

# Module-5

## **Managing Health and Safety**

# Need for Health and Safety at Work

- The main focus in occupational health is on three different objectives:
  - (i) the maintenance and **promotion of workers' health and working capacity**
  - (ii) the improvement of **working environment** and work to become encouraging to safety and health
  - (iii) development of **work organisations and working cultures** in a direction which supports health and safety at work, and in doing so also promotes a positive social climate and smooth operation, and may enhance productivity of the undertakings.

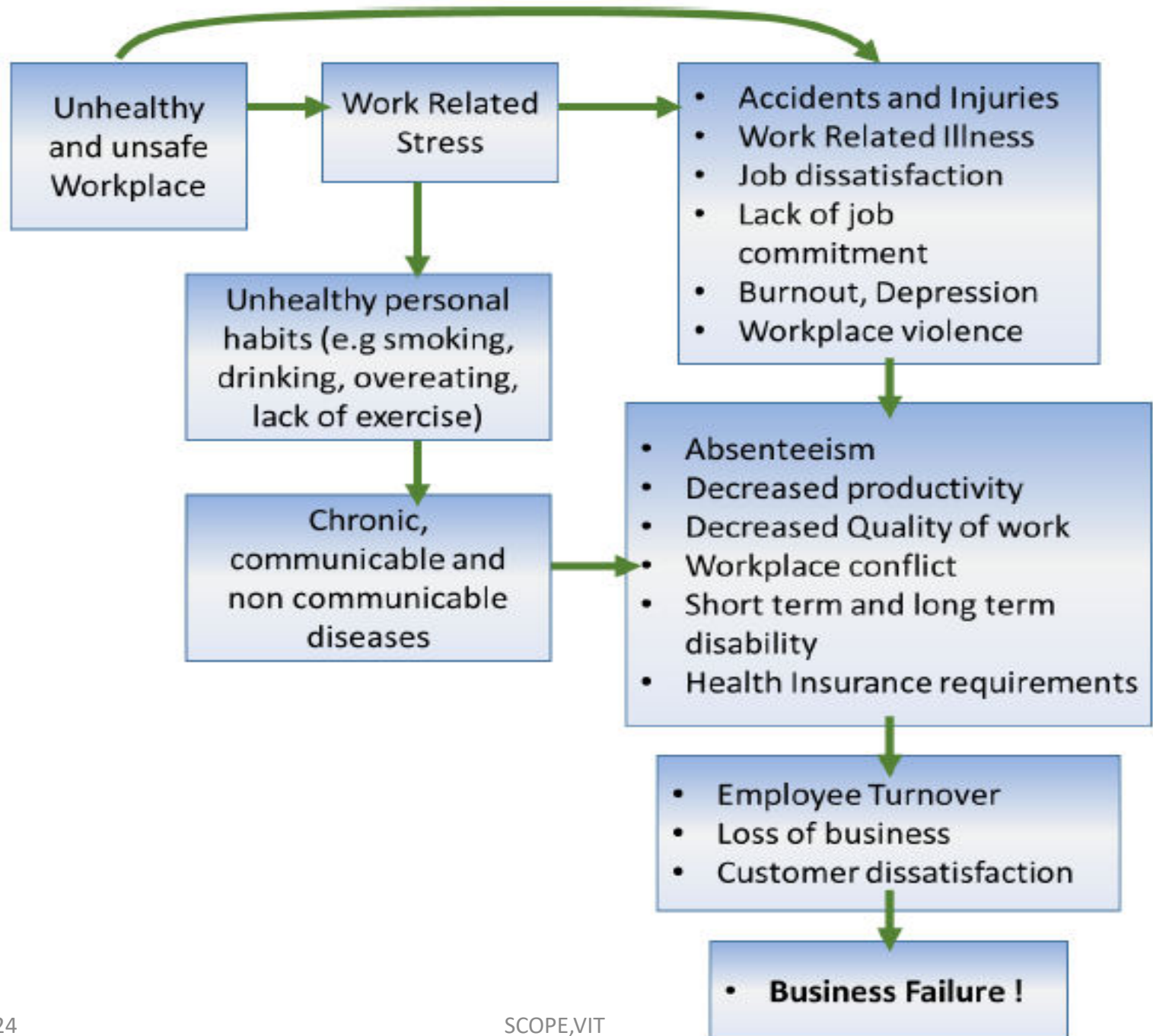
# Need for Health and Safety at Work

- **Importance**

**Moral case-** Ensuring safety and well-being of workers, and providing an environment that causes no harm to mental, or physical health, is a moral obligation of organisations.

**Ethical case-** Exposing employees to toxic chemicals and other risk factors is unethical. Hence, providing healthy, safe and secure working environment becomes an ethical obligation of organisations.

**Legal case-** There are many laws in our country that mandate organisations to have a healthy, safe and secure working environment.



# Need for Health and Safety at Work

- Different types of **breaches** in health, safety and security

## 1. Physical hazards

- are the most common hazards and **are present in most workplaces** at some time.
- For example, frayed electrical cords, unguarded machinery, exposed moving parts, constant loud noise, vibrations, working from ladders, scaffolding or heights, spills, tripping hazards.

