

# HEALTHY YOU



A health and wellness guide to  
**understanding cholesterol**





# Welcome

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## Your health and wellness guide to understanding cholesterol.

Have you been told to watch your cholesterol? Healthy choices like eating well, being active and not smoking can all help to protect your heart health.

Every choice you make can help bring you one step closer to managing your cholesterol. You can start slowly and make one small change at a time. The road to success starts with your very first step.



4

### **What's inside?**

Cholesterol by the numbers.

5

### **Well & Good**

Get the facts on cholesterol and how it can affect your health.

13

### **Meal Makeovers**

Add these delicious recipes into the rotation. They'll quickly become your family's favourites.

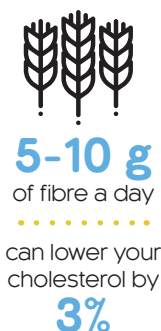
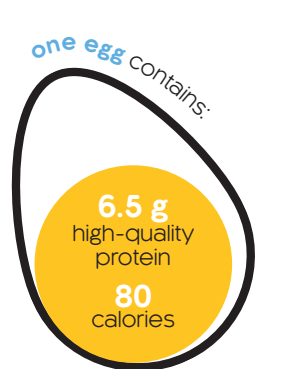
19

### **Healthy Habits**

Inspiring ideas to make physical activity a regular part of your way of life.

# Here's a taste of what you'll find inside...

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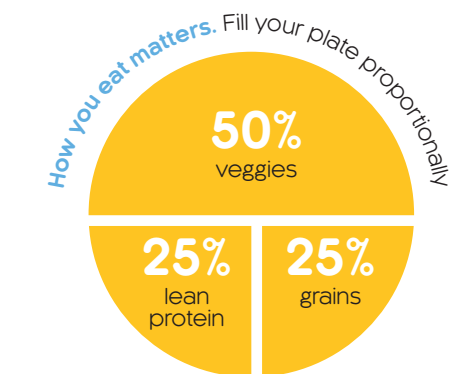


Aim to lose weight slowly



pounds per week  
is a good pace

Aim to be **physically active**  
for a total of at least



If you are  
over the  
age of

40



It's time to get your  
**cholesterol tested**

Eat fish



for **lower**  
LDL cholesterol

Maintain a **waist circumference**  
of lower than:



Women: 88 cm 35 inches Men: 102 cm 40 inches



A medical-themed background featuring a blue surface. In the top left, the chest piece of a silver stethoscope is visible. In the bottom right, the tubing and earpieces of a stethoscope are shown. Centered on the page is a large, 3D red heart. Overlaid on the heart is the text 'WELL & GOOD' in white, followed by a horizontal line of seven yellow dots, and then the subtitle 'Understanding cholesterol' in white.

# WELL & GOOD

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Understanding cholesterol

# News, views & more

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**Here are some key facts and tips to help you live a healthier life.**

## Did you know?

Losing **5%** of your body weight can lower total cholesterol and high blood pressure

## Fast facts on saturated fats

Saturated fats tend to raise LDL cholesterol more than dietary cholesterol. Do your best to limit highly-processed foods as they are a major source of saturated fats, and are often high in calories, sugars, and sodium.



## Eggs and weight control

If you are trying to lose weight, research suggests that eating eggs for breakfast may help. One study found that adults who were on a weight loss diet lost more weight (and more from their waistline) when they ate an egg-based breakfast compared to a bagel-based breakfast.<sup>1</sup>

## Food for thought

If you eat mostly natural whole foods and limit fried and highly-processed foods, saturated fats should not be a concern.<sup>2</sup>

That means you can enjoy foods that naturally contain some saturated fat like meat, poultry, fish, eggs and milk products. They're loaded with many essential nutrients and are good choices in healthy amounts.





