

Unit:5

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# Noise Pollution

# Topics to be learned:

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- ◉ Noise Pollution
- ◉ Sources of Noise Pollution
- ◉ Causes of Noise Pollution
- ◉ Effects of Noise Pollution
- ◉ Control of Noise Pollution
- ◉ Conclusion



# WHAT IS NOISE POLLUTION?

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- Sound that is unwanted or disrupts one's quality of life is called as noise. When there is lot of noise in the environment, it is termed as noise pollution.
- Sound becomes undesirable when it disturbs the normal activities such as working, sleeping, and during conversations.
- It is an underrated environmental problem because of the fact that we can't see, smell, or taste it.
- World Health Organization stated that "Noise must be recognized as a major threat to human well-being"

# Sources of Noise Pollution

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- ◉ Household Sources
- ◉ Social Events
- ◉ Commercial and Industrial Activities
- ◉ Transportation



# Household Sources

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- ◉ Food Mixer
- ◉ Grinder
- ◉ Vacuum Cleaner
- ◉ Washing machine and Dryer
- ◉ Air Conditioner
- ◉ Straightener and curlers
- ◉ Cooler
- ◉ TV
- ◉ iPods and Earphones
- ◉ Loud speaker
- ◉ Neighbor's Barking Dog

# Social Events

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- ◉ Places of Worship
- ◉ Discos and Gigs
- ◉ Parties
- ◉ Markets where people sell goods with loudspeakers.

When these events are not often, they can be termed as nuisance rather than noise pollution.



# Commercial and Industrial Activities

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- ① Printing Presses
- ① Manufacturing Industries
- ① Construction Sites

# Sources of Construction Noise

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- ◉ Pneumatic Hammers
- ◉ Air Compressors
- ◉ Bulldozers
- ◉ Loaders
- ◉ Dump Trucks
- ◉ Pavement breakers



# Sources of Industry Noise

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- ◎ Fans
- ◎ Motors
- ◎ Compressors mounted outside

This interior noise sources have significant impacts on industrial workers, among whom noise induced hearing loss is unfortunately common

# Transportation

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- ◎ Road Traffic Noise
- ◎ Aircraft Noise
- ◎ Noise from Rail Roads



# Causes of Noise Pollution

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- Poor Urban Planning
- Sounds from Motor Vehicles
- Sounds from Musical Instruments
- Car Alarms
- Office Equipment
- Factory Machinery
- Construction Work
- Barking Animals
- Appliances
- Audio Instruments
- Loud Speakers
- Noise Created by People

# Effects of Noise Pollution

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- Effects on Human
- Effects on Animals
- Effects on Environment  
(Vegetation, Property)



# Effects on Human

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- ◉ Hearing Impairment
- ◉ Interference with Spoken Communication
- ◉ Decrease in Efficiency
- ◉ Lack of Concentration
- ◉ Fatigue
- ◉ Sleep Disturbances
- ◉ Cardiovascular Disturbances