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## 2. Ergonomic hazards

- occur when the type of work you do, your body position and/or your working conditions put a strain on your body.
- For **example**, poor lighting, improperly adjusted workstations and chairs, frequent lifting, repetitive or awkward movements.

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## 3. Chemical hazards

- are present when you are exposed to any chemical preparation (solid, liquid, or gas) in the workplace.
- For **example**, cleaning products and solvents, vapours and fumes, carbon monoxide or other gases, gasoline or other flammable materials.

# Need for Health and Safety at Work

- Different types of breaches in health, safety and security

## 4. Biological hazards

- come from working with people, animals, or infectious plant material.
- For **example**, blood or other bodily fluids, bacteria and viruses, insect bites, animal and bird droppings.



# **Need for Health and Safety at Work**

- Different types of breaches in health, safety and security

## **5. Electrical Hazards**

- as there are many equipment in the workplace that are run by electricity, which if due precautions are not taken can cause fire, electric shock, electrocution.

# Need for Health and Safety at Work

- **Types of health and safety hazards at a workplace**

## **Safety hazards**

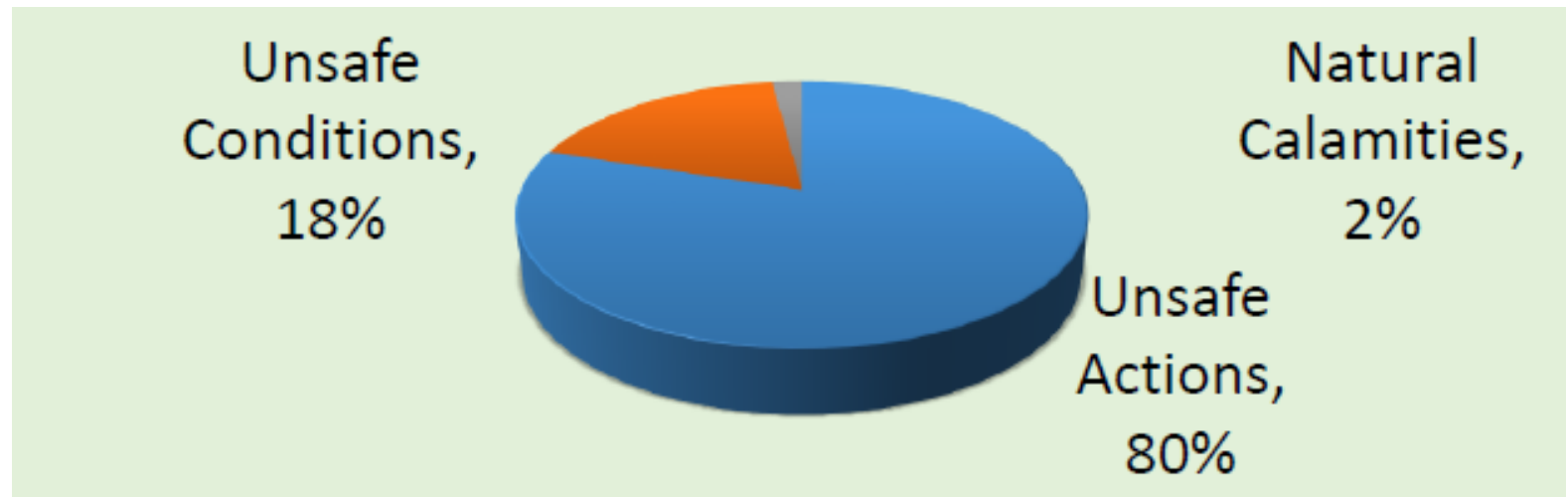
that cause accidents that **physically injure** workers. For example, many tall buildings that have glass windows, **require cleaners to hang from the rooftop to clean the glasses.** If the rope snaps, or if there is some other mistake, it can get fatal for the cleaner.

