



Thames Valley
Family Health Team



Welcome to Heart Health

Presented by:

The Registered Dietitians and Pharmacists
at Thames Valley Family Health Team

Outline

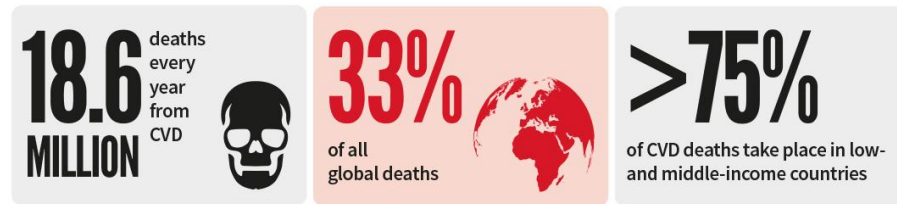
- What is cardiovascular disease, and what puts me at greater risk?
- Exploring blood cholesterol
- How can lifestyle reduce my risk?
 - ✓ Dietary patterns
 - ✓ Alcohol and smoking
 - ✓ Movement and exercise
- Medications
- Questions / Resources / Evaluation



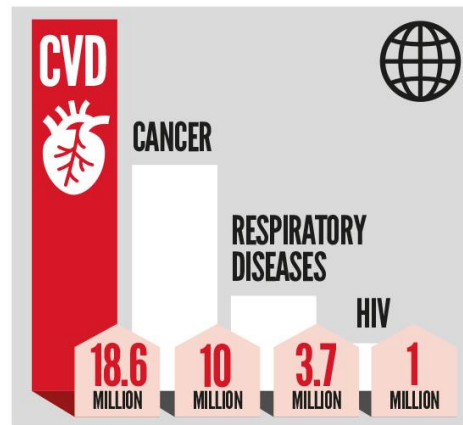
CARDIOVASCULAR DISEASE

THE WORLD'S NUMBER 1 KILLER

Cardiovascular diseases are a group of disorders of the heart and blood vessels, commonly referred to as **heart disease** and **stroke**.



GLOBAL CAUSES OF DEATH



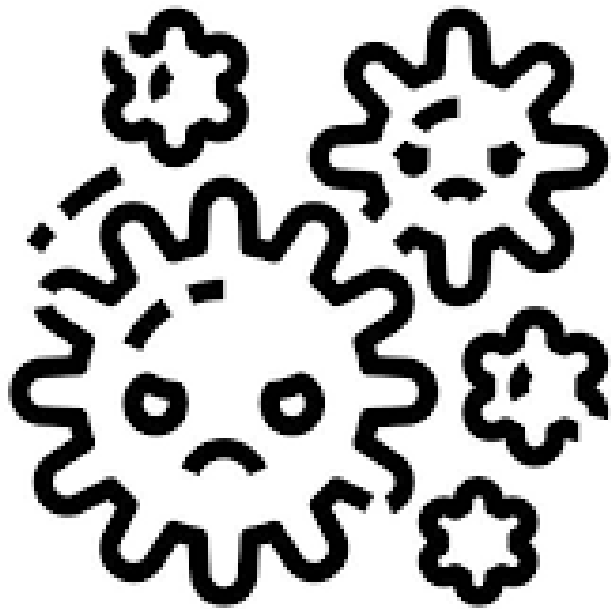
RISK FACTORS FOR CVD



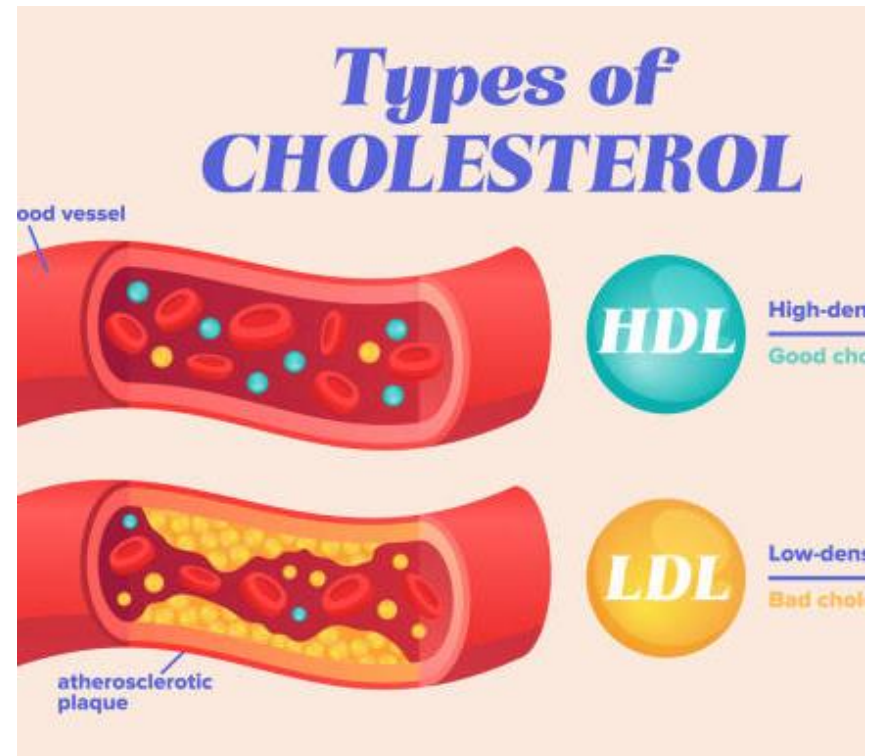
What is Cholesterol?



Types of Cholesterol- Recap



TRIGLYCERIDES



EATING FOR A HEALTHY HEART



The "Push & Pull" of Healthy Eating



Less Of:	More Of:
Animal fats	Plant, nut, seed and fish oils
Fried foods	Foods high in fibre
Foods and beverages with added sugars	Soy/Vegetable protein
Ultraprocessed foods	Foods closer to their natural state
Sodium	



Not All Fats are Created Equal



Saturated Fats From Animals

- (and tropical oils)



Unsaturated Fats From Plants



What Does Saturated Fat Do?

- Raises LDL (bad cholesterol)
- Some Food sources:
 - Red meat
 - Poultry skin
 - Butter
 - Fat from dairy products
 - Coconut & palm oils
(modified; used in processed foods)



How to Reduce Saturated Fat

1. Choose **leaner meats**

- poultry (turkey/chicken), lean cuts of pork, extra lean ground beef



2. Choose **fish** more often

3. Eat high fat meats less often

- regular ground beef, sausage, bacon, sandwich meats like pepperoni, salami, bologna, hot dogs

4. **Include more plant proteins**

- Replace meat with legumes or soy-based foods at least 2 meals/week



How to Reduce Saturated Fat

5. Choose **lower fat dairy products**

- 1% or skim milk; try soy beverage
- cheese with less than 20% M.F.
- low-fat sour cream or use plain Greek yogurt
- Reduced fat (5%) cream or homogenized milk in coffee

- The great margarine debate!



Trans Fats

What are Trans Fats?

Banned in Canada as an ingredient
But created in the deep-frying process



What do Unsaturated Fats do?

Help to **lower** our “**lousy**” LDL-cholesterol.

