



Introduction to Health, Safety, and Security at Workplace

- **Health at Workplace**

- Refers to the **physical and mental well-being** of employees.
- A healthy worker is more productive, less stressed, and less likely to take leave.
- Example: Providing proper seating in computer labs to avoid back pain.

- **Safety at Workplace**

- Refers to **preventing accidents, injuries, and risks** while working.
- Example: Keeping floors dry to avoid slipping.

- **Security at Workplace**

- Refers to **protecting employees, data, and equipment** from theft, damage, or unauthorized access.
- Example: Using CCTV cameras, ID cards, and strong passwords.

□ Together, health, safety, and security ensure that employees work in a **safe, comfortable, and secure environment**.

Policies and Procedures for Health, Safety, and Security

Policies

- Written **rules and guidelines** made by an organization.
- They ensure all workers follow the same safety standards.
- Example: “Every employee must wear safety helmets in the factory.”

Procedures

- **Step-by-step actions** to follow policies.
- Example: “In case of fire → use nearest exit → reach safe assembly area.”

Common Policies and Procedures:

1. **Emergency Policies** – Rules for fire, earthquake, or accidents.
2. **First Aid Procedure** – Keeping first aid kits and trained staff ready.
3. **Health Policy** – Cleanliness, hygiene, and regular medical checkups.



4. **Electrical Safety Procedure** – Regular maintenance of wiring and avoiding overload.
5. **Data Security Policy** – Use of passwords, firewalls, antivirus, and backups.

Reasons for Health, Safety, and Security

Programs/Policies

1. **Protection of Employees**
 - Main goal is to keep workers safe from accidents, injuries, and illness.
2. **Legal Compliance**
 - Government laws require organizations to follow workplace safety rules.
3. **Increase in Productivity**
 - Healthy and safe employees work faster and better.
4. **Reduction of Accidents**
 - Fewer accidents → less financial loss and fewer disruptions.
5. **Protection of Assets**
 - Equipment, machines, data, and property are kept safe.
6. **Improved Workplace Image**
 - A safe workplace builds trust among employees and customers.

Workplace Safety Hazards

A **hazard** is anything that has the potential to cause harm.

Workplace hazards are mainly divided into four types:

Physical Hazards

- Hazards caused by **unsafe physical conditions** in the workplace.
- Common types:
 - **Falling Off Heights** → From ladders, rooftops, or tall platforms.
 - *Precautions:* Use guardrails, safety belts, and ladders in good condition.
 - **Slipping and Tripping** → Due to wet floors, scattered wires, or loose carpets.
 - *Precautions:* Keep floors clean, wires properly arranged, and use non-slip shoes.



Electrical Hazards

- Hazards caused by **electric current and faulty wiring**.
- **Examples:**
 - Exposed wires
 - Overloaded circuits
 - Using damaged plugs or sockets
- **Effects:**
 - Electric shocks
 - Burns
 - Fire accidents
- **Precautions:**
 - Use insulated wires
 - Do not overload sockets
 - Get electrical equipment regularly checked by professionals

Fire Hazards

- Hazards that may cause **fire in the workplace**.
- **Sources of fire hazards:**
 - Flammable materials (like petrol, papers, chemicals)
 - Faulty wiring
 - Overheating of machines or equipment
- **Precautions:**
 - Install **fire extinguishers and smoke alarms**
 - Train employees for **fire drills**
 - Store flammable items away from heat sources
 - Switch off unused equipment

Health Hazards



- Hazards that affect **physical health and mental well-being** of employees.
- **Examples:**
 - **Poor Ergonomics** – Wrong posture due to improper chairs or desks → back pain, eye strain.
 - **Dust or Chemicals** – Can cause asthma, breathing problems.
 - **Work Stress** – Long working hours, heavy workload, mental pressure.
- **Precautions:**
 - Use ergonomic chairs, proper lighting, and maintain posture.
 - Ensure good ventilation.
 - Encourage regular breaks, exercise, and stress management activities.

