Heart disease and stroke are the leading causes of death in the world for both men and women. People with pre-diabetes, diabetes, and/or the metabolic syndrome are at higher risk for developing heart disease.

**What is heart disease?**
- Heart disease, also called cardiovascular disease, is a group of diseases and conditions that affect the heart (cardio) and blood vessels (vascular).
- Examples of heart disease include heart attack and stroke.

**What are the risk factors for heart disease?** The American Heart Association has identified the following risk factors:

<table>
<thead>
<tr>
<th>Risk factors that can’t be changed</th>
<th>Risk factors that can be changed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increasing age</td>
<td>High blood cholesterol</td>
</tr>
<tr>
<td>Gender (male)</td>
<td>High blood pressure</td>
</tr>
<tr>
<td>Family history</td>
<td>Physical inactivity</td>
</tr>
<tr>
<td></td>
<td>Obesity and Overweight</td>
</tr>
<tr>
<td></td>
<td>Smoking</td>
</tr>
<tr>
<td></td>
<td>Diabetes</td>
</tr>
<tr>
<td></td>
<td>Poor diet</td>
</tr>
</tbody>
</table>

Also linked with an increased risk of heart disease: stress, depression, poor sleep quality or sleep apnea, drinking more alcohol than recommended.

The more risk factors you have, the greater your risk of heart disease.

**What are your risk factors?**

The good news is that being physically active, eating a healthy diet, and managing your weight can help reduce your risk.

**A heart-healthy lifestyle is your best defense against heart disease.**
Preventing or Managing Heart Disease with “Life’s Simple 7™”

The American Heart Association lists seven diet and lifestyle changes to improve heart health and enhance quality of life.

1. Get active
   - The American Heart Association recommends
     - at least 150 minutes of moderate intensity activity each week AND
     - strength training on at least 2 days.
   - Regular physical activity
     - improves risk factors such as blood pressure, cholesterol, and blood glucose levels.
     - strengthens your heart muscle, improves blood circulation, reduces feelings of stress, and helps control body weight.

2. Control cholesterol (see pages 5-8 for more information)
   - Adults ages 20 and older should have their cholesterol tested every 5 years.
   - Healthy cholesterol levels help your arteries remain free of plaque which can clog arteries and lead to heart disease.

3. Eat better
   - Eat a variety of fruits, vegetables, whole grains, fat-free or low-fat dairy products, skinless poultry, lean meat, fish, nuts, and legumes.
   - Eat fish at least twice a week.
   - Limit saturated fat, trans fat, sodium, added sugars, and alcohol.
4. Manage blood pressure (see pages 6-7 for more information)
   - High blood pressure is a major risk factor for heart disease. The higher the blood pressure; the greater the risk.
   - Healthy blood pressure reduces strain on your heart, arteries, and kidneys.
   - Aim for normal blood pressure that is below 120/80 mm/Hg.
     o Elevated – 120-129 and below 80 mm/Hg
     o Stage 1 high blood pressure/hypertension – 130-139/80-89 mm/Hg
     o Stage 2 hypertension – 140/90 mm/Hg or above

5. Lose weight and keep it off
   - A healthy weight reduces the burden on your heart, blood vessels, lungs, and muscles, bones, and joints.
   - When your weight is in a healthy range you are less likely to develop heart disease, high blood pressure, high cholesterol, and diabetes.

6. Reduce blood sugar (glucose)
   - Healthy blood sugar (glucose) levels help prevent damage to your heart, kidneys, eyes, and nerves that can occur when levels are too high.
   - Aim for a fasting blood glucose of under 100 mg/dl.
     o Pre-diabetes – 100-125 mg/dl
     o Diabetes – 126 mg/dl or higher

7. Don’t smoke and avoid secondhand smoke

Even one lifestyle change can make a difference.
A combination of two or more lifestyle changes may achieve even better results.
Heart disease can happen at any age. So, do what you can to stay heart-healthy and delay or prevent heart disease.

Did you notice that “Life’s Simple 7™” guidelines reflect what you have already learned in GLB?

**Which recommendations do you meet?**

________________________________________________________________________

________________________________________________________________________

**Which recommendations need your attention?**

________________________________________________________________________

GLB not only can lower your risk of developing diabetes, it is also heart-healthy!

**Web sites for heart health information:**

- American Heart Association:  [www.heart.org](http://www.heart.org)
Facts about Cholesterol

Cholesterol is a soft, waxy substance needed by your body to stay healthy. It helps make hormones, Vitamin D, and bile that is used to digest fat. It is part of your cell membranes, nerves, and brain.

Your body makes all the cholesterol it needs. You also get it from the animal foods you eat such as meat, fish, poultry, eggs, and dairy products. There is no cholesterol in the plant foods you eat.

If blood cholesterol is too high, it puts you at high risk for heart disease. It is important to know your numbers. Your health care provider may order a “blood lipid panel test” that measures:

- **Total cholesterol** (the sum of LDL, HDL and triglycerides in your blood)

- **LDL (low-density lipoprotein) cholesterol**
  - It is called the “bad cholesterol” because it carries cholesterol to the arteries. Think “L” for “lousy”.
  - High levels can lead to blocked arteries.

- **HDL (high-density lipoprotein) cholesterol**
  - It is called the “good cholesterol” because it removes cholesterol from arteries and takes it to the liver for removal. Think “H” for “healthy”.
  - It helps prevent blocked arteries.