## An egg a day is okay

Research shows that eating an egg a day does not increase the risk of heart disease or stroke in most people.\*<sup>2</sup>

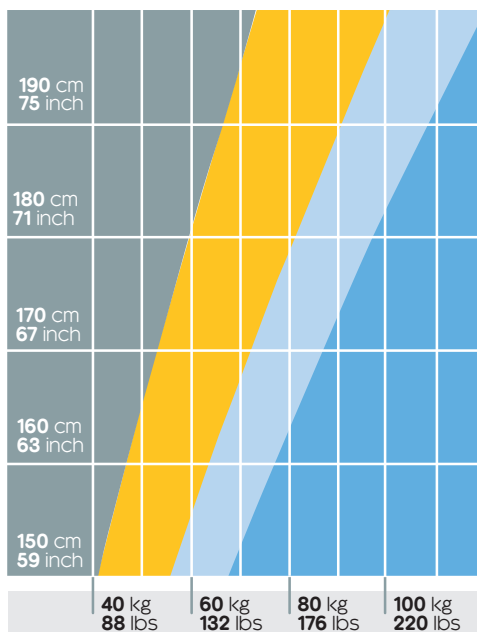
\*An egg a day may not be appropriate for people who have diabetes or are genetically more sensitive to dietary cholesterol. These people should consult a Registered Dietitian for nutritional counselling.<sup>2</sup>

## Why you need to know your BMI

Body Mass Index (BMI) is a screening tool to indicate whether a person is underweight, overweight, obese or a healthy weight for their height. A healthy BMI for most adults is between 18.5 and 24.9.

There are many ways to calculate your BMI. A simple formula is weight (kg)/height (m<sup>2</sup>). You can also use the handy BMI calculator at [www.dietitians.ca](http://www.dietitians.ca) or consult charts such as the one shown.<sup>3</sup>

30 < OBESE	25 - 29.9 OVERWEIGHT
18.5 - 24.9 NORMAL	>18.5 UNDERWEIGHT



## Research shows that stress affects your cholesterol levels and heart health.

To combat stress, try setting personal goals using the SMART approach.<sup>4</sup>

- S** **SPECIFIC:** Choose one small goal and write it down.
- M** **MEASURABLE:** Make sure you can count it or check it off a list.
- A** **ATTAINABLE:** If it's too hard, you can set yourself up for failure.
- R** **REALISTIC:** Make it something you are willing to work towards.
- T** **TIME-LIMITED:** Set a specific, realistic date to achieve it.

# Crack the cholesterol code

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**What you need to know about cholesterol and how it affects your health.**



## What is cholesterol?

Cholesterol is a fat-like, waxy substance produced mainly by your liver. It travels in your blood and is found in every cell in your body.

Although people often think of cholesterol as bad for you, it also helps to keep your body healthy. Not only is cholesterol essential for creating hormones and vitamin D, it also produces the substances you need to help digest foods and absorb vitamins.

Cholesterol is not a concern if you maintain healthy blood cholesterol levels. But high blood cholesterol, high LDL-cholesterol in particular, is considered one of the major risk factors for heart disease. That's why learning how to manage your cholesterol matters.

## 'Good' vs. 'bad' cholesterol

Cholesterol travels in your blood attached to proteins. There are two main types of cholesterol-protein molecules in your bloodstream:

**LDL**

### Low-density lipoprotein

Often called 'bad' cholesterol – carries cholesterol from your liver to cells throughout your body.

**HDL**

### High-density lipoprotein

Often called 'good' cholesterol – helps remove excess LDL from your body.



## Don't forget...

It's best to keep your **LDL** ('bad') cholesterol **low** and your **HDL** ('good') cholesterol **high**.





## Why your blood cholesterol levels matter

High LDL cholesterol can contribute to fatty deposits in your arteries, known as plaque. A buildup of plaque can clog your arteries. In time, this can block the flow of blood to your heart and brain. This can cause a heart attack, stroke or sudden death.

High HDL cholesterol, on the other hand, can help remove excess cholesterol from your arteries and carry it back to the liver. There, it can be removed from your body. This can help prevent a buildup of plaque and protect you from heart disease.

## Be in the know

The following are the risk factors that can affect your health. You can improve your well-being by making some lifestyle changes.

### What you **can** control



Smoking



High blood pressure or  
Type 2 diabetes



Obesity - BMI of 30 or more



Unhealthy diet,  
high in processed foods



Physically inactive



Drinking excessively

### What you **cannot** control

**40+**

Being over the age of 40  
(or a post-menopausal woman)



First Nations, African or  
South Asian descent



A history of heart disease  
or high cholesterol in a  
close family member



Previous heart attack  
or stroke

# Is your health at risk?

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**Anyone can develop high blood cholesterol, at any age.**

That's why it's important to recognize the risk and deal with it seriously. A simple blood test can show if you have high cholesterol.

