

# Lifestyle for Cardiovascular Health

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# Lifestyle Factors

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- Weight Management
- Nutrition
- Physical Activity



# BMI Chart

| Weight        | lbs   | 100         | 105  | 110  | 115  | 120     | 125  | 130  | 135  | 140  | 145  | 150        | 155  | 160  | 165  | 170   | 175  | 180  | 185             | 190  | 195  | 200  | 205  | 210  | 215  |
|---------------|-------|-------------|------|------|------|---------|------|------|------|------|------|------------|------|------|------|-------|------|------|-----------------|------|------|------|------|------|------|
|               | Kgs   | 45.5        | 47.7 | 50.0 | 52.3 | 54.5    | 56.8 | 59.1 | 61.4 | 63.6 | 65.9 | 68.2       | 70.5 | 72.7 | 75.0 | 77.3  | 79.5 | 81.8 | 84.1            | 86.4 | 88.6 | 90.9 | 93.2 | 95.5 | 97.7 |
| Height        | in/cm | Underweight |      |      |      | Healthy |      |      |      |      |      | Overweight |      |      |      | Obese |      |      | Extremely Obese |      |      |      |      |      |      |
| 5'00" - 152.4 |       | 19          | 20   | 21   | 22   | 23      | 24   | 25   | 26   | 27   | 28   | 29         | 30   | 31   | 32   | 33    | 34   | 35   | 36              | 37   | 38   | 39   | 40   | 41   | 42   |
| 5'01" - 154.9 |       | 18          | 19   | 20   | 21   | 22      | 23   | 24   | 25   | 26   | 27   | 28         | 29   | 30   | 31   | 32    | 33   | 34   | 35              | 36   | 36   | 37   | 38   | 39   | 40   |
| 5'02" - 157.4 |       | 18          | 19   | 20   | 21   | 22      | 22   | 23   | 24   | 25   | 26   | 27         | 28   | 29   | 30   | 31    | 32   | 33   | 33              | 34   | 35   | 36   | 37   | 38   | 39   |
| 5'03" - 160.0 |       | 17          | 18   | 19   | 20   | 21      | 22   | 23   | 24   | 24   | 25   | 26         | 27   | 28   | 29   | 30    | 31   | 32   | 32              | 33   | 34   | 35   | 36   | 37   | 38   |
| 5'04" - 162.5 |       | 17          | 18   | 18   | 19   | 20      | 21   | 22   | 23   | 24   | 24   | 25         | 26   | 27   | 28   | 29    | 30   | 31   | 31              | 32   | 33   | 34   | 35   | 36   | 37   |
| 5'05" - 165.1 |       | 16          | 17   | 18   | 19   | 20      | 20   | 21   | 22   | 23   | 24   | 25         | 25   | 26   | 27   | 28    | 29   | 30   | 30              | 31   | 32   | 33   | 34   | 35   | 35   |
| 5'06" - 167.6 |       | 16          | 17   | 17   | 18   | 19      | 20   | 21   | 21   | 22   | 23   | 24         | 25   | 25   | 26   | 27    | 28   | 29   | 29              | 30   | 31   | 32   | 33   | 34   | 34   |
| 5'07" - 170.1 |       | 15          | 16   | 17   | 18   | 18      | 19   | 20   | 21   | 22   | 22   | 23         | 24   | 25   | 25   | 26    | 27   | 28   | 29              | 29   | 30   | 31   | 32   | 33   | 33   |
| 5'08" - 172.7 |       | 15          | 16   | 16   | 17   | 18      | 19   | 19   | 20   | 21   | 22   | 22         | 23   | 24   | 25   | 25    | 26   | 27   | 28              | 28   | 29   | 30   | 31   | 32   | 32   |
| 5'09" - 175.2 |       | 14          | 15   | 16   | 17   | 17      | 18   | 19   | 20   | 20   | 21   | 22         | 22   | 23   | 24   | 25    | 25   | 26   | 27              | 28   | 28   | 29   | 30   | 31   | 31   |
| 5'10" - 177.8 |       | 14          | 15   | 15   | 16   | 17      | 18   | 18   | 19   | 20   | 20   | 21         | 22   | 22   | 23   | 24    | 25   | 25   | 26              | 27   | 28   | 28   | 29   | 30   | 30   |
| 5'11" - 180.3 |       | 14          | 14   | 15   | 16   | 16      | 17   | 18   | 18   | 19   | 20   | 21         | 31   | 22   | 23   | 23    | 24   | 25   | 25              | 26   | 27   | 27   | 28   | 29   | 30   |
| 6'00" - 182.8 |       | 13          | 14   | 14   | 15   | 16      | 17   | 17   | 18   | 19   | 19   | 20         | 21   | 21   | 22   | 23    | 23   | 24   | 25              | 25   | 26   | 27   | 27   | 28   | 29   |
| 6'01" - 185.4 |       | 13          | 13   | 14   | 15   | 15      | 16   | 17   | 17   | 18   | 19   | 19         | 20   | 21   | 21   | 22    | 23   | 23   | 24              | 25   | 25   | 26   | 27   | 27   | 28   |
| 6'02" - 187.9 |       | 12          | 13   | 14   | 14   | 15      | 16   | 16   | 17   | 18   | 18   | 19         | 19   | 20   | 21   | 21    | 22   | 23   | 23              | 24   | 25   | 25   | 26   | 27   | 27   |
| 6'03" - 190.5 |       | 12          | 13   | 13   | 14   | 15      | 15   | 16   | 16   | 17   | 18   | 18         | 19   | 20   | 20   | 21    | 21   | 22   | 23              | 23   | 24   | 25   | 25   | 26   | 26   |
| 6'04" - 193.0 |       | 12          | 12   | 13   | 14   | 14      | 15   | 15   | 16   | 17   | 17   | 18         | 18   | 19   | 20   | 20    | 21   | 22   | 22              | 23   | 23   | 24   | 25   | 25   | 26   |



