



# Nutrition Education Class: Eating for a Healthy Heart

**Cardiac Wellness Centre  
(519) 257-5111 ext. 72525**



**HDGH**  
ESTD 1888

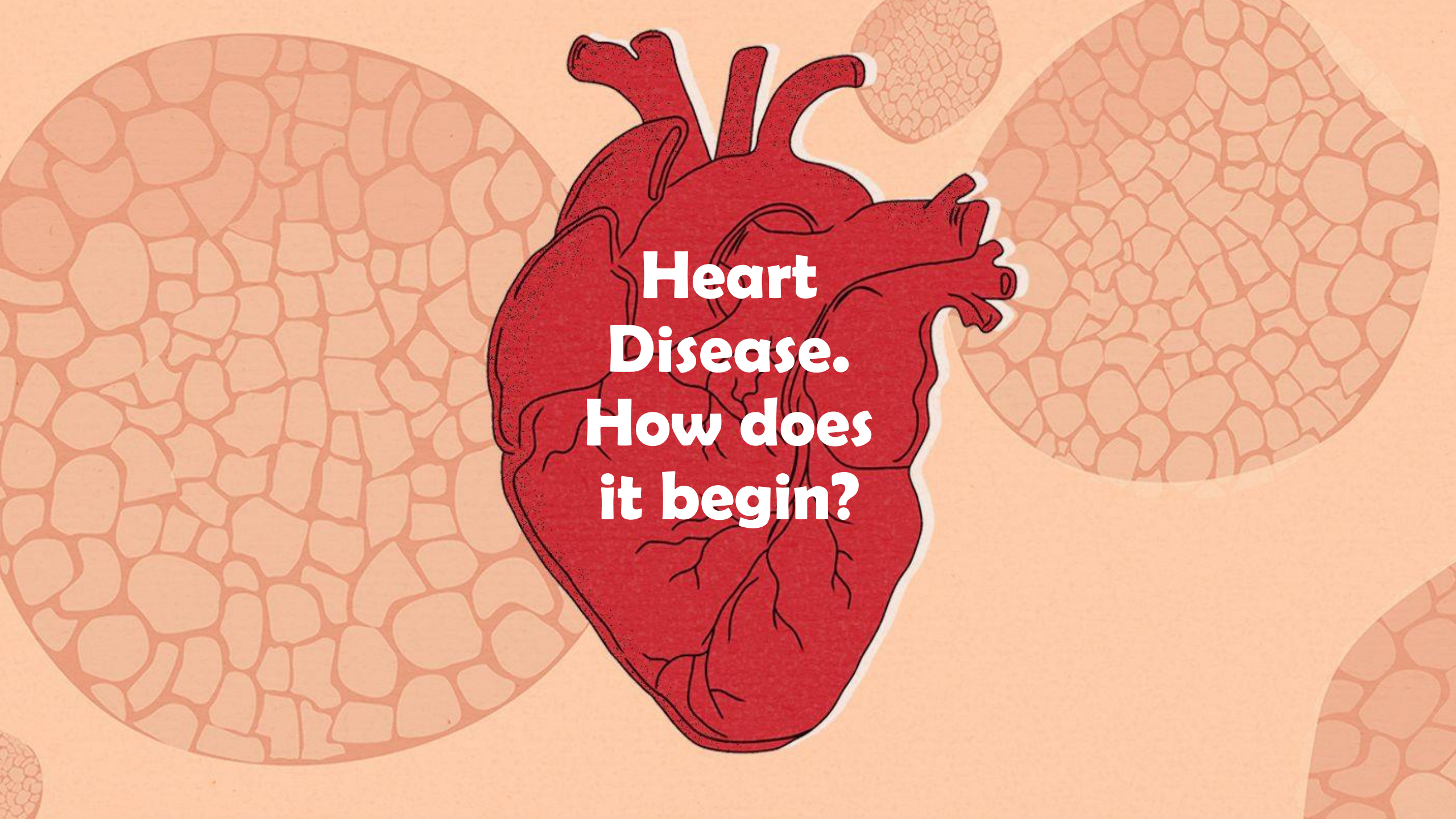


# Class Outline

- Understanding Heart Disease
- Atherosclerosis
- Blood Lipids
- Eating for Heart Health
  - Dietary fats, sugar, fibre, sodium
  - Nutrition labels, Canada's Food Guide
- Additional resources



