

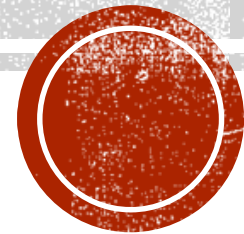
HEART DISEASE PREVENTION

- A DIETARY PERSPECTIVE

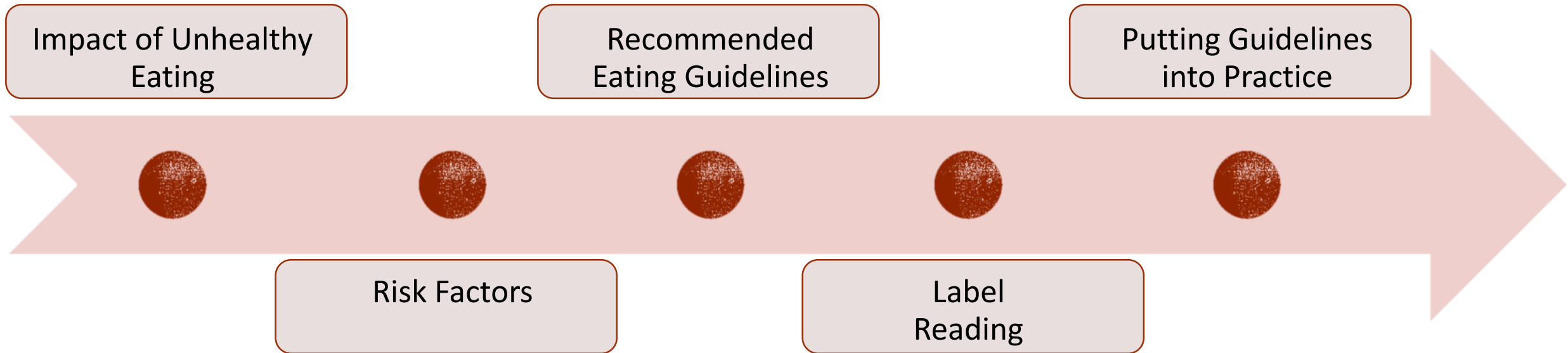
Taylor Brizzee MS RDN LD
Registered Dietitian
Methodist Metropolitan Weight Loss Center

