

# Heart Health: Cholesterol and You

## WHAT YOU NEED TO KNOW





**KAISER PERMANENTE®**

**GROUP CLASS  
CONFIDENTIALITY AGREEMENT**

Privacy is something everyone is concerned about when they come to a group class. Everyone who participates in the group wants what is said in the group to be treated with respect and complete discretion. Along with Kaiser Permanente's commitment to foster a respect for all participants, each participant individually has a responsibility to respect and protect each other's privacy.

Please share useful general information outside of the group, but what you hear and learn about individual group members should stay here.

# Important Disclaimer

The information provided in this presentation is not a substitute for the advice of your personal physician or other qualified health care professional.

Always seek the advice of your physician or other qualified health care professional with any questions you may have regarding medical symptoms or a medical condition.

Never disregard professional medical advice or delay in seeking it based on information contained in this presentation

# About Your Instructor

- Cheryl Mirabella
- Health Educator

# Agenda

Learn about the effects of high cholesterol.

Find out what causes high blood cholesterol.

Find out how high blood cholesterol is diagnosed.

Learn how high blood cholesterol is treated.

Pick one change you can make to help improve your cholesterol levels.

# What is Cholesterol?

- Cholesterol is a waxy, fat-like substance in the cells of your body.
- Your body makes all the cholesterol you need and uses it to make hormones and substances to help digest food.
- The amount of cholesterol your body makes is influenced by:
  - Your genes, AND
  - The amount of saturated fat and cholesterol you eat
- The liver makes too much cholesterol when the diet is high in saturated fat.



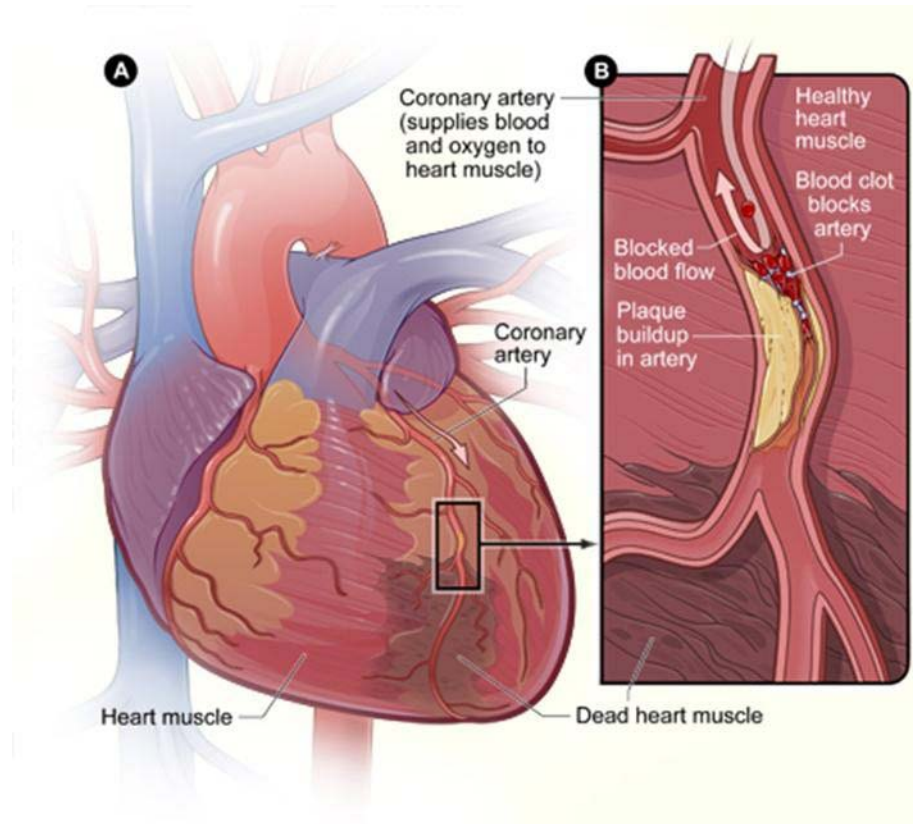
# Cholesterol Facts

- Having high blood cholesterol puts you at risk for heart disease, the leading cause of death in the United States.
- People with high cholesterol have about twice the risk of heart disease as people with lower levels.
- 71 million American adults (33.5%) have high low-density lipoprotein (LDL), or “bad,” cholesterol levels.<sup>1</sup>
- Lowering your cholesterol can reduce your risk of having a heart attack, needing heart bypass surgery or angioplasty, and dying of heart disease.
- High cholesterol has no symptoms, so many people don’t know that their cholesterol is too high

1. CDC. Vital signs: prevalence, treatment, and control of high levels of low-density lipoprotein cholesterol. United States, 1999–2002 and 2005–2008. MMWR. 2011;60(4):109–14, last visited 04/22/13.

# Cholesterol Forms Plaque

- Excess cholesterol forms plaque in the arteries.
- Plaque can block the arteries and cause a heart attack.
- Plaque can build up on the artery wall and slow down blood flow.





