

IH Essentials

Industrial Hygiene (IH) is the discipline of anticipating, recognizing, evaluating and controlling health hazards in the working environment with the objective of protecting worker health and well-being and safeguarding the community at large.



The risk of a health effect from a given stressor is a function of the hazard multiplied by the exposure to the individual or group.

Hazard:

- The innate property of an agent which enables it to cause harm.

Exposure:

- The extent to which the recipient is subjected or exposed to a hazard.

Risk

- The likelihood that harm will actually occur

$$\text{RISK} = \text{HAZARD} \times \text{EXPOSURE}$$

Industrial hygienists are dealing with following health agents:

Chemical agents

- Gases, vapours, solids, fibres, liquids, dusts, mists, fumes, etc.

Physical agents

- Noise, vibrations
- Ionising and non ionising radiations...

Biological agents

- Bacteria, fungi, etc.

Ergonomic factors

- Lifting, stretching, and repetitive motion

Psychosocial factors

- Stress, workload and work organisation



What is a Risk Assessment?

- **Process of evaluating the risks to workers safety and health from workplace hazards.**
- **Systematic examination of all aspects of work that considers:**
 - what could cause injury or harm
 - which hazards could be eliminated and, if not,
 - what preventive or protective measures should be in place to control the risks
- **Basis for successful safety and health management, the key to reducing occupational accidents and illnesses**