# Calculating BMI

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| <b>BMI</b>     | <b>Interpretation</b> |
|----------------|-----------------------|
| <18.5          | Underweight           |
| 18.5-24.9<br>9 | Healthy               |
| 25-29.99       | Overweight            |
| ≥30            | Obese                 |

## Get Out Your Calculators

Calculate your BMI by taking your weight in pounds, multiply by 703, and dividing by height in inches twice.

Example: Person that is 5'5"  
and 180 pounds

$$180(\#) \times 703 / 65(\text{in}) / 65(\text{in}) = 30.0$$



# Weight Management

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Sustained 3-5% weight loss produce clinically meaningful health benefits, lowering:

- Triglycerides
- Blood Glucose/HbA1c
- Risk of developing Type 2 Diabetes

More weight loss = more benefits:

- Lowering Blood Pressure
- Lowering LDL Cholesterol
- Increasing HDL
- Reducing Medication to control BP, Cholesterol, and Glucose

**Losing just 5-10# can make a big difference in your health!**

**Start by setting goals.**

# Tips For Goal Setting

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- Make realistic, attainable goals
- Hold yourself accountable
- When you meet one goal, make a new one



## Examples:

- I normally drink a 24 oz soda every day. I will decrease my soda intake to a 24oz soda every other day.
- I will go for a 20 minute walk 3 times this week.

