High Blood Pressure
Heart Disease
and Women

How are we different than men?

Lorrie Langdon, MS, RN, CNS, CHFN
Coordinator Heart Failure Program
Upstate University Hospital
Women and Heart Disease

- Heart disease is the #1 killer of women.

- Heart disease kills approximately one woman every minute.

- Since 1984, more women than men have died from heart disease.
Women and Heart Disease

- Each year, heart disease claims the lives of more women than breast cancer and lung cancer combined.

- 1 in 31 women die from breast cancer but 1 in 3 dies of heart disease.
Women and Heart Disease

- 90% of women have one or more risk factors for developing heart disease.
- More than one in three women is living with cardiovascular disease.
- This includes nearly half of all African-American women, and 34% of white women.
- The death rate of African-American women due to cardiovascular disease is greater than white women.
What is Heart Disease

Also called cardiovascular disease and coronary heart disease

Includes conditions that affect the heart:
- Heart attack
- Congestive heart failure
- Heart valve problems
- Coronary artery disease
- Congenital heart disease
Some Heart Basics

- The heart’s job is to pump blood to the rest of the body.
- The heart is a muscle and needs oxygen to survive.
- Oxygen is carried in the blood.
- The heart gets it’s blood supply through the coronary arteries.
Heart with Coronary Arteries
Heart Attack

Also called a myocardial infarction or MI

Sometimes called a coronary attack

- A heart attack happens when the blood flow that brings oxygen to the heart muscle is severely reduced or cut off completely.
Blocked Coronary Artery

Diagram showing a blocked coronary artery, indicating that it supplies blood and oxygen to the heart muscle. The diagram also highlights healthy heart muscle, blood clot blocks artery, and blocked blood flow with plaque buildup in the artery, leading to dead heart muscle.
Fatty deposits called plaque build up in the walls of the coronary arteries.
If the plaque becomes unstable and ruptures, the clotting process, called thrombosis, starts inside the artery.
If the plaque becomes unstable and ruptures, the clotting process, called thrombosis, starts inside the artery.
As thrombosis continues, blood supply to the heart muscle is reduced. And muscle tissue can start to die.
If the clot completely blocks the coronary artery, all muscle tissue below the blockage can die.
How do you know you are having a heart attack?

- Women and diabetics tend to not get “typical” chest pain.
- They often have the less obvious symptoms such as nausea, indigestion, lightheadedness, shortness of breath.
- Diabetics often do not have symptoms at all.
How do you know you are having a heart attack?

- Most heart attacks involve discomfort or pain in the center of the chest that lasts more than a few minutes, or that goes away and comes back.
- It can feel like uncomfortable pressure, squeezing, fullness or pain.
- Symptoms can include pain or discomfort in one or both arms, the back, neck, jaw or stomach.
How do you know you are having a heart attack?

- Shortness of breath with or without chest discomfort.
- May include breaking out in a cold sweat, nausea or lightheadedness.
- Angina is another name for chest pain.
Angina is pain which occurs in these areas of your body when your heart muscle doesn’t get enough oxygen-rich blood.
Women and Heart Attacks

Women may experience shortness of breath, pressure or pain in the lower chest or upper abdomen, dizziness, lightheadedness or fainting, upper back pressure or extreme fatigue.

Even though heart disease is the No. 1 killer of women, women often chalk up the symptoms to less life-threatening conditions like acid reflux, the flu or normal aging.

‘I thought I had the flu’
Warning Signs of a Heart Attack

If you have any of these signs, don’t wait more than five minutes before calling for help. Call 9-1-1 and get to a hospital right away.
Stent in Coronary Artery
http://youtu.be/t7wmPWTnDbE
Risks for a Heart Attack

Risks you can’t control:

- **Family history**: if your mother or sister had heart trouble before age 65 or your father or brother before age 55, you are a higher risk of having a heart attack.
- Increasing age: greater risk over age 65.
- Race
  - African Americans have more severe high blood pressure and get it earlier and higher risk of heart disease.
  - Mexican Americans, American Indians have higher risk.
Risks for a Heart Attack

Risks you *can* control:

- **Smoking!!** Smokers have a 2-4 times greater risk of heart disease.
- Smoking makes women up to 6 times more likely to have a heart attack.
- Did you know that just one year after you quit, you’ll cut your risk of coronary heart disease by 50 percent?
Risks for a Heart Attack

Risks you *can* control:

- High cholesterol
- High blood pressure
- Inactivity
- Obesity or being overweight.
  - Excess weight around the waist or stomach increases your risk the most.
- Diabetes, keep your blood sugar under control
How to prevent a heart attack

- Control high blood pressure - take your medicine as prescribed and see your doctor regularly

- Eat healthy

- Lower your cholesterol

- Limit alcohol
How to prevent a heart attack

- Stop smoking
- Reduce stress
- Become more active
- Aim for a healthy weight
- Manage diabetes
Cholesterol

- Cholesterol comes from two places: your body and the food you eat.
- High Cholesterol is one of the major controllable risk factors.
- As your cholesterol level rises, so does your risk of heart disease.
- Over time, cholesterol, fats, calcium and other debris can clog the arteries.
# What Your Cholesterol Level Means?