## When should your cholesterol be tested?

Canadian guidelines recommend that you have your blood cholesterol tested if you are over the age of 40.<sup>5</sup> Your doctor may also want to have your cholesterol tested earlier if you have heart disease or other risk factors for heart disease.

## Your blood cholesterol test results

Your test results will include total cholesterol, LDL, HDL, and non-HDL cholesterol levels. They may also include an apo-B (apolipoprotein-B) level. Your blood test will likely also measure your triglyceride (TG) levels – another fat in your blood that may increase your risk of heart disease.

Your doctor may also recommend that you take medication to help lower your cholesterol.<sup>5</sup> Even if you do take medication, your lifestyle choices still affect your heart health.

## Tracking your progress towards your target

If you have high blood cholesterol, your doctor will assess your risk and set a target for you to work towards. Use this table to record your cholesterol test results and keep track of your progress towards your target.\*

My **blood cholesterol target** is:

	Date:	Date:	Date:	Date:
LDL Cholesterol				
HDL Cholesterol				
non-HDL Cholesterol				
Total Cholesterol				
Apo-B*				
Triglycerides				

## Questions to ask your doctor

If your doctor tells you that your blood cholesterol is high, you may have some questions. Here are some questions you can ask your doctor:



### TEST RESULTS and TARGET

- ✓ What do my cholesterol levels mean?
- ✓ What are my cholesterol targets?
- ✓ How often should I have my cholesterol levels tested?
- ✓ What can I do to reach my target?



### RISK FACTORS you can control

- ✓ Do I need to lose weight? If so, how much?
- ✓ What healthy eating changes can I make?
- ✓ How much physical activity do I need?
- ✓ (If you smoke) How can I quit smoking?
- ✓ (If you drink alcohol) Should I limit how much I drink?
- ✓ What are some healthy ways to cope with stress?



### Help with HEALTHY EATING

- ✓ Ask your doctor to refer you to a Registered Dietitian

## Take control of your cholesterol today

Lowering your blood cholesterol is one of the most important steps you can take to protect your heart health. For most people, making some lifestyle changes is a good place to start.

### Eat a healthy, balanced diet

Try to cook most of your meals from whole foods at home. Cut back on highly-processed foods and fast foods.

### Get more active

Aim to be active for a total of 150 minutes each week. Find activities you like, start slowly and build up your fitness.

### Aim for a healthy weight

If you're overweight, losing weight can help lower your LDL cholesterol and increase your HDL cholesterol.

### If you smoke, quit

Quitting can help increase your HDL 'good' cholesterol and lower your risk of having a heart attack or stroke.

### Manage your stress

Finding healthy ways to cope with stress may also help manage cholesterol levels and benefit your heart health.



# Cholesterol and your diet



Your body produces all of the cholesterol you need. Some foods, such as eggs, meat, poultry, fish, shellfish and dairy products, also contain cholesterol. Recent lifestyle guidelines to prevent and manage heart disease and stroke do not recommend a limit on dietary cholesterol.<sup>3</sup> Research shows dietary cholesterol, from foods like eggs, has little impact on blood cholesterol in most people.<sup>2</sup>

## How can your diet help?

Eating a healthy balance of natural whole foods is one of the best ways to manage your blood cholesterol levels. The overall quality and quantity of foods that you choose to eat matters most for your heart health.<sup>7</sup>

Experts recommend a Mediterranean way of eating to lower your risk of heart disease.<sup>5</sup>

Enjoy a variety of naturally nutritious whole foods, such as plenty of vegetables and fruit.

Add healthy amounts of whole grains, milk products, lean meats, poultry, fish, and other protein sources like nuts, seeds, lentils and eggs. For healthy fats, use olive and other vegetable oils.

## Eggs and your health

As a protein-rich whole food, eggs fit well into a healthy, balanced diet. They're naturally packed with vitamins, minerals, essential fats and antioxidants. It's good to know that although a large egg contains 200 mg of cholesterol, it has only 2 g of saturated fat and 80 calories.



### Want more help?

Ask your doctor to refer you to a Registered Dietitian.