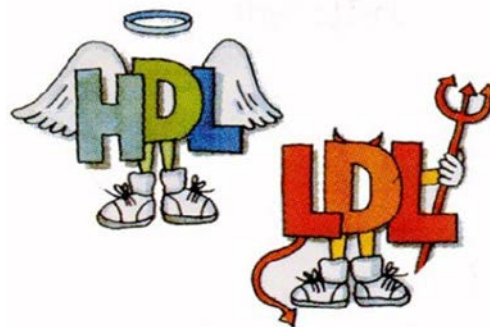
# The “Good” and the “Bad” Cholesterol

- Cholesterol travels in the bloodstream contained in small units called lipoproteins.
- Two kinds of units of lipoproteins
  - Low-density lipoproteins (LDL) which puts excess cholesterol into the arteries of the heart.
  - High-density lipoproteins (HDL) which carries excess cholesterol to your liver to be removed.



# The “Good” and the “Bad” Cholesterol

- HDL is “good” because it acts like a sponge and cleans the extra cholesterol from the artery walls and removes it from the body.
- LDL is “bad” because it drops cholesterol into the artery walls where it becomes plaque.
- Triglycerides- help move fat around in the body.



# Check Your Cholesterol Numbers\*

## General Guidelines

- Aim for total cholesterol less than 200
  - 200-239 is moderately high
  - 240 and above is high
- An HDL of 60 and above is desired
  - An HDL of 40 or less is low and puts you at risk

\*Your doctor is the best person to explain your cholesterol numbers to you.

Source: <http://www.nhlbi.nih.gov/health/health-topics/topics/hbc/diagnosis.html>, last visited 04/22/13.

# Check Your Cholesterol Numbers\*

## General Guidelines

- An LDL less than 100 is optimal
  - Your doctor may recommend lower levels based on your medical history
- A triglyceride level of less than 150
  - If your triglyceride level is borderline high (150–199 mg/dL) or high (200 mg/dL or higher), you may need treatment.

\*Your doctor is the best person to explain your cholesterol numbers to you.

Source: <http://www.nhlbi.nih.gov/health/health-topics/topics/hbc/diagnosis.html>, last visited 04/22/13.

# Cholesterol Ratios

- The American Heart recommends using the absolute numbers for total blood cholesterol and HDL cholesterol levels.
- HDL: cholesterol ratio
  - Divide the HDL cholesterol level into the total cholesterol.
  - Example: total cholesterol 200 mg/dl/HDL/50 mg/dl
- Example: if a person has a total cholesterol of 200 mg/dL and an HDL cholesterol level of 50 mg/dL, the ratio would be 4:1. The goal is to keep the ratio below 5:1; the optimum ratio is 3.5:1.

# What Causes High Blood Cholesterol?

- A variety of things can affect cholesterol levels. Some you can control and some you can't.
- You Can Control:
  - What you eat:
    - Saturated fats raise your LDLs in your blood.
    - *Trans* fats, made when vegetable oils are hardened, raise LDLs and lower HDLs.
    - Cholesterol found in animal sources including eggs, meat, and cheese.
  - Tobacco use

# What Causes High Blood Cholesterol?

- Your weight
  - Being overweight tends to increase LDLs, lower HDLs and increase cholesterol in the blood.
- Your activity
  - Lack of regular physical activity can lead to weight gain, raising LDLs.
  - Regular physical activity can help you to lose weight and raise your HDLs.

# Physical Activity will Reduce Your Risk

- Do moderately-intense physical activity for at least 30 minutes most days of the week.
  - Brisk walking is a good choice when done regularly for a total of 30 minutes or longer on most days.
- Increase the intensity or the amount of time that you are physically active to have even greater health benefits.
- Walking in two 15-minute segments or three 10-minute segments a day is also beneficial.



# Risk Factors That You Cannot Control

- Heredity
  - An inherited genetic condition results in very high LDLs beginning at birth. This may result in a heart attack at an early age.
- Age and Sex
  - Starting at puberty, men have lower HDLs than women.
  - As women and men age their LDLs rise.
  - After Age 55, women have higher LDLs than men.

# How Is High Cholesterol Diagnosed?

- The most accurate screening requires a 9 to 12-hour fast without food or drink.
- The test measures the total profile of the lipoproteins in the blood.
- It will give you total cholesterol, LDL, HDL, and triglyceride levels.



# How Is High Cholesterol Diagnosed?

- A non-fasting test for total cholesterol is also possible.
  - This test tells your total cholesterol and HDL.
  - You will need to do a fasting lipoprotein profile if:
    - Total cholesterol is 200 milligrams per deciliter or more
    - HDL is less than 40 mg/dl
    - Triglycerides are above 150-200

# How is High Cholesterol Treated?

- Therapeutic Lifestyle Changes (TLC)
  - Cholesterol-lowering diet, increased physical activity and weight management.
- Drug treatment
  - Cholesterol-lowering drugs combined with TLC will help lower your LDL and increase HDL.