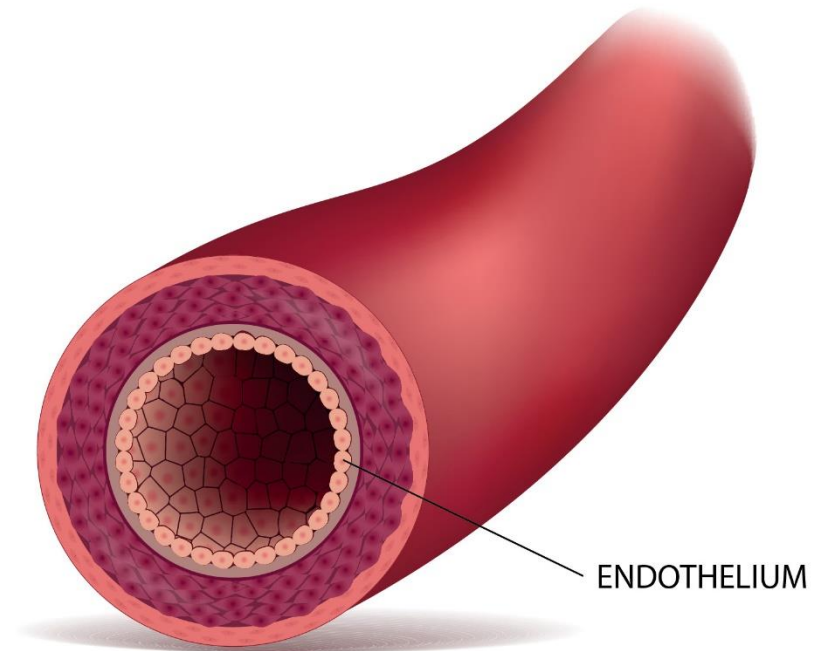




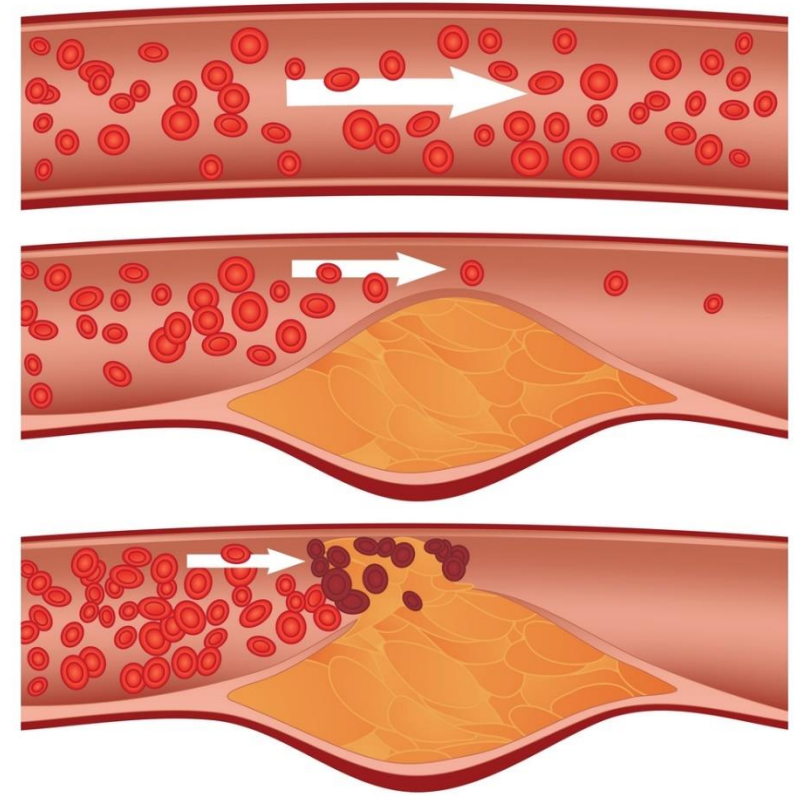
**Heart  
Disease.  
How does  
it begin?**

# Endothelium – the inner layer of the artery

- Protects the inside of the artery.
- Can be damaged by:
  - Smoking
  - High blood pressure
  - High cholesterol
  - High blood sugar levels
  - Elevated weight
  - Nutrition choices high in sugar, salt, saturated and trans fat



If the Endothelium gets damaged..  
Your body will fix it.

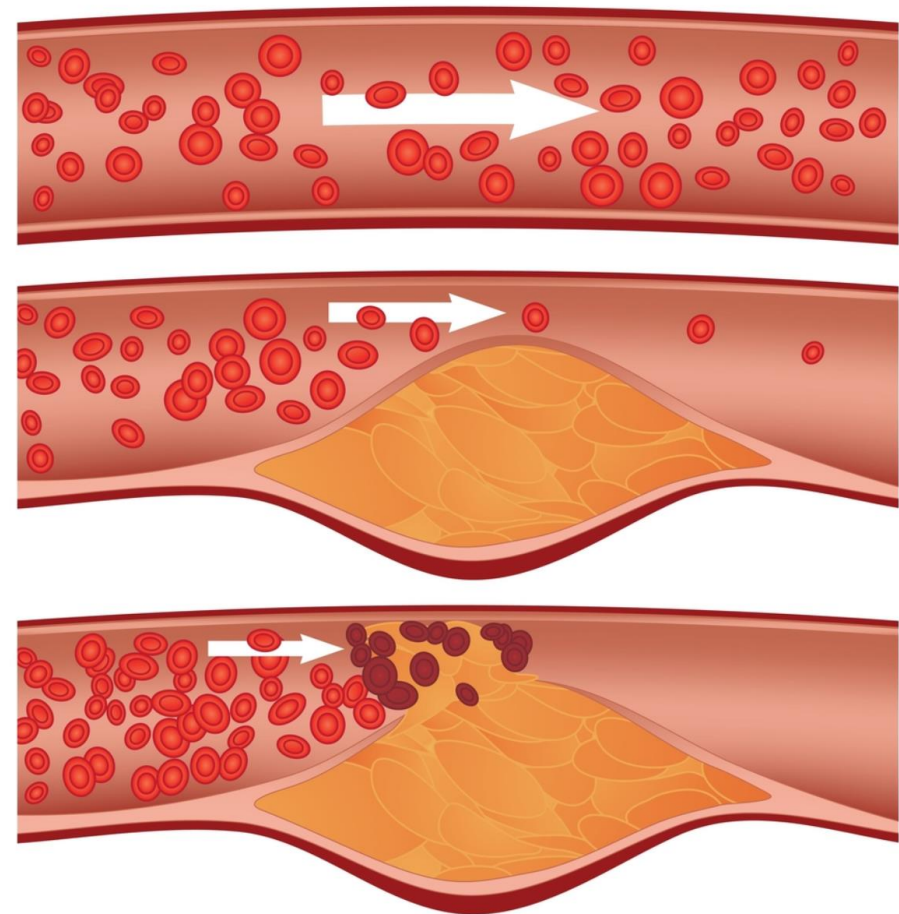
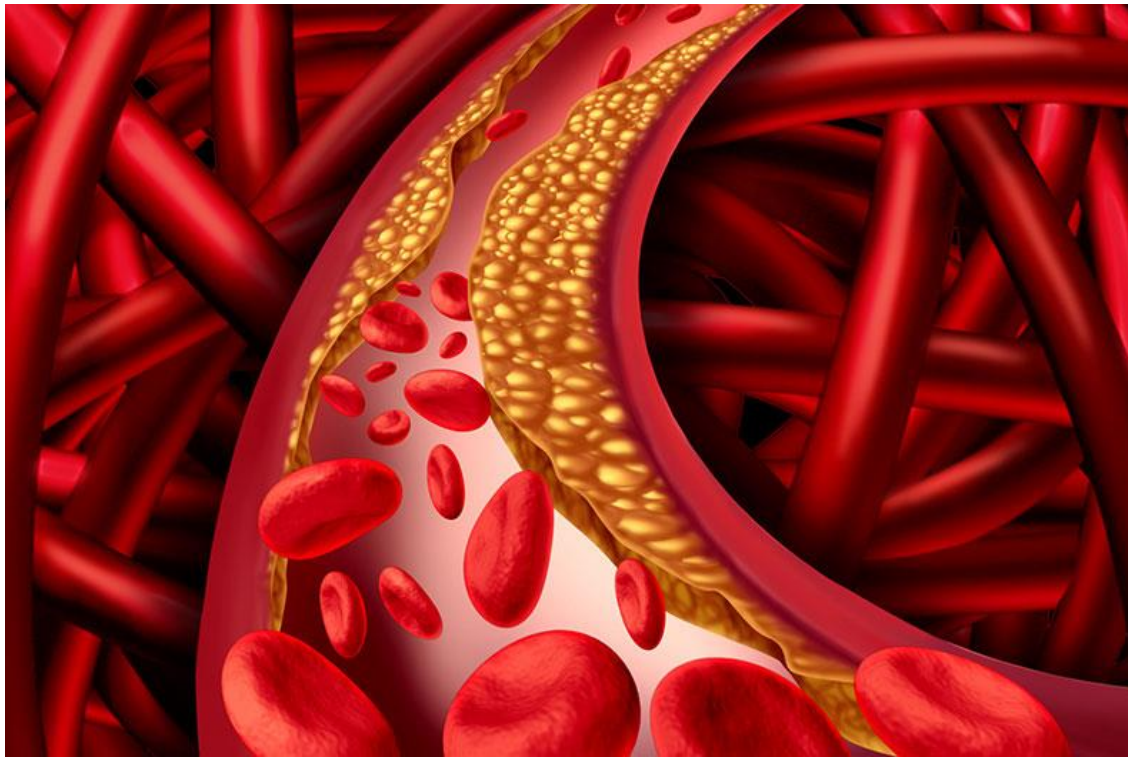


Fixing it results in inflammation,  
and a bandage made out of  
cholesterol, fats, calcium.