## Tips to help you eat well



Fill half your plate with vegetables and fruit



Cook your meals using natural whole foods



Choose whole grains like oats and quinoa



Enjoy a variety of protein-rich foods



Limit cakes, cookies, pastries and fried foods



Drink plenty of water instead of sugary drinks



# MEAL MAKEOVERS

4 recipes for a better you



# Spring Vegetable Frittata

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**This fresh vegetable frittata is perfect for a crowd – serve it for breakfast, brunch, lunch or dinner.**

## Step one

Preheat oven to 350°F (180°C). In bowl, whisk together eggs, milk, basil, dill, salt and pepper. Set aside.

## Step two

Heat olive oil in 10-inch (25 cm) ovenproof non-stick skillet set over medium heat; cook green onions and garlic for 1 to 2 minutes or until garlic is golden. Add peas and asparagus; cook for 2 to 3 minutes or until tender-crisp.

## Step three

Pour in egg mixture. Cook, without stirring, for 2 to 3 minutes or until eggs start to set around edges. Sprinkle tomatoes and goat cheese over top. Transfer to oven; bake for 20 to 25 minutes or until edges are golden and top is puffy.



**Serves**

8



**Prep time**

10 min



**Cook time**

25 min



**Calories**

150 kcal



**8**  
eggs

**1/3 cup (75 mL)**  
milk

**2 tbsp. (30 mL)**  
fresh basil

**2 tbsp. (30 mL)**  
fresh dill

**1/4 tsp. (1.25 mL)**  
each salt & pepper

**2 tbsp. (30 mL)**  
olive oil

**2**  
green onions, sliced

**1**  
clove garlic, minced

**1 cup (250 mL)**  
fresh peas

**1/4 lb (0.2 kg)**  
asparagus spears,  
cut into 1 inch pieces

**1 cup (250 mL)**  
grape tomatoes,  
halved

**1/2 cup (125 mL)**  
goat cheese,  
crumbled



# Greek Omelette

Filled with chopped tomatoes, feta cheese and olives, this is a quick and easy recipe to get your day started right.



#### For the fluffiest omelettes:

Beat the eggs well until no more flecks of white can be seen.

## Step one

Whisk eggs, water and pepper in medium bowl. Set aside.

## Step two

Spray non-stick skillet with cooking spray. Heat skillet over medium heat. Add onion; cook, stirring frequently, for about 1 minute. Add tomato; cook for 1 minute. Stir in feta cheese, olives and oregano. Set aside.

## Step three

Spray 8-inch non-stick skillet with cooking spray. Heat skillet over medium heat. Pour one-quarter of egg mixture into skillet. As eggs set around edge of skillet, with spatula, gently push cooked portions toward centre. Tilt and rotate skillet to allow uncooked egg to flow into empty spaces.

## Step four

When eggs are almost set on surface but still look moist, cover half of omelette with one-quarter of filling. Fold unfilled half of omelette over filled half. Cook for a minute, then slide onto plate.

## Step five

Repeat procedure to make 3 more filled omelettes.

8

eggs

1/4 cup (60 mL)  
water

1/4 tsp. (1.25 mL)  
pepper

1/3 cup (75 mL)  
minced onion

3/4 cup (175 mL)  
chopped  
seeded tomato

1/2 cup (125 mL)  
crumbled low fat  
feta cheese

1/4 cup (60 mL)  
chopped pitted  
kalamata olives

1/2 tsp. (2.5 mL)  
dried oregano



Serves

4



Prep time

10 min



Cook time

15 min



Calories

207 kcal

# Open-Faced Egg Sandwich

with Hummus and Avocado

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**This healthy sandwich makes a satisfying morning or afternoon snack.**

## Step one

Spread hummus evenly onto each slice of bread; top with avocado slices.

## Step two

Season with chili powder, salt and pepper. Top with egg slices.



### Try:

Your favourite flavoured hummus – spicy, roasted red pepper or roasted garlic.

**1/4 cup (60 mL)**  
hummus

**4**  
whole grain bread slices, toasted

**1**  
ripe avocado, pitted, peeled and sliced

**1/4 tsp. (1.25 mL)**  
chili powder

**1/4 tsp. (1.25 mL)**  
salt

**1/4 tsp. (1.25 mL)**  
pepper

**4**  
hard cooked eggs, peeled and sliced



**Serves**

4



**Prep time**

5 min



**Cook time**

2 min



**Calories**

320 kcal

**Garnish tips:**

Try chocolate shavings, hemp seeds, granola or any other healthy topping.