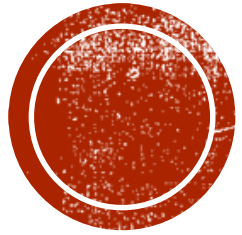


Methodist
HOSPITAL | METROPOLITAN
Weight Loss Center



TODAY'S AGENDA

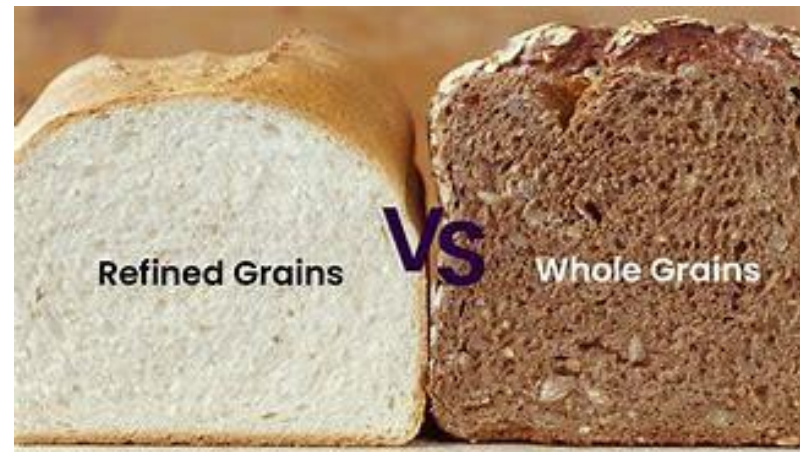




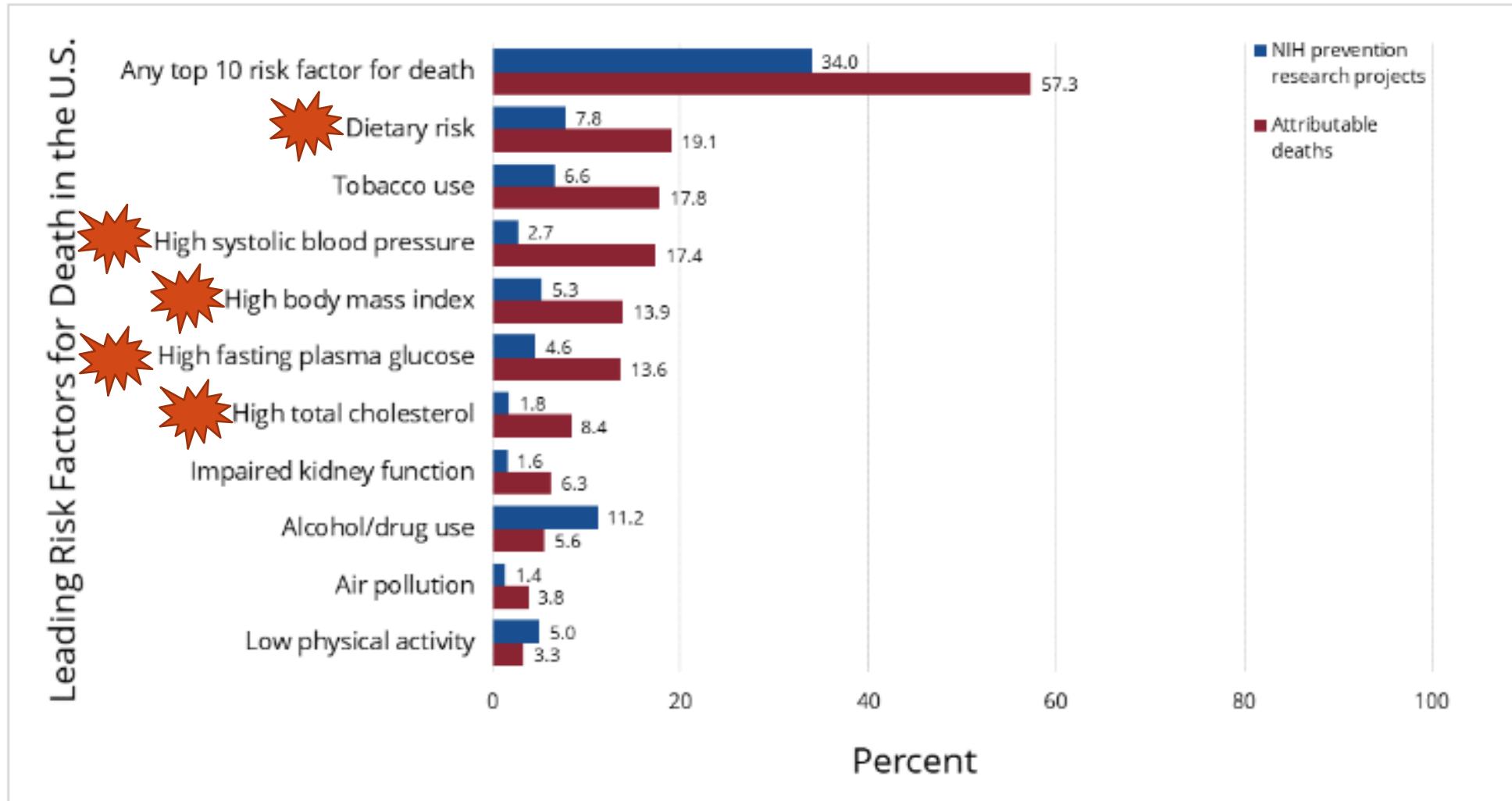
IMPACT OF UNHEALTHY EATING



STANDARD AMERICAN DIET (SAD)



WHAT WE EAT MATTERS



The leading risk factors and causes of death in the United States, as identified from 2016 Global Burden of Disease project data and 2017 Centers for Disease Control and Prevention data.





World Health Organization

“Cardiovascular diseases (CVDs) are the **leading cause of death** globally”





World Health Organization

“It is important to detect CVD as early as possible so that **management with counseling and medicines** can begin”



NON-MODIFIABLE

Age

Family History

Gender

Race/Ethnicity

MODIFIABLE

Smoking

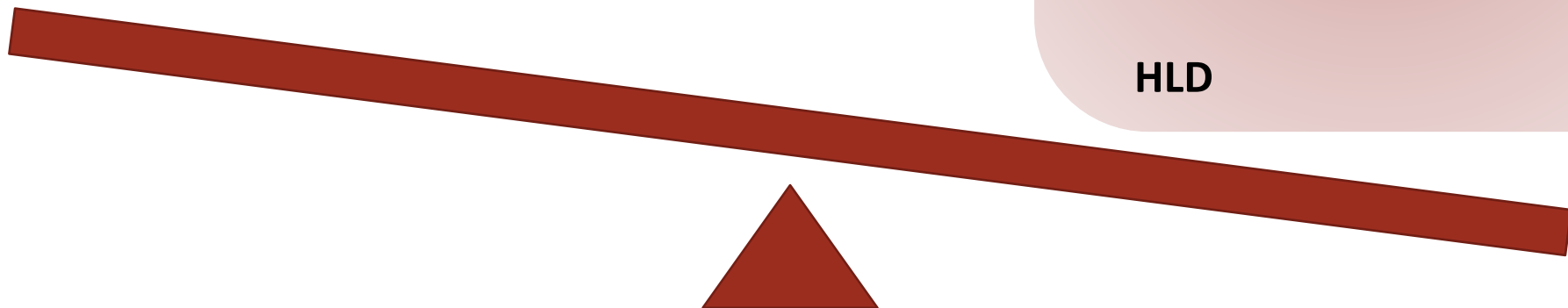
HTN

Diabetes/Pre-DM

Obesity

Physical Inactivity

HLD



DIETARY FACTORS



Too much **SALT**



Not enough **fiber-rich foods**



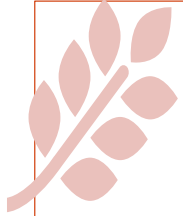
Too much **saturated fat**



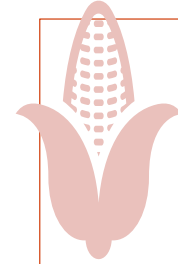
Excessive **calorie (energy)** intake



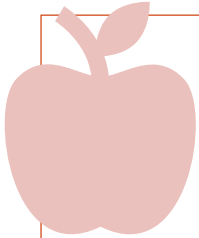
FOCUS MORE ON...