# Nutrition

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# Nutrition 101

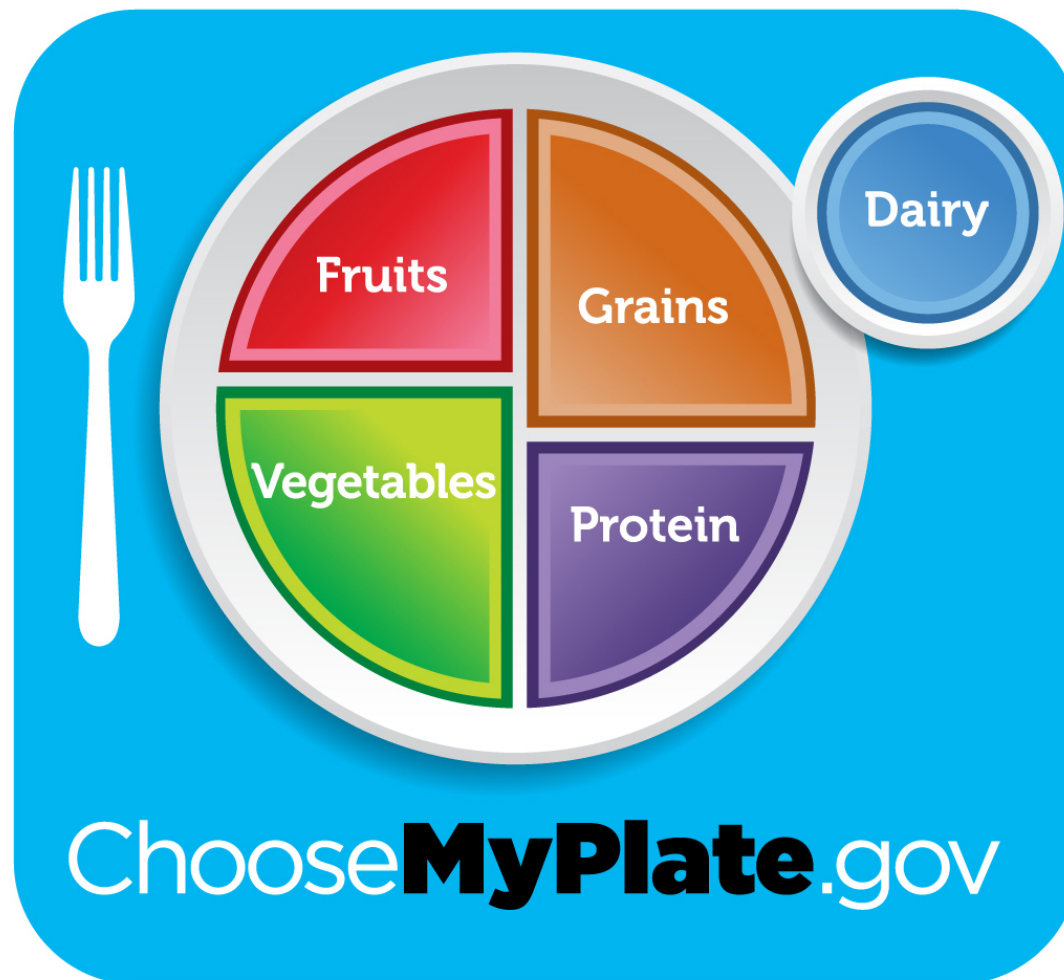
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- Eat a healthy, varied diet that includes all food groups
- Increase your intake of fruits, vegetables, and whole grains
- Try to eliminate or limit processed foods
- Know your portion sizes and read labels
- Include low-fat dairy (if appropriate)
- Healthy protein options
- Limit sodium, saturated fat, trans fats, sweets, and sugar-sweetened beverages
- Healthy cooking techniques
- Restaurant strategies



# How Should My Plate Look?

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# Fruits and Vegetables

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- Eat 1 ½ - 2 cups each day of fruit
- Eat 2-3 cups per day of vegetables
- Half your plate should be fruits and vegetables
- Eat the rainbow!
- Eat fresh, frozen or canned in own juice



# Why are Fruits and Vegetables Important?

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- Fiber
- Plant Stanols/Sterols
- Naturally Low in Calories
- Antioxidants
- Vitamins and Minerals
- Diets rich in potassium help to maintain healthy blood pressure



# Plant Stanols and Sterols

- Substance naturally found in plant foods
- Helps to block the absorption of cholesterol in your intestines
- Can lower LDL cholesterol by 6-14%
- Sources: Wheat germ, wheat bran, peanuts, canola and olive oil, almonds, brussels sprouts, and fortified sources:
  - Margarines
  - Salad dressings
  - Orange Juice



# Grains

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- 5-8 ounces per day
- Make at least half whole grains
- Examples:
  - Breads
  - Crackers
  - Rice
  - Cereals
  - Pasta

# What is Equal to an Ounce of Grains?

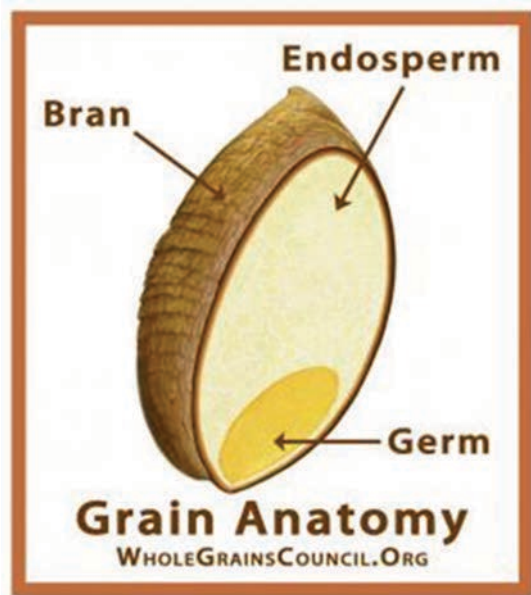
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- 1 ounce is equal to:
  - 1 slice of bread
  - ½ cup cooked pasta, rice, or cooked cereal
  - 1 cup ready to eat breakfast cereal
  - 1 small corn or flour tortilla
  - 5 whole grain crackers