# Chocolate Pudding

**Banana, avocado, and yogurt make this creamy chocolate pudding nutritious.**

## Step one

In nonreactive saucepan, whisk together egg yolks, milk, cocoa powder and sugar over medium heat; cook, whisking constantly, for 4 to 5 minutes or until mixture comes to a boil.

## Step two

Reduce heat to medium-low; simmer, whisking constantly, for 2 to 3 minutes or until thickened. Remove from heat and transfer to bowl. Refrigerate for at least 2 hours.

## Step three

In food processor, combine avocado, banana, honey, vanilla, cinnamon, salt and cooled pudding mixture. Blend until smooth and creamy, scraping down side of bowl if necessary.

## Step four

Refrigerate for about 1 hour or until set. Serve in individual bowls with dollop of yogurt; top with raspberries.

**4**

eggs, at room temperature

**2 cups (500 mL)**  
skim milk

**1 cup (250 mL)**  
cocoa powder,  
sifted

**1 tbsp. (15 mL)**  
granulated sugar

**1**  
ripe avocado

**1**  
banana

**1/4 cup (60 mL)**  
honey

**1 tsp. (5 mL)**  
vanilla

**Pinch of**  
cinnamon and salt

**3/4 cup (175 mL)**  
vanilla Greek  
yogurt

**1 cup (250 mL)**  
fresh raspberries

**Serves**

8

**Prep time**

10 min

**Cook time**

10 min

**Calories**

190 kcal



# HEALTHY HABITS



Easy ways to make changes



# Fit in more exercise



## Regular physical activity is an essential part of a heart healthy lifestyle.

Not only does it boost your HDL 'good' cholesterol, it can also lower your risk for stroke, heart disease, diabetes and high blood pressure. Plus, being active can help you lose weight, lower stress, sleep better and improve your energy.

As a good rule of thumb, try to do some physical activity most days of the week. Start slowly and increase your activity gradually as your fitness improves.

## Small steps can lead to great strides

Do you find you're too busy to go to the gym? If so, you're not alone. The good news is, being active doesn't have to involve running on a treadmill or a structured fitness program. There are lots of ways you can move more. Even short bursts of as little as 10 minutes of activity can help you meet your weekly goal. Take a brisk 15-20 minute walk at lunch or walk up and down the stairs for 10 minutes. Jog in place, lift some weights or dance while you watch TV.

## Find activities you like

The key is to find activities you can enjoy doing regularly.



Have fun with family or friends – go swimming, skating, biking or hiking



Try a new activity – join a local community group, team, class or club



Transform your commute – bike, walk, run or rollerblade to work



Take on a challenge – learn a new sport or train for a charity walk or run



### Remember:

Half an hour a day,  
5 days a week  
can make a big  
difference!





## Did you know?

Moving more can help you manage your weight, sleep better, reduce your stress levels and boost your mood.

### Remember:

It's always a good idea to check with your doctor before you boost your physical activity.

## Want more ideas?

To help you get started and stay motivated, visit [www.participation.com](http://www.participation.com)



## Weekly activity goals

Aim to be physically active for a total of at least

# 150

 minutes each week.<sup>2</sup>

Include moderate- to vigorous-intensity activities, the kind that get your heart pumping harder.



### Moderate activity:

Will make you sweat a little and breathe harder.



Brisk walking



Bike riding



Swimming



Water aerobics



Dancing



### Vigorous activity:

Will make you sweat more and be more 'out of breath'.



Jogging



Basketball



Hockey



Swimming fast



Dancing fast



# Manage your weight

## Some simple steps to get you started.

Another important step is to achieve and maintain a healthy weight. Being overweight can lower your HDL 'good' cholesterol and increase your LDL 'bad' cholesterol and triglyceride levels. Obese Canadians are more than 2 times as likely to have heart disease than those with a healthy weight.<sup>8</sup> Being obese also increases the likelihood of high blood pressure by 3 times and diabetes 4 times.

## A healthy approach

Want to lose weight? A sensible approach you can sustain is best. Eat well and be active. Take it slow and aim to lose between 1 and 2 pounds a week.

