

Nutrition for Heart Health

Provided by Holland Hospital Registered Dietitians



Heart Disease Risk Factors

Risk factors you *can* change:

- Adopting a healthy diet
- Increasing physical activity
- Quitting smoking
- Achieve and maintain a healthy weight
- Maintain glycemic control (diabetes)
- Limiting alcohol consumption
- Managing stress
- Reducing high blood cholesterol and blood pressure

Risk factors you *cannot* change:

- Family history of early heart disease
- Age and gender
 - 45 or older for men;
 - 55 or older for women

American Heart Association Guidelines

Increase:

- Fruits & vegetables (> 8 servings/day)
- Fish, especially oily fish (two 3.5 oz servings/week)
- Fiber-rich whole grains (three 1 oz servings/day)
- Nuts, legumes, and seeds (4 servings/week)

Limit:

- Sodium (< 2300 mg/day)
- Sugar-sweetened beverages (< 36 oz/week)
- Saturated fat (< 5 - 6% total energy intake)

Types of Fats

GOOD FATS

Monounsaturated Fat

Best choice!

Raises HDL cholesterol and lowers LDL cholesterol

Sources: olive oil, olives, peanuts, peanut oil, natural peanut butter, canola oil, & avocados

Polyunsaturated Fat

Lowers LDL cholesterol

Sources: sunflower oil, corn oil, safflower oil, soybean oil, cottonseed oil, nuts, & seeds

Omega 3 Fatty Acids

Lowers triglycerides, cholesterol levels, & blood pressure

Decreases the risk of heart beat abnormalities & the growth rate of plaque in the arteries

Sources: salmon, mackerel, albacore tuna, lake trout, herring, sardines, ground flaxseed, walnuts, & canola oil
Eat at least 2 servings weekly!

BAD FATS

Saturated Fat

Main dietary cause of high cholesterol

Solid at room temperature

Sources: all animal fats, coconut oil, palm oil, palm kernel oil, & cocoa butter

Hydrogenated Fat or “Trans Fat”

Industrial trans fats will be removed from products by June of 2018. Trans fats do occur naturally in meat and dairy products but more research is needed to determine if these have the same effects on cholesterol levels.

Set Your Goals

TOTAL CHOLESTEROL

< 200 mg/dL	Desirable
200-239 mg/dL	Borderline High
240 mg/dL and above	High

HDL

> 40 mg/dL (men)	Desirable
> 50 mg/dL (women)	Desirable
60 mg/dL and above	Gives some protection against heart disease

LDL

< 70 mg/dL	Optimal (with heart disease history)
< 100 mg/dL	Desirable
130-159 mg/dL	Borderline High
> 160 mg/dL	High

TRIGLYCERIDES

<150 mg/dL	Desirable
150-199 mg/dL	Borderline High
> 200 mg/dL	High

HDL – “Good” Cholesterol:

Carries LDL (“bad cholesterol”) away from the heart, back to the liver, and out of your body. A high level of HDL **protects** against heart disease.

Ways to Increase HDL:

- Increase aerobic exercise
- Lose weight
- Quit smoking
- Eat more unsaturated fat instead of saturated fat

LDL – “Bad” Cholesterol:

Deposits cholesterol on artery walls, forms plaque, and clogs arteries. A high level of LDL **increases risk** of heart disease.

Ways to Decrease LDL:

- Eat more unsaturated fat and less saturated fat.
- Eat high fiber foods
- Lose weight

Triglycerides:

The body’s stored form of fat.