# Why Choose Whole Grains?

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Whole grains contain all three parts of the grain

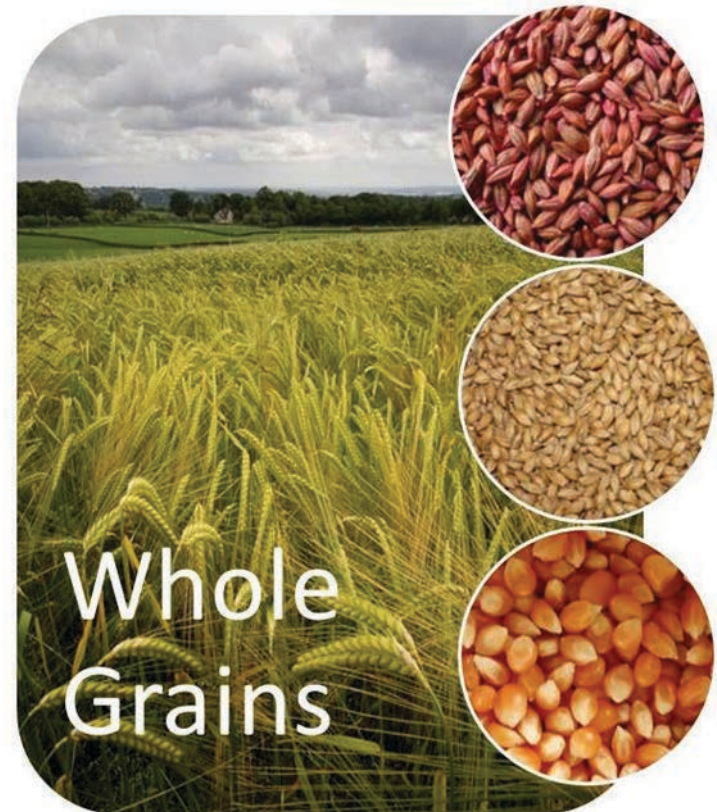
- A high fiber diet has many health benefits:
  - Digestion time increases which helps with weight management
  - Lowers cholesterol
  - Helps promote GI health, bowel function, and prevents diverticular diseases

# Fiber

## Daily Fiber Goal:

**Men:** <50 years old= 38 g  
>50 years old= 30 g

**Women:** <50 years old= 25 g  
>50 years old= 21 g





# Fiber

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- Fiber: whole grains, fruits, and vegetables
- Don't be deceived by food packaging claims or color of the bread! Check your ingredient list for “whole”, “whole grain”, “100% whole wheat”, etc.
- Replace white products with whole grain
- Choose whole grain cereal with >5 g fiber
- Eat more beans and legumes



# Protein

- 5 - 6 ½ ounces per day
- Choose lean cuts of meat and remove skin/trim fat off
- Prepare by baking, broiling, grilling
- 1 ounce of protein =
  - 1 ounce meat, poultry, fish
  - ¼ cup cooked dry beans
  - 1 egg
  - 1 Tbsp Peanut Butter
  - ¼ cup Tofu
  - ½ ounce nuts



# Dairy

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Choose fat free or low fat options

- Milk/Milk Substitutes
- Yogurt
- Cheese, Cottage Cheese
- Ice Cream
- Pudding

- 3 cups each day (including dairy cooked in foods)
- 1 cup dairy is equal to:
  - 6 oz yogurt
  - 1.5 oz cheese or  
1/3 cup shredded
  - 1 cup milk or milk substitute
  - 2 cups low fat cottage cheese (not recommended, limit to 1/2 cup serving)



# Non Dairy Calcium Sources

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If you don't eat/drink a lot of dairy then choose more of these in your diet:

