**Effects of Common Air Pollutants**

**Respiratory Effects**

**Symptoms:**
- Cough
- Phlegm
- Chest tightness

**Increased sickness and premature death from:**
- Asthma
- Bronchitis (acute or chronic)
- Emphysema
- Pneumonia

**Development of new disease:**
- Chronic bronchitis
- Premature aging of the lungs

**How Pollutants Cause Symptoms**

- Narrowing of airways (bronchoconstriction)
- Decreased air flow

**Airway Inflammation**
- Influx of white blood cells
- Abnormal mucus production
- Fluid accumulation and swelling (edema)
- Death and shedding of cells that line airways

**Increased Susceptibility to Respiratory Infection**

**Vascular Inflammation**
- Increased risk of blood clot formation
- Narrowing of vessels (vasoconstriction)
- Increased risk of atherosclerotic plaque rupture

**Cardiovascular Effects**

**Symptoms:**
- Chest tightness
- Chest pain (angina)
- Palpitations
- Shortness of breath
- Unusual fatigue

**Increased sickness and premature death from:**
- Coronary artery disease
- Abnormal heart rhythms
- Congestive heart failure
- Stroke

**How Pollutants Cause Symptoms**

**Effects on Cardiovascular Function**
- Low oxygenation of red blood cells
- Abnormal heart rhythms
- Altered autonomic nervous system control of the heart

**Effects on Lung Function**
- Narrowing of airways (bronchoconstriction)
- Decreased air flow

**Airway Inflammation**
- Influx of white blood cells
- Abnormal mucus production
- Fluid accumulation and swelling (edema)
- Death and shedding of cells that line airways

**Increased Susceptibility to Respiratory Infection**

**Vascular Inflammation**
- Increased risk of blood clot formation
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**Air Quality Index (AQI) Levels of Health Concern**

- **Good**
  - AQI Values: 0-50
  - What Action Should People Take?
    - Enjoy Activities

- **Moderate**
  - AQI Values: 51-100
  - People unusually sensitive to air pollution:
    - Plan strenuous outside activities when air quality is better

- **Unhealthy for Sensitive Groups**
  - AQI Values: 101-150
  - Sensitive Groups:
    - Cut back or reschedule strenuous outside activities
    - Sensitive groups:
      - Ozone: People with lung disease, children and older adults and people who are active outdoors
      - Particle Pollution: People with heart or lung disease (including diabetics), older adults and children
      - Carbon Monoxide: People with heart disease and possibly infants and fetuses
      - Nitrogen Dioxide: People with lung disease, children and older adults
      - Sulfur Dioxide: Active children and adults with asthma

- **Unhealthy**
  - AQI Values: 151-200
  - Everyone: Cut back or reschedule strenuous outside activities
  - Sensitive groups:
    - Avoid strenuous outside activities

- **Very Unhealthy**
  - AQI Values: 201-300
  - Everyone: Significantly cut back on outside physical activities
  - Sensitive groups:
    - Avoid all outside physical activities

Reduce your risk by using the Air Quality Index (AQI) to plan outdoor activities – www.airnow.gov