This causes  
**Plaque.**

# Atherosclerosis = Hardening of the Arteries



# Cholesterol

- A waxy substance used to make hormones, Vitamin D and to keep cell membranes healthy.
- 80% of our total cholesterol is made by our livers.
- Also found in animal products such as **meat, poultry, eggs and some seafood.**
- Cholesterol is carried around the body by HDL (high density) and LDL (low density) “lipoproteins”.





# Blood Lipids (fats/oils)

- **LDL or “Low Density Lipoprotein” = LOUSY cholesterol. ❌**
  - LDL is affected by diet and medication. It is the main predictor for plaque build up. LDL moves cholesterol from the liver around the body.
  - Goal of less than 1.8
- **HDL or “High Density Lipoprotein” = HELPFUL cholesterol. ✔️**
  - HDL can be increased through diet, exercise, losing weight, and changing habits such as smoking.
  - Goal of greater than 1.0



# Blood Lipids (fats/oils)

- **TG's or Triglycerides** **X**
  - A type of fat in the blood.
  - High TG is a risk factor for heart disease.
  - Affected by nutrition choices, alcohol, blood sugars, genetics.
  - Goal of less than 1.7
- **Is changed to LDL (Lousy cholesterol) in the liver.**



# SUMMARY: Blood Lipids (fats/oils)

LIPID	RECOMMENDED RANGE (BLOODWORK)
<b>LDL</b> <b>(Low Density Lipoprotein)</b>	<b>&lt;1.8</b>
<b>HDL</b> <b>(High Density Lipoprotein)</b>	<b>&gt;1.0</b>
<b>TG</b> <b>(Triglycerides)</b>	<b>&lt;1.7</b>



# Risk Factors for Heart Disease

## Non-Modifiable (what we cannot change):

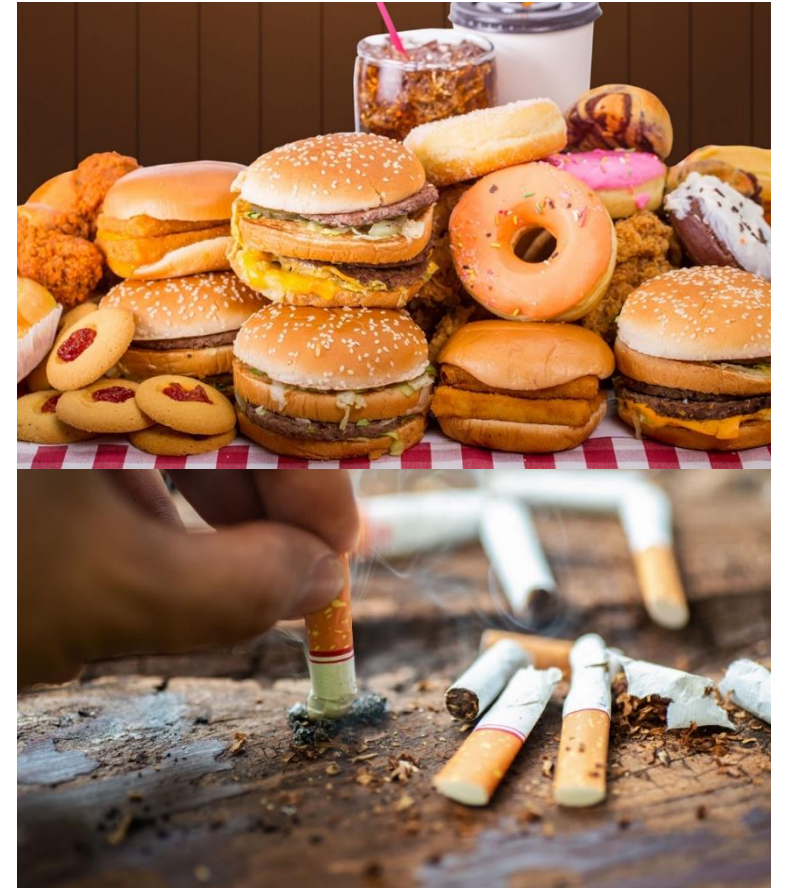
- Family history
- Age
- Gender
- Ethnic background



# Risk Factors for Heart Disease

## Modifiable (what we can change):

- Food choices
- Lifestyle practices and patterns
- Physical activity
- Alcohol intake
- Smoking
- Stress levels
- Sleep patterns



# Impacts of Heart Healthy Eating



- Everyone has the power to make beneficial nutrition choices, which can:
  - Improve blood lipids (HDL, LDL, and TG)
  - Decrease inflammation and damage
  - Improve overall health and quality of life
  - Help manage other health concerns
  - Help manage weight

# Nutrition Choices and Heart Disease



# Making Food Choices for a Healthy Heart

## **Choose less often:**

- Saturated and Trans fats
- Salt
- Sugar

## **Choose more often:**

- Unsaturated fat
- Fibre





# Improving Cholesterol Levels

- Cholesterol is found in **ANIMAL** products.
- Foods that have cholesterol are usually higher in saturated fat.
- Limit intake of foods high in saturated fat - this plays a more significant role in managing cholesterol levels than just your cholesterol intake.
- **PLANT** foods are cholesterol free.



# FAT: Types of Fat we Eat

Aim to decrease SATURATED fats, choosing UNSATURATED fats more often.

- **Saturated** fats often come from animal sources
  - Meat, skin on poultry, butter, lard, bacon grease, coconut and palm oils.
  - Is usually **SOLID** at room temperature.
- **Unsaturated** fats often come from plant sources
  - Olive/canola/safflower oils, avocado, nuts, seeds, and fish.
  - Is usually **LIQUID** at room temperature.
- **Trans Fats** found in some meats and dairy products
  - Created when a liquid oil goes through a chemical process to turn into a solid “hydrogenation.”
  - Aim to decrease; can raise LDL and decrease HDL.

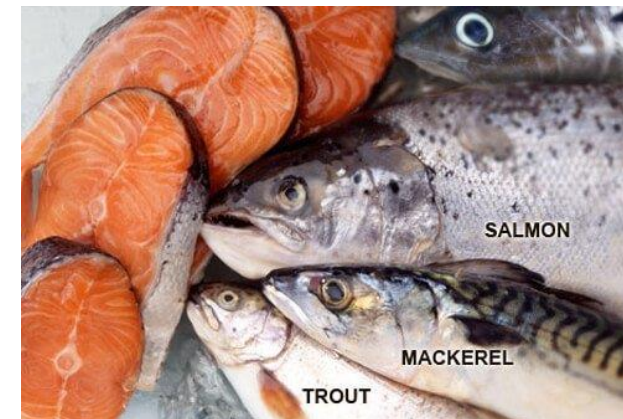
# Foods to Choose Less Often

- Processed meats (salami, bologna, ham), hotdogs, bacon, sausage, pepperoni.
- Donuts, cakes, pastries, candy, ice cream.
- Pizza, french fries, deep fried foods, chips.