- Cereal (calcium fortified)
- Soy Milk (calcium fortified)
- Orange Juice (calcium fortified)
- Tofu
- Soybeans
- Oatmeal
- Almonds
- Dried Beans and Peas
- Hummus
- Clam, Crab, Oysters
- Greens (Turnip, Collards, Beet, Mustard)
- Kale and Spinach
- Okra

# What's the Deal with Fat?

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# Fat is Essential for Life

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- Fats are essential for a healthy body
  - Helps absorb some types of vitamins
  - Helps us feel fuller for longer, satiety
  - Helps to build cells, brain, hormones, healthy hair and skin



# Fat is Essential for Life

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- Fat in our diet doesn't make us fat, too many calories does
- 9 calories per gram of fat vs. 4 calories per gram of carbohydrate or protein
- We just need to know how to make smart decisions about fat!



# Understanding Your Labs

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- The liver produces “Cholesterols” that circulate in blood and carry fats to and from tissues
- LDL Cholesterol- “bad cholesterol”
  - Contributes to the plaque that clog arteries
  - Goal: <100 mg/dL
- HDL Cholesterol- “good cholesterol”
  - Helps remove LDL cholesterol from arteries
  - Goal: Men >40 mg/dL; Women > 50 mg/dL
- Triglycerides
  - Type of fat used to carry energy
  - Goal: <150 mg/dL





# Cholesterol

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- Cholesterol can build up in the blood vessel walls and block the flow of blood
- The liver produces cholesterol but makes more when eating a diet high in saturated and trans fat
- Your Blood Cholesterol is a major risk factor for heart disease, heart attacks, and stroke

# Improve Your Labs with Nutrition

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## LIMIT:

- Saturated Fat
- Trans Fat



## • ENJOY:

- Polyunsaturated Fat
- Monounsaturated Fat
- Omega 3 Fat

# Saturated Fat

- Goal: 5-6% of calories from Saturated fats
  - 1500 Calorie Diet= 8-10 g Saturated Fat
  - 1800 Calorie Diet= 10-12 g Saturated Fat
  - 2400 Calorie Diet= 13-16 g Saturated Fat
- Saturated fat raises your LDL & Total Cholesterol





# How to Eat Less Saturated Fats

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- Reduce your consumption of:
  - Whole and 2% fat dairy products
  - Processed meats: bacon, sausage, hot dogs, etc.
  - Fatty meats: chicken skin, pork, lamb, fatty beef
  - Most baked goods and fried foods
  - Palm Oil, Coconut Oil, and Chocolate
- Replace these foods with fruits, vegetables, and lean meats/nuts

# Be a Saturated Fat Detective

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- Olive Garden Fettuccine= 47 g Saturated Fat
- Subways 6” Spicy Italian= 11g
- Wendy’s Jr. Cheeseburger Deluxe= 7 g
- 1 Tbsp Butter= 7 g
- 1 Cup 2% Milk= 3 g





# Trans Fat

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- Lowers HDL and Raises LDL
- Comes from artificial and natural sources
  - Animal fats
  - Partially Hydrogenated Oils
- Goal is to get as little as possible in our diet (less than 1% of our daily calories or 2g for an 1800 Calorie diet)

# Be a Trans Fat Detective

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- Beware of processed foods with *partially hydrogenated oils*:
  - Microwave Popcorn
  - Butter and Stick Margarines
  - Chips and Crackers
  - Baked Goods
  - Shortening
  - Non Dairy Creamers