Quick Revision Table

Hazard Type	Examples	Possible Harm	Precautions
Physical	Falling, slipping, tripping	Injury, fractures	Guardrails, clean floors, non-slip shoes
Electrical	Exposed wires, overload	Shocks, burns, fire	Insulated wires, avoid overload, maintenance
Fire	Flammable materials, faulty wiring	Fire, burns, property loss	Fire extinguisher, smoke alarms, fire drills
Health	Poor posture, dust, stress	Back pain, asthma, stress	Ergonomic furniture, ventilation, breaks

Potential Sources of Hazards in an Organisation

Every organization has some risks or dangers that may harm employees if not controlled. These are called **hazard sources**. Hazards may come from:



- **Machines and Equipment:** If machines are old, not maintained, or used carelessly, they can cause accidents.
- **Building/Infrastructure:** Broken stairs, wet floors, poor lighting, and loose electrical wires may create risks.
- **Chemicals and Materials:** Flammable liquids, gases, or harmful chemicals may cause health problems.
- **Human Factors:** Carelessness, lack of training, or ignoring safety rules also become sources of hazards.

□ Therefore, identifying hazard sources is the first step to keeping the workplace safe.

Hazards Using Computers

Computers are widely used in offices, but they also have their own risks:

- **Eye Strain:** Long screen exposure causes headaches, blurry vision, and eye pain.
- **Posture Problems:** Wrong sitting position can cause back pain, neck pain, and spinal problems.
- **Repetitive Strain Injury (RSI):** Continuous typing or using a mouse can injure wrists and fingers.
- **Mental Stress:** Overuse of computers and long working hours increase pressure and tension.

□ To avoid these, employees should use ergonomic furniture, take small breaks, and adjust screen brightness and distance properly.

Handling Office Equipment

Offices use equipment like printers, photocopiers, shredders, scanners, and staplers. If not handled carefully, these can be dangerous.

- **Electric Shocks:** Using damaged wires or overloading sockets can give shocks.
- **Burns:** Photocopiers and printers may get overheated.
- **Cuts:** Paper cutters, shredders, or even staplers can cause small injuries.

□ Employees should read instructions before using equipment, switch off machines after use, and get regular maintenance done.

Handling Objects

Workplaces often require employees to lift or move objects. Careless handling may cause:



- **Back Injuries:** Lifting with the wrong posture.
- **Muscle Strain:** Carrying heavy loads without support.
- **Accidents:** Dropping objects on feet or hands.

☐ Safe practices include:

- Bend knees while lifting, not the back.
- Use trolleys or lifting machines for heavy objects.
- Take help from colleagues when needed.

Stress at Work

Stress is also considered a hazard at the workplace. It is harmful both physically and mentally.

- **Causes of Stress:**

- Heavy workload and deadlines.
- Long working hours.
- Unhealthy work environment.
- Pressure from managers or colleagues.

- **Effects of Stress:**

- Headache, lack of sleep, depression.
- Low concentration and more mistakes.
- Decrease in employee motivation.

☐ To control stress, organizations should give proper breaks, manage workload, provide counseling, and encourage teamwork.

Working Environment

The environment of the workplace also affects health and safety.

- **Unsafe environment examples:**

- Poor lighting may cause accidents.



- Poor ventilation may lead to suffocation or breathing problems.
- Too much noise can damage hearing.
- Dirty workplace may spread diseases.

□ A safe environment must have proper lighting, ventilation, cleanliness, fresh air, comfortable temperature, and low noise levels.

Hazard Control

Hazard control means reducing or removing workplace dangers. There are different levels of hazard control:

1. **Elimination:** Remove the hazard completely (e.g., remove broken furniture).
2. **Substitution:** Replace hazardous materials with safer ones (e.g., use less toxic chemicals).
3. **Engineering Controls:** Use safety machines, alarms, or barriers.
4. **Administrative Controls:** Make safety rules, provide training, and rotate shifts to reduce stress.
5. **Personal Protective Equipment (PPE):** Use helmets, gloves, goggles, masks, etc.

□ A combination of these methods ensures maximum safety.

Safety Guidelines Checklist

Employees should follow a checklist every day to stay safe at work:

- ✓ Follow fire safety rules and know emergency exits.
- ✓ Use computers and machines correctly.
- ✓ Keep the workplace clean and organized.
- ✓ Wear safety equipment when required.
- ✓ Take regular breaks to reduce stress.
- ✓ Do not overload electrical sockets.
- ✓ Report unsafe conditions immediately.
- ✓ Ensure first aid kits and fire extinguishers are available.