**Health hazards** that result in the development of some disease.

# Need for Health and Safety at Work

- **Understanding ‘Safety’**

**Accident** is an unplanned and undesired occurrence, which may or may not result in injury, or damage to self, others and/or property. Main causes of accidents are:



# Need for Health and Safety at Work

- **Understanding ‘Safety’**
  - **Safety** is freedom from accidents, injury or damage; it is a pro-active means to give protection from known dangers.
  - A safe workplace is free of risks and hazards.

# Need for Health and Safety at Work

- **Understanding ‘Safety’**
  - **Hazards** are the **potential to cause harm (accidents, injury or damage)** e.g. Naked wires
    - Heavy equipment and machines
    - Heat being generated in the computers, Servers, etc.
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    - Lifting heavy equipment in a wrong posture
    - Working in a non-temperature regulated environment with Technology that heats up
    - Using duplicate parts in IT equipment that could pose a safety threat

# **Need for Health and Safety at Work**

- **Common Safety Hazards**

- Some safety and health related hazards and how they can be controlled are as follows:

1. Surfaces/Places related Hazards & Risks
2. Equipment/items related Hazards & Risk
3. Materials & Chemical Hazards & Risks
4. Physical Hazards & Risks
5. Electrical Risks

# Need for Health and Safety at Work

## 1. Surfaces/Places related Hazards & Risks:

- Dirty, dusty and littered areas can lead to infections as well as accidents from slipping, tripping, etc.
- Wet/oily/soapy surfaces are can lead to accidents by slipping or falling and breaking of glassware.
- Working with wooden tables that have nails protruding on the surface.
- How to Control?
  - Keep the work area neat and tidy
  - Wet areas should be mopped and kept dry
  - Handling glassware properly
  - Precautions should be taken while dealing with surfaces with sharp or pointed edges or object protruding

# Need for Health and Safety at Work

## 2. Equipment/items related Hazards & Risk:

- Certain equipment used in the workplace like staplers, heavy laptops and computers, etc. which if not used carefully can cause physical hurt.
- How to Control?
  - Never use a tool to do a job for which it was not designed
  - Handling the equipment properly as required



# Need for Health and Safety at Work

## 3. Materials & Chemical Hazards & Risks:

- Cleaning chemicals used by housekeeping, kept in the washroom and housekeeping cabinets
- Solutions for cleaning IT equipment
- Pest control sprays, etc.

- **How to Control?**

- While using hazardous materials & chemicals ensure the following
  - Wear gloves, avoid skin coming into contact with the chemical
  - Keep the chemical away from eyes and nose
  - Never mix chemicals unless particularly advised by the product manufacturer
  - Do not ingest any chemical, if by mistake someone swallows some chemical see a doctor immediately.