|                     | 5 crackers  | 16 crackers  | 17 crackers  | 6 crackers                                  |
|---------------------|---|--|--|---|
| <b>Serving Size</b> | 5 crackers  | 16 crackers  | 17 crackers  | 6 crackers                                  |
| <b>Calories</b>     | 80  | 140  | 140  | 120   |
| <b>Fat</b>          | 4.5g  | 6g   | 6g   | 4.5g  |
| <b>Sodium</b>       | 135mg   | 280mg  | 340mg  | 180mg                                       |
| <b>Carbs</b>        | 10g   | 21g  | 20g  | 19g   |
| <b>Fiber</b>        | 0g  | 2g   | 1g   | 3g  |
| <b>Sugar</b>        | 1g  | 3g   | 4g   | 0g  |
| <b>Protein</b>      | 1g  | 2g   | 2g   | 3g  |
| <b>Ingredients</b>  | Enriched Flour (Wheat Flour, Niacin, Reduced Iron, Thiamine Mononitrate (Vitamin B1), Riboflavin (Vitamin B2), Folic Acid), Soybean Oil, Sugar, <b>Partially Hydrogenated Cottonseed Oil</b> , Salt, Leavening (Baking Soda and/or Calcium Phosphate), <b>High Fructose Corn Syrup</b> , Soy Lecithin (Emulsifier), Natural Flavor, Cornstarch. | Whole Grain Wheat Flour, Soybean Oil, Sugar, Cornstarch, Malt Syrup (from Barley and Corn), Salt, <b>High Fructose Corn Syrup</b> , Monoglycerides, Leavening (Calcium Phosphate and/or Baking Soda), Soy Lecithin, Vegetable Color (Annatto Extract, Turmeric Oleoresin). | Enriched Flour (Wheat Flour, Niacin, Reduced Iron, Thiamine Mononitrate [Vitamin B1], Riboflavin [Vitamin B2], Folic Acid), <b>Partially Hydrogenated Soybean and/or Cottonseed Oil</b> (Less than 0.5 g Trans Fat per Serving) with TBHQ for Freshness, Stone Ground Whole Wheat Flour, Sugar, Toasted Whole Grain Wheat, Honey, <b>High Fructose Corn Syrup</b> , Salt, Contains Two Percent or Less of Malt Extract, Natural Flavor, Leavening (Baking Soda, Sodium Acid Pyrophosphate, Monocalcium Phosphate), Caramel Color, Onion, Sodium Sulfite, Soy Lecithin. | Whole Wheat, Soybean and/or Palm Oil, Salt. |



# Monounsaturated Fats

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- Helps reduce LDL cholesterol
- Monounsaturated fat sources:
  - Olive, Canola, Peanut, Safflower, Sesame Oil
  - Avocado
  - Many nuts and seeds



# Polyunsaturated Fats

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- Helps reduce LDL Cholesterol
- Polyunsaturated Fat Sources
  - Vegetable, soybean, corn, and sunflower oil
  - Walnuts and Sunflower seeds
  - Salmon, mackerel, herring and trout
  - Soybeans and tofu



# Omega-3 Fatty Acid

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- Decrease triglycerides and slow plaque build up
- Eat Fish twice a week (3.5 ounces)
- Sources of Omega-3:
  - Fatty Fish- salmon, mackerel, herring, lake trout, albacore tuna
  - Flaxseed and walnuts
  - Soybeans and tofu



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# **What Does Sodium Have to do with My Heart?**



# Sodium

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- Too much sodium/salt:
  - Makes our body retain water- increasing our blood pressure
  - High blood pressure is leading cause of death worldwide
  - Increases risk of kidney disease, osteoporosis, stomach cancer, and headaches



# Sodium

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- Sodium Goal:
  - <1,500 mg per day for the best blood pressure control



# Cut Back on Sodium

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- Throw out the salt shaker
  - Have plenty of salt free seasoning blends, herbs, spices, and fresh garlic or onions to add flavor
- Eat fresh, minimally processed foods
  - Buy fresh produce, frozen without added fat or salt, or no added sodium canned
    - Limit fast food



# Know Your Nutrition Facts

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- Beware of “*Reduced Sodium*” foods
  - Only 25% less sodium than original product
  - Campbell’s Chicken Noodle Soup
    - ½ Cup Serving: 890 mg  
(whole can= 2225 mg)
  - Reduced Sodium Campbell’s Chicken Noodle
    - ½ Cup Serving: 660 mg  
(whole can= 1650 mg)





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# **More Tips For Improving Your Blood Work**





# How to Improve Your Cholesterol

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- Raise your HDL:
  - Quit smoking
  - Maintain healthy weight or lose weight if overweight
  - Be more active
  - Drink alcohol in moderation
    - 1 drink for women, 2 drinks for men



# How to Improve Your Cholesterol

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- Lower your LDL
  - Eat less Saturated fat & trans fat
  - Eat more fiber!
    - **TIP: Fiber GRABS cholesterol and is excreted in “bile” which aids in ridding the body of unwanted cholesterol!**
  - Maintain a healthy weight or lose weight if overweight
  - Add plant sterols and stanols to your diet

# Improve Your Labs with Nutrition

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## Tips to Lower Your Triglycerides

