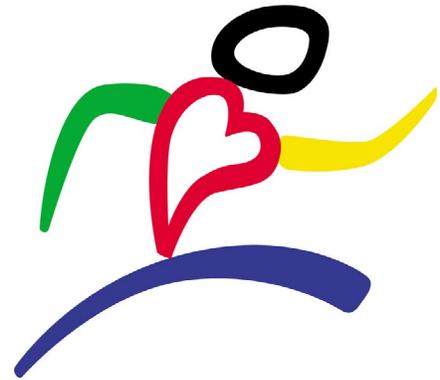


Windsor-Essex Cardiac Wellness Centre Eating for a Healthy Heart

Anna Prestia
Dietitian
254-5577 ext. 72505

Nutrition Topics

- Cholesterol
- Dietary Fats
- Omega-3 Fat
- Plant Sterols/Stanol
- Canada's Food Guide
- Fibre
- Antioxidants
- Salt Intake
- Alcohol Intake

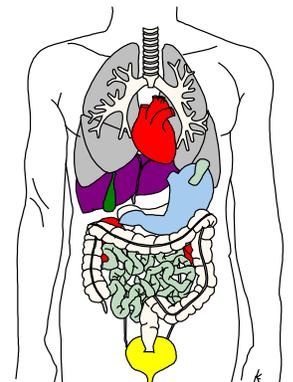


Risk Factors for Heart Disease

- Family history
- Age and gender
- Diabetes
- Elevated blood cholesterol levels
- Overweight
- Elevated blood pressure
- Lack of physical activity
- Smoking

What is Cholesterol?

Blood Cholesterol is a soft waxy, fat-like substance that occurs naturally in the body



Cholesterol comes from two sources:

- 1) The food we eat
- 2) The body's own manufacturing process

The Body's Own Manufacturing Process

- Produced by the body
- Essential to life
- Has important functions in the body

Blood Cholesterol

- **HDL ("good") Cholesterol**
- Carries excess cholesterol out of blood vessels
- Lowers risk of heart disease

HDL Cholesterol

May be **increased** by:

- Weight Loss
- Increased activity
- Smoking cessation
- Adding unsaturated fats
- Replacing saturated fats with unsaturated fats

Blood Cholesterol

● LDL ("bad") Cholesterol

- Tends to accumulate on the artery walls and clog artery walls
- Increases risk of heart disease
- May be reduced by dietary changes and a healthy weight

LDL Cholesterol

May be decreased by:

- Reducing saturated fat and trans fat
- Reducing dietary cholesterol
- Increasing plant sterols/stanols
- Increasing soluble fibre
- Weight Loss
- Soy Protein
- Polyunsaturated/Monounsaturated fat

Triglycerides

- Fats that circulate in the bloodstream
- May be a risk factor for heart disease
- What to do to help lower triglycerides?
 - ✓ Limit alcohol consumption
 - ✓ Decrease sugar intake
 - ✓ Trim excess calories
 - ✓ Increase activity
 - ✓ Replace saturated fat with unsaturated fat
 - ✓ Increase Omega-3 fat (particularly from fish)
 - ✓ Control blood sugars (Diabetes)

“Good” Fat, “Bad” Fat

Where can fat be found?

Which fat is which?

Dietary Cholesterol

- Dietary cholesterol is found only in ANIMAL PRODUCTS
- Plant foods DO NOT contain cholesterol (e.g. grains, fruits, vegetables, nuts, and oils)

Fats in our Diet

Unsaturated Fat

1. Polyunsaturated Fat

- Corn, safflower, sesame, soybean, sunflower oils
- Fish (salmon, sardines, mackerel, tuna)
- Flaxseeds, walnuts, sunflower seeds

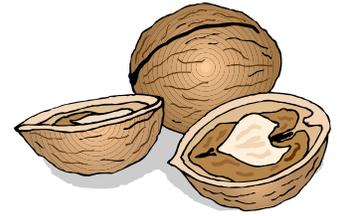
Helps to lower cholesterol!

2. Monounsaturated Fat

- Olive, canola and peanut oils
- Nuts, seeds, olives, avocados

Helps to lower cholesterol!





NUTS!!!!