It's not necessary to follow a low-fat diet to lower cholesterol

Follow the “right fat” diet by
Replacing saturated fats (animal) with unsaturated fats
(plants)



Examples of Foods High in Unsaturated Fat

- Olive oil, olives
- Nuts- all kinds, particularly walnuts
- Seeds- all kinds, namely pumpkin, flax, sunflower, sesame
- Avocado, avocado oil
- Flax oil, canola oil, sunflower oil, peanut oil



Omega 3: Fatty Fish

- **Reduces triglycerides** in your blood and **raises “good” cholesterol**
- A diet high in Omega 3 fats lowers inflammation

SMASH!

Salmon, Mackerel, Anchovies, Sardines, Herring



Omega 3 Fats

Both Fish and Plant sources



Eat 2-3 palm sized servings of fatty fish per week





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Omega 3 Supplementation?

A meta-analysis of randomized control trials (highest quality scientific trial) has shown:

Supplementation with over-the-counter Omega 3 products does NOT reduce major adverse cardiovascular events or death from all causes

However, if you do not eat the recommended 2 servings per day of fatty fish, it is safe for most people to consume a supplement containing 1 gram of EPA and DHA per day

There may be other benefits from taking an Omega 3 supplement including lowering inflammation and reducing triglycerides

Talk to your doctor, dietitian or pharmacist to see if supplementation is right for YOU

What about Cholesterol in Foods?

- The cholesterol you eat has very little effect on your blood cholesterol levels. We should instead be focused on having less saturated & trans fat in your diet

Unless you have a rare condition called Familial Hypercholesterolemia

What about Eggs?

- 1 egg a day is safe if you have high cholesterol
- Up to 2 eggs a day is safe if you have normal cholesterol levels





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Sugar and Heart Health



How Does Sugar Relate to Heart Health?

- A diet high in sugar can worsen inflammation in the body including arteries
- High sugar diets can also increase Triglycerides

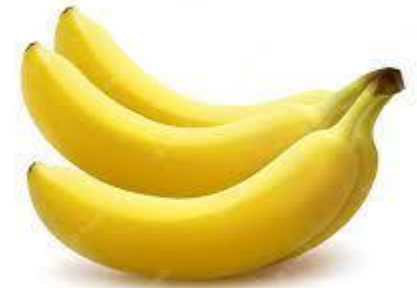


Natural vs. Added Sugar

Is there a difference



Natural Sugar



Found in food in its natural state

- Fruit
- Vegetables
- Cow's or Goat's milk, yogurt (lactose)

- These foods are part of a heart-healthy diet, sugar in its natural form is not known to increase risk for heart disease



Added Sugar

Added by food manufacturers OR by you, to foods or beverages

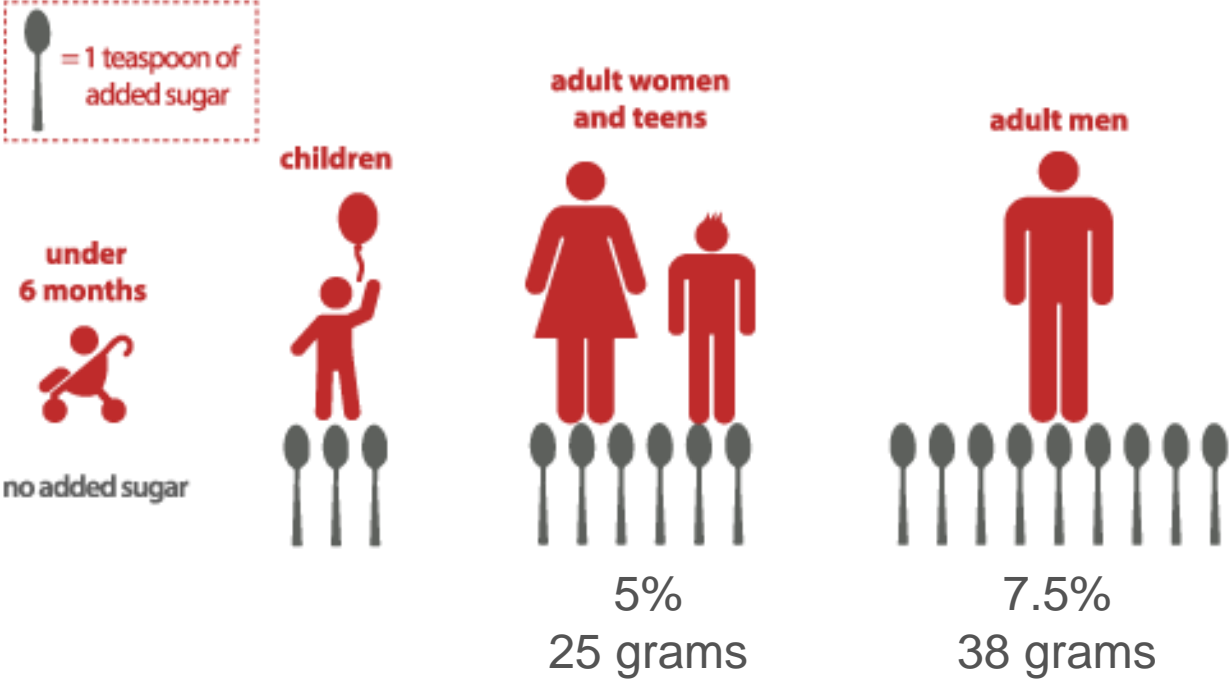
- Sugar sweetened beverages- pop, iced tea, lemonade, Gatorade
- Baked goods
- Packaged foods and sauces
- Candy/confectionary
- Even fruit juices



Your risk *increases 3x*
for Heart Disease, Heart Attack, and Stroke
if *a quarter or more* of your daily calories
come from added sugars.



How Much Added Sugar is Ok?



Reading Labels for Sugar



Sugars are listed on the [Nutrition Facts Table](#)

Find “Sugars”

How many grams?

Divide by 4

=teaspoons

How many tsp in a can of Coke?



Fibre

Men: **35 grams** per day
10 grams should be soluble fibre

Women: **25 grams** per day
10 grams should be soluble fibre



Does Fibre help Cholesterol?

Soluble Fibre

Helps lower lousy cholesterol (LDL)

- Psyllium
- Legumes
- Barley
- Oats, oat bran, oatmeal
- Some fruits
- Some vegetables
- Flax and Chia seed



Insoluble Fibre

Helps relieve / prevent constipation

- Wheat bran
- Whole grain foods
- Whole fruits and vegetables









Sodium (Salt)

- Bodies need about 1500mg of sodium every day, but 60% of Canadians get too much
- Eating too much sodium will worsen high blood pressure
- Most of the sodium we eat is already in processed food



Label Reading



Nutrition Facts			
Per 125 mL (87 g)			
Amount	% Daily Value		
Calories 80			
Fat 0.5 g			1 %
Saturated 0 g			0 %
+ Trans 0 g			
Cholesterol 0 mg			
Sodium 0 mg			0 %
Carbohydrate 18 g			6 %
Fibre 2 g			8 %
Sugars 2 g			
Protein 3 g			
Vitamin A	2 %	Vitamin C	10 %
Calcium	0 %	Iron	2 %

