How Low Should We Go? New Research on Low-Level Air Pollution: Panel Discussion

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Health Effects Institute Annual Conference
May 1-3, 2016 Denver
Potential Air Pollution & Cardiorespiratory Mechanisms

AMBIENT AIR POLLUTION

Pulmonary Reflexes

Autonomic Nervous System

Automaticity Conduction Repolarization

Heart rate Rhythm

Pulmonary Inflammation

Systemic Inflammation

Oxidant Stress

Endothelial Dysfunction

Leukocyte & Platelet Activation

Acute Phase Response & Coagulation Factors

Atherosclerosis Progression & Plaque Instability

Plaque Rupture

Thrombosis

MYOCARDIAL INFARCTION, STROKE & OTHER CV EVENTS

RESPIRATORY ILLNESS
Levels < the NAAQS: Mechanistic Considerations

- **Question**: If air pollution at low levels causes adverse effects, any reason to assume different mechanisms?
  → Possibly not, but

- Many exposures/diseases will trigger similar responses – thus many confounders for low level exposures

- Role of biomarkers – will be non-specific

- **Prediction**: Will find statistical relationship

- **Caution**: Attribution of morbidity and death