- Nut Consumption has been associated with a decreased risk of heart disease and improved cholesterol levels
- High in unsaturated fat, good source of omega-3 fatty acids, fibre, vitamin E, and other nutrients

Nut Type	1 oz (30g)	Total Fat (g)	Saturated Fat	Mono Fat (g)	Poly Fat	Ratio
Almond	22 whole	15.0	1.1	9.5	3.6	11.9
Cashew	18 medium	13.1	2.6	7.7	2.2	3.8
Hazelnut	20 whole	17.7	1.3	13.2	2.4	12.0
Macadam	10-12	21.6	3.4	16.8	0.43	5.1
Peanut	28	14.1	2.0	7.0	4.4	5.7
Pecan	20 halves	21.1	1.8	12.5	5.8	10.2
Pistachio	47 whole	13.0	1.6	6.9	3.9	6.8
Walnut	14 halves	18.5	1.7	2.5	13.4	9.4

Fats in our Diet

Saturated Fat

- Meat, poultry, butter, lard
- High fat dairy products
- Palm and coconut oils, cocoa butter



Increases your cholesterol*

Other Harmful Fats

Trans Fatty Acids or Trans Fats

- Formed when unsaturated fats are changed from liquid form to solid form
- This process is called “hydrogenation”
- Look for “**hydrogenated**” fat in shortenings, baked goods, cookies, crackers, potato chips, fried foods, margarines, convenience foods...
- Increases LDL cholesterol*

Omega-3 Fatty Acids

- Type of polyunsaturated fat that our bodies cannot make
- May protect against coronary heart disease and stroke
- May help prevent stickiness and clotting of blood
- May reduce heart arrhythmias
- May lower triglycerides

Sources of Omega-3 Fatty Acids:

- Fatty Fish- Salmon, Mackerel, Trout, Herring, Tuna, Sardines, Whitefish, Bluefish
- Flaxseed, Soybeans
- Canola Oil
- Omega-3 eggs
- Nuts (walnuts, pecans and pine nuts)

The Cornerstones of Healthy Eating

Canada's Guidelines for Healthy Eating

- Enjoy a **variety** of foods
- Emphasize **cereals, breads, other grain products, vegetables and fruits**
- Choose **lower fat dairy products, leaner meats** and foods prepared with little or no fat
- Achieve and maintain a **healthy body weight** by enjoying regular physical activity and healthy eating
- Limit **salt, alcohol, and caffeine**

Grain Products

Recommendation: 5-12 servings per day

Breads, cereals, pasta, rice

Examples of 1 serving include:

- 1 slice of bread
- ½ cup cereal
- ½ bagel, pita, or bun
- ½ cup pasta or rice

Increasing Fibre Intake

Recommendation: 25-35 grams per day

Insoluble Fibre

- Promotes regularity of the bowel

Good sources:

- whole wheat products, rye, fruits and vegetables (skin, stems, leaves, and seeds)

Soluble Fibre

- Lowers blood cholesterol
- Helps control blood sugars

Good sources:

- oats (oatmeal, oat bran) barley and legumes (lentils, beans)
- fruits rich in pectin (apple, strawberry, citrus fruits and pears)
- psyllium cereals (Bran Buds), milled flaxseed

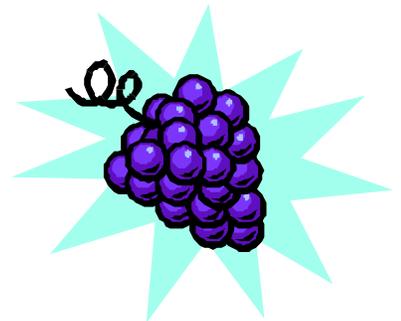
Vegetables and Fruit

Recommendation: 5-10 servings per day

Fresh, frozen, canned or as a juice

Examples of 1 serving include:

- 1 medium-size vegetable or fruit
- ½ cup fresh, frozen, canned vegetables
- 125 ml (½ cup) juice
- 1 cup salad greens



Up the Anti-oxidants

Anti-oxidants help to:

- Reduce the number of “free radicals” which damage cells in our body in the same way that rust attacks metal.
- Maintain everyday health and may help reduce risk of heart disease, cancer and other conditions, like cataracts.

Some Well-Known Anti-oxidants

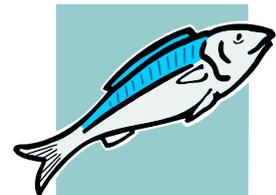
- Vitamin C, Vitamin E and Carotenoids like Beta-carotene, Lycopene
- Food is your best source for these nutrients
- Potential for harm if taken as supplements
 - Vitamin C if greater than 2,000mg/day
 - Vitamin E if greater than 1,000 mg/day
 - Beta-carotene **NOT** recommended as a supplement

