

Plant-Based Nutrition Class

Roseville & Sacramento Medical Centers



Agenda

Types of vegetarians

Health benefits

Key nutrients

Cooking & meal planning

Resources & class evaluations

How do you eat?

- A. I eat all foods
- B. I am a vegetarian
- C. I am a vegan
- D. I eat meat occasionally
- E. I don't eat red meat
- F. Other

A wide variety of vegetarians

- **Vegetarian:** includes plant-based foods; eliminates some or all foods from animals
- **Lacto-vegetarian:** includes dairy products
- **Ovo-vegetarian:** includes eggs
- **Lacto-ovo vegetarian:** includes dairy products, and eggs
- **Pesco-vegetarian:** includes seafood
- **Partial vegetarian:** excludes or strictly limits certain meats
- **Vegan:** includes only food from plant sources
- **Macrobiotic diet:** a vegan diet of mostly whole grains, beans, and certain vegetables
- **Fruitarian:** only raw or dried fruits, seeds, and nuts

Can a diet without meat supply the needed nutrients?

Yes!



Health benefits of plant-based diets

- Less heart disease
- Less cancer
- Less obesity
- Less hypertension
- Less diabetes
- May help prevent osteoporosis, diverticular disease, gallstones, and rheumatoid arthritis

Myths

- I'll wither away without meat
- I won't feel satisfied
- It's too expensive
- I'm too busy
- I won't get all the vitamins & minerals I need
- I'll get sick
- I'll get bored

Key nutrients to consider:

- Protein
- Iron
- Calcium
- Vitamin D
- Zinc
- Vitamin B12

Protein

- Helps build and repair body
- Helps keep immune system strong
- Protein is made up of amino acids:
 - 9 essential amino acids (must be in diet)
 - 11 nonessential amino acids (the body can make these)



Protein

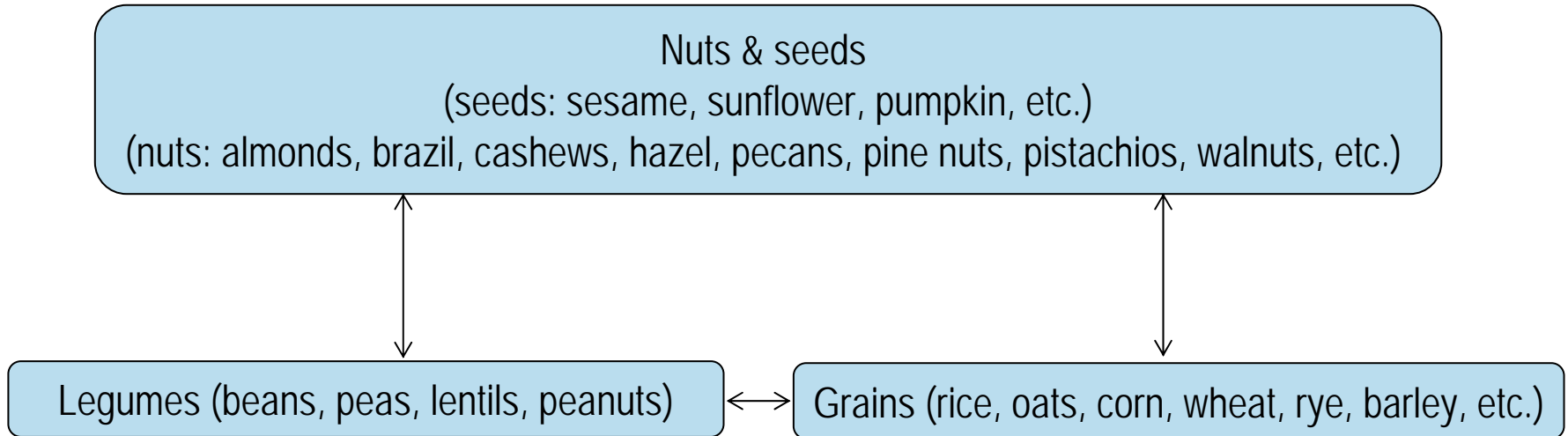
- Protein quality is better when a food is easy to digest and has all the essential amino acids.
- High quality = animal proteins
- Low quality = plant proteins

Protein in legumes

- The protein quality of legumes (beans, peas, lentils, peanuts) is almost the same as that of meat.
- Soy protein can be considered equivalent to meat.