# Types of Unsaturated Fats:

- Monounsaturated Fats
  - Olive/ canola oils, soft non-hydrogenated margarines, avocados, almonds, pistachios, pecans, cashews, peanuts.
- Polyunsaturated Fats (OMEGA 3 and OMEGA 6 fatty acids)
  - Salmon, mackerel, trout/ sardines, omega 3 enriched eggs (**omega 3 sources**).
  - Safflower/ sunflower/ corn oil, almonds/ pecans/ sesame seeds (**omega 6 sources**).

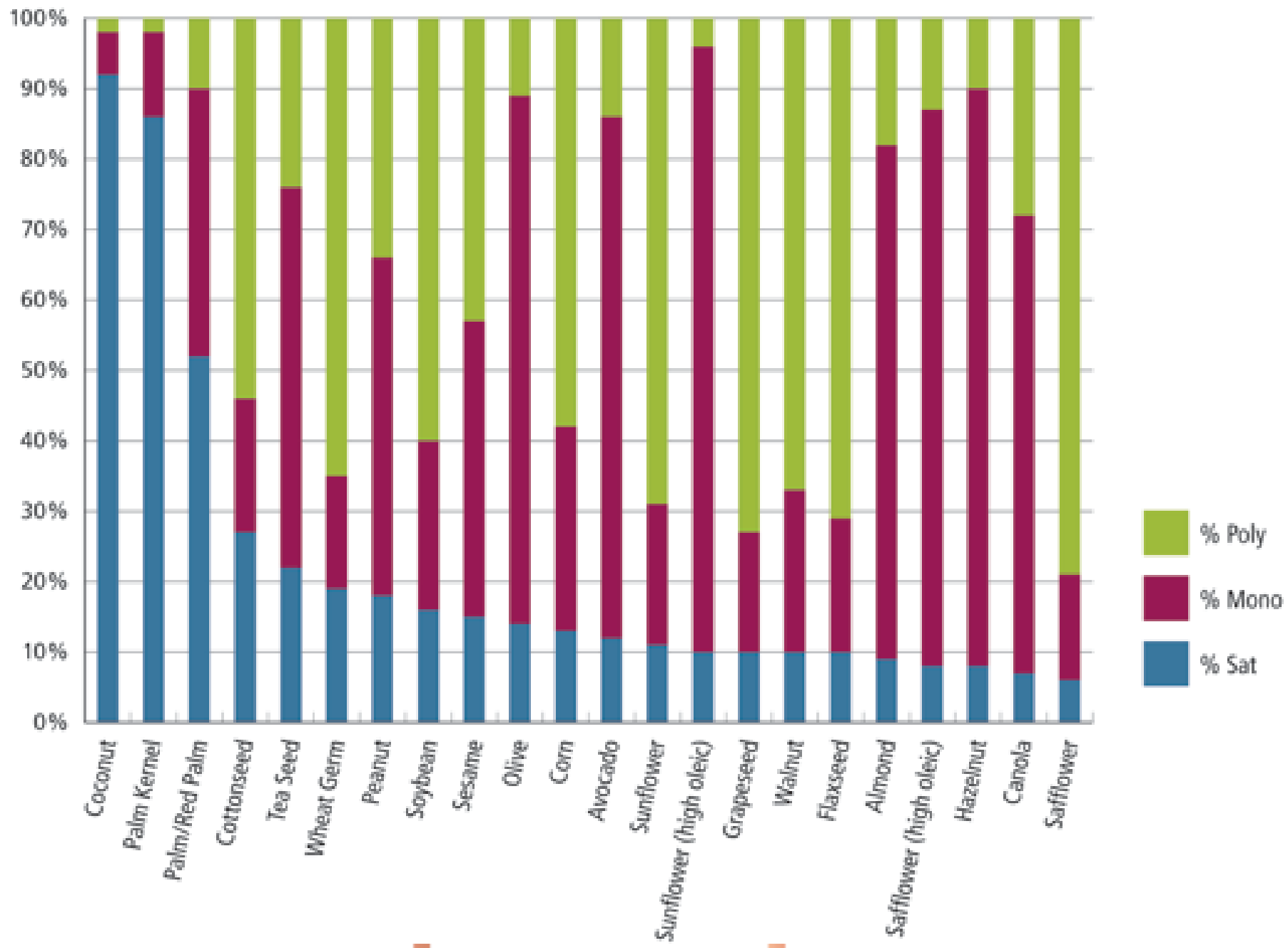


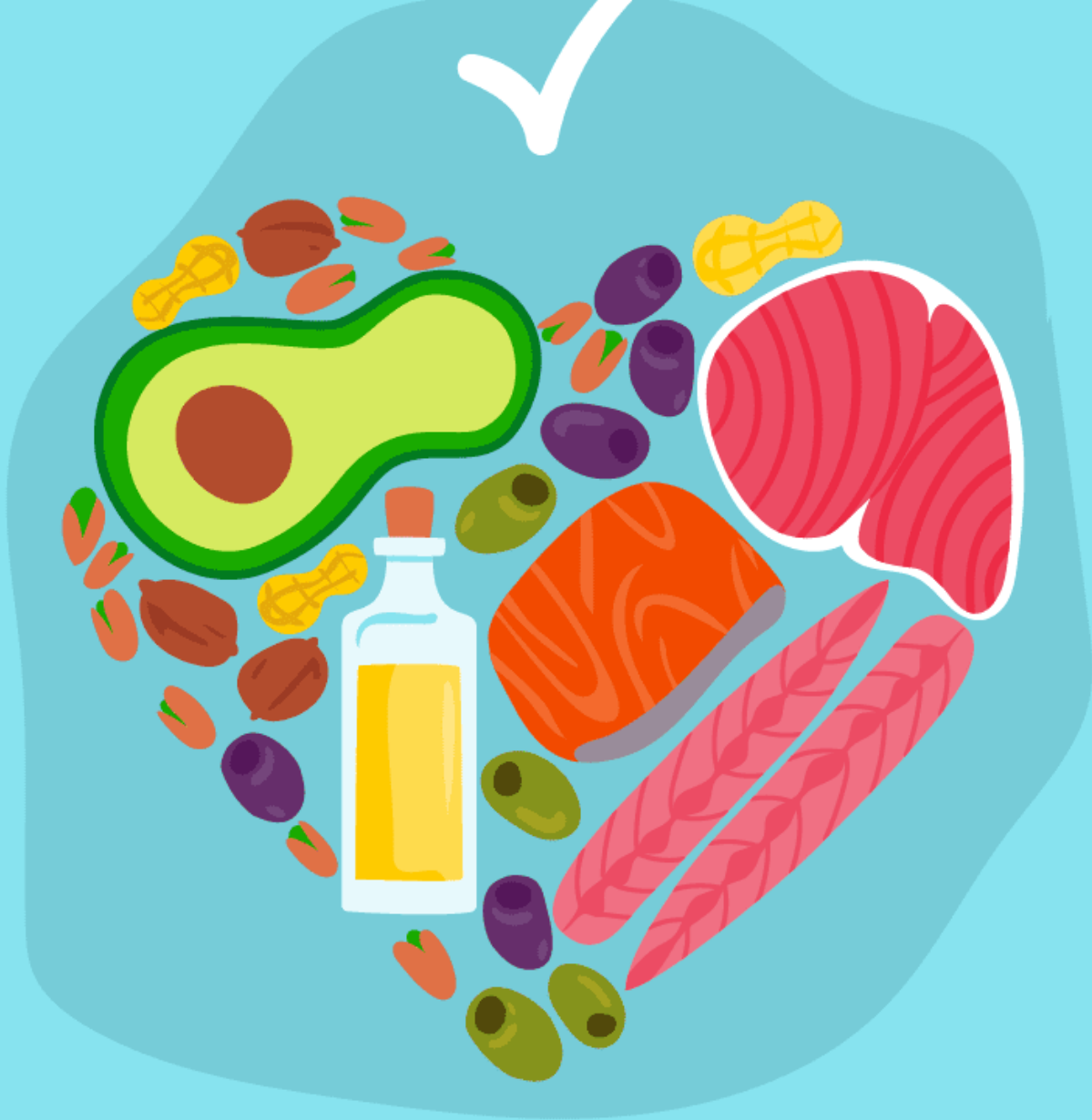
# Nuts and Seeds

- Excellent source of *Unsaturated* fat.
- Omega-3 fatty acids, fibre, vitamin E, protein, and other nutrients.
- Nuts and nut butters can be a good substitute for saturated fats such as butter or lard.
- Unsalted more often.
- **¼ cup daily or 2 tbsp.** Due to their fat content, they are high in calories.



# Fatty Acid Percentages of Various Oils<sup>9</sup>





Choose unsaturated fats more often than saturated/trans fats

# SUGAR

- Hidden in many foods.
- **Added** during food processing or preparation.
- Added sugar does **not** refer to natural sugar, found in milk, fruits, legumes, and whole grains.
  - Having less than 10% of total daily calories is recommended for reducing risk for heart disease.
  - Less than 5% of total calorie intake (2000 calorie diet) would further reduce risk; 25g (6 tsp).
  - 1 tsp = 4g sugar.