Introduction



Health and safety are very important at the workplace because employees spend many hours working there. A safe and healthy environment protects workers from diseases, injuries, and stress. Ergonomics (comfortable work design) helps employees work without pain or strain. By maintaining cleanliness, good posture, and safety rules, organizations can keep employees healthy and productive.

Air and Water Quality Monitoring Process

Air and water are two basic needs of every human. Poor quality of air or water can affect the health of workers badly.

- **Air Quality Monitoring:** The process of checking workplace air for dust, smoke, harmful gases, or chemicals. It ensures that the air is safe for breathing. Ventilation systems, air purifiers, and plants in the office improve air quality.
- **Water Quality Monitoring:** The process of testing drinking water to make sure it is pure and free from germs. Water tanks should be cleaned regularly, and filtration systems like RO must be installed.

Guidelines for Clean Air and Clean Water

To keep air and water clean in the workplace, some guidelines should be followed:

- Avoid smoking inside the workplace.
 - Use exhaust fans and chimneys to remove polluted air.
 - Keep water sources covered and clean.
 - Test drinking water regularly for safety.
 - Provide clean, filtered, or RO water to employees.
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Importance of Cleanliness at Workplace

Cleanliness at the workplace is not only about looking neat but also about safety and health.



- It prevents the spread of diseases and infections.
- Clean floors reduce the chance of slipping and accidents.
- It creates a positive and professional environment.
- A clean workplace increases employee comfort and efficiency.
 - Example: A dirty workplace may cause cough, fever, or infections, while a clean workplace keeps employees healthy.

Office Ergonomics

Ergonomics means arranging the workplace in such a way that it matches the comfort of the worker. Good ergonomics reduce pain, strain, and health problems.

- **Chair:** Should support the lower back and allow sitting straight.
- **Table/Desk:** Should be at a height where hands rest comfortably.
- **Computer Screen:** Should be at eye level to avoid bending the neck.
- **Keyboard and Mouse:** Should be placed so that wrists remain straight.
 - Correct ergonomics help prevent back pain, neck strain, and fatigue.

Computer Health and Safety Tips

Since employees work for long hours on computers, some health and safety tips must be followed:

- Take a 5–10 minute break every hour.
- Adjust screen brightness to avoid eye strain.
- Sit with a straight back and feet flat on the floor.
- Keep proper distance from the screen (about 50–70 cm).
- Do stretching exercises for the neck, shoulders, and hands.

Musculoskeletal Problems (Problems in muscles, bones, and joints due to office work)

(a) **Occupational Overuse Syndrome (OOS):**



- Happens when the same body movement is repeated many times (like typing, mouse use).
- Causes pain and swelling in wrists, fingers, and shoulders.

(b) Strain in Legs and Feet:

- Sitting for too long without moving causes stiffness, swelling, and poor blood circulation.

(c) Eye Strain:

- Long screen use causes dry eyes, burning sensation, and blurred vision.
- ☐ These problems are very common in office employees and need preventive steps.

To Reduce the Risks of Visual and Health Problems

Computer use for long hours can cause many problems like headache, obesity, stress, and sleeping disorders. Some preventive measures are:

- **Headaches:** Take short breaks, reduce screen glare, and maintain proper lighting.
 - **Obesity:** Do not sit for long hours; take short walks or exercise daily.
 - **Stress Disorders:** Manage time properly, share workload, and relax after office.
 - **Injuries from Laptop Use:** Use laptop stands to keep screen at eye level.
 - **Sleeping Problems:** Avoid using computers late at night and follow a healthy sleep schedule.
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Health and Safety Requirements for Computer Workplace

A computer workplace must have some basic health and safety requirements:

- Adjustable chairs and desks for ergonomic seating.
- Proper lighting and air ventilation in the office.
- Fire safety tools like fire extinguishers.
- First aid box for emergency use.



- Electrical wiring should be safe and properly insulated.
- Employees should be trained in safe computer and equipment usage.