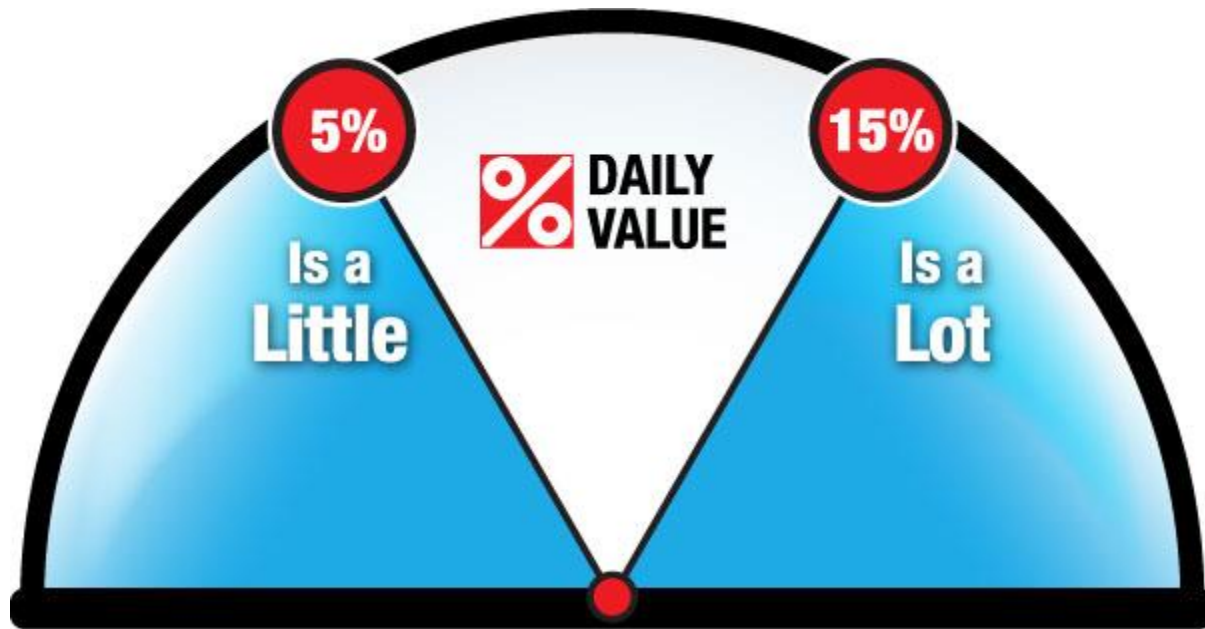


Finding Sodium on a Label

Nutrition Facts	
Valeur nutritive	
Per 2 slices (65 g) pour 2 tranches (65 g)	
Calories 170	% Daily Value*
	% valeur quotidienne*
Fat / Lipides 3 g	4 %
Saturated / saturés 0.4 g	2 %
+ Trans / trans 0 g	
Carbohydrate / Glucides 29 g	
Fibre / Fibres 3 g	11 %
Sugars / Sucres 1 g	1 %
Protein / Protéines 6 g	
Cholesterol / Cholestérol 0 mg	
Sodium 200 mg	9 %
Potassium 125 mg	3 %
Calcium 20 mg	2 %
Iron / Fer 2 mg	11 %
Zinc 0.75 mg	7 %
*5% or less is a little, 15% or more is a lot	
*5 % ou moins c'est peu, 15 % ou plus c'est beaucoup	



% Daily Value



% Daily Value

Cracker A

Nutrition Facts	
Per 9 crackers (23 g)	
Amount	% Daily Value
Calories 90	
Fat 4.5 g	7 %
Saturated 2.5 g + Trans 0 g	13 %
Cholesterol 0 mg	
Sodium 280 mg	12 %
Carbohydrate 12 g	4 %
Fibre 1 g	4 %
Sugars 0 g	
Protein 3 g	
Vitamin A 0 %	Vitamin C 0 %
Calcium 2 %	Iron 8 %

Daily Values > 15% = a lot

Cracker B

Nutrition Facts	
Per 4 crackers (20 g)	
Amount	% Daily Value
Calories 90	
Fat 2 g	3 %
Saturated 0.3 g + Trans 0 g	2 %
Cholesterol 0 mg	
Sodium 90 mg	4 %
Carbohydrate 15 g	5 %
Fibre 3 g	12 %
Sugars 1 g	
Protein 2 g	
Vitamin A 0 %	Vitamin C 0 %
Calcium 2 %	Iron 8 %

Daily Value < 5% = a little



Confused?



- Looking for ONE set of guidelines that take all of these points into consideration?
- Here are the best ones to pick from:
 - Mediterranean Diet
 - Portfolio Diet (lowering cholesterol)
 - DASH Diet (lowering blood pressure)



Mediterranean Diet

Mediterranean Diet *Pyramid*

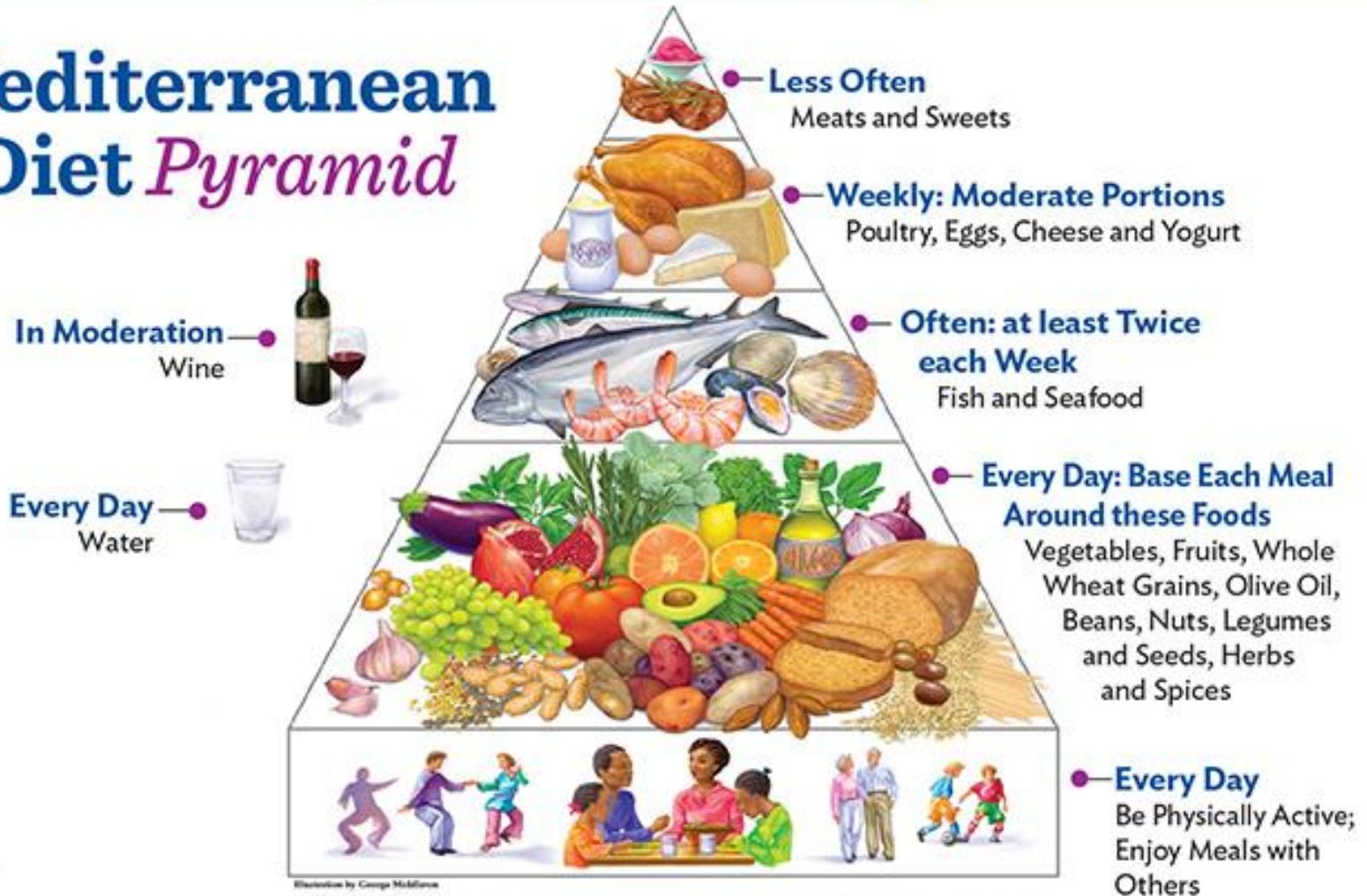






Illustration by George McMillan

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Portfolio Diet (lower LDL cholesterol)

