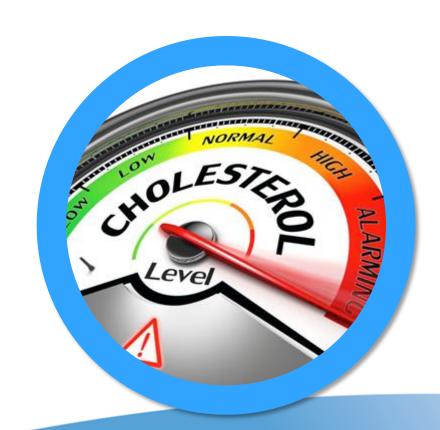


# Cholesterol 101: Understanding the basics

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To provide feedback or to receive a copy of today's slides, send an email to jmeister@activehealth.net.



# Learning objectives

- Review the basics of cholesterol
- Understand how we measure cholesterol
- Learn the causes of high LDL cholesterol
- Explore how to manage your cholesterol levels



#### What is cholesterol?

- A waxy substance like fat in the blood
- Our bodies need some cholesterol
- We get it from:
  - Food we eat
  - Our bodies make it





# Why it's important to know if you have high cholesterol?

- Too much cholesterol in the blood can cause build-up in our arteries ("plaques")
- Blood has a harder time getting through
- This can mean:
  - a stroke, if blood doesn't get to the brain
  - a heart attack, if blood doesn't get to the heart



Cholesterol is risk factor for heart disease.

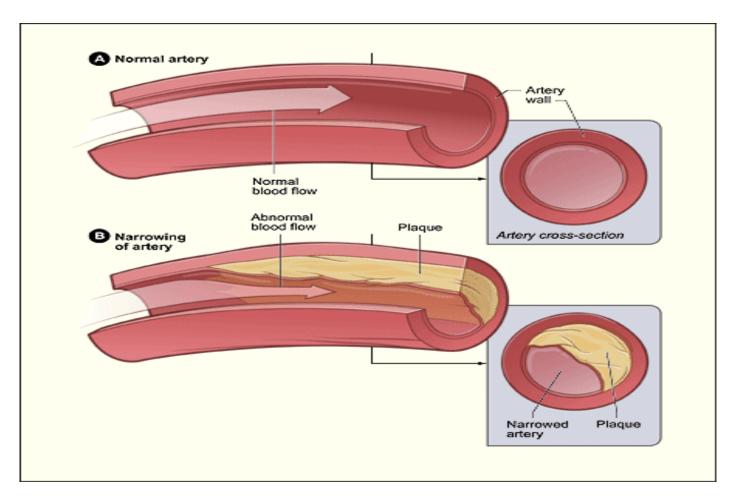


#### Cholesterol and heart disease: the connection

- A collection of heart-related diseases
  - Most common type in the U.S. is coronary artery disease
- Most common cause is narrowing or blockage of the arteries around the heart so blood can't get through as easily
  - Happens slowly over time
  - It's the major reason people have heart attacks
- Other causes are related to the valves in the heart or how the heart pumps. If the blood doesn't pump well, the heart can fail.



# Normal artery vs. narrowing of the artery





# Risk factors for heart disease

Conditions*	Behavior/Lifestyle*	Family History
High cholesterol	Smoking	Genetic factors
High blood pressure	Diet / excessive alcohol	Age
Diabetes	Lack of exercise	Male
	Obesity	
	High Stress	

<sup>\*</sup>Modifiable risk factors





#### **ActiveTrivia**

#### What are the symptoms of high cholesterol?

- A. Headache
- **B.** Vomiting
- C. Cold fingers and toes
- **D.** There are no symptoms





# Everyone wants to be more *happy* than *lousy*.

#### There are two kinds of cholesterol

Bad cholesterol	Good cholesterol
Low density lipoprotein (LDL)	High density lipoprotein (HDL)
More likely to cause build-up in our arteries	Absorbs cholesterol, carries it back to liver, and flushes it from the body
Raises our risk of heart attack and stroke	<b>Lowers</b> our risk of heart attack and stroke

L = LOUSY H = HAPPY



# Are you up to the [cholesterol] test?

- Measured with a blood test
- It's best not to eat 9 to 12 hours before

#### Scores

- Total cholesterol
- Triglycerides
- Bad cholesterol (LDL)
- Good cholesterol (HDL)