Cautions while Working on the Computer

While working on a computer, employees must follow some precautions:

- Do not keep the screen too close to the eyes.
- Avoid working for long hours without rest.
- Maintain correct sitting posture.
- Do not overload power sockets or use damaged wires.
- Avoid eating or drinking near the computer to prevent damage.
- Save your work regularly to avoid data loss.

Accidents and Emergencies at Workplace

Accidents and emergencies are unexpected events that can cause injury, damage, or even loss of life at the workplace. They can happen anytime due to unsafe working conditions, carelessness, or natural causes. To handle such situations, employees need to stay calm, act responsibly, and follow proper safety procedures.

Notice and Correctly Identify Accidents and Emergencies

- The first and most important step is to **notice** when something unusual or dangerous happens.
- Accidents may include: someone falling, getting cut, fire breaking out, or electric shocks.
- Emergencies may include: gas leak, earthquake, or serious medical problems like heart attack.
- Employees must **quickly recognize** what type of emergency it is, because the response depends on the situation.
 - Example: For a fire, sound the fire alarm.
 - Example: For injury, call the first aid team.

Get Help Promptly and in the Most Suitable Way

- After identifying the problem, **help should be taken immediately**.



- Every organization has a system to report accidents.
- You can:
 - Call the emergency number (fire = 101, ambulance = 102, police = 100).
 - Inform the supervisor or safety officer.
 - Use fire alarms, intercoms, or emergency phones inside the workplace.
- **Speed matters a lot.** The faster the help arrives, the less damage or injury occurs.

Follow Company Policies and Procedures for Preventing Further Injury

- Every company has **policies and procedures** to deal with emergencies. Employees are trained in these.
- During accidents, follow these rules carefully:
 - Use first aid for injured people, but only what you are trained for.
 - In case of fire, do not use lifts → use emergency exits.
 - Switch off electrical supply if there is a spark or shock risk.
- The aim is to **stop the situation from getting worse** until expert help arrives.

Act within the Limits of Your Responsibility and Authority

- Not all employees are trained for all situations.
- You must act **only within your knowledge and authority**.
 - Example: If you are trained in CPR, you can perform it; if not, wait for a trained person.
 - Example: Only authorized staff should use heavy fire extinguishers or chemical safety tools.
- Acting outside your ability may make the situation more dangerous.

Promptly Follow Instructions by Senior Staff and Emergency Services

- In emergencies, senior staff or emergency teams take control.



- All employees must **immediately follow their instructions**.
- Example:
 - If the supervisor says to evacuate, leave immediately.
 - If emergency services (firefighters, ambulance team, police) give instructions, obey without delay.
- Cooperation ensures everyone stays safe and the situation is controlled faster.

Accidents and Emergencies at Workplace

Accidents and emergencies are unexpected events that can cause injury, damage to property, or even loss of life. In every workplace, employees must know how to **prevent**, **identify**, and **handle** such situations properly.

Types of Accidents

1. Trip and Fall Accidents

- A **trip** happens when a person's foot strikes an object, causing imbalance and fall.
- **Causes:**
 - Loose wires, cables, or open drawers.
 - Uneven or broken flooring.
 - Objects left in walkways.
- **Prevention:**
 - Keep pathways clean and clear.
 - Arrange furniture and objects properly.
 - Use proper lighting in corridors.
- **Procedure if accident happens:**
 - Help the person immediately.
 - Check for injuries like cuts, bruises, or fractures.
 - Provide first aid and report to supervisor.

2. Slip and Fall Accidents



- A **slip** occurs when the surface is wet, oily, or slippery, making the foot slide.
- **Causes:**
 - Spilled water, oil, or chemicals.
 - Recently mopped or polished floor.
 - Inappropriate footwear.
- **Prevention:**
 - Place “Caution: Wet Floor” signs.
 - Clean spills immediately.
 - Use non-slippery flooring or mats.
- **Procedure:**
 - Attend to injured person.
 - Check for fractures or sprains.
 - Inform supervisor and record incident.