Causes of high triglycerides:

- Excess alcohol intake
- Obesity
- Diabetes
- Excess sugar intake
- High fat intake



Saturated Fat Grams

Meat

3 oz prime rib	6.7 g
3 oz ground beef (85% lean/15% fat)	4.3 g
3 oz pork chop, broiled	2.3 g
3 slices bacon	3.3 g
1 oz salami	3.4 g
1 large egg	1.5 g
3 oz chicken breast, no skin	0.9 g
3 oz turkey, white meat	0.9 g
3 oz cod	0.1 g

Starch

Baked potato	trace
30 french fries (large)	3.3 g
22 Doritos	3.0 g
20 pretzels	0
Small biscuit	2.6 g
1 slice bread	0.2 g
Croissant	6.7 g
Flour tortilla	0.4 g

Dairy

1 cup skim milk	trace
1 cup 2% milk	2.9 g
1 cup whole milk	5.1 g
1 Tbsp sour cream	1.6 g
1 oz cheese	3-6 g
1/2 cup 2% cottage cheese	1.4 g

Fats

1 Tbsp butter	7.2 g
1 Tbsp tub margarine	1.9 g
1 Tbsp salad dressing	1.5 g

Desserts

1/12th cheese cake	18.4 g
1 chocolate chip cookie	1.3 g
1 cup ice cream	14.7 g
1 cup sherbet	2.4 g
1/6th pumpkin pie	6.6 g

Nutrition Facts

8 servings per container

Servings 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

Includes 10g Added Sugars

20%

Protein 3g

Vitamin D 2mcg

10%

Calcium 260mg

20%

Iron 8mg

45%

Potassium 235mg

6%

*The % Daily Values (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.

Daily Saturated Fat Goals:

Calories	Saturated Fat (grams) per day
1200	8
1500	10
1800	12
2000	14
2400	16



High Blood Pressure: The Silent Killer!

What is High Blood Pressure?

High blood pressure, also called hypertension, increases the risk of coronary artery disease, stroke, heart failure, kidney failure, and blindness.

How is High Blood Pressure associated with high cholesterol?

As artery walls fill with plaque they become narrow and the pressure from the blood trying to get through this narrow passage intensifies.

How can I tell if I have high blood pressure?

High blood pressure usually has no symptoms. Have your blood pressure checked by a health professional.

Blood Pressure Systolic (mm Hg)		Diastolic (mm Hg)	
Normal	Less than 120	and	Less than 80
Elevated	120 - 129	and	Less than 80
High - Stage 1	130 - 139	or	80 - 90
High - Stage 2	140 or higher	or	90 or higher
Hypertensive Crisis	180 or higher	and/or	120 or higher

What can I do to reduce my high blood pressure?

- Eat less salt and sodium.
- Reduce the amount of saturated fat in your diet.
- Increase calcium intake (*milk/yogurt*) and potassium (*fruit/veggies*).
- Weight loss of 5 - 10% of your body weight.
- Regular physical activity.
- Drink alcoholic beverages in moderation (1 drink for women, 2 drinks for men).
- Take blood pressure medications as prescribed.
- Know your blood pressure numbers.

Shake Your Salt Habit

Sodium acts like a sponge to keep extra fluid in the body. Too much sodium creates more work for the heart. Salt contains 40% sodium. Your body only needs about 500 mg sodium per day. Eating less sodium may help to reduce or avoid high blood pressure.

Aim for less than 2,300 mg of sodium per day

Sodium Source	Amount of Sodium (milligrams)
3 oz ham	1177 mg
1 cup soup	1000 mg
1 cup canned green beans	660 mg
1 biscuit	530 mg
1 tsp salt	2300 mg



Taming Your Taste Buds

The desire for salt in foods is an acquired taste.

To tame your taste buds for salt:

- Buy fresh foods.
- Use “**low-sodium**” soups, veggies, juices, and unsalted snack foods. Choose foods with “**no added salt**” on the label.
- Do not add salt when cooking noodles, rice, hot cereal, or soup.
- Choose frozen meals with less than 500 mg sodium per serving.
- Use herbs and spices as salt alternatives.