# Therapeutic Lifestyle Changes

- TLC Diet
  - Limits high saturated fat and cholesterol you eat.
  - Eating only enough to maintain healthy weight.
  - Increases fiber, whole grains, fruits and vegetables.
- Weight Management
  - Balance the calories you eat with the calories you burn in physical activity.
- Regular Physical Activity
  - 30 to 60 minutes/day of aerobic activity for maximum benefit.

# Limit Cholesterol and Saturated Fat

- Select lean or low-fat choices most often, such as fish, shellfish, skinless chicken or turkey, lean sandwich meats, and lean, trimmed red meats, such as sirloin, round, flank, or tenderloin.
- Limit portions to four to six ounces daily.
- Bake, broil, steam, or grill instead of frying.
- Avoid fatty or fried meats, sausages, hot dogs, and most lunch meats.
- Eat fish at least three times per week.
- Limit egg yolks to two or less a week or use only egg whites or egg substitutes.

# Limit Cholesterol and Saturated Fat

- Choose low-fat or nonfat milk and yogurt.
- Choose low-fat or nonfat cheese or cottage cheese in place of whole milk cheeses.

# Increase Fiber, Whole Grains, Fruits, and Vegetables

- Eat more whole grains—whole-wheat bread, oatmeal, bran cereals, brown rice.
- Choose breads, cereals and crackers that contain three or fewer grams of total fat per serving.
- Choose dried beans or tofu more often in place of meat.
- Nuts, seeds, and natural peanut butter are healthy in small amounts.
- Eat meatless meals three or more times a week. Try beans and rice, tofu stir fry with rice, whole bean burritos, or low-fat bean chili.



# Increase Fiber, Whole Grains, Fruits, and Vegetables

- Eat a variety of fruit and vegetables at least twice a day.
- Add vegetables to soups, stews, casseroles, main dishes, and sandwiches.
- Choose raw vegetables for snacks.

# Limit Sugar and Fat

- Try pretzels, air-popped popcorn, rice cakes, or low-fat crackers instead of cookies, cakes and chips.
- Good frozen dessert choices include nonfat frozen yogurt and sorbet.
- Avoid snacks high in hydrogenated fat (packaged cookies, crackers, and bakery items).
- Eat fat-free cookies, cakes and frozen desserts in small amounts.

# Cholesterol-Lowering Medications

- Statins
  - Lowers LDL more than the other medicines.
  - Moderately raises HDL and lower triglycerides.
- Nicotinic Acid
  - Lowers LDL and triglycerides, raises HDL.
- Fibrate (Gemfibrozil)
  - Lowers triglycerides, may increase HDL.
- Resins
  - Lowers LDL; prevents absorption in the intestines.



# What Will You Do?

The change that I will make to help improve my cholesterol levels is:

# Kaiser Permanente Resources

- [kp.org/health](http://kp.org/health) – Visit the online health encyclopedia to learn more about a healthy heart.
- [kp.org/healthyliving](http://kp.org/healthyliving) - healthy living tools and resource to manage your health.
- [kp.org/healthylifestyles](http://kp.org/healthylifestyles) – health assessments and personalized online plans to improve your well-being and the quality of your life.\*
- [kp.org/classes](http://kp.org/classes)- find healthy living classes near you.
  - \* Must be registered on [kp.org](http://kp.org)

# Kaiser Permanente Resources

- [kp.org/watch](http://kp.org/watch) – view our health video clips.
- [Kp.org/doctor](http://Kp.org/doctor) – view your doctor's home page and learn EMMI and other recommended online tools.
- [kp.org/listen](http://kp.org/listen) – download audio podcasts on health topics of interest.
- [kp.org/register](http://kp.org/register)- sign up to manage your health and more.

# Online Resources

- American Heart Association
  - [www.heart.org](http://www.heart.org)
  - [www.goredforwomen.org](http://www.goredforwomen.org)
- National Heart, Lung, Blood Institute
  - Find more information on the DASH diet
  - [www.nhlbi.nih.gov/health](http://www.nhlbi.nih.gov/health)
- Centers for Disease Control and Prevention (CDC)
  - [www.cdc.gov/HealthyLiving/](http://www.cdc.gov/HealthyLiving/)

# Make the Call, Take the Call

The State of Maryland Wellness Program offers free confidential health coaching through its "Make the Call, Take the Call" coaching program.

Trained professional coaches will help you to understand your health status and provide motivating support over the phone to help you with the following topics:



*Healthy weight*  
*Managing stress*  
*Physical activity*  
*Eating healthy*  
*Quitting tobacco*



Connect with your Kaiser health coach at: 1.866.862.4295

Please check out our "Make the Call, Take the Call" video located on the wellness website at <http://dbm.maryland.gov/benefits/Pages/WellnessHome.aspx>



# Thank You!

Who has the first question?