# Need for Health and Safety at Work

## 3. Materials & Chemical Hazards & Risks:

– How to Control?

- Identify common warning signs associated with different types of hazardous materials



**Flammable materials**



**Toxic**



**Explosion risk**



**Corrosive**



**Biohazard**



**Radiation hazard**

# Need for Health and Safety at Work

## 4. Physical Hazards & Risks:

- Any obstruction at the entry/exits/blind turns could be dangerous in a time of emergency when people have to run in or out.
- Overstocked cupboards or shelves can be hazards as they can topple over anytime.
- Work may require lifting or moving heavy objects, which if not done properly can cause injury or aches.

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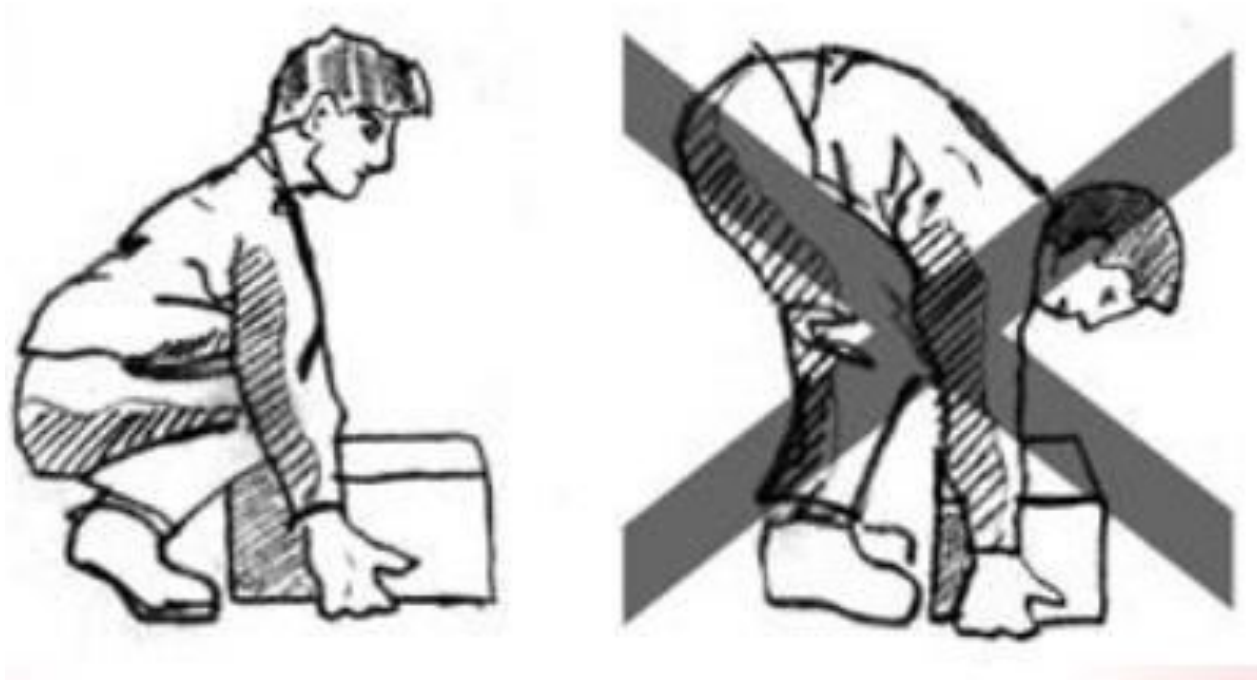
## 4. Physical Hazards & Risks:

### – How to control?

- Entry/exits/blind turns should be clear of obstructions/faults at all times.
- Cupboards and shelves should be neatly arranged, preferably supported by the wall or fixed on the floor.
- Warning signs should be placed if a physical hazard cannot be removed.
- Always try to use a machine or tool if required to lift a heavy object.
- If it is not possible then try to split the load and lift it in more than one turns. Can also take help.
- If one has to lift a heavy object, then follow right lifting practices while lifting or moving heavy objects.