The ABC’s of Herbs & Spices

Allspice	Lean ground meats, stews, tomatoes, peaches, applesauce, cranberry sauce, gravies, lean meat
Almond extract	Puddings, fruits
Basil	Fish, lamb, lean ground meats, stews, salads, soups, sauces, cocktail sauce
Bay leaves	Lean meats, stews, poultry, soups, tomatoes
Caraway seeds	Lean meats, stews, soups, salads, breads, cabbage, asparagus, noodles
Cardamom	Custards, punches, meat, poultry, shellfish, sweet dishes
Chives	Salads, sauces, soups, lean meat dishes, vegetables
Cider vinegar	Salads, vegetables, sauces
Cinnamon	Fruits (especially apples), breads, piecrusts
Curry powder	Lean meats (especially lamb), veal, chicken, fish, tomatoes, tomato soup, mayonnaise
Dill	Fish sauces, soups, tomatoes, cabbages, carrots, cauliflower, green beans, cucumbers, potatoes, salads, macaroni, lean beef, lamb, chicken, fish
Garlic (not garlic salt)	Lean meats, fish, soups, salads, vegetables, tomatoes, potatoes
Ginger	Chicken, fruits
Lemon juice	Lean meats, fish, poultry, salads, vegetables
Mace	Hot breads, apples, fruit salads, carrots, cauliflower, squash, potatoes, veal, lamb
Mustard (dry)	Lean ground meats, lean meats, chicken, fish, salads, asparagus, broccoli, brussels sprouts, cabbage, mayonnaise, sauces
Nutmeg	Fruits, piecrust, lemonade, potatoes, chicken, fish, lean meat loaf, toast, veal, pudding
Onion (not onion salt)	Lean meats, stews, vegetables, salads, soups
Paprika	Lean meats, fish, soups, salads, sauces, vegetables
Parsley	Lean meats, fish, soups, salads, sauces, vegetables
Peppermint extract	Puddings, fruits
Pimiento	Salads, vegetables, casserole dishes
Rosemary	Chicken, veal, lean meat loaf, lean beef, lean pork, sauces, stuffings, potatoes, peas, lima beans
Sage	Lean meats, stews, biscuits, tomatoes, green beans, fish, lima beans, onions, lean pork
Savory	Salads, lean pork, lean ground meats, soups, green beans, squash, tomatoes, lima beans, peas
Thyme	Lean meats (especially veal and lean pork), sauces, soups, onions, peas, tomatoes, salads
Turmeric	Lean meats, fish, sauces, rice

Fiber Up Your Life

Fiber is the structural part of foods (*fruits, veggies, & grains*) that the body cannot digest. Fiber is not absorbed in the intestines and it passes into the colon nearly intact. **There are 2 types of dietary fiber: soluble and insoluble.**

Soluble Fiber dissolves in water and becomes a thick, viscous gel when eaten. Soluble fiber binds with dietary cholesterol and removes it from the body, in turn, lowering blood cholesterol.

Sources: lentils, legumes, beans, peas, oats, barley, oat bran, nuts, brussels sprouts, carrots, okra, cabbage, dried fruits (*apricots, prunes, dates*), blackberries, cranberries, seeds, bananas, citrus fruits, apple pulp, strawberries, and psyllium (*Metamucil*).

Insoluble Fiber (AKA *roughage*) has a laxative-like effect on the intestines. It absorbs water and creates soft, bulky stools that pass through the system quickly.

Sources: bran (*outer covering of corn, oats, rice, wheat*), whole grains (*corn, barley, rice, wheat, oats*), cereals, edible skins of fruits and veggies, celery, brown rice, most veggies & fruits.

Aim to eat 25-35 grams of fiber daily.



Excellent Sources (>7 grams)	Very Good Sources (5-6 grams)	Good Sources (2-4 grams)
All bran 1/3 cup	Turnips 1/2 cup	Oatmeal 1/2 cup cooked
Fiber One 1/2 cup	Black-eyed peas 1/2 cup	Popcorn 3 cups
Bran Flakes 1 cup	Corn cob 1 medium	Chia Seed 1 Tbsp
Beans (Pinto, Kidney, Black, Navy, Lentils, Split-peas) 1/2 cup	Baked potato with skin	Whole Wheat Pasta 1/2 cup
Quinoa 1/2 cup	Sweet potato with skin	Whole Wheat Bread 1 slice
Farro 1/2 cup	Winter squash 1 cup	Triscuit Crackers 5
Barley 1/2 cup	Lima Bean 1/2 cup	Apple, pear, orange, banana
Edamame 1 cup	Raspberries 3/4 cup	Avocado 1/2 small
	Collard Greens 1 cup	Green peas, broccoli 1/2 cup
	Chickpeas 1/2 cup	Almonds, Peanuts, Pumpkin Seeds 1/2 cup