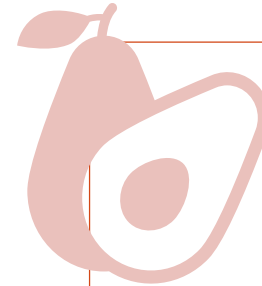
Whole Grains



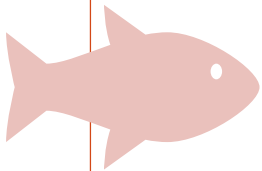
Vegetables



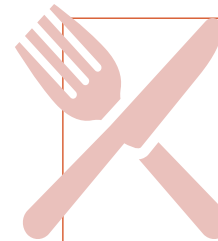
Fruit



Healthy Fats



Lean Meat



Low Calorie-
Dense Foods





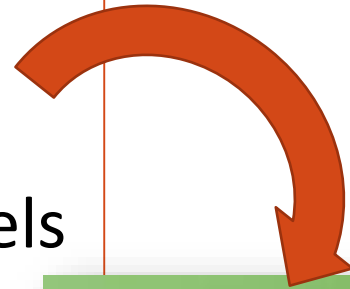
WHOLE-GRAINS

AND/OR COMPLEX CARBOHYDRATES

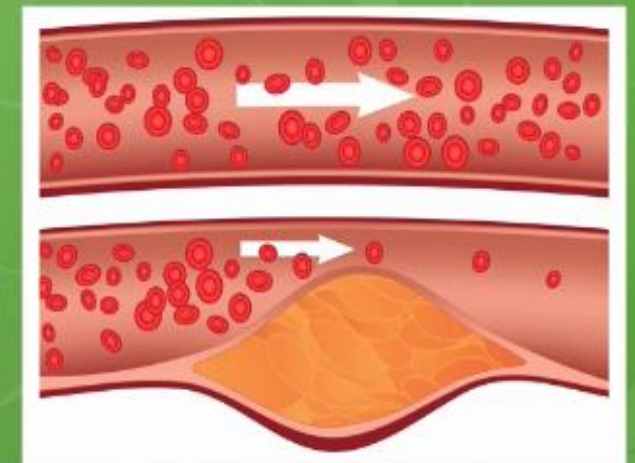
“... but why”

➤ High Fiber

- Increases satiation
- Lowers LDL cholesterol levels
 - Especially soluble fiber
- Good for the bowels..



Total cholesterol
LDL cholesterol (low)
HDL cholesterol (high)
Triglycerides (TG)

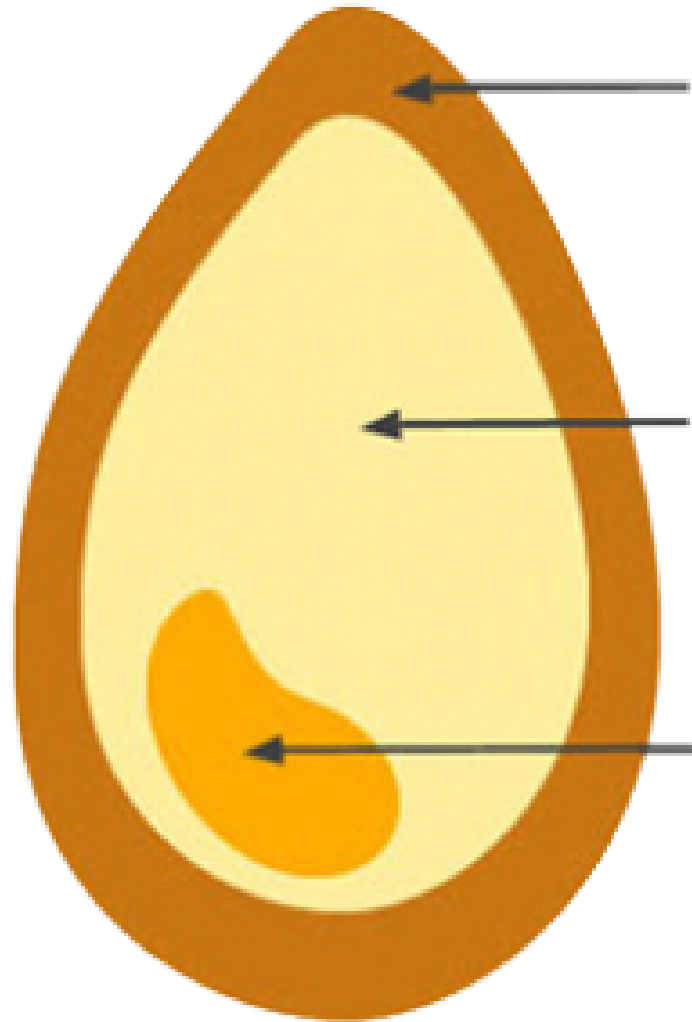




Whole Grain

vs.

“White” Grain



Bran

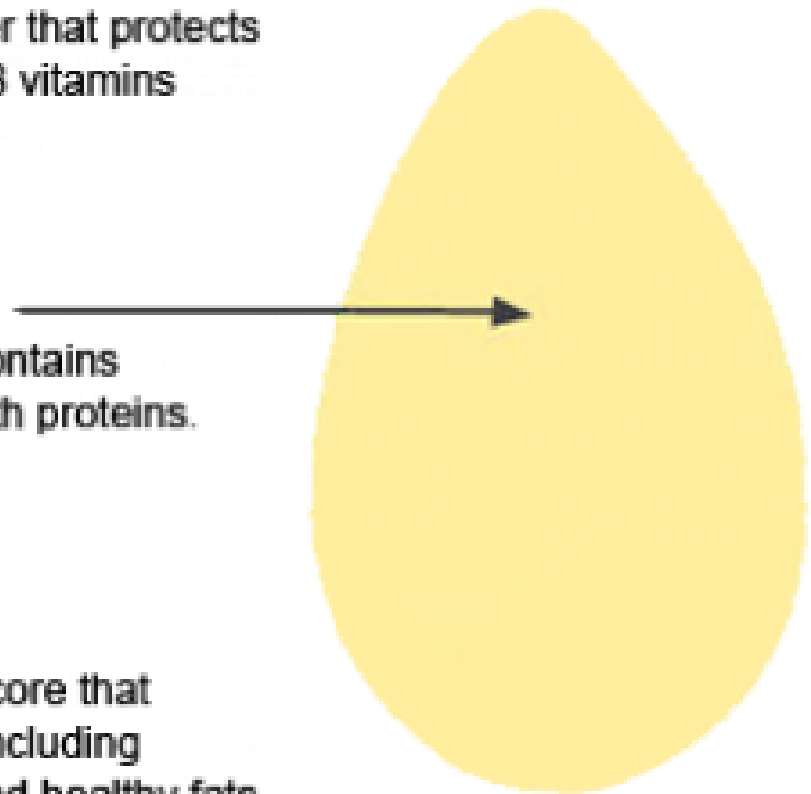
The fiber-rich outer layer that protects the seed and contains B vitamins and trace minerals.

Endosperm

The middle layer that contains carbohydrates along with proteins.