## Are you overweight?

Your Body Mass Index (BMI) is a good indicator of whether you're overweight or not. See page 7 to learn more, including how to calculate your BMI.

## Watch your waist size

Where you carry your body weight matters just as much as how much you weigh. Even if your weight is healthy, excess fat around your waist is a concern. It increases your risk of high cholesterol, high blood pressure, type 2 diabetes and heart disease. So it's good to measure your waist.

## How to measure

Wrap a measuring tape around your waist - at the top of your hips and at or just above your belly button. You're at greater risk if your waist measures larger than:

 **88** cm / **35** inches

 **102** cm / **40** inches



## Feel fuller longer

Research suggests adding eggs to your menu may help you feel fuller for longer. Eggs are rich in protein, a long-lasting energy source. Adding a good source of protein to your breakfast may help you keep your appetite in check throughout the day.

# Think about quitting smoking



**Don't forget:**  
Secondhand smoke  
can be just as  
bad for you. So try  
to avoid it!

## Here's how to kick the habit.

If you smoke, quitting is one of the best things you can do for your health. It may not be easy, but if you have a plan and take it one day at a time, you can succeed. The health benefits will start soon after you take your last puff!

Smoking lowers your HDL 'good' cholesterol. Plus, it damages the walls of your arteries, making them more susceptible to cholesterol deposits.

## Tips to help you quit:

- ✓ Set a "stop smoking" date – and stick to it!
- ✓ Choose a method that's right for you – ask your doctor for advice.
- ✓ Change your surroundings – get rid of cigarettes, lighters and ashtrays in your home, car and workplace.
- ✓ Build a support network – ask your family and friends for support and to not smoke around you.
- ✓ Avoid smoking 'triggers' – adjust your routines to avoid activities that you connect with smoking.
- ✓ Reduce stress – use relaxation techniques to cope with the anxiety of quitting.
- ✓ Talk to your doctor – counselling, medical support and stop-smoking aids can be very helpful.

## Stress less



**Reduce stress:**  
Yoga and slow  
stretching – even just  
five to 10 minutes a  
day – can promote  
relaxation to reduce  
stress.<sup>4</sup>

## What's on your mind matters.

If you feel stressed, you may be more likely to do things that are not good for your heart health. This may include eating more processed foods, not being physically active enough, drinking too much alcohol, or smoking.

That can contribute to high cholesterol, high blood pressure and weight gain. All these conditions increase the risk of heart disease and stroke.

It's important to find ways to feel less stressed. Healthy habits like eating well, being active, and getting enough rest can help you cope better. If you feel stressed a lot of the time or are struggling to cope, talk to your doctor.



## References

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<sup>1</sup> Vander Wal JS et al. Egg breakfast enhances weight loss. *Int J Obes (Lond)* 2008; 32(10):1545-51.

<sup>2</sup> Alexander DD et al. Meta-analysis of Egg Consumption and Risk of Coronary Heart Disease and Stroke. *J Am Coll Nutr* 2016; 35(8):704-16.

<sup>3</sup> [www.healthlinkbc.ca/health-topics/zm2277](http://www.healthlinkbc.ca/health-topics/zm2277)

<sup>4</sup> [www.heartandstroke.ca/get-healthy/reduce-stress/manage-your-stress](http://www.heartandstroke.ca/get-healthy/reduce-stress/manage-your-stress)

<sup>5</sup> Anderson TJ et al. 2016 Canadian Cardiovascular Society Guidelines for the Management of Dyslipidemia for the Prevention of Cardiovascular Disease in the Adult. *Can J Cardiol* 2016; 32(11):1263-82.

<sup>6</sup> Clayton ZS, Fusco E and Kern M. Egg Consumption and Heart Health: A Review. *Nutrition* 2017; 37:79-85.

<sup>7</sup> Heart and Stroke Foundation. 2015 Position Statement: Saturated Fat, Heart Disease and Stroke. Available on the Foundation website: [heartandstroke.ca](http://heartandstroke.ca)

<sup>8</sup> Heart and Stroke Foundation. Healthy Weight and Waist. Accessed Feb. 20, 2018: [www.heartandstroke.ca/get-healthy/healthy-weight/healthy-weight-and-waist](http://www.heartandstroke.ca/get-healthy/healthy-weight/healthy-weight-and-waist)

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