Food Sources of Many Anti-oxidants

- Deeply coloured vegetables and fruits like: Carrots, sweet potatoes, winter squash, dark green leafy vegetables, oranges, blueberries, kiwi fruit, broccoli, strawberries, sweet peppers, tomatoes and tomato sauces, etc.
- Nuts and seeds
- Wheat germ & whole grains
- Legumes

Meat and Alternatives

Recommendation: 2-3 servings per day



Meat, fish, legumes, poultry, soy products/tofu, peanut butter and eggs
**milk & cheese

- One serving = palm of your hand



Some Helpful Tips

- Trim visible fat from meats
- Skinless poultry
- Broil, roast, poach, grill, barbecue
- Skim fat from stews and soups

- Use non-stick cookware
- Select lean cuts of meat
- Try to have fish at least twice per week
- Select meatless main dishes once per week (use legumes/beans or nuts in place of meat)

Plant (SOY) Protein

- Contains fibre and antioxidants
- Good source of Omega-3 fatty acids
- Lowers LDL cholesterol and triglycerides
- High protein meat replacement

Where's the Soy?

- Fortified low fat soy milk
- Firm tofu
- Silken tofu for dips
- Soy burgers and hot dogs
- Texturized vegetable protein
- Soy flours



Milk Products

Recommendation: 2-4 servings per day

Milk, cheese, yogurt

Examples of 1 serving include:

- 250 ml (1 cup) of milk
- 1-2 oz cheese
- 175 g ($\frac{3}{4}$ cup) yogurt

Look for Low Fat Dairy Products

- % M.F. or milk fat
- Drink skim milk or 1% milk
- Choose low fat yogurt (1% M.F. or less)
- Choose low fat cheese (15% M.F. or less) and eat in moderation

Mediterranean Diet

- Pasta, rice, couscous, whole grains
- Vegetables and fruit
- Opt for olive oil
- Pinch of cheese
- Emphasis seafood, less meat/poultry



Healthy Heart Tips

- Choose **NON-HYDROGENATED** margarines
- Examples: Becel, Lactancia, etc.
- Use canola or olive oil for cooking whenever possible instead of margarines

Special Margarines

(Not Yet Available in Canada)

- Margarines containing plant sterols/plant stanols
- Plant sterols/stanols are naturally found in plant foods in small quantities
- Plant equivalent of cholesterol, block cholesterol absorption
- Significantly lower LDL-C (6-15%)
- NCEP recommends adding 2g/day

Plant sterols (phytosterols)

- Lowers total and LDL cholesterol
- "Take Control" (U.S.A.) and "Pro activ" (Australia)

Plant stanols

- "Benecol" (Europe)



Reducing Your Salt Intake

- Decrease the addition of salt to foods and in cooking
- Choose salty foods less often:
Fast food, cured and canned meat and vegetables, processed cheese, chips, canned and dry soup mixes, seasoning salts and convenience foods
- Rinsing canned foods like tuna and chickpeas can substantially reduce the sodium content
- Read labels carefully since salt is added to foods in many forms: monosodium glutamate, sodium nitrate and sodium bicarbonate
- Replace salt in cooking with lemon juice, herbs or others spices
- Avoid salt substitutes (No Salt) if you are on an Ace Inhibitor (e.g. Altace)

What To Watch Out For ALCOHOL

- If you drink alcohol, do so in moderation
- Two drinks per day for men and one for women
- If you don't drink, don't start!!!
- A drink: 5 ounces of wine, 12 ounces of beer, or 1 ½ ounces of liquor
- Be aware: high in calories!!!!



DO NOT DRINK

- If you are pregnant
- Taking medications that may interact with alcohol
- If you have trouble controlling the amount you drink
- You plan to drive a car or other vehicle
- You plan to participate in sports or other activities that require attention and skill
- Heavy alcohol consumption is connected with liver problems
- It can raise your blood pressure
- Individuals with high triglycerides should not consume alcohol
- Alcohol may increase risk of breast cancer, especially for women who have a family history

COUMADIN (Warfarin)

- Anti-Coagulant drug
- Used to treat and prevent abnormal blood clotting which is important in the prevention of heart attacks, strokes and blockage of major veins and arteries
- Must monitor your intake of Vitamin K

Coumadin and Vitamin K

- Vitamin K plays a major role in the clotting process
- You must keep the level of vitamin K in your diet
CONSISTENT

Foods High in Vitamin K

- Asparagus
- Broccoli
- Brussel Sprouts
- Cabbage/Coleslaw
- Cucumber with peel
- Endive
- Green Scallion
- Lettuce
- Mustard Greens
- Oils-canola, vegetable, soybean
- Spinach
- Turnip Greens
- Parsley
- Pistachio nut
- Watercress