B	e Conscious Of:	_	
<ul><li>Protein</li><li>Vitamin B12</li><li>Vitamin D</li><li>Calcium</li></ul>			
• lodine • Omega-3 fatty acids			
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## **Sources & Nutrients**

Nutrient	Source
Protein	Beans / joulses(lentils,lima beans, black-eyed peas, chickpeas), legumes (peas, edamane, hemp), nut & nich buters, seeds (sunflower, pumpkin, chia), high-protein whole grains (rice, quinoa), meat alternatives (tofu, tempeh, seitan), vegetable-based protein powders, milk, yogurt, cheese, eggs
Vitamin B12	Fortified products (cereals), nutritional yeast, cheese, yogurt, milk, eggs
Vitamin D	Sunlight, milk, yogurt, egg, fortified products (cereals, orange juice), cheese, supplemental D2 & D3 (animal derived)
Calcium	Dark leafy greens, cabbage, broccoli, beans, nuts, seeds, tofu, milk, cheese, fortified foods (non-dairy milks, orange juice,), cottage cheese, whole wheat bread

## **Sources & Nutrients**

Nutrient	Source
lodine	Seaweed, grains, milk, yogurt, cheese, eggs, salt (iodine fortified), soy milk
Omega-3 Fatty Acids	Flax seed, chia seed, hemp, walnuts, green leafy vegetables, algae supplements, oils (canola, soybean, flaxseed) edamame
Iron	beans, soyfoods, nuts, seeds, winter squashes, dark leafy green vegetables, dried fruits, oatmeal, quinoa and pearl barley



### Standard 2000-2200 Calorie Exchange Plan

Breakfast	
- 1 fruit	
<ul> <li>1 protein</li> </ul>	
- 2 grains	

2:00 Snack - 1 grain -1 protein

- 1 milk - 1 fat 10:00 SNACK: - 1 fruit - 1 protein

Dinner:
- 3 Proteins
- 2 Grains
- 1 Veggie
- 1 Fat
- 1 Milk

Lunch
- 2 Proteins
- 2 grains
- 1 fruit
- 1 yeggie
- 1 fat

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## With Vegan Substitutions

Breakfast

548 calories, 69g carbohydrates, 23g fat, 23g protein 10:00 SNACK:

166 calories, 27g CHO, 4g fat, 9g protein

- -1 veggie burger patty -100% sandwich roll -1 cup blueberries lettuce, tomato, sliced cucumber -½ avocado -1 cup baked sweet potato cubes
- 605 calories, 100g CHO, 17g fat, 21g protein

2:00 Snack - 1 ounces whole grain crackers -1/4 cup hummus

194 calories, 26g CHO, 8g fat, 5g protein

Dinner: (Taco Bowl)

- Dinner: (Taco Bowl)

   1 cup black beans
   1 cup brown rice
   1 cup steamed spinach leaves
   ½ cup pico de gallo salsa
   ¾ cup guacamole
   1 cup calcium-fortified soy milk
- 673 calories, 110 CHO, 15g fat, 30g protein

8:00 Snack

- fruit juice sorbet bar

## **Vegan Meal Plan Totals:**

- 2227 calories
- 350g CHO
- 63g Fat (11g saturated, 27g monounsaturated, 19g polyunsaturated)
- 89g protein

1363mg calcium (136% RDA) 23mg iron (128% RDA) 14mg Zinc (171% RDA) 5.4 µg Vitamin B12 (224% RDA) 16g linoleic acid 1g linolenic acid

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Removing Labels	
<ul> <li>Focus more on nutrition, less on labels</li> </ul>	The second
Just talk about food!	
<ul> <li>Less likely to use labels themselves</li> </ul>	
<ul> <li>"Liberalizing" diet using vegan versions for challenge</li> </ul>	
Consider supplements	
Be honest with over-hyped claims	
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## In Conclusion:

- Consider personal bias
- $\ ^{\bullet}$  Patients might be less likely to seek help if they feel you are working against them
- Cannot assume someone is vegetarian/vegan for an unhealthy reason
- $\ ^{\bullet}$  "Meet patients where they are" in order to build trust, rapport, and compliance
- $\bullet$  Giving them ACHIEVABLE, REALISTIC goals they can stick to will better help them recover
- "To realize full recovery and to prevent relapse, it is important to consider not only eating behavior and weight, but also psychological, emotional, and social criteria" (Noordenbos & Seubring 2006).



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