PORTFOLIO DIET

Vegetarian eating pattern Highlights foods that have been clinically proven to have health benefits

<p>Nuts 50 g daily</p>  <p>variety of almonds, peanuts, pecans, and walnuts</p>	<p>Plant Sterols 2 g daily</p>  <p>fortified margarine or juice, multivitamins, whole grain bread, nuts</p>
<p>Soluble Fibre 10-25 g daily</p>  <p>psyllium, oatmeal, barley, brown rice, broccoli, carrots, spinach, pears, citrus fruit, apples, legumes</p>	<p>Plant Proteins 50 g daily</p>  <p>tofu, chickpeas, lentils, beans, tempeh, soybeans, soy beverages, edamame, soy cheese</p>

@TrueNutritionRD

BENEFITS

- ↓ LDL cholesterol
- ↓ blood pressure
- ↓ heart disease risk
- ↑ blood sugar control
- ↓ heart disease risk



The DASH Diet for Healthy Blood Pressure

Follow these DASH (Dietary Approaches to Stop Hypertension) guidelines for a healthier, more balanced diet



 **OhioHealth**

Discover how the DASH Diet can help you manage your blood pressure at blog.ohiohealth.com



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Break Time!!



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Heart Health – Non-Dietary factors

- Alcohol and smoking
- Exercise
- Medications





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PART 2

ALCOHOL AND SMOKING



Alcoholic Drinks PER WEEK

0 drinks per week

Not drinking has benefits, such as better health, and better sleep.

No risk



1 to 2 standard drinks per week

You will likely avoid alcohol-related consequences for yourself and others.

Low risk



3 to 6 standard drinks per week

Your risk of developing several different types of cancer, including breast and colon cancer, increases.

Moderate risk



7 or more standard drinks per week

Your risk of heart disease or stroke increases.

Increasingly high risk



Each additional standard drink

Radically increases the risk of these alcohol-related consequences.



Risk of atrial fibrillation increases with each drink

Standard Drink

A standard drink means:



Beer

341 ml (12 oz) of beer
5% alcohol

or



Cooler, cider, ready-to-drink

341 ml (12 oz) of drinks
5% alcohol

or



Wine

142 ml (5 oz) of wine
12% alcohol

or



Spirits

(whisky, vodka, gin, etc.)
43 ml (1.5 oz) of spirits
40% alcohol



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 alcohol-free or low-alcohol beverages.
- Eat before and while you're drinking.
- Have alcohol-free weeks or do alcohol-free activities.

Live Smoke Free



Thames Valley Family Health Team offers a **FREE Smoking Cessation Program**



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PART 3: MOVEMENT AND EXERCISE



Step 1: Stand and Move More!



“Sitting is the new smoking.”

Sitting for long periods of time can increase your risk of early death.



Not being active is a key risk factor of heart disease.



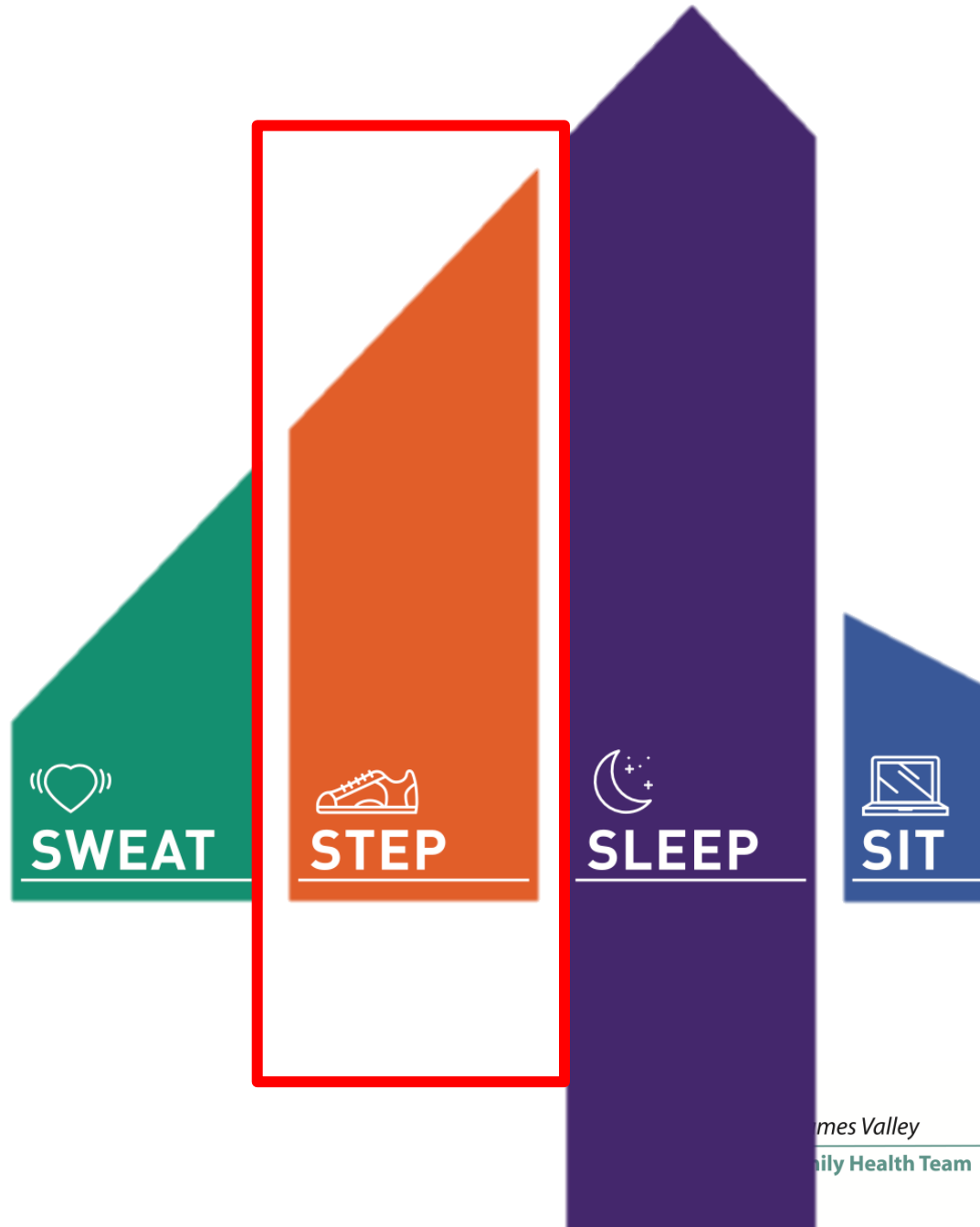
Canadian 24-Hour Movement Guidelines

- Physical Activity: Sweat
- 150 minutes of moderate to vigorous aerobic physical activity PER WEEK
 - Bouts of 10 minutes or more
- 2x/week muscle strengthening