Germ

The small nutrient-rich core that contains antioxidants, including vitamin E, B vitamins and healthy fats.



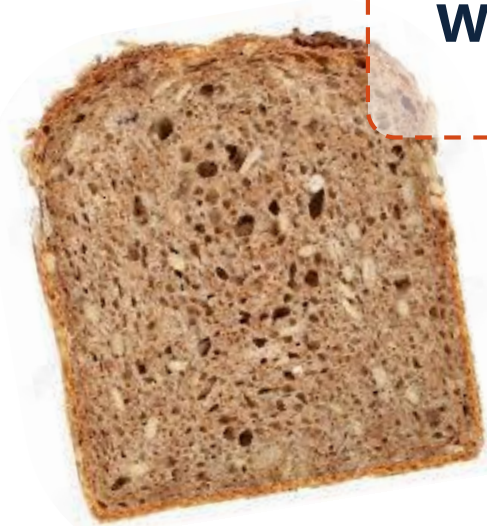


WHOLE-GRAINS



5 or more servings/day

**Whole Grain
Bread**



**Beans, Peas,
and Lentils**



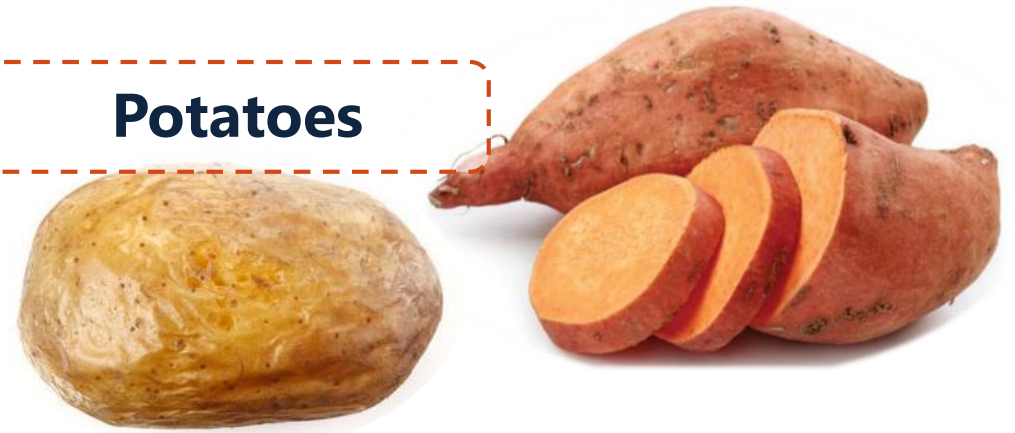
**Whole Wheat
Pasta**



Brown Rice



Potatoes





WHOLE-GRAINS

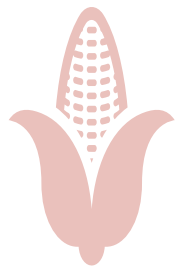
“... but how can I tell?”



Select products that have list whole grains, especially the first ingredient

INGREDIENTS: ORGANIC SPROUTED WHOLE GRAIN WHEAT, ORGANIC SPROUTED WHOLE GRAIN BARLEY, ORGANIC SPROUTED WHOLE GRAIN MILLET, ORGANIC SPROUTED WHOLE LENTILS, ORGANIC SPROUTED WHOLE SOYBEANS, ORGANIC SPROUTED WHOLE GRAIN SPELT.

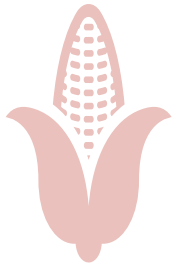




VEGETABLES

- **5 or more servings/day**
 - ½ C Cooked or 1 C Raw
- Fiber-Rich
 - Lowers Cholesterol
 - Increase Satiation
- *The more, the better!*





VEGETABLES -

Canned or Frozen?

- Be cautious... typically high in sodium
 - Best to look for ***No Salt Added***

Be sure food items have $\leq 1:1$
Ratio of Sodium to Calories per
Serving

Example: 160 mg sodium < 230 calories =
Low Sodium Food

Nutrition Facts

8 servings per container

Serving size 2/3 cup (55g)

Amount per serving

Calories

230

% Daily Value*

Total Fat 5g **10%**

Saturated Fat 1g **5%**

Trans Fat 0g

Cholesterol 0mg **0%**

Sodium 160mg **7%**

Total Carbohydrate 37g **13%**

Dietary Fiber 4g **14%**

Total Sugars 12g

Includes 10g Added Sugars **20%**

Protein 3g

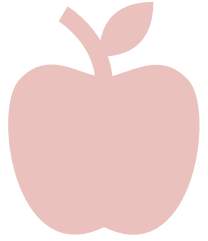
Vitamin D 2mcg **10%**

Calcium 260mg **20%**

Iron 8mg **45%**

Potassium 235mg **6%**

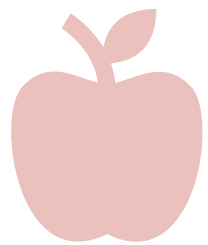
* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.



FRUITS

- 4 or more servings/day
 - ~1 Cup = one serving
- Fiber-Rich
- Whole Fruit **NOT** Juice





FRUITS

**Fresh Cut
Fruit**

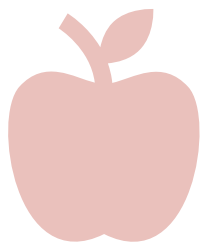


**Whole
Fruit**



**Frozen or
Canned?**





FRUITS

Canned or Frozen?

Limit foods with added sugar and other caloric sweeteners.