Complementary proteins



Complementary proteins



Protein Total 14 g

$\frac{3}{4}$ c Oatmeal = 5 g
 $\frac{1}{2}$ c Soy milk = 4 g
 $\frac{1}{4}$ c Almonds = 5 g



Protein Total 20 g

1 c Rice = 4 g
1 c Beans = 16 g



Protein Total 18 g

1 $\frac{1}{2}$ c Pasta = 11 g
1 c Vegetables = 4 g
2 T Sunflower or
pumpkin seeds = 3 g

More complementary proteins

- Peanut butter on whole wheat bread
- Split pea soup and bread
- Brown rice and chick peas
- Rice and tofu
- Corn tortillas with beans
- Lentil patty or other veggie burger on a bun
- Bean and barley soup
- Muesli or other cereal with nuts/seeds
- Chickpeas and couscous



How much protein do people really need?

- Depends on body size and stage of growth
- Recommended intake for adults is 0.8 gram per kilogram of ideal weight (0.365 grams per lb)
- Minimum is 10% of total calories
- Athletes may need slightly more (1.0g / kg or 0.45g / lb)

- For example, 5'10" man, 170 lbs needs 62 g protein/day
5'4" woman, 125 lbs needs 45 g protein/day

Protein

Daily recommended amount of protein – grams (g) per day

<u>Age</u>	<u>Male</u>	<u>Female</u>
9-13	34	34
14-18	52	46
19 and older	56	46
pregnant or breastfeeding	--	71

Tempeh, ½ cup	20 g	Split peas, ½ cup	8 g
Tofu, firm, ½ cup	20 g	Beans, ½ cup	7 g
Soy nuts, roasted, ¼ cup	19 g	Walnuts, 1 oz	7 g
Meatless burger, 1 patty	4-18 g	Couscous, cooked, 1 cup	6 g
Brewer's yeast, 1 oz	11 g	Hummus, ½ cup	6 g
Soy milk, 1 cup	10 g	Peanuts, 1 oz	6 g
Lentils, ½ cup	9 g	Sunflower seeds, 1 oz	6 g
Edamame, ½ cup	8 g	Brown rice, cooked, 1 cup	5 g
Peanut butter, 2 Tbsp	8 g	Buckwheat pancakes, 1 oz	3 g
Quinoa, cooked, 1 cup	8 g		

Iron

Daily recommended amount of iron - milligrams (mgs) per day

<u>Age</u>	<u>Male</u>	<u>Female</u>
9-13	8	8
14-18	12	15 (breastfeeding 10)
19 - 50	8	18 (breastfeeding 9)
51 and older	8	8

SOURCES	QUANTITY	MILLIGRAMS (mgs) IRON
Fortified cereals (varies)	1 oz.	4.9 - 8.1
Tofu	½ cup	6.7
Lentils	1 cup	6.6
Spinach, cooked	1 cup	6.4
Sunflower seeds, roasted	3.5 oz.	6.0
Beans, cooked (black, chickpea, kidney)	1 cup	3.0 - 5.0
Seeds, sesame and pumpkin	1 oz.	4.2
Chard, cooked	1 cup	4.0
Oatmeal, instant	1 packet	3.8
Soy nuts, roasted	½ cup	3.4
Potato, baked	1 medium sized	2.8
Green peas, cooked	1 cup	2.5

Calcium

Daily recommended amount of calcium - milligrams (mgs) per day

<u>Age</u>	<u>Male and female</u>
9-18	1300
19 - 50	1000
51 and older	1200

SOURCES	QUANTITY	MILLIGRAMS (mgs) CALCIUM
Collard greens, cooked	1 cup	358
Soy or rice milk, fortified	1 cup	300
Sesame seeds, roasted	1 oz.	281
Blackstrap molasses	2 tbsp.	274
Tofu, firm, made with calcium	½ cup	258
Spinach, boiled	½ cup	245
Orange juice (calcium fortified)	1 cup	200-350
Kale, cooked	1 cup	180
Soybeans, cooked	1 cup	175
Bok choy, cooked	1 cup	150
Mustard greens, cooked	1 cup	100-150
Tahini	2 tbsp.	128