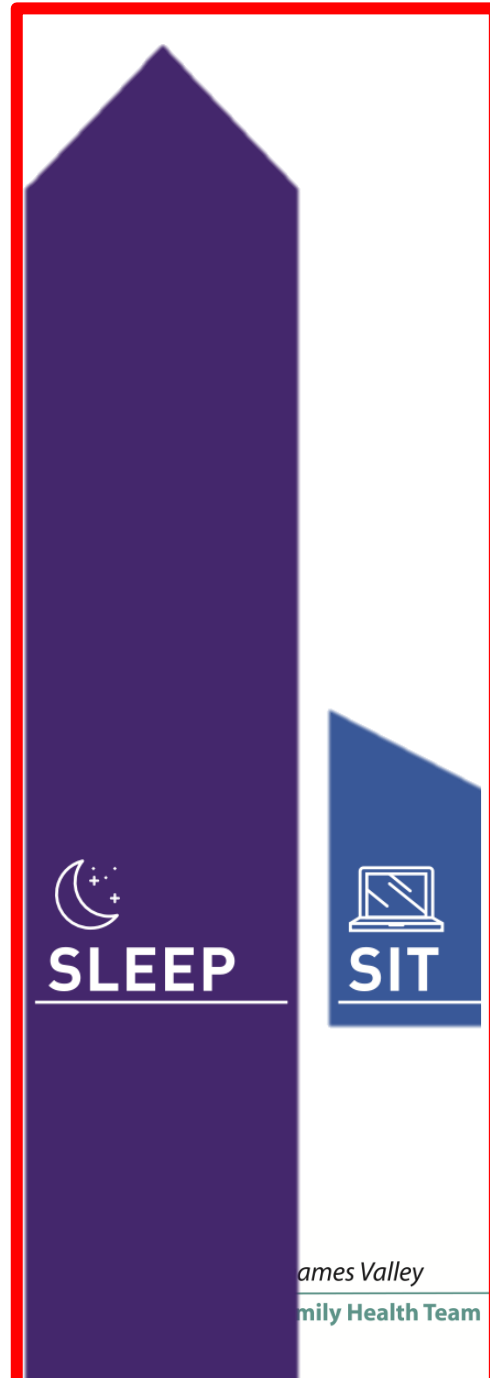
Canadian 24-Hour Movement Guidelines

- Physical Activity: Steps
- Several hours of light physical activities including standing
- Break up long periods of sitting as often as possible by getting up briefly every 20-30 minutes
- Steps Guidelines
 - Daily suggested goal is 7500 steps per day!
 - If your baseline is under this level:
 - increase your steps by 500-1000 per day every 3-4 weeks until you reach 7500 steps!



Canadian 24-Hour Movement Guidelines

- Sleep:
 - 7 to 9 hours of good quality sleep on a regular basis
 - Have consistent bed and wake up times
- Sedentary Behaviour: Sit
 - Limit sitting time to 8 hours or less
 - No more than 3 hours of recreational screen time



Aerobic Training Exercise Examples:

- Walking
- Swimming
- Cycling
- Elliptical
- Rowing
- Running
- Jump Rope
- Dance
- Gardening
- Yoga
- Skiing



What do YOU do?



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Aerobic Training Program Example: Beginners

At home	Warm up	Training period	Cool down
Week 1 Every second day		10-minute walk at an easy pace	
Week 2 Every Second day	5-minute easy walk	10-minute walk at a faster pace 5-minute easy walk	5-minute easy walk and stretches
Week 3 4 times a week	5-minute easy walk	15-minute walk at a faster pace	5-minute easy walk and stretches
Week 4 4 times a week	5-minute easy walk	20-minute walk at a faster pace	5-minute easy walk and stretches
Weeks 5-6 At least 5 days a week	10-minute easy walk	25-30 minute walk at a faster pace Start to pump or swing arms Walk up gentle hills leaning slightly forward	5-minute easy walk and stretch for each walk

Resistance Training Exercise Examples: Inner Body

Chest press (chest, shoulders and upper arms)



Bicep curl (front of arm)



Four point (stomach and back)



Dumbbell row (upper back)



Seated crunch with resistance band (stomach)



Tricep press (back of the arm)



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Resistance Training Exercises: Lower Body

Seated squat (hips, thighs and buttocks)



Heel raise (calf muscles)



Leg curl with resistance band (hamstrings)



Bridge (stomach, butt and thighs)



EXERCISE FOR 30 MINUTES EVERY DAY CAN:

- Lower blood pressure
- Improve cholesterol levels
- Lower blood sugar
- Help you achieve a healthy weight
- Build stronger bones
- Strengthen muscles
- Build energy
- Reduce stress and improve sleep
- Improve your mood



“

Every action you take is a
vote for the type of
person you wish to
become.

JAMES CLEAR

From the Book Atomic Habits

”

@THEMILLENNIALGRIND

**A reminder to start with one or two
very small changes and build over time**

All big things come from
small beginnings.
The seed of
every habit is a single,
tiny decision.
James Clear





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Medications



A collection of various pills and capsules in different colors (white, yellow, orange, red, green, blue, grey) arranged to form a heart shape. Below the heart is a white pill bottle. The background is a solid light blue color.

**Will my medication
prevent a heart attack?**



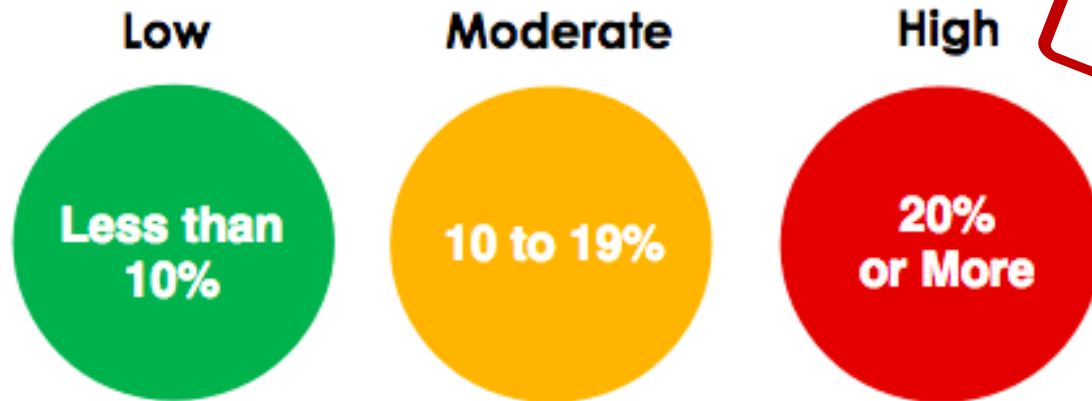
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Estimating Heart Risk

Heart risk is more complicated than just cholesterol!

Estimated 10-year heart risk:

- Things you can't control: age, sex, ethnicity, family history
- Things you can control: Blood pressure, cholesterol, diabetes, smoking
- Other factors: physical activity, alcohol, stress



Past heart attack
or stroke =
high risk



How do we determine this risk?