➤ Best to look for *No Sugar Added*

%DV ≤ 10% per serving

Example: 20% DV > 10% DV = **High Added Sugars**

Nutrition Facts

8 servings per container

Serving size 2/3 cup (55g)

Amount per serving

Calories **230**

% Daily Value*

Total Fat 8g **10%**

Saturated Fat 1g **5%**

Trans Fat 0g

Cholesterol 0mg **0%**

Sodium 160mg **7%**

Total Carbohydrate 37g **13%**

Dietary Fiber 4g **14%**

Total Sugars 12g

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Protein 3g

Vitamin D 2mcg **10%**

Calcium 260mg **20%**

Iron 8mg **45%**

Potassium 235mg **6%**

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

ADDED. SUGAR

- Anhydrous dextrose
- **Agave/ agave nectar**
- Barley malt
- Brown sugar
- Caramel
- Carob syrup
- Confectioner's powdered sugar
- Corn sweetener
- Corn syrup
- Corn syrup solids
- Diatase/ diasatic malt
- Dextrin
- Dextrose
- Evaporated cane juice
- Fructose
- Fruit juice concentrate
- High-fructose corn syrup (HFCS)
- **Honey**
- Invert sugar
- Lactose
- Malt/ malt syrup/ malt sugar
- Maltodextrin
- Maltose
- Maple syrup
- Molasses
- Nectars
- Pancake syrup
- **Raw sugar**
- Rice syrup
- Sucrose/ sucrose syrup
- **Sugar (beet, coconut, date, golden, powdered, yellow, white, turbinado)**
- White granulated sugar



HEALTHY FATS

... AKA Unsaturated Fats

More neutral effect on blood cholesterol levels but very calorie dense – use in very small amounts!

Polyunsaturated Fats

Mainly found in plant and fish products:

- Fatty fish (salmon, mackerel, herring, sardines)
- Soybean oil
- Corn oil
- Walnuts
- Flaxseed
- Chia seeds

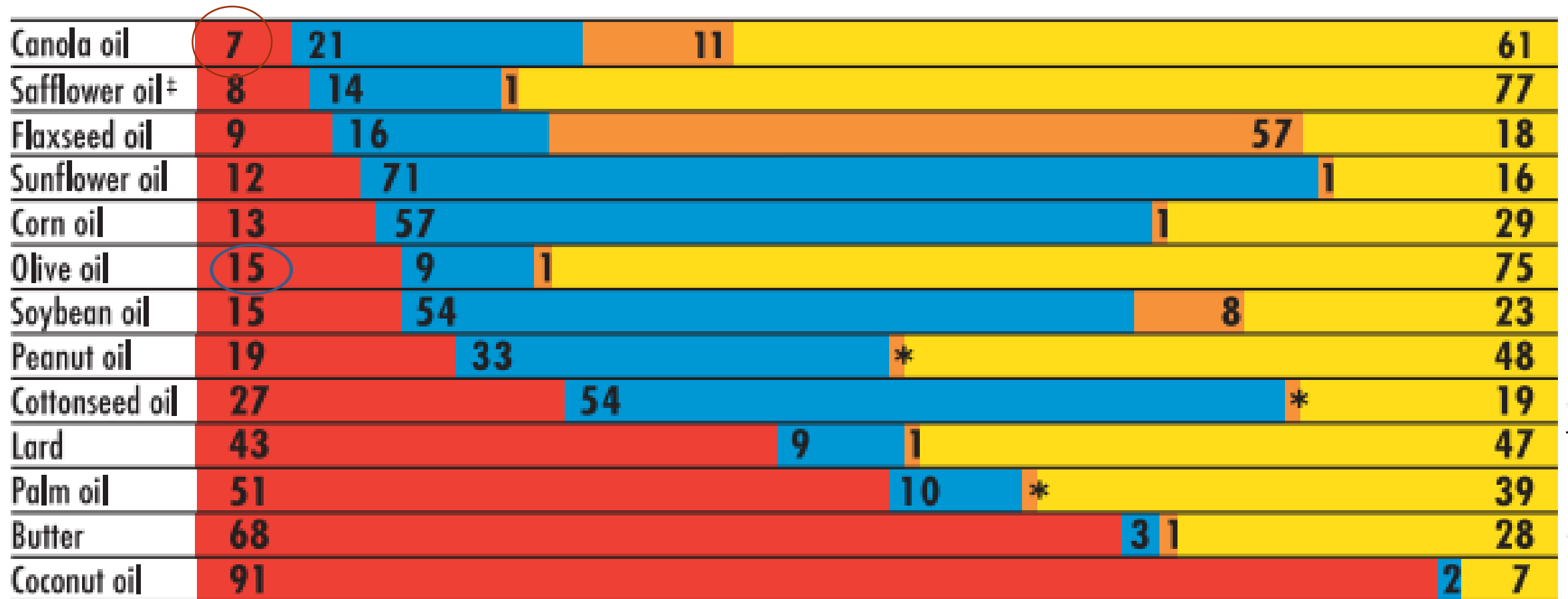
Monounsaturated Fats

Mainly found in plant products:

- Canola oil
- Olive oil
- Peanut oil
- Vegetable oil
- Almonds
- Hazelnuts
- Avocado



KNOW YOUR FATS



SATURATED FAT

POLYUNSATURATED FAT

MONOUNSATURATED FAT



linoleic acid
(an omega-6 fatty acid)

alpha-linolenic acid
(an omega-3 fatty acid)

oleic acid
(an omega-9 fatty acid)

[‡]High oleic safflower oil

*Trace Fatty acid content normalized to 100% SOURCE: POS PILOT PLANT CORPORATION

SATURATED FAT

Mainly come from animal products and solid at room temperature:

- Butter
- Lard
- Bacon
- High fat dairy food
- Fatty cuts of beef, pork, and lamb
- Poultry with skin
- Eggs, egg yolks

There are plant sources too:

- Coconut oil
- Palm oil
- Palm kernel oil
- Cocoa butter

Elevates blood cholesterol – especially LDL levels

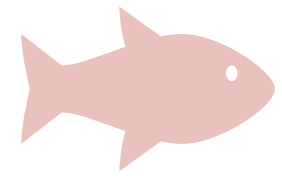


SATURATED FAT – IDENTIFYING INGREDIENTS

Ingredients

Enriched Wheat Flour (wheat flour, niacin, reduced iron, thiamine mononitrate, riboflavin, folic acid), **Egg Whites**, **Whole Milk** (milk, vitamin D3), **Broccoli**, **Cheddar Cheese** (pasteurized milk, cheese cultures, salt, enzymes, annatto), **Palm Oil Shortening**, **Water**, **Canola Oil**, **Onions**, **Sharp Cheddar, Cheese** (pasteurized milk, cheese cultures, salt, enzymes, annatto), **Corn Starch**, **Sea Salt**, **Butter** (cream, salt), **Cane Sugar**, **Natural Flavor**, **Isolated Oat Fiber**, **Sugar**, **Granulated Garlic**, **White Pepper**, **Black Pepper**, **Nutmeg**, **Cayenne Pepper**.





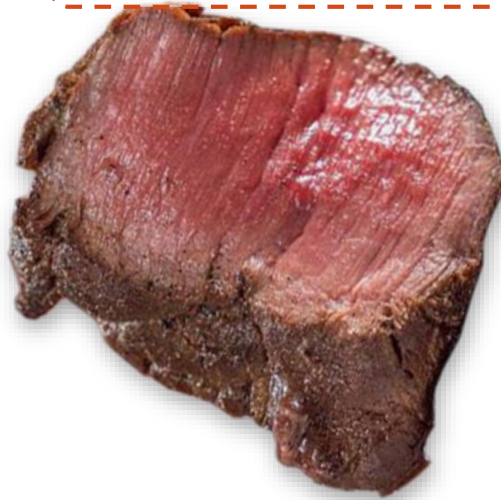
LEAN PROTEIN

- Examples

Seafood



Lean Red Meat / Game Meat



Nonfat Dairy



Poultry



Egg Whites



Vegetable Protein



Does Soy Contain Estrogen?

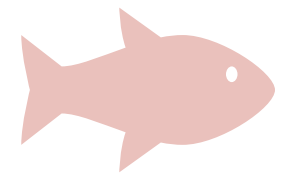


Myth: Soy Affects Reproductive Hormones

Soybeans contain a compound called isoflavones, which are classified as phytoestrogens, or plant-based compounds that look like estrogen. This has led to the myth that soy negatively affects reproductive hormones. These myths stem from outdated studies that found a decrease in testosterone or an increase in estrogen in both of their male volunteers. However, if you eat a balanced diet, you likely have nothing to worry about, as the study's participants were consuming nine times more isoflavones than the average man living in Japan.

Current studies suggest that soy has no effect on reproductive hormone levels in men or women. In addition, none of the studies looking at soy and men's health found that soy caused men to develop breasts.





LEAN PROTEIN

Food	Amount	Protein (<i>grams</i>)
Chicken breast	3 ounces	26
Sirloin steak	3 ounces	24
Salmon	3 ounces	23
Lentils, cooked	1 cup	18
Black beans, cooked	1 cup	15
Kidney beans, cooked	1 cup	15
Tofu, firm	4 ounces	11
Quinoa, cooked	1 cup	8
Skim milk	8 ounces	8
Soy milk, commercial, plain	1 cup	7
Whole wheat bread	2 slices	7
Spinach, cooked	1 cup	5



PLANT-BASED MEAT ALTERNATIVES



INGREDIENT LIST: WATER, TEXTURED WHEAT PROTEIN, COCONUT OIL, POTATO PROTEIN, NATURAL FLAVORS, 2% OR LESS OF: LEGHEMOGLOBIN (SOY), YEAST EXTRACT, SALT, KONJAC GUM, XANTHAN GUM, SOY PROTEIN ISOLATE, VITAMIN E, VITAMIN C, THIAMIN (VITAMIN B1), ZINC, NIACIN, VITAMIN B6, RIBOFLAVIN (VITAMIN B2), VITAMIN B12

Nutrition Facts

Serving size 3 oz. (85g)

Amount per serving

Calories 220

% Daily Value*

Total Fat 13g 17%

Saturated Fat 10g 50%

Trans Fat 0g

Cholesterol 0mg 0%

Sodium 430mg 19%

Total Carbohydrate 5g 2%

Dietary Fiber 0g 0%

Total Sugars <1g

Includes <1g Added Sugars 1%

Protein 20g





CALORIE DENSITY

■ Low Calorie-Dense

- High in water and fiber
- *Examples:* whole fruits and vegetables



■ High Calorie-Dense

- Dry, fatty, and/or oily
- *Examples:* nuts and snack foods



BANANA VS. BANANA BREAD

Low
Calorie-Dense



High
Calorie-Dense



GRILLED FISH VS. FISH SANDWICH

Low
Calorie-Dense



High
Calorie-Dense



POTATO VS. FRENCH FRIES

Low
Calorie-Dense

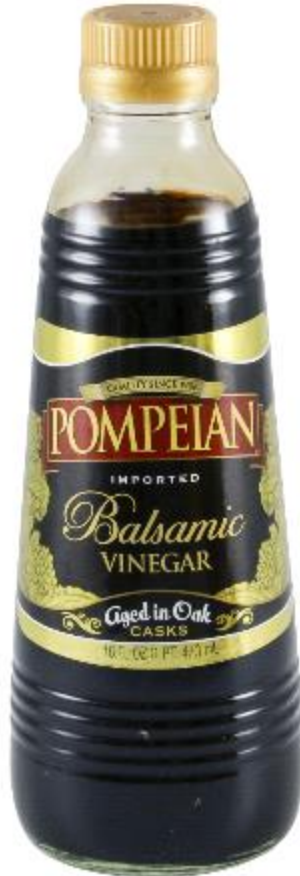


High
Calorie-Dense



BALSAMIC VINEGAR VS. BALSAMIC DRESSING

Low
Calorie-Dense



High
Calorie-Dense



FISHBOWL ILLUSTRATION

**100 calories of
high calorie-dense food:**



Assorted Nuts
(or other seeds)