# Need for Health and Safety at Work

- **4. Physical Hazards & Risks:**



# Need for Health and Safety at Work

## 4. Physical Hazards & Risks:

### WARNING SIGNS



**Danger – General**



**High voltage**



**Danger – Watch your step**



**Danger – Watch your step**



**Danger – Under construction**



**Danger – Watch your step**

# Need for Health and Safety at Work

## 5. Electrical Risks

- Electricity is an amazing thing when used properly, but can very easily hurt, harm and even fatally injury a person that comes in contact with it.
- Whenever one works with power tools or electrical circuits there is a risk of electrical hazards, especially electrical shock.
- **Electric Shock:** An electrical shock is received when electrical current passes through the body. One gets an electrical shock if:
  - touching a live wire and an electrical earth, or
  - touching a live wire and another wire at a different voltage.

# Need for Health and Safety at Work

## 5. Electrical Risks

### – Freeing a victim from electrocution

- The first person to reach a shocked worker should cut off the current if this can be done quickly.
- If this is not possible, the victim should be removed from contact with the charged equipment. Either the equipment/wire should be pulled away or the victim.
- **Bare hands should not be used**, use a dry board, dry rope, leather belt, coat, overalls or some other non-conductor.
- Be sure to stand on a non-conducting surface when pulling – dry rubber slippers, dry wooden board, etc..



# Identifying job hazards

- The following are the major steps to identifying and analyzing job hazards:

**Step 1-** Decide whether a job is to be **analyzed**

**Step 2- Break the job** down into a sequence of steps

**Step 3-** Identify the **potential hazards**

**Step 4- Hazard Mitigation**

# How to identify job hazards

- **Step 1-** Decide whether a job is to be analyzed, based on the following criteria:
  - Incident frequency and severity-
    - Jobs where incidents occur frequently, or where they occur infrequently but result in disabling injuries.
  - Potential for severe injuries or illness-
    - The consequences of the incident, hazardous conditions, or exposure to harmful substances are potentially severe.
  - Newly established jobs-
    - Due to lack of experience in these jobs, hazards may not be evident or anticipated.
  - Modified jobs-
    - New hazards may be associated with changes in job procedures.
  - Infrequently performed jobs-
    - Employees may be at greater risk when undertaking nonroutine jobs, and an analysis provides a means of reviewing hazards.

# How to identify job hazards

- **Step 2-** Break the job down into a sequence of steps.
  - Ensure that each step is not too specific, or too general.
  - Steps should be kept in the correct sequence. Document using the company template.
  - Make notes on what is done, rather than how it is done.

# How to identify job hazards

- **Step 3-** Identify the potential hazards. Based on observations of the job, knowledge of incident and injury causes, and personal experience, list the things that could go wrong at each step.
- The following is a list of questions that may be used to help identify potential hazards:
  - Can any body part get caught in or between objects?
  - Do tools, machines, or equipment present any hazards?

# How to identify job hazards

- The following is a list of questions that may be used to help identify potential hazards:
  - Can the worker make harmful contact with moving objects?
  - Can the worker slip, trip, or fall?
  - Can the worker suffer strain from lifting, pushing, or pulling?
  - Is the worker exposed to extreme heat, or cold?
  - Is excessive noise, or vibration a problem?
  - Is there a danger from falling objects?

# How to identify job hazards

- The following is a list of questions that may be used to help identify potential hazards:
  - Is lighting a problem?
  - Can weather conditions affect safety?
  - Is harmful radiation a possibility?
  - Can contact be made with hot, toxic, or caustic substances?
  - Are there dusts, fumes, mists, or vapors in the air?