Risk calculators

- There are several risk calculators that estimate risk over 10 years by asking questions about your health
 - Ex. Framingham Risk Calculator
- A friendly website where you can check your own risk is

www.myhealthcheckup.com



Cholesterol Medications

- Statins
- Ezetimibe (*Ezetrol*®)
- Icosapent ethyl (*Vascepa*®)
- Fibrates (*Lipidil*®, *Lopid*®, *Bezalip*®)
- Niacin (*Niaspan*®)
- Bile acid resins (*Olestyr*®, *Lodalis*®)
- Biologic cholesterol-lowering drugs (*Praluent*®, *Repatha*®)



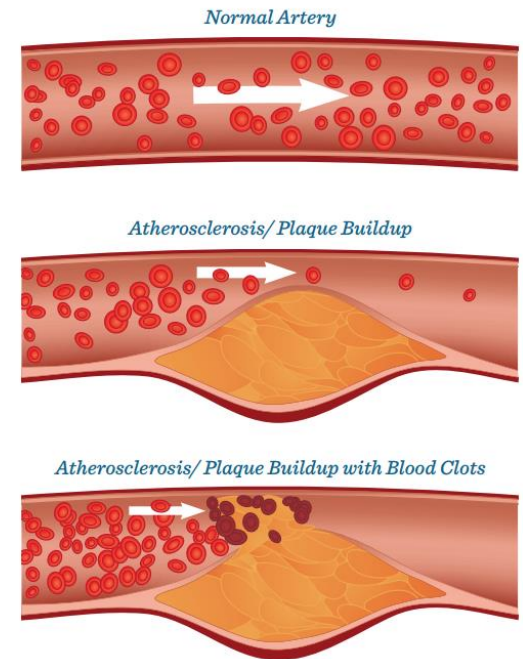
Statins

- Gold standard for medications
- Examples:
 - Atorvastatin (Lipitor ®)
 - Rosuvastatin (Crestor ®)
 - Pravastatin (Pravachol ®)
 - Simvastatin (Zocor ®)
- Slows cholesterol being made by your body
- Dosage can be low, moderate, or high intensity

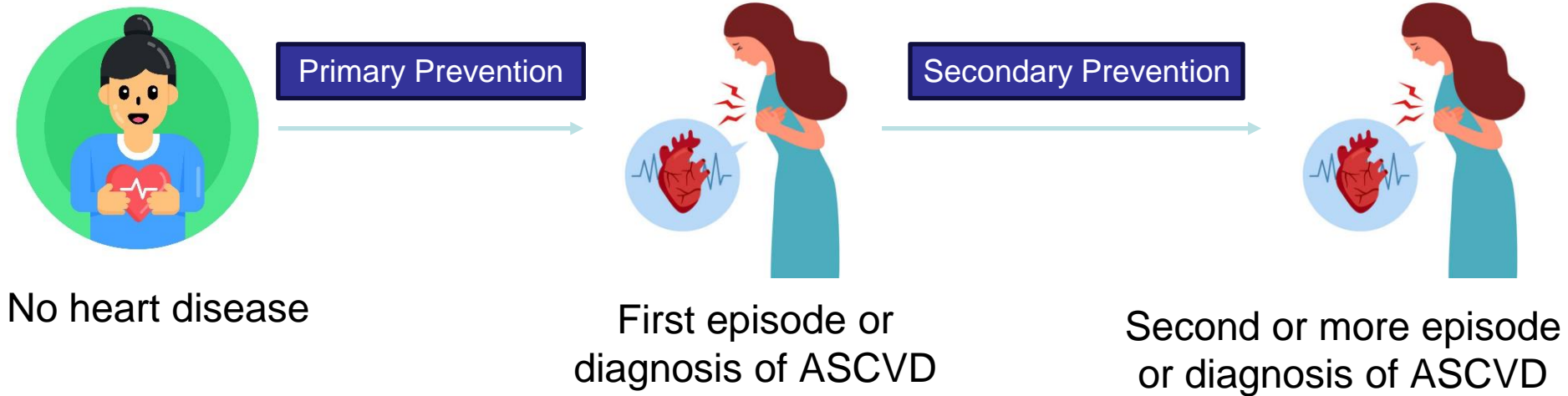


It's not just about cholesterol

- Statins may be prescribed for a number of reasons, for example:
 - High cholesterol and/or triglycerides
 - Treatment or prevention of atherosclerotic heart disease (ASCVD)
 - Clinical atherosclerosis
 - Abdominal aortic aneurysm
 - Reducing risk in some people with diabetes or chronic kidney disease



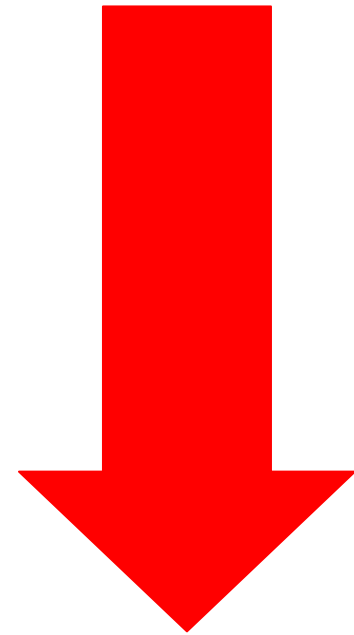
Preventing heart disease



Statins

Reduce cardiovascular risk by **25-40%**

Reduce risk of early death **by 10%**



A quick statistics lesson...

- Would you take a daily medicine that claims to reduce your risk of heart disease by **40%**?
- What about a medicine that reduces your risk from 2% to 1.2%?
- What about a medicine that reduces your risk from 25% to 15%?



Meet Mr. Bean

These figures are used to calculate my risk of having a heart attack in the next 10 years:

Age	<input type="text" value="63"/>
Gender	<input checked="" type="radio"/> M <input type="radio"/> F
Smoker	<input type="radio"/> Yes <input checked="" type="radio"/> No
Atrial Fibrillation	<input type="radio"/> Yes <input checked="" type="radio"/> No
Diabetes	<input checked="" type="radio"/> Yes <input type="radio"/> No
Treated SBP	<input checked="" type="radio"/> Yes <input type="radio"/> No
Cardiovascular Disease	<input type="radio"/> Yes <input checked="" type="radio"/> No
LV Hypertrophy	<input type="radio"/> Yes <input checked="" type="radio"/> No
<input type="radio"/> Conv. Unit <input checked="" type="radio"/> SI Unit	
Systolic Blood Pressure	<input type="text" value="140"/> mmHg
Diastolic Blood Pressure	<input type="text" value="75"/> mmHg
HDL Cholesterol	<input type="text" value="1.1"/> mmol/L
Total Cholesterol	<input type="text" value="4.6"/> mmol/L