**100 calories of
low calorie-dense food:**



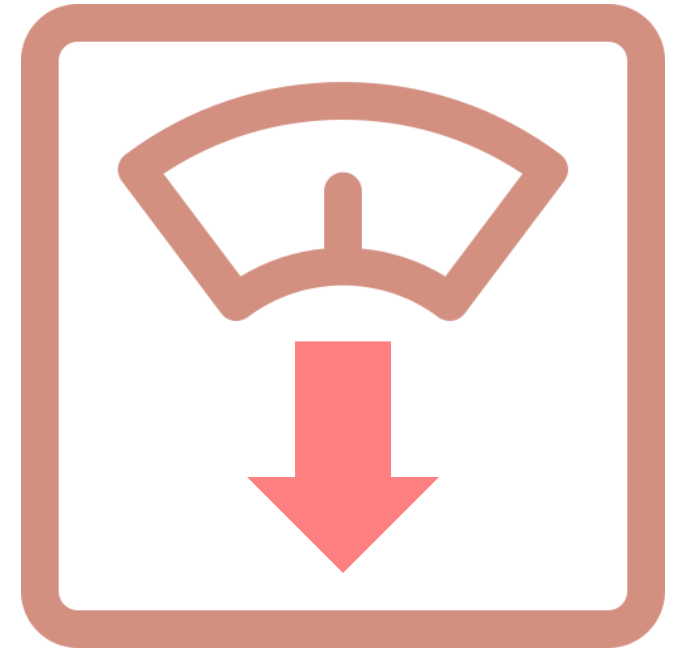
Grapes
(or most any fruit or vegetable)



NUTRITION PRIORITY:

WEIGHT LOSS

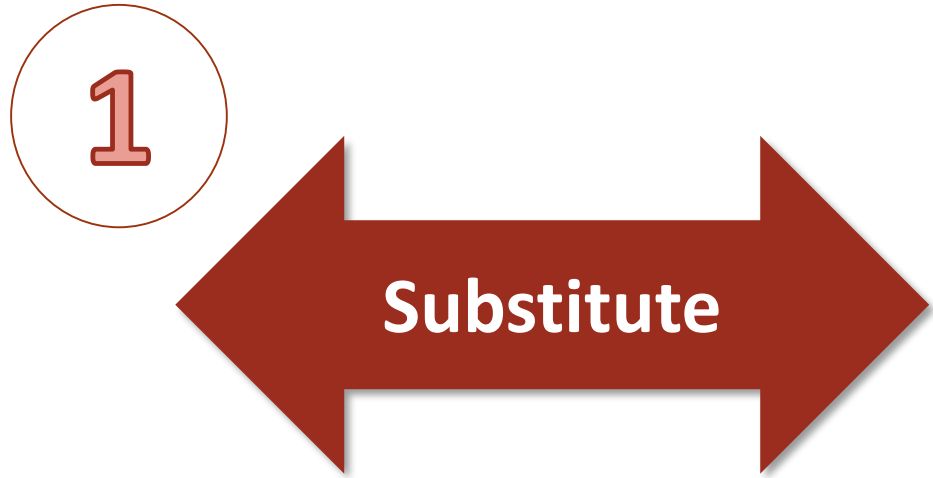
- Focus on **low** and **medium** calorie-dense foods
- Limit **high** calorie-dense foods:
 - Dried grains (bread, crackers, cold cereals)
 - Dried fruits
 - Nuts and seeds
- Eliminate liquid beverage calories
- Avoid added sugars
- Practice mindful eating



PUTTING IN INTO ACTION



THE STRATEGIES...



INCREASING COMPLEX CARB INTAKE



Substitute

- Bacon and egg breakfast → **Oatmeal**
- White rice → **Quinoa**
- White bread → **Whole Wheat Bread**
- Refined pasta → **Whole Wheat Pasta**
- French fries → **Air-Fried Potato Slices**



Add More

- **Beans added to chili**



INCREASING VEGETABLE INTAKE



Substitute

- French fries → **fresh green salad**
- Creamy coleslaw → **broccoli or green beans, plus a side salad**



Add More

- 
- **Leafy greens, cauliflower, onions, and tomatoes incorporated into soups and stews**
 - **Fresh vegetables added to your sandwich**
 - **Steamed broccoli and salsa on top of a plain baked potato**
 - **Veggies added to whole wheat pasta**



INCREASING FRUIT INTAKE



Substitute

- Fruit juice → **whole fruit**
- Fruit-flavored yogurt → **nonfat plain yogurt topped with fruit**
- Fruit-filled granola bar or Fig Newton cookie → **fresh figs or bowl of berries**
- Apple pie → **apple slices**
- Strawberry ice cream → **bowl of berries or blended frozen berries**



Add More

- 
- **Berries on top of oatmeal**
 - **Piece of fruit with lunch**
 - **Bowl of fresh fruit for dessert**