Fiber Boosters

- Choose whole fruits. Skip juice!
- Mix dried fruits & nuts into chicken or turkey salad.
- Make sandwiches with whole wheat bread, pita, and tortillas.
- Add garbanzo beans or other favorite beans to soups/salads.
- Top baked potatoes with broccoli or fresh salsa.
- Snack on fresh veggies.
- Use hummus for a dip.
- Replace half regular flour with whole-wheat flour in baked goods.
- Try whole-wheat pasta or brown rice.
- Mix a high fiber cereal with your favorite cereal.
- Top cereal or pancakes with fresh or frozen berries.
- Grab a bowl of light popcorn as a snack.
- Add chia or ground flax seed to baked goods, smoothies, yogurt or cereal.

Suggestions to INCREASE your Fiber intake:

Eat at least 3 servings of whole grains daily.

Eat 5 - 9 servings of fruits and veggies daily.

Eat legumes at least 2 times per week.

Drink adequate water as you increase fiber intake to prevent constipation.

Start slowly. Too much fiber too fast can cause gas, bloating, cramps, and diarrhea.

Snacking... How to Maximize Nutrition



Spacing meals 3-5 hours apart can help one stay energized.

Snacks are also a great way to incorporate the proper nutrients that may not be fully met with a meal.

- Fresh Fruit (*apples, grapes, banana, individual unsweetened fruit cups, etc.*)
- Raw veggies (*grape tomatoes, carrots, celery, cucumbers, peppers*) w/hummus
- Deviled Eggs using avocado vs mayo
- Avocado slice on whole wheat toast or crackers with cucumbers and tomato slices
- High fiber granola bars (*>3 g fiber*)
- Light popcorn
- Hardboiled egg and fruit
- Whole wheat crackers with peanut butter
- Rice cakes or soy crisps
- Low fat string cheese & triscuits or fresh fruit
- Drinkable yogurt or fruit smoothie made with Greek yogurt
- Greek yogurt & Kashi Crunch cereal
- Homemade trail mix (*dried fruit, nuts, cheerios, pretzels, sunflower seeds*)
- Cottage cheese & fruit
- Tortilla rolled around turkey or low fat refried beans with avocado slice
- Peanut butter on sliced apples
- Graham crackers with peanut butter and banana slices
- Hummus dip/pita bread
- Mini whole wheat bagel w/peanut butter or hummus

Dining Out Tips

	CHOOSE	LIMIT
Appetizers	Fresh or canned fruit, raw veggies	Soup, especially cream soup, fried veggies/potatoes, vegetable juice, pickles
Salads	Fresh vegetable salad (oil based dressing), slice tomato, fruit salad	Cole slaw, macaroni or potato salad, cottage cheese
Entrees	Lean meat, fish, or poultry that has been roasted, baked, broiled, grilled or poached fatty, fried or breaded meats	Stews and casserole-type dishes
Vegetables	Stewed, steamed or boiled veggies	Vegetables in sauce or au gratin, seasoned with butter or fried
Potatoes & Substitutes	Baked, boiled or steamed potatoes, boiled/steamed rice	Mashed, fried potatoes, creamed or au gratin potatoes, fried rice, noodles in cream sauce
Breads	Hard or soft rolls, bread/toast, Unsalted crackers, breadsticks or Melba toast, matzo and plain toast	Crescents, butter rolls, popovers, croissants, sweet rolls, cakes or coffee cake, salted crackers
Condiments	Low-calorie salad dressing, oil & vinegar, salsa, ketchup, mustard	Gravy, butter or cream, sour cream, cream cheese, bacon, mayonnaise-type salad dressing, cheese sauces
Desserts	Fresh fruit, angel food cake, Italian ice, fruit sorbet, lowfat yogurt, jell-o	Pastries, cakes, cream pies, ice cream
Beverages	Skim milk, tea, coffee, fruit juices, water, diet soda	Milk shakes, chocolate milk, whole milk, soda, alcohol