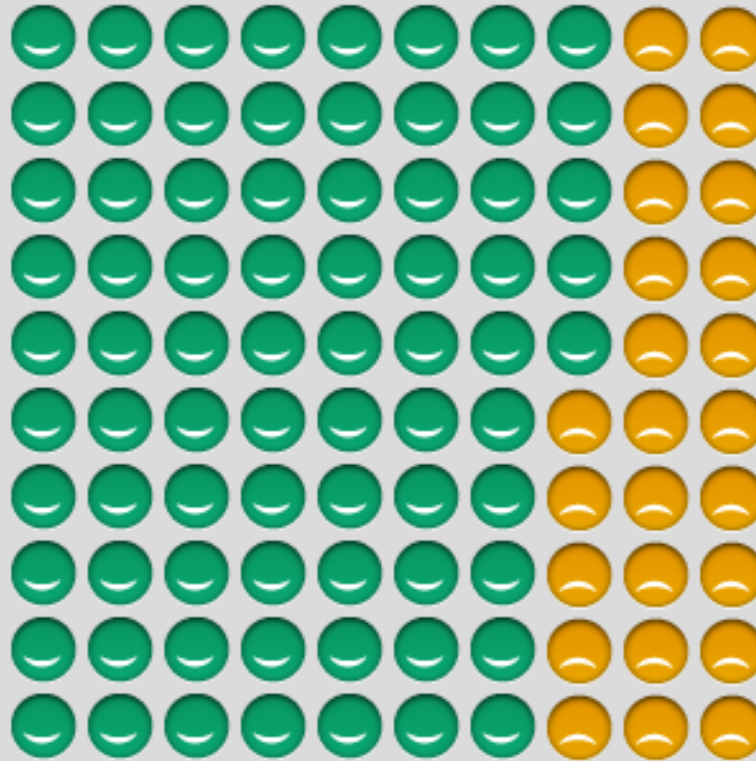
Current Risk of having a heart attack

Risk for 100 people like you who **do not** medicate for heart problems

Over 10 years

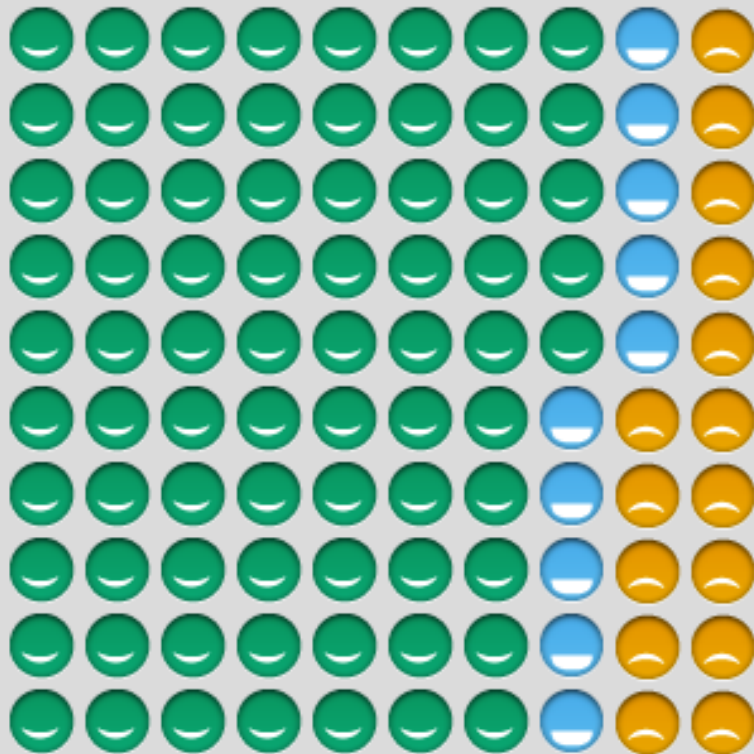
25 people
will have a heart
attack

75 people
will have no
heart attack



Future Risk of having a heart attack

Risk for 100 people like you who do take
high dose statins



Over 10 years

15 people
will have a heart
attack

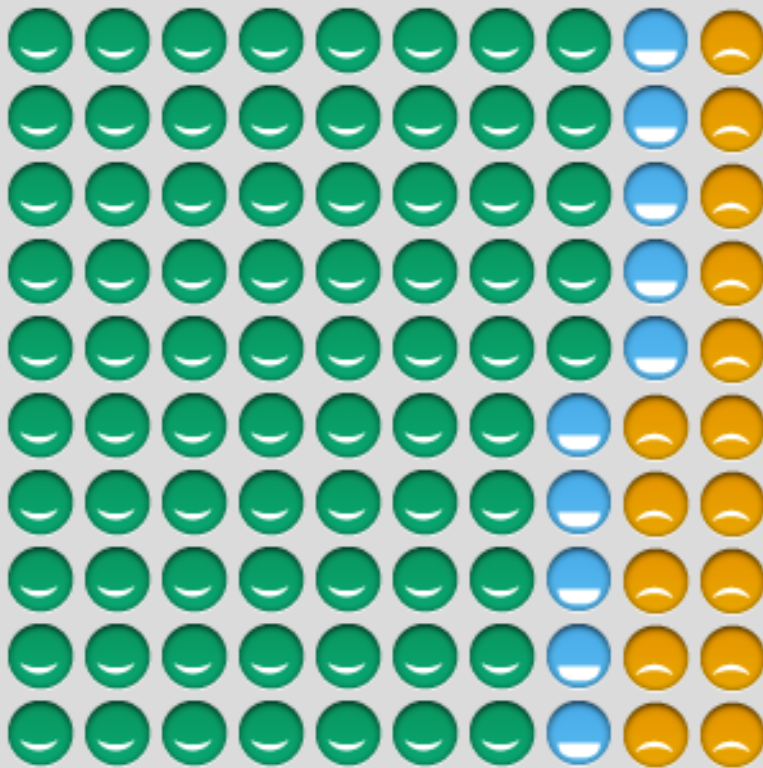
75 people
will have no
heart attack

10 people
will be saved
from a heart
attack by taking
medicine



Future Risk of having a heart attack

Risk for 100 people like you who do take
high dose statins



Over 10 years

15 people
will have a heart
attack

75 people
will have no
heart attack

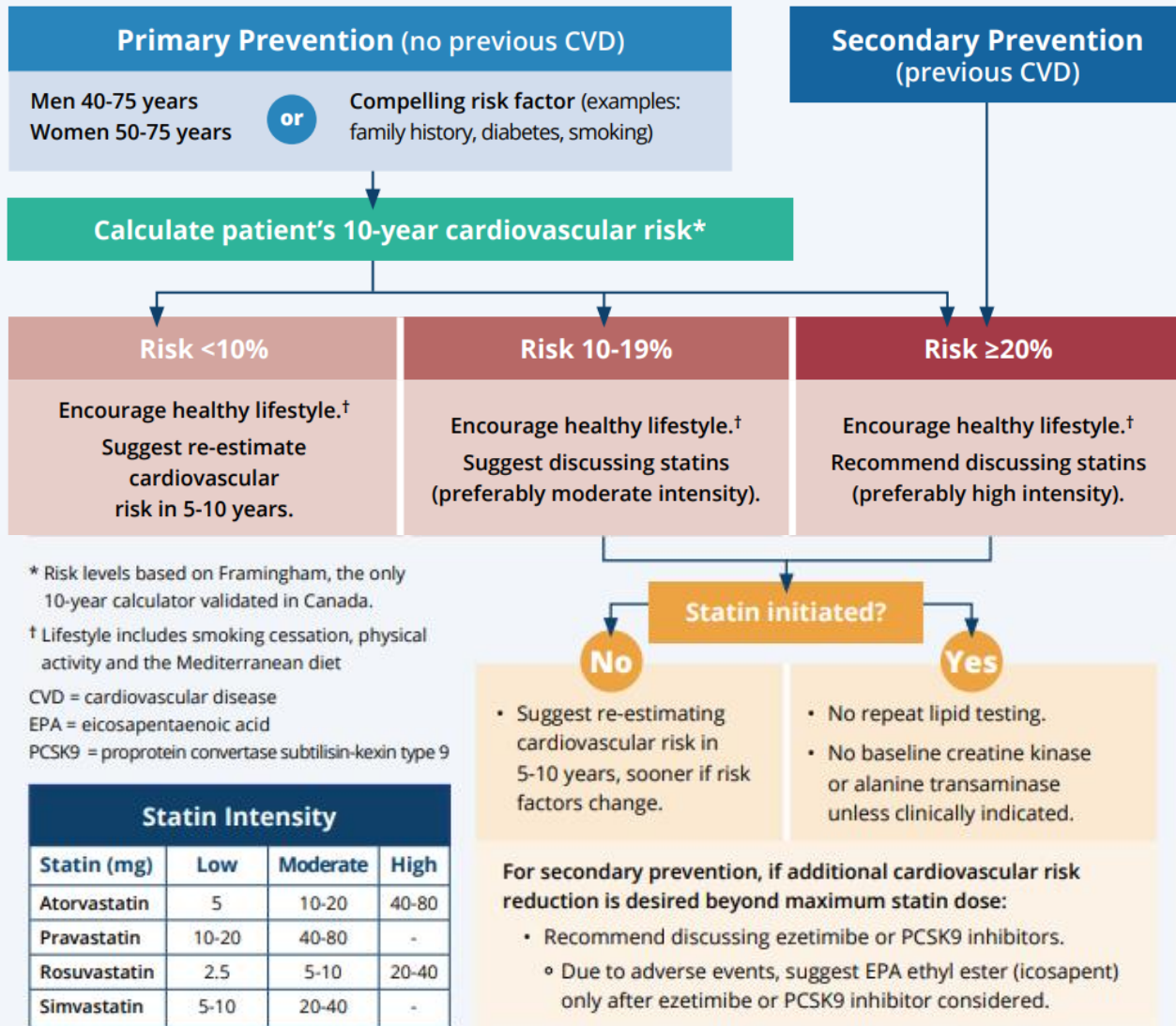
10 people
will be saved
from a heart
attack by taking
medicine

Statins reduce
RELATIVE
risk by **40%**
(10/25)
and
ABSOLUTE
risk by **10%**
(10/100)



Treatment Algorithm

(Excludes familial hypercholesterolemia)



Statins: Common Side Effects

Common but Manageable

Nausea, diarrhea, or constipation

Headache

Muscle aches (5 in 100) * *Comparable to placebo rates*

Increased liver tests (2 in 100)



Statins: Rare Side Effects

Rare but Serious

Muscle or kidney damage
(~1 in 20,000)



New onset diabetes
(~1 in 250 over 5 years)

Liver failure (~1 in 200,000)



Blood Pressure Medications

- There are several families of blood pressure medications that might be prescribed, most commonly:

A – ACE inhibitors/ARBs

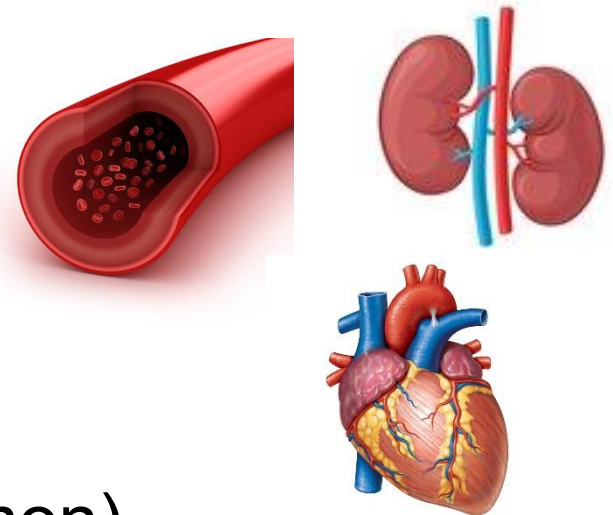
B – Beta blockers

C – Calcium channel blockers

D – Diuretics (“water pills”)

...and some others (less common)

- BP medications sometimes come in combination pills where more than one drug is in the tablet



Blood Pressure Medications

When to start blood pressure medications?

- High blood pressure (hypertension)
- Heart disease (e.g. heart failure, previous heart attack or stroke)
- Chronic kidney disease
- Diabetes with:
 - complications (heart, foot, kidney or eye problem)
 - OR 55 and older with other risk factors



It's not just about blood pressure...

- Many “heart” drugs are used for different reasons, knowing your medicines and why you take them is important

	D	BB	ACE	ARB	CCB
Heart Failure	♥	♥	♥	♥	
Heart Attack		♥	♥		
↑ Coronary Risk	♥	♥	♥		♥
Diabetes	♥	♥	♥	♥	♥
Kidney Disease			♥	♥	
Stroke Prevention	♥		♥		



Blood Pressure Goals

Blood pressure targets are individualized and depend on:

- Other diseases (e.g. diabetes)
- Age
- Frailty
- How the blood pressure was measured (e.g. in clinic or at home)