INCREASING PLANT-BASED PROTEIN INTAKE

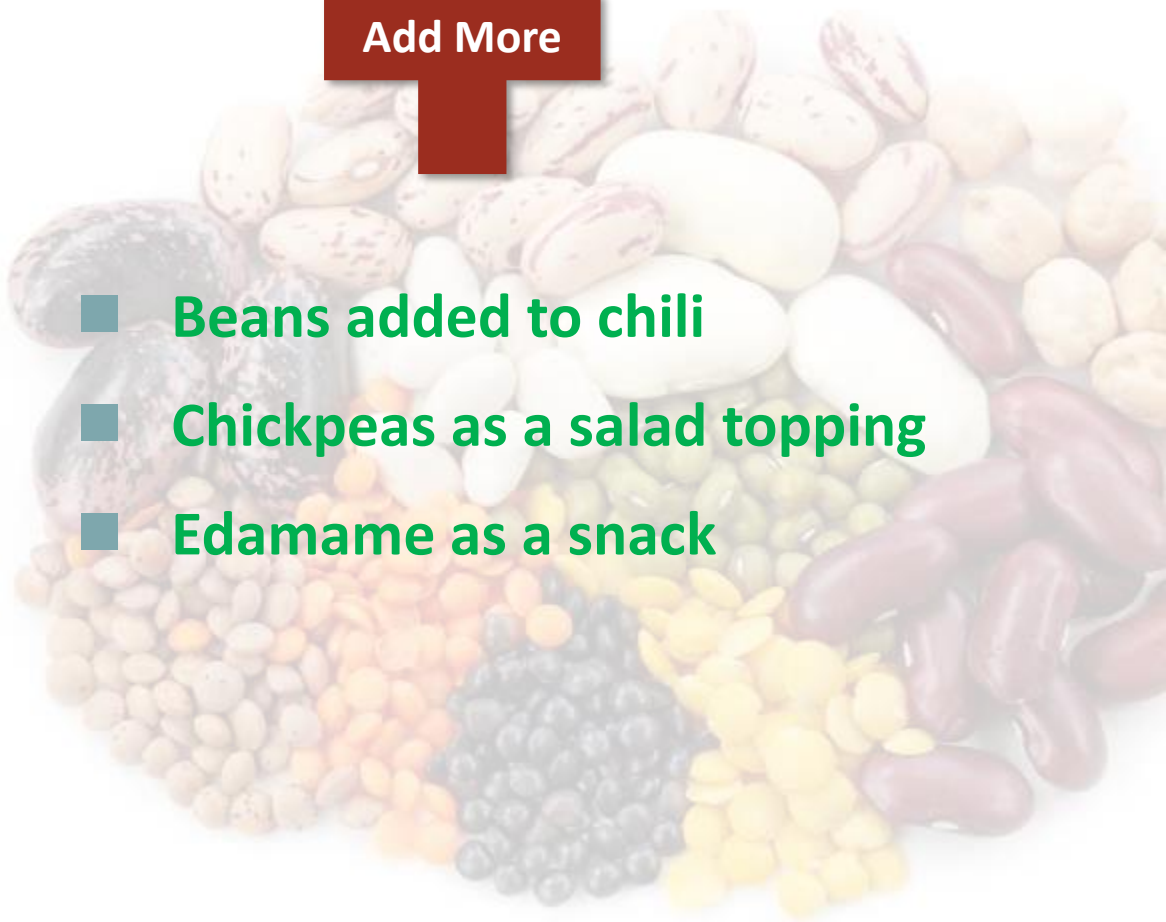


Substitute

- Chicken noodle soup → **lentil soup**
- Mayonnaise spread → **hummus**
- Creamy coleslaw → **Corn Salsa**
- Beef burger → **black bean burger**



Add More

- 
- **Beans added to chili**
 - **Chickpeas as a salad topping**
 - **Edamame as a snack**

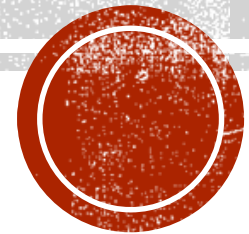


SUMMARY OF LABEL READING GUIDELINES

- **Low Calorie Density** – Select foods that have a 1:1 ratio of calories to grams, or fewer calories than grams.
- **Low Saturated Fat** – Make sure there are no saturated fats, trans fats, or tropical oils in the ingredient list.
- **Low Sodium** – Select foods that have a 1:1 ratio of sodium to calories, or less sodium than calories.
- **Low Added Sugar** – Limit foods with added sugar; aiming for $\leq 10\%$ DV per serving
- **Whole Grain** – Select products that are 100% whole grain.

EATING OUT

Is it possible?



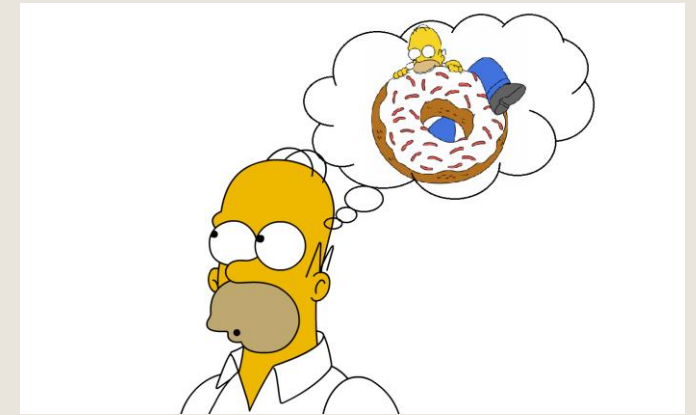
YES!

...IT JUST REQUIRES A BIT OF PLANNING

1. Choose a restaurant with healthier options available



OR



2. Browse the menu online

3. Ask about preparation methods

- added sauces, butter, or oils?
- stir-fried or steamed?

Plan your Meal

Start with a vegetable and add a double order of veggies with meal

- Check options in the Sides section of menu
 - *Grilled* asparagus, *steamed* spinach or broccoli...
 - Green leafy side salad
 - **Eliminate** cheese, croutons and dressing
 - **Replace** with extra veggies and vinegar or lemon



Plan your Meal

- Choose **protein-based** entrees
 - **Lean meats or vegetable-based** (tofu or edamame)
- **Share entrée** or box ½ of the meal to take home
- Eliminate **SSB's**
- Skip **dessert**... or share



Plan your Meal

Steer Clear of Higher Fat Items

- Fried
- Crispy
- Sautéed
- Breaded
- Creamy/creamed
- Au gratin
- Buttery
- Alfredo sauce
- Cheese or meat sauce



Plan your Meal

Look for Lower Fat Items

- Steamed
- Broiled
- Charbroiled
- Grilled
- Poached
- Roasted
- Tomato sauce
- Marinara sauce



QUESTIONS?