3. Accidents in Escalators or Elevators (Lifts)

- Escalators and lifts are common in offices, malls, and organizations.
- **Causes:**
 - Overcrowding or overloading.
 - Technical faults or sudden stoppage.
 - Careless behavior like jumping or playing inside lifts.
- **Prevention:**
 - Do not overload lifts.
 - Stand still and hold railing in escalators.
 - Regular maintenance of lifts and escalators.
- **Procedure:**
 - Use emergency alarm button inside lift.
 - Do not panic or try to force doors open.



- ☐ Wait calmly until help arrives.

4. Accidents due to Falling Goods

- In warehouses or storage areas, goods may fall from shelves and cause injury.
- **Causes:**
 - ☐ Improper stacking of goods.
 - ☐ Keeping heavy objects on top racks.
 - ☐ Careless handling.
- **Prevention:**
 - ☐ Arrange goods safely.
 - ☐ Use protective helmets in storage areas.
 - ☐ Do not overload shelves.
- **Procedure:**
 - ☐ Move injured person to safe area.
 - ☐ Give first aid or medical help if needed.

5. Accidents due to Moving Objects

- Accidents may occur when people are hit by trolleys, vehicles, or machines.
- **Causes:**
 - ☐ Lack of warning signs.
 - ☐ Poor lighting.
 - ☐ Careless movement of vehicles or equipment.
- **Prevention:**
 - ☐ Mark pedestrian pathways clearly.
 - ☐ Train vehicle/machine operators.
 - ☐ Keep working areas well-lit.
- **Procedure:**
 - ☐ Stop the moving object immediately.



- ☐ Help the injured person.
- ☐ Inform supervisor and follow accident report process.

Handling Accidents

1. Attend to the Injured Person Immediately

- ☐ Provide first aid (bandages, ice pack, CPR if required).
- ☐ Keep the injured person calm and still.
- ☐ Do not move the person if fracture or spinal injury is suspected.

2. Inform Your Supervisor

- ☐ Report the accident as soon as possible.
- ☐ Supervisor will arrange professional medical help and take safety measures.

3. Assist Your Supervisor

- ☐ Give details about how the accident happened.
- ☐ Help in preventing similar accidents in the future.

Types of Emergencies

1. First Aid

- ☐ Immediate care given before medical professionals arrive.
- ☐ Includes: cleaning wounds, stopping bleeding, applying bandages, CPR, artificial respiration.

2. Electrical Safety

- ☐ In case of electric shock:
 - Switch off main power supply immediately.
 - Use wooden stick or dry cloth to separate victim from current.
 - Never touch victim with bare hands.

3. Evacuation

- ☐ Process of moving people safely out of the building during fire, gas leak, or earthquake.



- Employees must follow exit signs and move to assembly points.

General Evacuation Procedures

- Remain calm, do not panic.
- Stop all work and follow evacuation instructions.
- Do not use lifts, use stairs only.
- Go to nearest exit in an orderly manner.
- Assemble at safe meeting point outside building.
- Do not return until declared safe by emergency staff.

Fire Hazards in the Workplace

- Fire hazards are situations that can start a fire.
- **Causes:**
 - Faulty electrical wiring.
 - Overloaded power sockets.
 - Smoking inside office.
 - Improper storage of flammable materials.
- **Consequences:**
 - Property loss, injuries, death, and damage to environment.

Fire Prevention

- Keep fire extinguishers ready and train employees to use them.
- Store flammable materials properly.
- Do not overload electrical systems.
- Conduct fire drills regularly.

Identification of Material and Ignition Sources

- **Materials that catch fire easily:** wood, paper, cloth, plastics, chemicals.



- **Ignition sources:** sparks, short circuits, flames, overheated machines.
- Proper storage and insulation reduce risk of fire.

First Aid for Electrical Emergencies

- Switch off electricity supply first.
- Use insulated gloves, dry wood, or cloth to handle victim.
- Do not use water on electrical fire or shock.
- Check breathing and pulse, give CPR if needed.
- Call ambulance immediately.

Electrical Rescue Techniques

- Do not touch victim directly when connected to electricity.
- Use dry, non-conductive material to separate them from current.
- Lay victim flat, loosen tight clothing, and ensure fresh air.
- If unconscious but breathing → keep in recovery position.
- If breathing has stopped → give CPR.
- Stay with victim until medical help arrives.