Blood Pressure Medications

- **Common Side Effects:**
 - Dizziness or light-headedness (due to low blood pressure)
 - Dry cough (for the “ACE” drug family)
 - Increased urinary frequency (for water pills)
 - Ankle swelling (for amlodipine)



Caution

- Some non-prescription medications can worsen high blood pressure, for example



Anti-inflammatories (“NSAIDs”)

Decongestants

Hidden NSAIDs or
decongestants in combination
products

- Ask your pharmacist before you buy a product!



Are you taking ASA to prevent heart disease or stroke?

1

If you do **not** have a history of heart disease, stroke or vascular disease, taking ASA (for example, Aspirin, Entrophen, Novasen) daily could potentially **do more harm than good.**



2

Continue to take ASA if you have been told to do so by your health professional.



3

Talk to your health professional before making any changes to using ASA.



Supplements

- Natural does not always mean harmless
- Usually less studied than prescription medications
- Active ingredients vary
- Look for NPN (Natural Product Number)
 - This means the product has gone through Health Canada review
- Once again...ask your pharmacist 😊



Signs of a heart attack

Signs can vary and may be different for men and **women**. If you experience any of these signs, call 9-1-1 or your local emergency number immediately.



Chest discomfort

Pressure, squeezing, fullness or pain, burning or heaviness



Sweating



Upper body discomfort

Neck, jaw, shoulder, arms, back



Nausea



Shortness of breath



Light-headedness

- Call 9-1-1
- Rest and wait
- Stop all activity
- Take ASA (325mg or two 81mg tabs)
- Keep a medication list nearby



Know the signs of STROKE

F **Face**
is it drooping?

A **Arms**
can you raise both?

S **Speech**
is it slurred or jumbled?

T **Time**
to call 9-1-1

Beat stroke, call 9-1-1 FAST



Medications: The Bottom Line

- 1) Calculate your heart risk
- 2) Use your risk % to decide the potential benefits of medication to lower your heart risk



- 3) Statins = drug of choice for cholesterol

Ask your doctor/NP/pharmacist if other drugs may help you

- 4) Experiencing side effects from a medication?

Tell your prescriber and try a different dose or regimen

- 5) Know your drugs – keep an up-to-date list of your medications that includes why you take them





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Thank You!



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Session Evaluation

Check your email or the chat box

<https://www.surveymonkey.com/r/8WND3FT>