Ultimate Grocery List

STARCHES (6-9 servings/day)

Whole grain cereal
(*Cheerios, Shredded Wheat, Oatmeal*)
100% whole wheat bread, pita, tortilla
Whole wheat pasta, brown rice, barley, quinoa
Whole grain crackers (*Triscuits*)
Pretzels, rice cakes, soy crisps
Popcorn (*air popped/light*)
Beans (*kidney, pinto, black, garbanzo beans*)
Sweet potatoes
Winter squash

Note: Whole wheat product should be labeled 100% whole wheat

FRUITS (2 cups/day)

Apples	Oranges/clementines
Apricots	Peaches
Bananas	Pears
Blueberries	Papaya
Cantaloupe	Plums
Cherries	Strawberries
Grapes	Watermelon
Kiwi	Frozen fruit (<i>no sugar</i>)
Mango	Canned fruit (<i>light</i>)
Nectarine	Dried fruit

MILK/YOGURT (3 cups/day)

Milk, skim or 1% – (8 oz)
Light yogurt or Greek yogurt

PROTEIN (6 ounces/day)

Skinless chicken
Skinless turkey
Fish/tuna
Venison
Lean beef (*round, loin, flank*)
Eggs
Low fat cheese/light string cheese
Peanut butter (*natural*)
Low fat cottage cheese

VEGETABLES (3 cups/day)

Asparagus	Peppers
Broccoli	Tomatoes
Carrots	Zucchini
Cauliflower	Frozen veggies
Celery	Canned (<i>no salt</i>)
Green beans	Dark, leafy lettuce
Mushrooms	
Tomato or V8 juice (<i>low sodium</i>)	

FATS/OILS/CONDIMENTS (Limit to a 3-5 servings/day)

Light tub margarine
Vegetable oil (*olive, canola, peanut*)
Avocados
Light mayo
Oil based salad dressing
Light sour cream
Light cream cheese
Mustard
Peanut butter (*natural*)
Dry roasted, lightly salted nuts
Seeds (*chia, ground flaxseeds, hemp, sunflower, pumpkin, sesame*)

DESSERTS

Grilled fruit
Baked fruit with cinnamon
Fruit and yogurt parfait
Sugar-free jello
Dark chocolate



Recipes

FRESH FRUIT SALAD WITH HONEY VANILLA YOGURT Serves 4

Recipe adapted from foodnetwork.com

Ingredients:

2 cups of plain low-fat Greek yogurt
2 tablespoons of honey
1/2 tsp. of pure vanilla extract
1/2 orange, juiced
1 banana, sliced
1/2 pint fresh blueberries
1/2 pint fresh raspberries
1/2 pint fresh strawberries, hulled and sliced in half
1 cup seedless green grapes, halved

Directions:

Combine the yogurt, honey, and vanilla extract and set aside. Next, combine the orange juice and banana slices in separate bowl. Add the berries and grapes and gently mix the fruit mixture together. Spoon the fruit into serving bowls and top with the yogurt.

Recipe makes about 4 servings.

Nutrition per serving:

Total Calories: 193
Saturated Fat: 0g
Sodium: 70mg
Carbohydrates: 46g
Dietary Fiber: 5g

BERRY SPINACH SALAD Serves 4

Ingredients:

8 cups ready to eat baby spinach or mixed salad greens (stems removed)
1 1/2 cups raspberries or strawberries
2/3 cup of crumbled low fat feta cheese
1/4 cup of toasted pine nuts, pistachios or pecans (toast nuts: bake at 325° for 5-10 minutes, stir 1-2 times)
6 oz. container of greek or light raspberry or strawberry yogurt
2 tsp. of canola oil (or mild olive oil)
2 tsp. of raspberry vinegar, balsamic vinegar or lemon juice
Pepper to taste

Directions:

Divide spinach among 4 salad plates. Top with berries, cheese and nuts.