# Added Sugar

- Is not an essential nutrient.
- Includes everything from:
  - Honey, fancy molasses, brown sugar, table sugar, sugar, glucose, fructose, dextrose, corn syrup/high fructose corn syrup, fruit-juice concentrate, fruit juices, jam, jelly.
- Look for these items on ingredient lists.
- Avoid adding at meals and snacks.



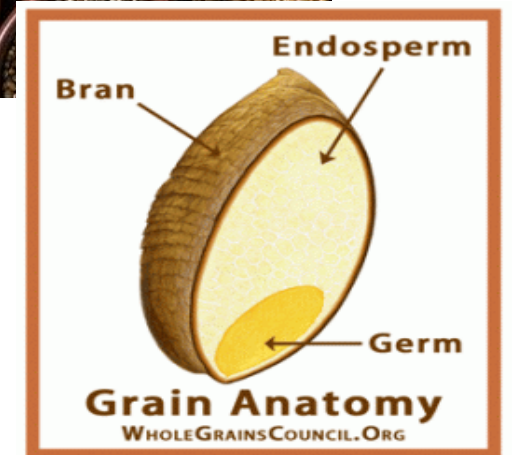
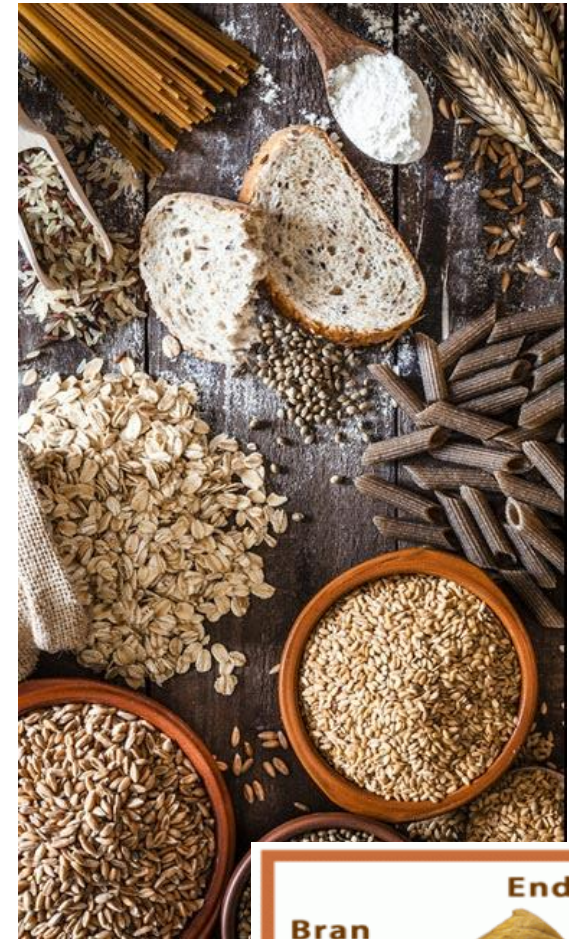
# An Important Carbohydrate: Fibre

On a food label, fibre is listed under “carbohydrates”. Fibre is not digested by the body.

- **Fibre is beneficial for:**
  - Regular bowel movements.
  - Removing excess cholesterol.
  - Controlling blood sugar.
  - Helping us feel full more quickly and for longer.

Aim for 25g/d for women and 38g/d for men.

**Maintain good water intake**



# FIBRE SOURCES

In Fruits, Vegetables, Legumes, Nuts, Seeds, and Whole Grains.

- Insoluble Fibre: promotes regular bowel movements
  - Skins, stems, leaves, seeds, rye, whole grains, bran
- Soluble Fibre: lowers cholesterol/helps manage blood sugars
  - Oats, barley, legumes, pectin rich fruit (apple, berries, pears)





SALT

# SALT

- Salt contains Sodium, which we need each day.
- Canadians often eat too much.
- Many processed foods have hidden sodium.
- Aim for **1500-2300 mg/day (1 tsp)**.
- Remember: SALT is SALT.
- Too much salt = High Blood Pressure.