- **Triglycerides**
  - It is the most common type of fat found in your blood.
  - High levels may increase the risk of heart disease.
  - High levels are often found in people who have high cholesterol, heart disease, or diabetes. It is also found in those who are inactive, overweight, smoke, or have a high intake of alcohol and/or sugary foods and drinks.

Your health care provider will assess your risk and overall health and the best way to manage your cholesterol.
Facts about Blood Pressure

Blood pressure is the force exerted against the walls of the blood vessels as blood flows through.

Blood pressure is measured with two readings:
• Systolic is the upper number. It is the pressure against the walls of the arteries when the heart contracts (beats).
• Diastolic is the lower number. It is the pressure against the walls of the arteries when the heart is at rest between beats.

High blood pressure is called the “silent killer”. There are usually no symptoms to warn you something is wrong.

Tips to Control Cholesterol and Blood Pressure

Health care providers often encourage their patients to first try to lower cholesterol and blood pressure with healthy lifestyle changes. Talk to your health care provider about the following:

• **Maintain a healthy weight.**  
  o This improves LDL and HDL cholesterol, triglycerides, and blood pressure.

• **Get active.**  
  o Move more in your day. Keep up with your physical activity program and limit the time you spend sitting.  
  o This improves cholesterol, triglycerides, and blood pressure.  
  o Being active enhances your immune system and decreases the risk of heart disease.

• **Get enough sleep.**  
  o Too much or too little sleep can increase the risk of cardiovascular problems.  
  o Poor sleep quality is linked to an increased risk of high blood pressure.  
  o Aim for about 6-8 hours of sleep per night.
• **If you use tobacco, quit.** Avoid tobacco smoke.
  o This may improve HDL cholesterol and blood pressure.

• **Eat a healthy diet.**
  o This may improve triglyceride, HDL and LDL cholesterol levels, and blood pressure.

• **Know your fats** (see page 8).
  o Limit saturated and trans fats.
  o Replace saturated and trans fats with healthier unsaturated fats. This may improve blood cholesterol and triglycerides.

• **Limit added sugars.**
  o Too much sugar in your diet increases your risk of obesity, high blood pressure and high cholesterol
  o Reducing the intake of alcohol and sugary foods and drinks may help lower triglycerides.

• **Reduce salt intake.**
  o This may be recommended to help manage blood pressure.
  o Consider the DASH diet.

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**DASH diet (Dietary Approaches to Stop Hypertension)**

• The DASH diet increases the intake of the minerals calcium, potassium, and magnesium by including more fruit, vegetables, whole grains, legumes, nuts, and low-fat dairy products.

• It recommends a moderate fat intake with unsaturated fats used in place of saturated fats.

• The diet limits saturated fat and trans fats, sodium, added sugar, sugar-sweetened beverages, and alcohol.


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If your lifestyle changes don’t reduce your risk enough, your health care provider will likely prescribe medications. It is important to take them as prescribed.

However, lifestyle changes are still important even when medications are prescribed. Do all that you can to stay heart-healthy.
**FATS**

**Monounsaturated & Polyunsaturated Fats**
- Can lower bad cholesterol levels
- Can provide essential fats that your body needs but can't produce itself

**Saturated Fats**
- Can raise bad cholesterol levels
- Can increase risk of heart disease & stroke

**Hydrogenated Oils & Trans Fats**
- Can raise bad cholesterol levels
- Can increase risk of Type 2 diabetes

**For more information, go to**
heart.org/fats

**American Heart Association**

**Sources:**
- **Suilen**
- **Avocados**

**Examples:**
- Plant-based liquid oils, nuts, seeds, and fatty fish
- **Sources:**
  - **Tropical Oils**
  - **Butter**
- **Hydrogenated Fats**
- **Partially Hydrogenated Oils**
- **Processed foods made with partially hydrogenated oils**

**American Heart Association**

**Life is why**
Make heart-healthy choices:

Use the label to help you make heart healthy choices*.

<table>
<thead>
<tr>
<th>Recommended choices are those that:</th>
<th>Changes I can make:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Have the least amount of unhealthy saturated and trans fat.</td>
<td></td>
</tr>
</tbody>
</table>
| 2. Are lower in sodium.  
   (Aim for less than 2300 mg per day.) | |
| 3. Are higher in fiber.  
   (Foods with 3 grams of fiber/serving are a **good source** of fiber; those with 5 grams or more are an **excellent source**.) | |
| 4. Have less added sugar. | |

*These reflect the 2015 Dietary Guidelines
To Do:

The Basics:

- Keep track of your weight.
- Record what you eat and drink using your preferred method. Come as close as you can to your calorie and fat gram goals.
- Record your physical activity using your preferred method. Come as close as you can to your activity goals.
  - Be physically active for at least 150 minutes per week.
  - Aim for an average of at least 50,000 steps per week.
  - Include resistance training at least 2 times per week.
- Sit less. Be aware of long periods of sitting and break them up. Keep moving throughout the day.

What’s New:

- Know your numbers. Do your blood pressure, blood glucose, blood cholesterol and triglyceride levels fall within the recommended guidelines?
- What is one heart-healthy change you are willing to make?
  
  ____________________________________________________________

- Check the Nutrition Facts labels for the amount of saturated fat, trans fat, sodium, fiber, and added sugars. Use this information to help you make heart-healthy food choices.