# Continued.....

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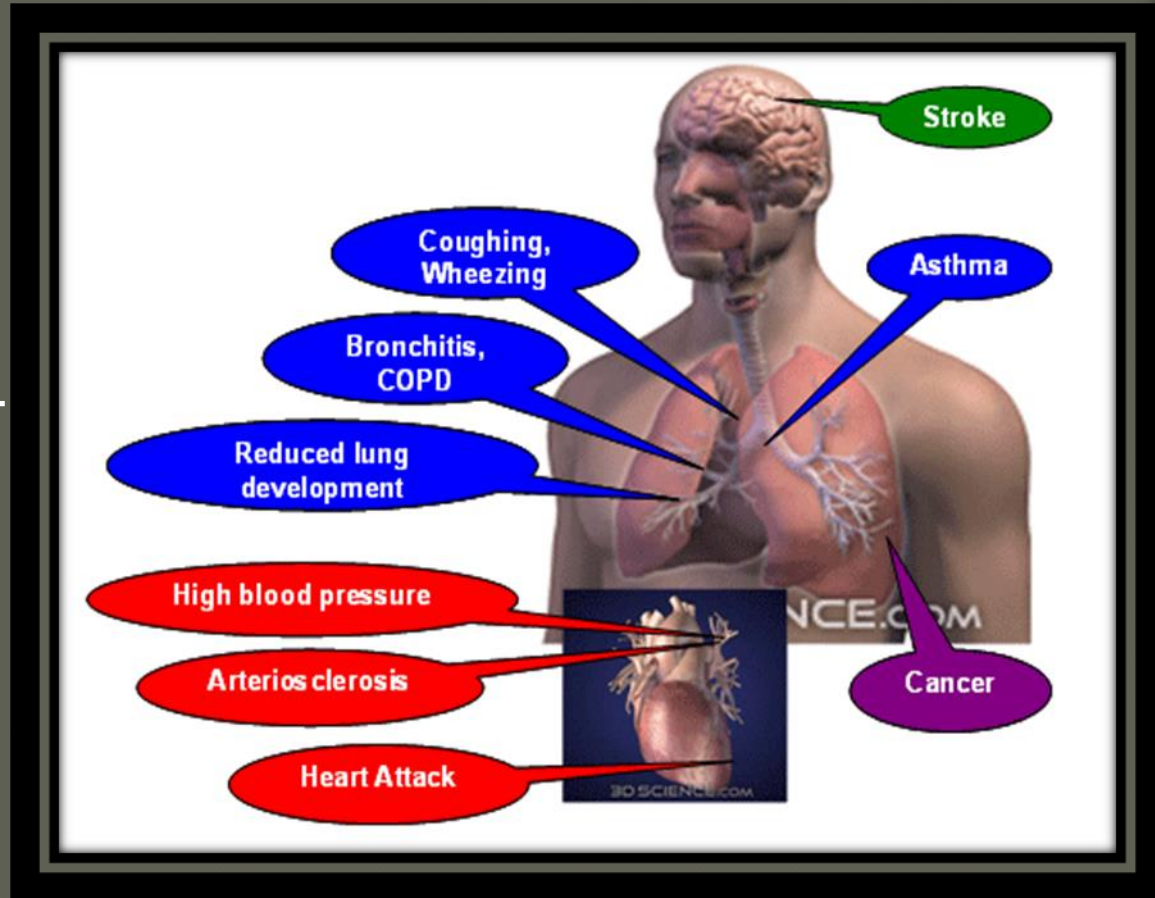
- ◉ Disturbance in Mental Health
- ◉ Impaired Task Performance
- ◉ Negative Social Behavior and reactions
- ◉ Abortion
- ◉ Abnormal Fetus
- ◉ Temporary or Permanent Deafness





# Diseases Caused by Noise Pollution

- High Blood Pressure
- Heart Attack
- Cancer
- Asthma
- Coughing, wheezing
- Deafness
- Annoyance
- Stress
- Anxiety
- Bronchitis
- Insomnia
- Arteriosclerosis



# Effect on Animals

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- ◉ Damages Nervous system
- ◉ Altering Prey/predator detection
- ◉ Creates problems in Navigation
- ◉ They become Dangerous and Attacking
- ◉ Raise Metabolism
- ◉ Reduction of useable Habitat
- ◉ Death of Certain Species
- ◉ Genetic and Evolutionary Problems



# Continued.....

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- ◉ Hormone imbalance
- ◉ Chronic Stress
- ◉ Panic and Escape Behavior
- ◉ Abandonment of Offspring
- ◉ Injury
- ◉ Loudness of Interspecies Communication

# Effects on Environment

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- Breakage of Earth Barrier
- Poor Quality of Crops
- Damages Buildings, bridges and Monuments
- Weakens the Edifice of Building



# Control of Noise Pollution

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- ◉ Control at Source
- ◉ Control in the Transmission Path
- ◉ Using Protective Equipment

# Control at Source

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- ◉ Reducing the Noise Levels from Domestic Sectors
- ◉ Maintenance of Automobiles
- ◉ Use of Economic instruments
- ◉ Control over Vibrations
- ◉ Low Voice Speaking
- ◉ Prohibition on Usage of loudspeakers
- ◉ Selection of Machinery
- ◉ Maintenance of Machines



# Control in the Transmission Path

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- ◉ Installation of Barriers
- ◉ Installation of Panels and Enclosures
- ◉ Green Belt development

# Using Protection Equipment

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- ◉ Job Rotation
- ◉ Exposure Reduction
- ◉ Hearing Protection
- ◉ Protection at the Receiver End



# More Noise Control Techniques

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- ◉ Sound insulation
- ◉ Sound Absorption
- ◉ Vibration Damping
- ◉ Vibration Isolation
- ◉ Urban Planning
- ◉ Public Education and Awareness

# Conclusion...

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- Many conflicts over noise pollution are handled by negotiation between the emitter and the receiver.
- Noise pollution often persists because only five to ten percent of people affected by noise will lodge a formal complaint .
- Many people are not aware of their legal right to quiet and do not know how to register a complaint.
- To protect healthy life, there is an urgent need to come up with an enforceable law on Noise Pollution in each state.



**Thanks**