# What is high in salt?

- Take out/Restaurant foods
- Processed meats (bacon, deli meat, hot dogs, sausages)
- Canned items (soups and sauces)
- Sauces, seasonings, condiments
- Frozen/ready to eat meals



Salt/sea salt



Fast foods



Hot dogs/smoked meats



Pizza



Cheese



Canned pasta sauce



Sauces & seasonings



Snack foods



Salted crackers



Vegetable juice



Bouillon cubes or powders



Pickles/Olives



Restaurant food



Cold cuts (Ham)



Bacon



Sausages



Canned soups



Frozen meals



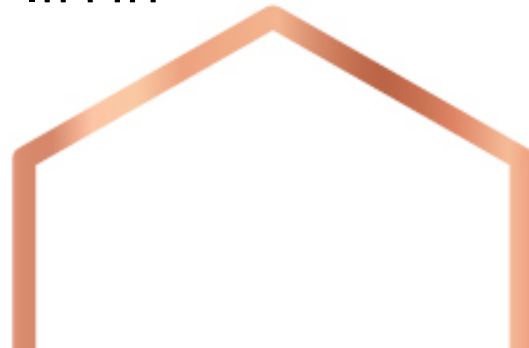
Salted nuts



Soy sauce

# SALT SUBSTITUTES/ REPLACEMENTS

- Dried or fresh herbs, spices, chili flakes, Mrs. Dash, salt free blends
- Homemade spice blend - get creative!
- Lemon, vinegar, garlic, onions
- **Caution** with salt substitutes - may contain potassium/magnesium, which some people need to limit



# Label Reading





# Plain 2% yogurt

## Nutrition Facts Valeur nutritive

Per 3/4 cup (175 g) /  
par 3/4 tasse (175 g)

**Calories 100** % Daily Value  
% valeur quotidienne

Fat / Lipides 3 g 4 %

Saturated / saturés 2 g 11 %  
+ Trans / trans 0.1 g

Carbohydrate / Glucides 11 g

Fibre / Fibres 0 g 0 %

Sugars / Sucres 7 g 7 %

Protein / Protéines 6 g

Cholesterol / Cholestérol 15 mg

Sodium / Sodium 85 mg 4 %

Potassium 300 mg 6 %

Calcium / Calcium 250 mg 19 %

Iron / Fer 0.1 mg 1 %

\*5% or less is a little. 15% or more is a lot.  
\*5% ou moins c'est peu. 15% ou plus c'est  
beaucoup.

# Fruit flavoured 6% yogurt

## Nutrition Facts Valeur nutritive

Per 3/4 cup (175 g) /  
par 3/4 tasse (175 g)

**Calories 220** % Daily Value  
% valeur quotidienne

Fat / Lipides 10 g 13 %

Saturated / saturés 6 g 34 %  
+ Trans / trans 0.4 g

Carbohydrate / Glucides 26 g

Fibre / Fibres 0 g 0 %

Sugars / Sucres 22 g 22 %

Protein / Protéines 6 g

Cholesterol / Cholestérol 35 mg

Sodium / Sodium 65 mg 3 %

Potassium 300 mg 6 %

Calcium / Calcium 200 mg 15 %

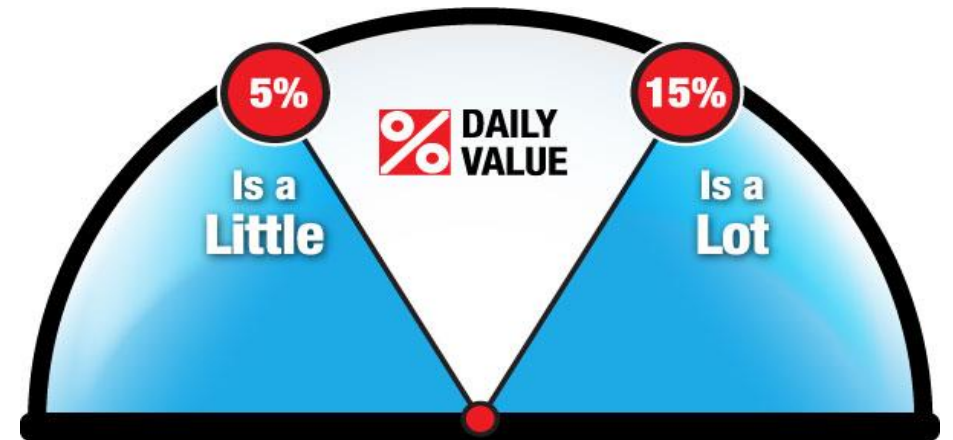
Iron / Fer 0 mg 0 %

\*5% or less is a little. 15% or more is a lot.  
\*5% ou moins c'est peu. 15% ou plus c'est  
beaucoup.

# Using Nutrition Fact Labels to help Guide Healthy Choices

Look for:

- Choose more: Fibre, Calcium, Iron and vitamins/minerals
- Choose less: Saturated fats, trans fats, sodium, sugar

