Prevention of Cardiovascular Disease

Cardiovascular Disease (CVD)

- Any disease that affects the heart or blood vessels
- Number one cause of death in U.S.
  - 61 million Americans have some form of CVD
- Leading cause of death in men between the ages of 35 and 44

Annual economic costs of cardiovascular diseases and other diseases in the U.S.
Four Common Types of Cardiovascular Diseases

- Arteriosclerosis
  - Atherosclerosis - inflammatory response resulting in proliferation of tissue within the arterial wall which may result in obstruction of blood flow
- Coronary heart disease (CHD) – also called coronary artery disease
- Stroke – brain damage occurring when blood supply to the brain is reduced for too long
- Hypertension – abnormally high blood pressure

Stages of atherosclerosis.
The coronary arteries carry blood to the working heart muscle.

Example of a myocardial infarction.

Coronary Heart Disease

Basically, an imbalance between blood supply (too little) and demand placed on the heart
Risk factors for CHD

- **Major risk factors**
  - Cigarette smoking
  - Hypertension
  - High blood cholesterol levels
  - Physical inactivity
  - Family History
  - High blood glucose levels
  - Obesity

- **Contributory risk factors**
  - Gender
  - Age
  - Stress

Your risk of developing coronary heart disease increases as the number of risk factors increase.
Reduction of CHD Risk Factors

- Stop smoking
- Exercise and proper diet – see next slide
- Reduction in CVD risk factors as well as mortality
- Weight loss
- Stress management

Total blood cholesterol levels and your risk of CHD.

<table>
<thead>
<tr>
<th>Total Blood Cholesterol and CHD Risk</th>
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<tbody>
<tr>
<td>&lt; 200 mg/dL: Low Risk</td>
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<tr>
<td>200–239 mg/dL: Moderate Risk</td>
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<tr>
<td>&gt; 240 mg/dL: High Risk</td>
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Figure 31:18 Reduction in death rate for individuals who participate in regular exercise. (Adapted from Pollock, et al. Physical activity: A concrete way to prolong longevity of college students. JAMA Med. J. 279:1346-1349.)
Cardiovascular disease is the number one cause of death in the U.S.

Risk factors: major and contributory.

Lifestyle may be modified to reduce risk associated with smoking, hypertension, high cholesterol, inactivity, stress.