# How to identify job hazards

- **Step 4- Hazard Mitigation-** Upon completion of the first three steps of the job hazard analysis, determine the appropriate controls to overcome the hazards.
- Elimination, substitution, isolation, engineering controls, administrative controls, and personal protective clothing and equipment.

# **Responsibilities w.r.t Health and Safety at Work**

- Complies with his organisation's current health, safety and security policies and procedures.
- Reports any identified breaches in health, safety and security policies and procedures to the designated person.
- Identifies and corrects any hazards that he can deal with safely, competently and within the limits of your authority.



# Responsibilities w.r.t Health and Safety at Work

- Reports any hazards that he is not competent to deal with to the relevant people in line with organisational procedures.
  - o Warns others who may be affected.
- Follows the emergency procedures promptly, calmly and efficiently.
- Identifies and recommends opportunities for improving health, safety and security to the designated person.
- Completes any health and safety records legibly and accurately.

# Responsibilities w.r.t Health and Safety at Work

- Coordinates with the appropriate people for his information needs.
- Is reliable; gets information from reliable sources
- Communicates with colleagues clearly, concisely and accurately.
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- Shares essential information on time.
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- Follows the company rules while analysing data.

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- Honours his commitments.
  - If for some reason, he is unable to carry out his promises, he informs in advance and suggests alternatives.
- Maintains good relationships with colleagues.
  - o Sorts out problems with them, if any.
  - o Shows respect for others.

# **Responsibilities w.r.t Health and Safety at Work**

- Follows the policies, procedures and culture of the organisation.
- Keeps abreast with the technological developments.
- Takes care of quality issues.
  - Maintains the data in the required formats
  - Keeps data up-to-date
  - Provides accurate information
  - Provides complete information
- Gives importance to the needs of the colleagues and responds to their feedback.

# How and when to report hazards

- After developing the ability to identify hazards, the Information Security Analyst should report them to his line manager, or the person assigned the responsibility in the company policy.
- This should be done immediately without any delay.

# How and when to report hazards

Work in groups and fill the following table based on whatever they have learnt so far.