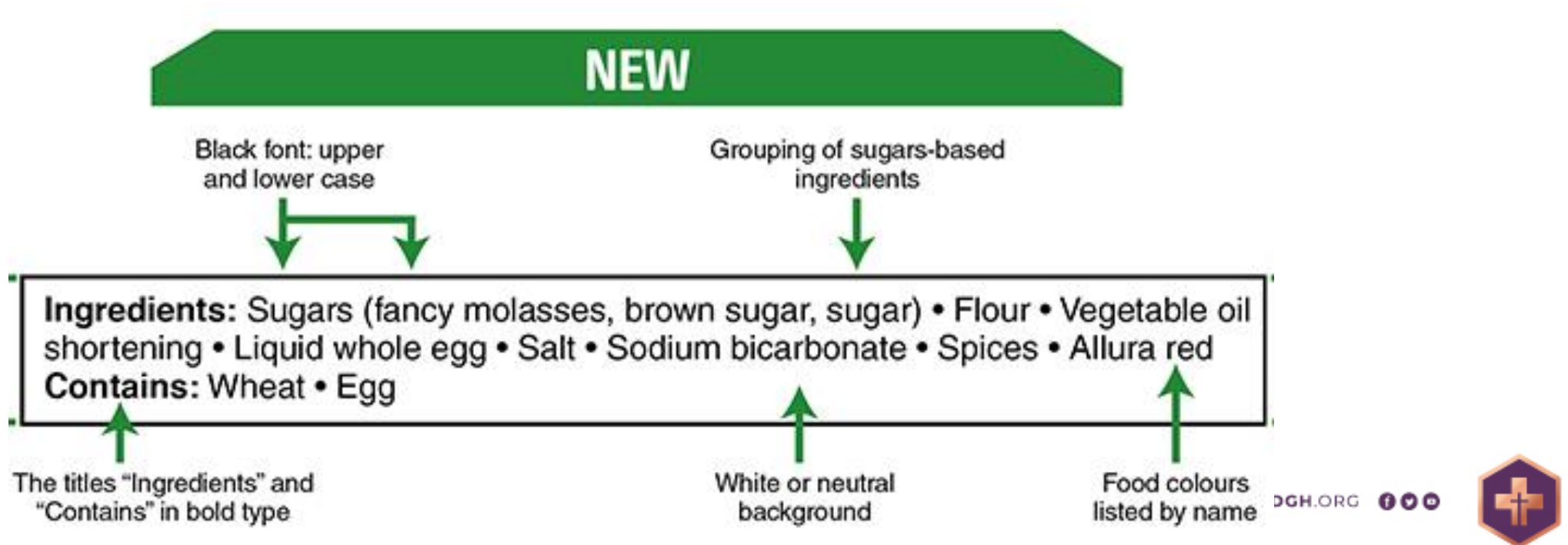


**Remember...5% or less is A LITTLE,  
15% or more is A LOT.**



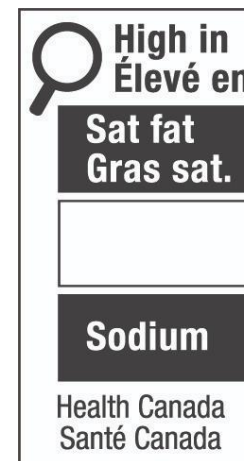
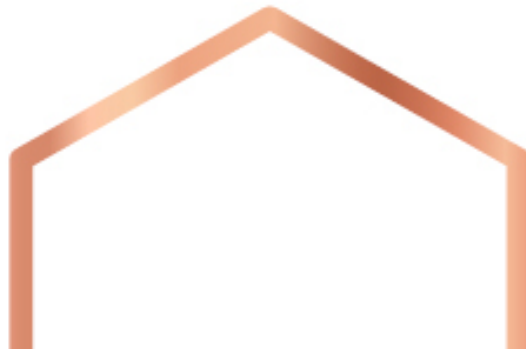
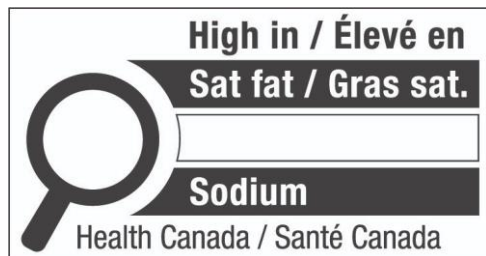
# Ingredients List

- All the **ingredients** that are in a product
- Listed in order by **weight**
- See what is in the product



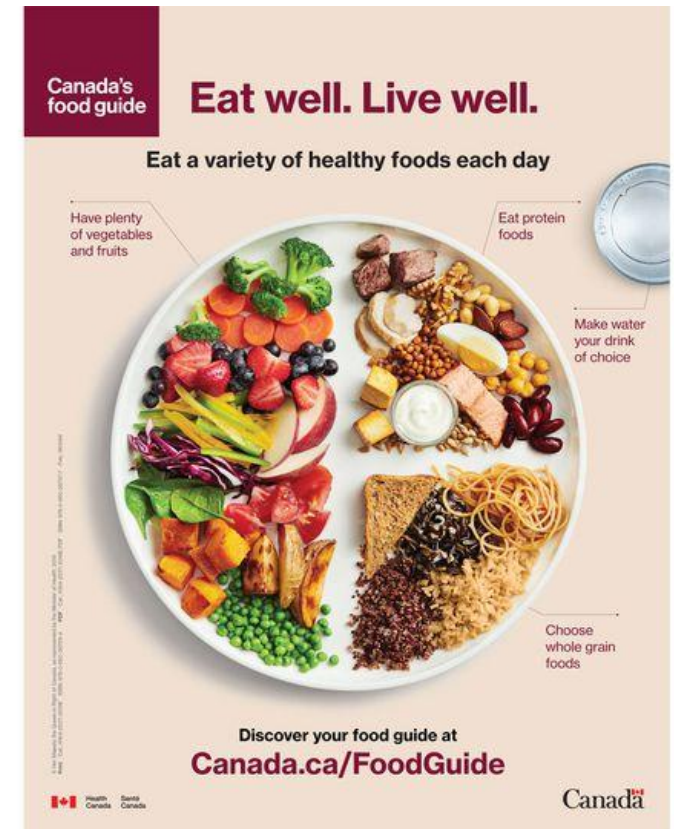
# Front-of-Package (FOP) Nutrition Labelling

- Health Canada will require a FOP nutrition symbol on most prepackaged foods that require a Nutrition Facts table.
- Items that exceed certain daily values per reference amount of saturated fat, sugars or sodium.
- Will see by January 2026.



# The Balanced Diet: Healthy Eating with Canada's Food Guide

- $\frac{1}{2}$  plate **Vegetables/Fruits**
- $\frac{1}{4}$  plate **Grains** - choose whole grains
- $\frac{1}{4}$  plate **Protein** - milk and alternatives, meats, poultry, eggs, legumes, nuts, seeds, fish, tofu
- **Water** as the main source of fluid



# Half plate: vegetables and fruit

- Choose the ones you like
- Try new ones
- Add to breakfast, lunch and dinner and snacks
- Mix in meals
- Eat the rainbow!
- Ideas:
  - [Cookspiration.com](http://Cookspiration.com)
  - [Unlockfood.ca](http://Unlockfood.ca)

Have plenty of  
vegetables and fruits

Eat protein foods

Make water  
your drink  
of choice



Choose  
whole grain  
foods



# Quarter plate: whole grains

- Buckwheat, corn meal, millet, barley, rolled oats/steel cut oats, quinoa, brown rice, whole grain pasta, whole grain breads
- Look for high fibre

Have plenty of  
vegetables and fruits

Eat protein foods

Make water  
your drink  
of choice



Choose  
whole grain  
foods



# Quarter plate: protein

- Trim visible fats from red meat, choose lean cuts, lean ground meats, and remove skin from poultry, etc.
- Choose a variety - fish, legumes, nuts, seeds, poultry, eggs, meat, low fat dairy products and alternates

Have plenty of  
vegetables and fruits

Eat protein foods

Make water  
your drink  
of choice



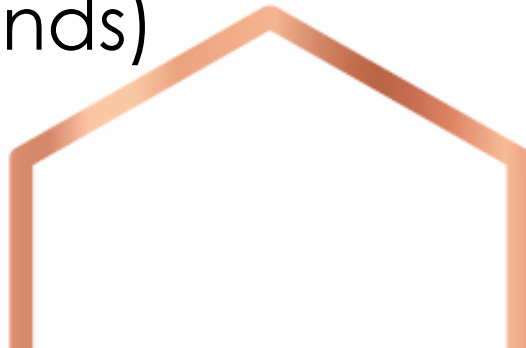
Choose  
whole grain  
foods

# Lean Protein

***1 serving of animal protein = palm of hand or deck of cards.***

Plant based options - reduced saturated fat intake:

- $\frac{3}{4}$  cup or 175mL of cooked beans/legumes
- $\frac{3}{4}$  cup or 150g of tofu (silk, firm, extra firm)
- 2 tbsp (30mL) nut butters (peanut, almond)
- $\frac{1}{4}$  cup (60mL) nuts and seeds (walnuts, sunflower seeds, almonds)





