



# Cause of Indoor Air Contaminants

- Energy conservation measures implemented in the early 1970's resulted in the following:
  - Minimization of the infiltration of outside air
  - Contribution to buildup of indoor air contaminants<sup>1</sup>
- Accumulation of indoor contaminants include, but are not limited to<sup>2</sup>:
  - Odors
  - Volatile compounds from equipment
  - Increased concentrations of carbon dioxide
  - Formaldehyde
  - Ozone
  - Biological contaminants



# Effect of Indoor Contaminants

- The concentration of indoor pollutants can be 5-10 times more toxic than outdoor air and may result in
  - Headaches
  - Nausea
  - Dizziness
  - Dermatitis
  - Eye, nose, throat and respiratory irritation
  - Difficulty concentrating
  - Muscle pain and fatigue
- Often, those experiencing these difficulties will find their symptoms greatly improved or relieved at home or sites other than their workplace.

# Impact of Particle Size

- Particle size influences the time that the particle remains in the indoor air column.
- Particle Size Comparison:

Diameter of Human Hair – 75 microns

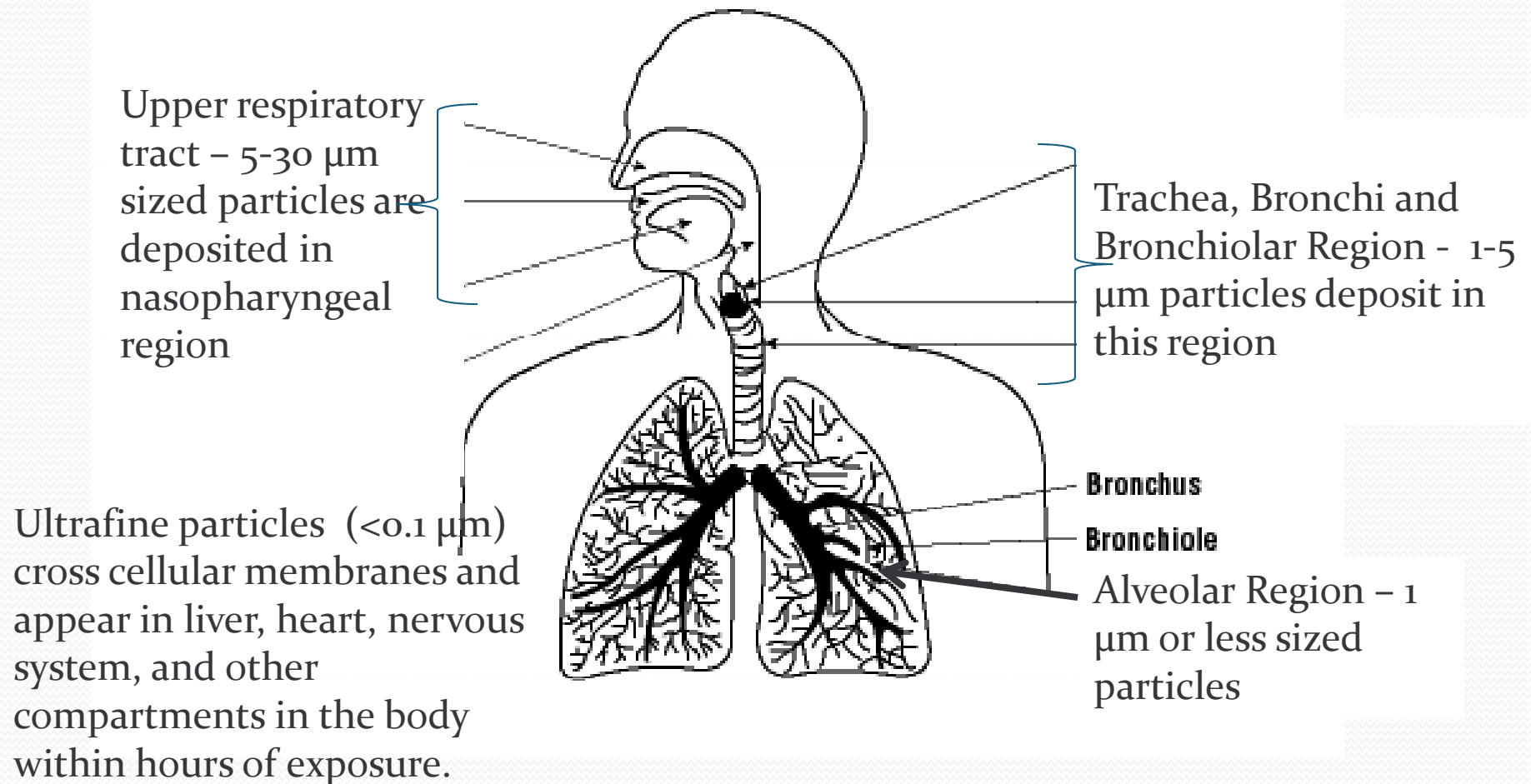
Pollen and Mold Spores – 10-100 microns

Pathogenic Bacteria – 0.3-2 microns

Gas Molecules – 0.001-0.001 microns

Removal of particles 10 microns or less is the most overlooked solution to battling indoor air pollution.

# Distribution of Ultrafine Particles (<0.1 micron) in the Human Body



# How does this impact your business?

- 88% of air contaminants are less than 2 microns.
- Indoor air may contain as many as 18 million particles that are less than 0.5 microns in one cubic meter of air.
- **GENANO MFI NEW TECHNOLOGY** removes all of these particles from the air.