- Maintain a healthy weight or lose weight if overweight
- Increase activity
- Quit smoking
- Limit Alcohol
- Avoid eating excessive carbohydrates, especially from sugar
- Eat moderate amount of fat and get adequate Omega-3 Fatty Acids



# Sugar 101

**1 gram of sugar = 4 calories**  
**4 grams of sugar = 1 teaspoon**  
**1 can of Coca Cola = 9 teaspoons of sugar**



- Naturally occurring sugars
  - Fruits (fructose)
  - Milk (lactose)
- Added sugars (added during processing or preparation)
  - Major sources: soft drinks, desserts, fruit drinks, dairy desserts and milk products
  - Also known as: corn syrup, high-fructose corn syrup, honey, molasses, fruit juice concentrate, sugar molecules ending in “ose” (dextrose, glucose, maltose, sucrose)
- AHA recommends limiting **added sugar**:
  - 6 teaspoons a day (women)
  - 9 teaspoons a day (men)

# Diabetes and Your Heart

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- Heart disease is leading cause of death for people with diabetes
  - Lower your risk if you are diabetic:
    - Following a Heart Healthy lifestyle
    - Keep blood sugars controlled
- Consider taking outpatient classes





# Coumadin and Vitamin K

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- Vitamin K interferes with Coumadin
- Be consistent with your Vit K foods- if you like them eat them daily
- Avoid Alcohol
- Check with your doctor before taking herbal supplements, change your diet, or if having GI complications

## **High Vitamin K foods:**

- Kale, Spinach, Collards, Mustard Green, Swiss Chard, Turnip Greens

## **Medium Vitamin K Foods:**

- Broccoli, Cabbage, Leaf Lettuce, Romaine, Brussels Sprouts

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# Physical Activity





# Benefits of Physical Activity

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- Weight loss
- Improve mood and self-esteem
- Stress relief
- Improves labs and blood pressure
- Lowers risk of chronic disease (including CVD), enhance longevity



# Physical Activity Recommendations

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- 2 hours and 30 minutes a week of moderate intensity or 1 hours and 15 minutes a week of vigorous-intensity, aerobic physical activity
  - Minimum of 10 minute increments
- Make it part of your daily routine



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# Practical Tips



# Know Your Nutrition Label

Beware of hidden Trans Fat! Trans fat does not need to be labeled if it is < 0.5g per serving  
But it still adds up!

Beware! Daily sodium goal = 1500mg

| Nutrition Facts   |  | Amount/Serving | %DV* | Amount/Serving   | %DV* |
|---|--|----------------|------|------------------|------|
| Serv. Size<br>4 cookies (32g)   |  | Total Fat 7g   | 11%  | Total Carb 20g   | 7%   |
| Servings 9  |  | Sat. Fat 4.5g  | 23%  | Dietary Fiber 1g | 4%   |
| Calories 150  |  | Trans Fat 0g   |      | Sugars 10g       |      |
| Calories from fat 60  |  | Cholest. 0mg   | 0%   | Protein 2g       |      |
|   |  | Sodium 115mg   | 5%   |                  |      |
| Vitamin A 0% • Vitamin C 0% • Calcium 0% • Iron 4%  |  |                |      |                  |      |
| <b>INGREDIENTS:</b> Enriched flour, riboflavin, sugar, partially hydrogenated vegetable oil, cocoa, cornstarch, hydrogenated oils, soy lecithin, salt, caramel color, artificial flavors. |  |                |      |                  |      |

Look for higher fiber foods

Look for "100% Whole Grain" or "100% Whole Wheat"



# Eating Out

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- Plan ahead and look up nutrition information online or order menu items off the low calorie or fat menu
- Ask for half your food to be boxed up when served
- Share your meal with someone or order an appetizer as a meal (not fried)
- Order a side salad (dressing on the side) and avoid the bread basket
- Select foods that are baked, broiled, grilled, roasted, steamed, or stir-fried
- Avoid high calorie drinks
- Avoid cream based soups, gravies, and heavy cheese



# Healthy Cooking Methods

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- Cook with Olive or Canola Oil (don't deep fry)
- Trim the fat, remove skin, and choose lean cuts of meat
- Bulk up your meal by adding vegetables
- Use cheese sparingly
- Substitute Low Fat (1% or lower) for cream or whole milk (add lemon or vinegar for buttermilk)
- Flavor your foods with herbs, spices, or salt free seasoning blends (Mrs. Dash)