Vitamin D

Daily recommended amount of vitamin D – International Units (IUs) per day

<u>Age</u>	<u>Male and female</u>
1 and older	1000
pregnant or breastfeeding	600

SOURCES	QUANTITY	IUs VITAMIN D
Shiitake mushrooms	4 dried	249
Soy yogurt	1 cup	120
Soy milk or rice milk, vitamin D fortified	1 cup	100
Margarine, vitamin D fortified	1 tbsp.	60
Orange juice, vitamin D fortified	1/2 cup	50
Ready-to-eat cereals, vitamin D fortified	1 cup	40-50

Zinc

Daily recommended amount of zinc - milligrams (mgs) per day

<u>Age</u>	<u>Male</u>	<u>Female</u>
9-13	8	8
14-18	11	9 (pregnant 12, breastfeeding 13)
19 and older	11	8 (pregnant 11, breastfeeding 12)

SOURCES	QUANTITY	MILLIGRAMS (mgs) ZINC
Cereals, ready-to-eat (varies- check the food label)	1 to 1 ½ cups	15.0
Soynuts, roasted	1 cup	8.0
Pearl barley, raw	1 cup	4.3
Wheat germ, raw or crude	¼ cup	3.5
Wild rice, cooked	1 cup	2.2
Pumpkin seeds, roasted with salt	1 oz.	2.1
Bulgur, dry	1 cup	2.7
Quinoa, cooked	1 cup	2.0
Beans (chickpeas, lentils, kidney),cooked	1 cup	1.8 - 2.5
Nuts: pine, brazil, cashews, pecans	1 oz.	1.3 - 1.8

Vitamin B-12

Daily recommended amount of vitamin B-12 – micrograms (mcgs) per day

<u>Age</u>	<u>Male and female</u>
9-13	1.8
14 and older	2.4 (pregnant 2.6, breastfeeding 2.8)

SOURCES	QUANTITY	MICROGRAMS (mcgs) VITAMIN B-12
Soy protein burger crumbles (varies- check food label)	1 cup	10
Cereals, ready-to-eat, vitamin B-12 fortified (varies- check food label)	1- 1 1/3 cup	6
Nutritional yeast, <i>Red Star Vegetarian Support Formula</i>	1 ½ tbsp.	8
Fortified soy and rice milks (varies- check food label)	1 cup	1 - 3

Food groups

Lacto-Vegetarian or Lacto-Ovo Vegetarian

- Grains: 6 or more servings/day
- Fruits & vegetables: total of 6 or more servings/day
- Dairy: 2-4 servings/day.
- Protein: 4 or more servings/day
- Fats and oils: 2 servings/day (*excellent source of omega-3 fat)

Ovo-Vegetarian

- Increase fruits/vegetables to 9 or more servings/day.

Vegan

- Increase legumes/beans to 4 or more servings/day.
- Increase nuts/seeds to 2 or more servings/day.
- Increase grains to 7 or more servings/day.
- Be sure to include good sources of vitamin B12, calcium, iron, zinc, and omega-3 fat.

Lack of nutrients in a diet

- Both vegetarian and meat-containing diets, if not properly balanced, can lack nutrients.
- Poorly planned meat eaters' diets may lack vitamin A, vitamin C, folate, and fiber, among others.
- Poorly planned vegetarian diets may lack iron, zinc, calcium, omega-3 fatty acids, vitamin D, and vitamin B₁₂.

what we include in our diets is

— Dean Ornish, MD



Stocking the kitchen



Cooking substitutions



Keys to plant-based meal planning

- Variety, variety, variety! (keeps diet interesting, maximizes nutrition)
- Unrefined whole foods are best
- Eat fruits and vegetables in season
- Include a fruit or vegetable with each meal
- Children need more fat than adults (avocados, nut butters, nuts, vegetable oils)
- Don't worry if every meal is not perfectly balanced
- Check food labels for low sodium and fat, and high fiber
- Changing the habits of a lifetime cannot be done overnight

