Effects of Common Air Pollutants

RESPIRATORY EFFECTS

Symptoms:
- Cough
- Phlegm
- Chest tightness
- Wheezing
- Shortness of breath

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

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

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

How Pollutants Cause Symptoms

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

Airway lining
- Mucus
- White blood cell
- Alveoli filled with trapped air

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

Increased Susceptibility to Respiratory Infection

Development of new disease
- Asthma
- Bronchitis (acute or chronic)
- Emphysema
- Pneumonia

Everyone:
- Cut back or reschedule strenuous outside 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

<table>
<thead>
<tr>
<th>AQI Levels of Health Concern</th>
<th>AQI Values</th>
<th>What Action Should People Take?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>0-50</td>
<td>Enjoy Activities</td>
</tr>
<tr>
<td>Moderate</td>
<td>51-100</td>
<td>People unusually sensitive to air pollution: Plan strenuous outside activities when air quality is better</td>
</tr>
<tr>
<td>Unhealthy for Sensitive Groups</td>
<td>101-150</td>
<td>Sensitive Groups: Cut back or reschedule strenuous outside activities</td>
</tr>
<tr>
<td>Unhealthy</td>
<td>151-200</td>
<td>Everyone: Cut back or reschedule strenuous outside activities</td>
</tr>
<tr>
<td>Very Unhealthy</td>
<td>201-300</td>
<td>Everyone: Significantly cut back on outside physical activities</td>
</tr>
</tbody>
</table>

Netter illustrations used with permission from Icon Learning Systems, a division of MediMedia USA, Inc. All rights reserved.