

## Occupational Hazards and Diseases

The most common illnesses in the workplace are cancers from exposure to hazardous substances, musculoskeletal diseases, respiratory diseases, hearing loss, circulatory diseases and communicable diseases caused by exposure to pathogens. The variety of the occupations is so vast that not even experienced specialists, safety engineers, industrial hygienists, industrial physicians, consultants and researchers are familiar with all the hazards that exist in each specific occupation.

An **occupational hazard** is a hazard experienced in the workplace. Occupational hazards can encompass many types of hazards, including chemical hazards, biological hazards (biohazards), psychosocial hazards, and physical hazards.

Occupational hazard as a term signifies both long-term and short-term risks associated with the workplace environment and is a field of study within occupational safety and health and public health. Short term risks may include physical injury, while long-term risks may be increased risk of developing cancer or heart disease.

An **occupational disease** is any chronic ailment or disorder that occurs as a result of work or working conditions. It is an aspect of occupational safety and health. An occupational disease is typically identified when it is shown that it is more prevalent in a given body of workers than in the general population, or in other worker populations.

Under the law of workers' compensation in many jurisdictions, there is a presumption that specific disease are caused by the worker being in the work environment and the burden is on the employer or insurer to show that the disease came about from another cause. Diseases compensated by national workers compensation authorities are often termed occupational diseases. However, many countries do not offer compensations for certain diseases like musculoskeletal disorders caused by work (e.g. in Norway). Therefore, the term work-related diseases are utilized to describe diseases of occupational origin. This term however would then include both compensable and non-compensable diseases that have occupational origins

Examples of occupational diseases:

- Tennis elbow
- Allergy
- Hearing loss
- Asthma

Exposures in the workplace that may cause some of the above diseases:

- Repetitive work movements
- Work with arms lifted above shoulder height
- Heavy lifting work
- Work in a very noisy environment
- Work with hazardous substances

When there is adequate medical documentation that a disease is caused by a certain exposure, the disease is included on the list of occupational diseases.

## **Types of Occupational Hazards and Diseases**

### **1. Chemical Hazards**

The common chemical substances, such as carbon monoxide, carbon dioxide, nitrogen dioxide, sulphur dioxide, hydrocarbons, sulphuric acid, tannic acid acetic acid, fumeric acid, ozone, limes and alkalies cause injury to the employee when they are absorbed through skin and inhaling or ingesting. Workers may suffer from respiratory diseases, skin diseases, allergy, heart disease, cancer and neurological disorders.

These diseases may be temporary or chronic in nature. Often a disease may be difficult to diagnose because either its symptoms may appear after a long dormant period or may not be apparent at all. These diseases often shorten employee's life expectancy.

### **2. Biological Hazards**

These hazards are manifested by diseases caused by bacteria, fungi, viruses, insects, dietary deficiencies, excessive drinking, allergies, brain fever, imbalances, tetanus, stresses and strains. All these tell upon employee's health.

### **3. Environmental Hazards**

Environmental hazards may include noise pollution, vibration and shocks, illumination, radiation, heat, ventilation, air and water pollution. These hazards cause redness of eyes, genetic disorders, cancer, sterility, hearing loss, nerve injury etc., to workers.

### **4. Psychological Hazards**

Industrial/job stress caused by various stressors such as task and role demands, organizational leadership, lack of group cohesion, intergroup and interpersonal conflicts, life and career changes, etc., lead to emotional disturbances which, in turn, lead to fatigue and exhaustion. All these affect health of employees. Apart from occupational hazards, there are some occupational diseases also that impair health of employees in industries.