Resources

Websites

- www.engine2diet.com (click on Recipes or click on 28 Day Challenge)
- www.meatlessmonday.com
- www.vegetariantimes.com/vegetarian-starter-kit/
- www.vegsource.com (click on Food and then Recipes)

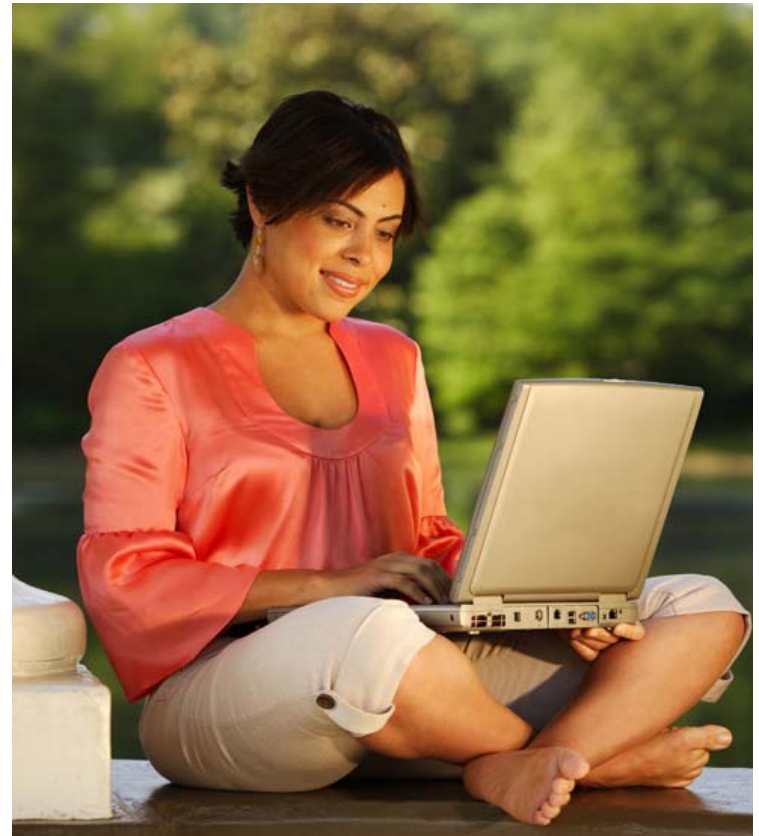
Resources

Books

- Forks Over Knives- The Cookbook by Del Sroufe
- Plant-Based Nutrition by Julianna Hever
- Quick-Fix Vegan: Healthy, Homestyle Meals in 30 Minutes or Less
by Robin Robertson
- Vegan Cooking for Carnivores by Roberto Martin

www.kp.org

- E-mail your doctor
- Order prescription refills (mailed to your home at no additional cost)
- Schedule routine appointments
- View recent lab test results
- Explore interactive health programs and research health topics
- To sign up, visit kp.org/register
- Have questions?
Call (800) 556-7677 for kp.org telephone support



Cancer screening

AGE	18+	30	40	50	60	70	80+
<p>Breast Cancer Screening For women: ages 40 – 69</p> <p>Walk-in mammograms are available at North Valley Radiology.</p>			Have a mammogram every 2 years.				
<p>Cervical Cancer Screening For women: ages 21-64</p> <p>Sign into kp.org to schedule an appointment for a Pap test.</p>		Have a Pap test every 3 years.					
<p>Colorectal Cancer Screening Ages 50 – 80</p> <p>Sign into kp.org and email your doctor to order a FIT test, flexible sigmoidoscopy or colonoscopy.</p>				Have a fecal immunochemical test (FIT) once a year and/or a flexible sigmoidoscopy every 5 years or colonoscopy every 10 years.			

If you are not sure you are due for any of the above screenings, check with your provider.