#### **RISK FACTORS**



#### Lifespan Cardiovascular Institute

Rhode Island Hospital • The Miriam Hospital Newport Hospital

Delivering health with care.®

The Center for Cardiac Fitness

Cardiac Rehab Program

The Miriam Hospital

#### Objectives

- Identify the non-modifiable risk factors for CAD
- Identify the 7 primary modifiable risk factors for CAD
- Recognize classifications and clinical significance for each risk factor

#### Non-Modifiable

- Age
  - > 50 yoa- male; >55 yoa- female
- Gender
  - male > female
- Family History
  - < 55 yoa- male; <65 yoa- female</p>

# Modifiable

- —Physical Inactivity
- -Cholesterol
- –High Blood Pressure
- -Weight
- -Stress
- -Smoking
- -Diabetes

# Physical Inactivity

- Minimum exercise for health benefits
  - 3 day/wk for 30 min

Need higher levels for weight loss



### Cholesterol

```
-Total < 200

-LDL_{(bad)} < 70

-HDL_{(good)} > 45

-Trigs < 150

-Risk < 3.5
```

### High Blood Pressure

• Ideal: 120/70

• Normal: < 130/85

• Mild:  $\geq 140/90$ 

• Moderate:  $\geq 160/100$ 

• Severe:  $\geq 180/110$ 

#### High Blood Pressure

 Systolic = pressure on artery walls when heart beats

 Diastolic = pressure on artery walls when heart is at rest

What happens when you exercise?

# Weight

#### • BMI

unit derived from height and weight

- Normal < 25.0</p>
- Overweight 25-29
- − Obese ≥ 30.0



## Stress

- Increases HR and BP
  - => increase oxygen demand

Disrupts lining of artery

Increases LDL cholesterol

# Smoking

- Increases HR & BP
  - =>increases oxygen demand
- Disrupts lining of artery
- Carbon Monoxide replaces oxygen on red blood cells



### Diabetes

- Risk of 1st heart attack equivalent to someone with a previous heart attack to have a 2nd
- Fasting Blood Glucose
  - Normal = < 110
  - Diabetes = > 126