## Recipes

- <https://www.heartandstroke.ca/healthy-living/recipes>
- <http://www.diabetes.ca/>
- <https://food-guide.canada.ca/en/>
- <https://www.cookspiration.com/>



# Other Considerations...

## Fluids – Water first

- **Choose water based beverages with no added sugar:**
  - Water, homemade iced tea, water with fruit, fruit ice cubes, mint, lemon/lime, ginger, carbonated water with no added sugar, coffee, tea
- **Avoid beverages with high sugar such as:**
  - Fruit cocktail/drink, energy drinks, sports drinks, hot chocolate/iced cappuccino/french vanilla, soft drinks (pop)



# Other Considerations...

## Alcohol

Check with your doctor/NP

- Do not drink alcohol if your medications react with alcohol
- Alcohol can raise blood pressure and triglycerides (TG)
- High in calories
  - 12oz Beer – 157 calories
  - 1.5oz Liquor – 93 calories
  - 5oz Wine – 102 calories
  - 5oz Sweet Wine – 220 calories

### HOW MANY CALORIES ARE IN YOUR DRINK?



SOURCES: NATIONAL INSTITUTES OF HEALTH, SHUTTERSTOCK KARL TATE / © LiveScience.com



# Canada's Guidance on Alcohol and Health (2023)

Drinking less is better

- **0 drinks per week** - not drinking has benefits, such as better health, and better sleep.
- **1 to 2 standard drinks per week** - you will likely avoid alcohol-related consequences for yourself and others.
- **3 to 6 standard drinks per week** - your risk of developing several different types of cancer, including breast and colon cancer, increases.
- **7 or more standard drinks per week** - your risk of heart disease or stroke increases. Each additional drink increases the risk of alcohol-related consequences.

**Drinking less is better**  
We now know that even a small amount of alcohol can be damaging to health.

Science is evolving, and the recommendations about alcohol use need to change. Research shows that no amount or kind of alcohol is good for your health. It doesn't matter what kind of alcohol it is—wine, beer, cider or spirits. Drinking alcohol, even a small amount, is damaging to everyone, regardless of age, sex, gender, ethnicity, tolerance for alcohol or lifestyle. That's why if you drink, it's better to drink less.

**Alcohol consumption per week**  
Drinking alcohol has negative consequences. The more alcohol you drink per week, the more the consequences add up.

Alcohol consumption per week	Consequences
0 (no drinks)	no drinks No alcohol-related consequences.
1 to 2 (low risk)	Low risk You are less likely to experience consequences for yourself and others.
3 to 6 (increased risk)	Increased risk Your risk of developing several different types of cancer, including breast and colon cancer, increases.
7 or more (highest risk)	Highest risk Your risk of heart disease or stroke increases. Your risk of developing several different types of cancer, including breast and colon cancer, increases.

**Aim to drink less**  
Drinking less benefits you and others. It reduces your risk of injury and violence, and may help problems that can shorten life.

**Here is a good way to do it**  
Cut it how many drinks you have in a week.

**Set a weekly drinking target.** If you're going to drink, be sure you don't exceed 2 drinks on any day.

**Go on to know**  
You can reduce your drinking in steps. Every drink counts: any reduction in alcohol use has benefits.

**It's time to pick a new target**  
What will your weekly drinking target be?

**Tips to help you stay on target**

- Stick to the limits you've set for yourself.
- Drink slowly.
- Drink lots of water.
- For every drink of alcohol, have one non-alcoholic drink.
- Choose a alcohol-free or low-alcohol beverage.
- Eat before and while you're drinking.
- Have alcohol-free meals or do alcohol-free activities.

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# Other Considerations...

**Caffeine** – in coffee, tea, chocolate, carbonated soft drinks, energy drinks

- 400 mg/day is associated with limited adverse effects
- Maximum ~ 3 cups/day (135mg per cup) or 8 cups of regular tea



# Other Considerations...

## Grapefruit/Pomelo

Some Medications can interact;  
check with your pharmacist

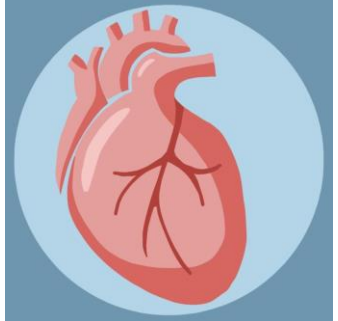
- Examples: Amiodarone, Lipitor, Zocor, Coreg, Valium, Plendil, Adalat





# Dietary Strategies for Preventing Heart Disease

- Choose high fibre grains, lean and low fat protein and vegetables/fruit at each meal
- Replace saturated/trans fats with *unsaturated* fats
  - Include foods with Omega 3 fatty acids
  - Limit excess fat intake for weight management
- Add vegetables where possible
  - Salads, soups and snacks
- Add fibre to feel full, help with bowel regularity, blood sugar control and overall health



# Dietary Strategies for Preventing Heart Disease

- Eat a balanced diet using all three food groupings
- Focus on less refined/processed foods including fruits and vegetables, beans, whole grains, nuts and seeds
- Use nutrition labels and the ingredients list
- Limit salt, added sugar, caffeine and alcohol



# Dietary Strategies for Preventing Heart Disease

- Try new recipes, using heart healthy cook books, and websites.
- Book a grocery store visit with a Registered Dietitian when available (<https://www.dietitianservices.ca/>).
- Sign up for online nutrition classes through the Windsor Essex County Health Unit (<https://www.wechu.org/healthy-eating/classes-campaigns-and-challenges>).

Create small goals to work towards each week!



# Resources

- <https://www.hdgh.org/cardiacwellness>
- Heart and Stroke: Healthy Eating - <https://www.heartandstroke.ca/healthy-living/healthy-eating>
- Heart and Stroke: Managing Cholesterol - <https://www.heartandstroke.ca/heart-disease/risk-and-prevention/condition-risk-factors/managing-cholesterol>
- Unlock Food: Heart Health - <https://www.unlockfood.ca/en/Articles/Heart-Health/>
- Get the Scoop on Sodium - <https://www.heart.org/en/healthy-living/healthy-eating/eat-smart/sodium/sodium-and-salt>
- Canada's Food Guide - <https://food-guide.canada.ca/en/>
- Canada's Food Guide: Use Food Labels - <https://food-guide.canada.ca/en/healthy-eating-recommendations/using-food-labels/>
- Canada's Food Guide: Mindful Eating - <https://food-guide.canada.ca/en/healthy-eating-recommendations/be-mindful-of-your-eating-habits>
- Cardiac College - <https://www.healthuniversity.ca/en/cardiaccollege>
- Heart Health videos - <https://pwc.ottawaheart.ca/education/heart-health-videos>
- Food Pyramids - <https://oldwayspt.org/>

# Thank You! Questions?

To book an appointment with the Registered  
Dietitian:

519-257-5111 ext. 79119

