

Reducing carbon pollution by using clean renewable power produces better heart & lung health and helps prevent further climate change.



It avoids the following .....

# Air pollutants (ozone & particles) and their sources

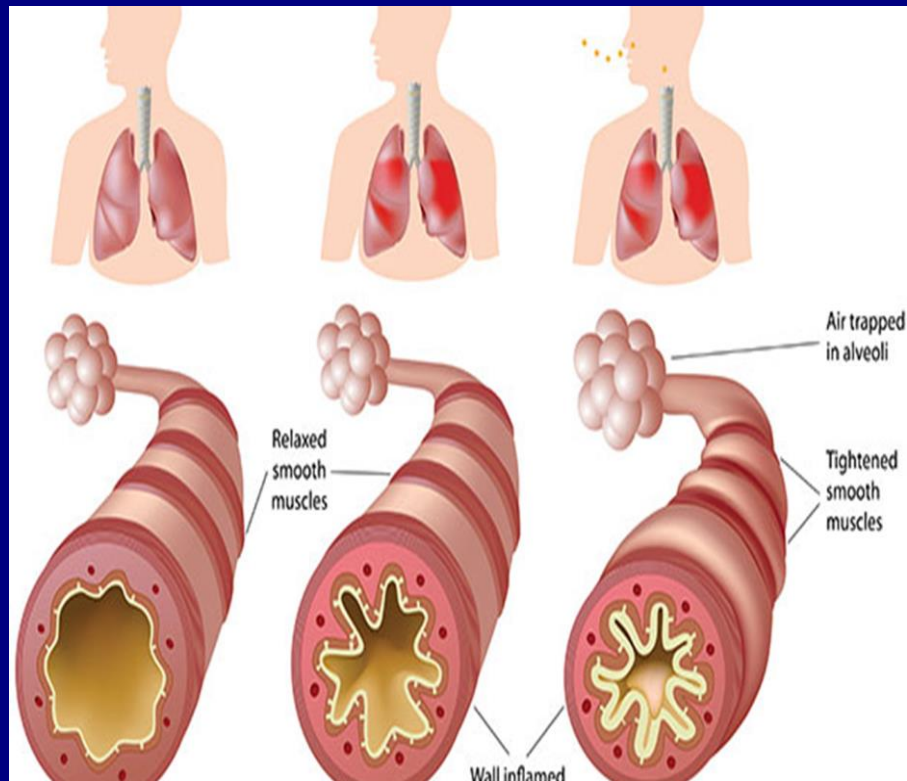
- **Ozone** forms when exhaust from burning fossil fuels reacts with heat + light
- **Particulate matter comes from:**
  1. Emissions from fossil fuel burning inside:
    - \* Power plants
    - \* Industrial processes
    - \* Vehicles, trucks > cars[The above 3 produce ozone too.]
  2. Dust
  3. Fires
  4. Pollen



# Effects of air pollution

## Ozone

- Directly irritates the lungs



## Particles (<PM 2.5 u)

- Small particles get deep
- into the lungs
- Produce inflammation
- Associated with:
  - \* poor lung development in children
  - \* worsening heart disease
  - \* ER visits/hospitalization

# Pollutants affect people of all ages



Reducing pollutants is favorable for people of all ages

# The 1996 Summer Olympics were in Atlanta, GA



Due to traffic restrictions, peak morning traffic decreased 23%, peak ozone levels decreased 28%, and emergency visits for asthma events in children decreased 42%.

Children's emergency room visits for causes other than asthma did not change.

Friedman MS, Powell KE, Hutwagner L, et al. Impact of changes in transportation and commuting behaviors during the 1996 Summer Olympic games in Atlanta on air quality and childhood asthma. *JAMA* 2001;285:897-905.

# The benefit of clean renewable energy

Stopping the burning of fossil fuels for energy and switching to clean renewable sources creates immediate improvement in air quality (ozone, PM) which brings immediate improvement in negative impact on the lungs and heart.



Using clean renewable power for >30% of power will also reduce family power bills by an average of \$80 by 2030



\* <https://www.epa.gov/cleanpowerplan/fact-sheet-clean-power-plan-benefits-cleaner-more-efficient-power-sector>