<table>
<thead>
<tr>
<th>Total Cholesterol Level</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal less than 200 mg/dL</td>
<td>Desirable level that puts you at lower risk for coronary heart disease.</td>
</tr>
<tr>
<td>200 to 239 mg/dL</td>
<td>Borderline high</td>
</tr>
<tr>
<td>240 mg/dL and above</td>
<td>High blood cholesterol. Twice the risk of coronary heart disease than someone &lt;200.</td>
</tr>
</tbody>
</table>
## HDL Cholesterol Level

<table>
<thead>
<tr>
<th>HDL Cholesterol Level (Good Cholesterol)</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal: 60mg/dL and above</td>
<td>High HDL, 60mg/dL and above is considered protective against heart disease.</td>
</tr>
<tr>
<td>Less than 40 mg/dL (for men)</td>
<td>Low HDL cholesterol a major risk factor for heart disease.</td>
</tr>
<tr>
<td>Less than 50mg/dL (for women)</td>
<td></td>
</tr>
<tr>
<td>LDL Cholesterol Level (Bad Cholesterol)</td>
<td>Category</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Less than 100mg/dL</td>
<td>Optimal</td>
</tr>
<tr>
<td>100-129</td>
<td>Near or above optimal</td>
</tr>
<tr>
<td>130-159</td>
<td>Borderline high</td>
</tr>
<tr>
<td>160-189</td>
<td>High</td>
</tr>
<tr>
<td>190 and above</td>
<td>Very high</td>
</tr>
<tr>
<td>Triglyceride Level</td>
<td>Category</td>
</tr>
<tr>
<td>------------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Less than 150mg/dL</td>
<td>Normal</td>
</tr>
<tr>
<td>150-199mg/dL</td>
<td>Borderline high</td>
</tr>
<tr>
<td>200 -499</td>
<td>High</td>
</tr>
<tr>
<td>500 and above</td>
<td>Very high</td>
</tr>
</tbody>
</table>
HDL + LDL + 20% of Triglyceride level = Total Cholesterol
A fatty streak develops between the intima and the media.
Cholesterol forms plaque between artery wall layers.

LDL deposits cholesterol in the artery wall.

HDL removes cholesterol from plaque and from the bloodstream.

HDL
Good cholesterol

LDL
Bad cholesterol
Cholesterol Quiz

http://www.heart.org/HEARTORG/Conditions/Cholesterol/AboutCholesterol/Cholesterol-IQ-Quiz_UCM_305563_Article.jsp
How can you lower your cholesterol?

- Read food labels!
- Avoid foods high in saturated fat and trans fats.
- Eat foods high in fiber
  - Recommended 25 gm of fiber if <50 years old or 21 gm if > 50 years old.
- Choose a diet rich in fruits, vegetables and whole grains.
- Get moving!
Facts About High Blood Pressure

- One in three adults in the U.S. has high blood pressure, also called hypertension.

- Called the “Silent Killer” because there are no symptoms, but the force of the blood against the arteries damages the heart, blood vessels and other organs.
What is Blood Pressure?

- Blood pressure is recorded as 2 numbers:
  - A top number, or systolic pressure
  - A lower number, or diastolic pressure

- A normal blood pressure is the top number 120 or less AND the lower number less than 80. 120/80
Systolic Blood Pressure

- The top number, which is also the higher of the two numbers, measures the pressure in the arteries when the heart beats (when the heart muscle contracts).
Diastolic Blood Pressure

- The bottom number, which is also the lower of the two numbers, measures the pressure in the arteries between heartbeats (when the heart muscle is resting between beats and refilling with blood).
<table>
<thead>
<tr>
<th>Blood Pressure Category</th>
<th>Systolic mm Hg (upper #)</th>
<th>Diastolic mm Hg (lower #)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>less than 120 and</td>
<td>less than 80</td>
</tr>
<tr>
<td>Prehypertension</td>
<td>120 – 139 or</td>
<td>80 – 89</td>
</tr>
<tr>
<td>High Blood Pressure (Hypertension) Stage 1</td>
<td>140 – 159 or</td>
<td>90 – 99</td>
</tr>
<tr>
<td>High Blood Pressure (Hypertension) Stage 2</td>
<td>160 or higher or</td>
<td>100 or higher</td>
</tr>
<tr>
<td>Hypertensive Crisis (Emergency care needed)</td>
<td>Higher than 180 or</td>
<td>Higher than 110</td>
</tr>
</tbody>
</table>
Blood pressure is the pressure exerted on the artery walls by circulating blood.

High blood pressure is greater than 140/90
Uncontrolled Blood Pressure Can Cause:

- Damage to heart and coronary arteries, includes heart attack, heart disease, congestive heart failure, aortic dissection and atherosclerosis (fatty buildup in arteries).
- Stroke
- Kidney damage
- Vision loss
- Memory loss
- Fluid in lungs
- Angina
High Blood Pressure Prevention and Control

- Have your blood pressure checked! You can have this done at your healthcare providers office, clinic, drug store or health fairs.
- Take your blood pressure medicine.
- Choose foods that are low in salt and saturated fat.
- Maintain a healthy weight.
High Blood Pressure Prevention and Control

- Manage stress.
- Don’t smoke.
- If you drink, limit alcohol.
- Enjoy regular physical activity.
If you have high blood pressure or are concerned you have some of the risk factors, just know that high blood pressure is manageable!
Thank You!

Any Questions?