For dressing, stir together yogurt, oil and vinegar. Season if desired. Spoon over salads.

Nutrition per serving:

Total Calories: 146
Total Fat: 8g
Saturated Fat: 4g
Sodium: 319mg
Carbohydrates: 14g
Dietary Fiber: 5g



MINESTRONE SOUP Serves 4

1 Tbsp extra virgin olive oil
1/2 cup chopped onion
1/3 cup chopped celery
1 carrot diced
1 clove garlic, minced
4 cups low-sodium chicken broth
2 large tomatoes, seeded and chopped
1/2 cup chopped fresh spinach
1 can chickpeas (16oz), drained and rinsed
1/2 cup uncooked small-shell pasta
1 small zucchini, diced

Directions:

In a large saucepan, heat the olive oil over medium heat. Add the onion, celery and carrot and sauté until softened, about 5 minutes. Add garlic and continue cooking for another minute. Stir in broth, tomatoes, spinach, chickpeas, and pasta. Bring to a boil over high heat. Reduce heat and simmer for 10 minutes. Add zucchini. Cover and cook for 5 minutes more. Remove from heat and stir in the basil.

Nutrition per serving:

Total Calories: 190
Total Fat: 4g
Saturated Fat: .5g
Sodium: 400mg
Carbohydrates: 30g
Dietary Fiber: 8g

ZESTY GRILLED VEGGIES Serves 8

Recipe adapted from kraftrecipes.com

Ingredients:

2 (each) zucchini and summer squash
cut diagonally into 1/2 inch thick slices

3 (each) red and yellow peppers,
cut into 1/2 inch wide strips

1/4 cup of Zesty Italian dressing

1/4 cup of grated parmesan cheese

Directions:

Place vegetables in grill basket or tin foil packet.

Grill for 10 min. or until crisp-tender, turning occasionally.
Place in large bowl.

Add dressing; toss to coat. Sprinkle with cheese.

Nutrition per serving:

Total Calories: 80

Saturated Fat: 1 g

Sodium: 150 mg

Carbohydrates: 10 g

Dietary Fiber: 3 g

GRILLED BRUSCHETTA CHICKEN

Serves 4

Recipe adapted from kraftrecipes.com

Ingredients:

1/4 cup of sun dried tomato dressing, divided

4 small chicken breasts, pound to 1/2 - 3/4 inch thickness

1 medium tomato finely chopped

1/2 cup shredded low fat mozzarella cheese

1/4 cup chopped fresh basil (or 1 tsp. dried)

Directions:

Place large sheet foil over half of grill grate, preheat to medium. Pour 2 Tablespoons of dressing over the chicken in a bag to coat; refrigerate 10 minutes.

Remove chicken from marinade and grill on uncovered side for 6 minutes. Combine tomatoes, cheese, basil and 2 Tablespoons of dressing.

Turn chicken over, place cooked side up on foil. Top evenly with tomato mixture. Close lid. Grill 8 minutes or until done.

Nutrition per serving:

Total Calories: 200

Sodium: 290mg

Saturated Fat: 2.5g

Carbohydrates: 3g

Dietary Fiber: .5g

GRILLED SALMON WITH MANGO SALSA Serves 4

Recipe adapted from foodnetwork.com

Salmon:

4 (6 oz. each) salmon fillets

1/4 tsp. salt

Pepper (to taste)

Mango Salsa:

2 fresh mangoes or 1 (15 oz.) can mangoes
in syrup drained

1/4 cup red bell pepper (fresh or frozen), diced

1/4 cup fresh cilantro, chopped

1/4 cup fresh lime juice

Directions:

Season salmon with salt and pepper.

Mix well and let stand

Heat lightly oiled grill pan on medium-high heat.

Grill seasoned salmon for 5 minutes on each side or until done.

To with salsa and serve.

Serve with baked sweet potato wedges.

Nutrition per serving:

Total Calories: 290

Saturated Fat: 2.5g

Sodium: 265mg

Carbohydrates: 19g

Dietary Fiber: 2g





NUTRITIONAL SERVICES

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