# Understanding cholesterol tests

	High	Borderline	Desirable
Total cholesterol	Above 240	200 to 239	Below 200
Triglycerides	Above 200	150 to 199	Below 150
LDL (bad cholesterol)	Above 160	130 to 159	Below 100
HDL (good cholesterol)	Less than 35	35 to 60	Above 60



# You have the power to change high cholesterol

- Things we can change
  - What we eat
  - Physical activity
  - Weight
- Things we can't change
  - Age
  - Gender
  - Family history





#### How can we lower cholesterol?

- There are two main ways to lower cholesterol
  - 1. Medication
  - 2. Lifestyle changes
    - Diet
    - Physical activity
    - Weight loss





## Diet and cholesterol: you are what you eat

- Limit foods high in saturated fat and cholesterol
- Avoid foods with trans fat
- Eat high fiber foods
  - Oatmeal
  - Kidney beans
  - Apples
  - Pears
  - Barley
  - Prunes
  - Etc.
- Eat foods that contain "healthy fat"





# Eat this not that

Eat This	Not That
Olive oil, canola oil	Butter, lard, palm oil, coconut oil
Skinless chicken or turkey, lean beef, veal, pork, lamb, and fish	Processed or fatty meat
Egg whites	Egg yolks
Fat-free or low fat milk, ice cream, and cheese	Cream, cheese, ice cream
Walnuts or almonds	Potato chips Potato chips
Oatmeal	Fast food breakfast



## Increasing physical activity can lower cholesterol

- Activity is especially important for people
  - With high cholesterol and
  - Who are overweight and
  - Have a large waist measurement
    - Men: larger than 40 inches
    - Women: larger than 35 inches





# Physical activity and cholesterol - out with the bad: in with the good

- Helps us lose weight
- Raises HDL (good cholesterol)
- Lowers LDL (bad cholesterol)





#### **ActiveTrivia**

How much weight do people need to lose to start lowering their cholesterol?

- A. All of their extra weight
- B. Half of their extra weight
- C. 5-10% of their body weight



#### Don't weight – be proactive with your health

#### Being overweight

- Increases the risk for heart disease
- Increases our cholesterol

#### Losing weight

- Lowers LDL (bad cholesterol)
- Lowers total cholesterol
- Raises HDL (good cholesterol)

#### To lose a pound a week:

- Eat 500 fewer calories each day or
- Burn 500 more calories each day





#### Medication

- Statins lower LDL cholesterol by:
  - Slowing down how quickly the liver makes cholesterol
  - Increasing the liver's ability to remove LDL in the blood
- Statins don't cure high cholesterol
- You need to keep taking the medicine to keep your cholesterol level in the normal range







#### **ActiveTrivia**

#### True or False:

If you take cholesterol medication, you don't need to worry about diet, exercise, and weight.

#### **False**





# What might managing your cholesterol mean for you?

• Imagine 6 months from now, you've made some changes to your diet, exercise, weight, or medications.

What does your life look like?





## Setting SMART goals

**S**pecific

Measurable

Attainable/Achievable/Action-Based

Realistic

Time-specific



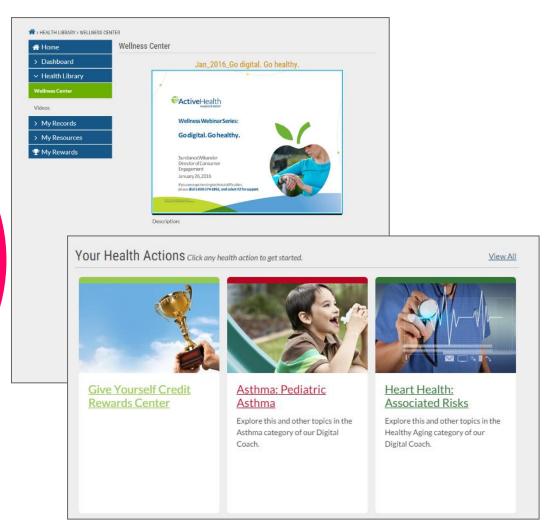
#### Summary

- You now understand the basics of cholesterol
- You feel more confident that you can manage your cholesterol levels
- You have the ability to set SMART goals



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# Thank you!















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