Tasks	Sub Tasks	Performance Evaluation Criteria
5/10/2024	SCOPE,VIT	38

# Module-5

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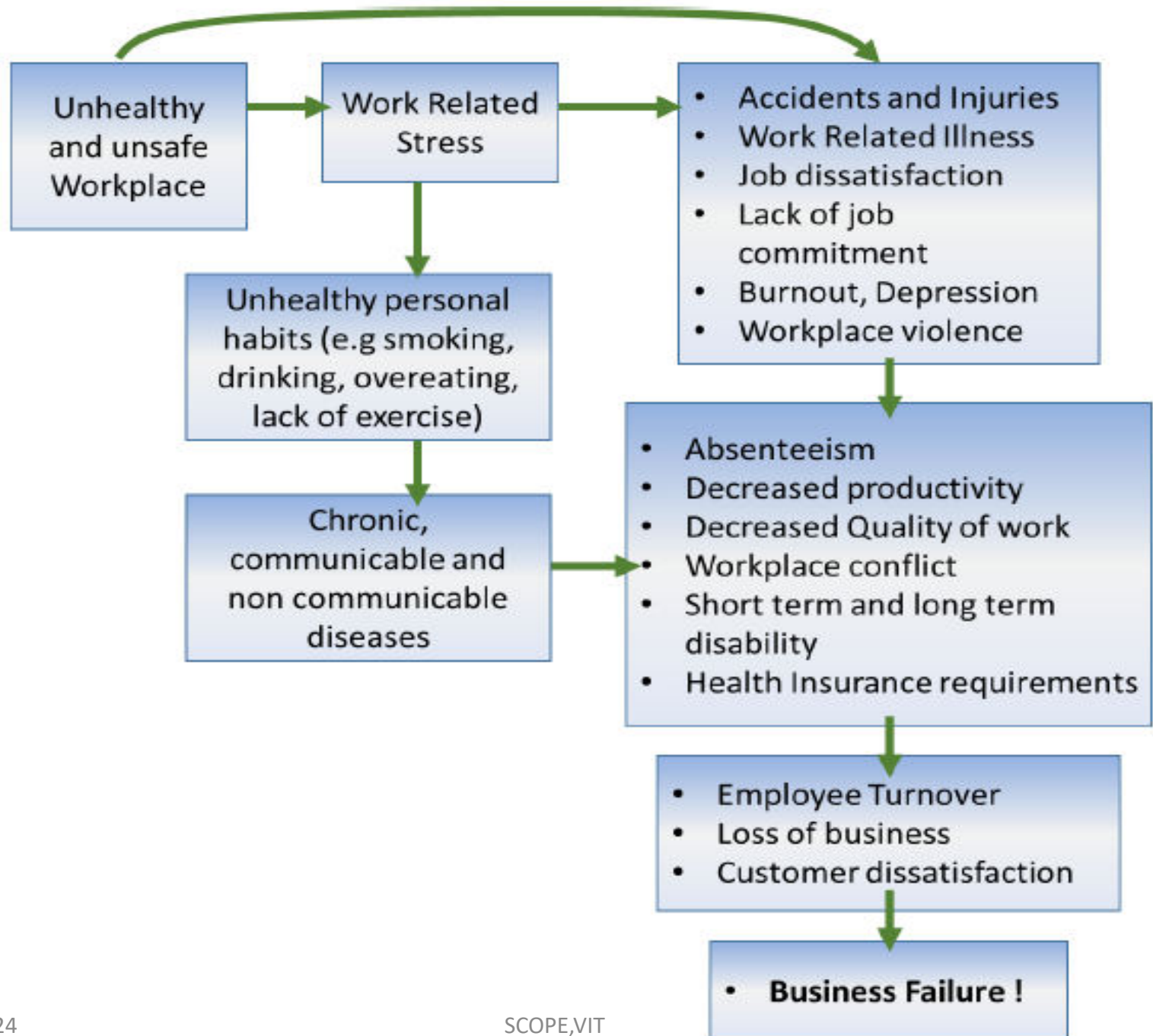
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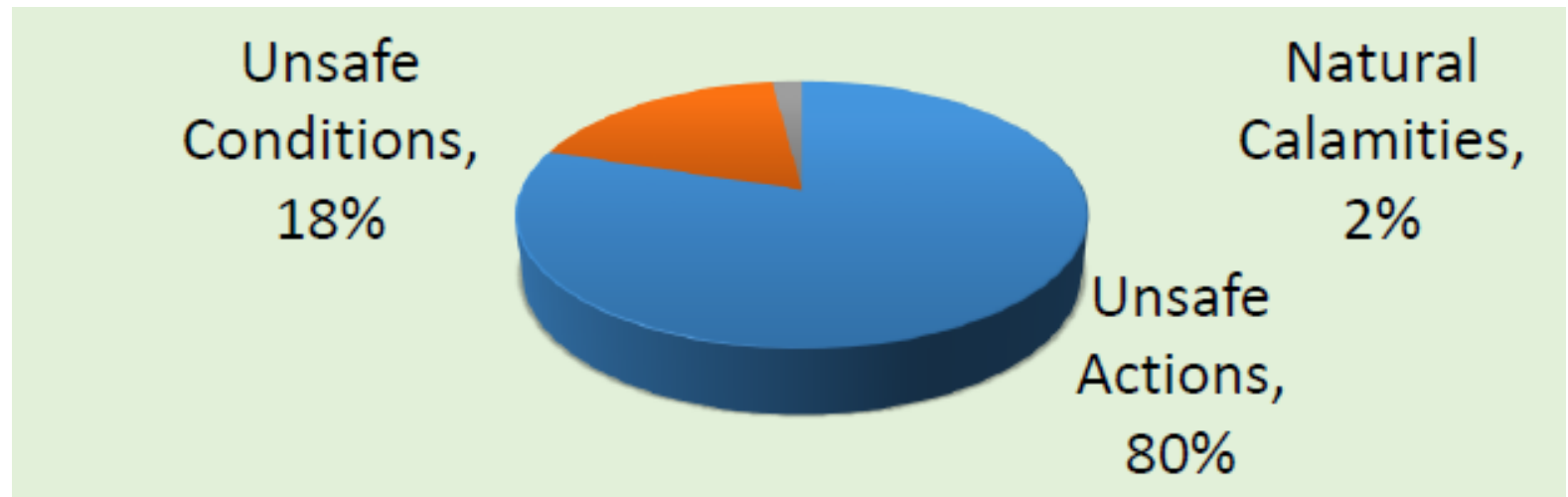
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## 3. Materials & Chemical Hazards & Risks:

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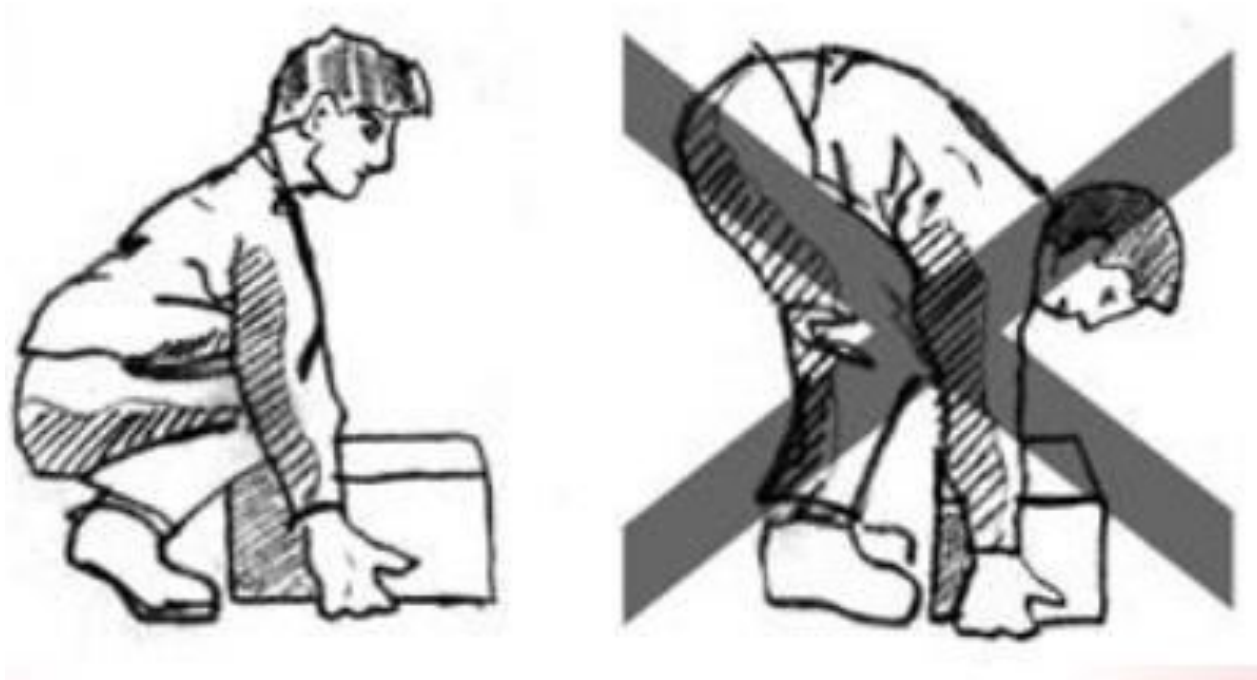
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# Need for Health and Safety at Work

- **4. Physical Hazards & Risks:**



# Need for Health and Safety at Work

## 4. Physical Hazards & Risks:

### WARNING SIGNS



**Danger – General**



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