

PREVENTION OF WORKPLACE INJURIES

Dr.Sudha Bala

Associate Professor

Department of Community Medicine





OUTLINE

Common causesPrevention strategies





COMMON CAUSES











GLOBAL SCENARIO

MODE OF INJURY- MOST COMMON COMMON OF OCCUPATIONAL INJURIES 3500 2500 No. OF OCCUPATIONAL INJURIES 3000 2000 2500 1500 2000 1000 1500 500 1000 0 500 Others Struck Dy Objectifi ft. 138 134 No. 0 Hand Eye Foot Head. Not Others Lower ~? MODE OF INJURY further extremities. not further specified specified

PARTS OF BODY INJURED

PARTS OF BODY INJURED- MOST





INDIAN STUDIES RESULTS

- Higher occurrence of injury in the 9 a.m. to 1 p.m. shift is an indicator of haste and anxiety.
- Days mostly on Mondays
- Lack of experience
- Contributing factors : Co-workers carelessness, machinery malfunction, unfamiliar machine, no protection, extra work, fatigue, lack of sleep, hurry, hunger, self carelessness.



Preventive Strategies నివారణ వ్యూహాలు

Internal multidisciplinary prevention team for risk monitoring assessment, and prevention of occupational injuries, involving employers, occupational physicians, safety personnel, workers' representatives, supervisors.



Targets of intervention were workers, equipment, organization, workplace, job tasks



PRIMARY PREVENTION ప్రాథమిక నివారణ

Health Promotion

Hazard Identification

Machinery is a major hazard at work..

8 out of 10 workplace fatalities and 1 in 4 workplace injuries involve mechanical equipment

Machine and equipment safety







DANGER AREAS



Typically, the following 2 areas on machinery are dangerous, and can be a risk to anyone near the machine:

Parts which move or transmit power Parts that do the work





Make sure machine guards are in place!!



- All guards should be correctly and securely fitted *BEFORE* operating a machine
- Machine guarding is vital to every workplace using machinery
- Guards need not be complicated nor interfere with productivity



ASSESS THE RISKS



Once you have identified the danger areas (hazards), you should *assess* the risk (how likely it is to cause injury, and how severe the injury could be)

...and *control* these risks by guarding or in some other effective way

Complete the following chart to determine the level of risk for each hazard identified





THE RI

never will

HE RISK	PRIORITY	CHANT		सामारिज सामारिज
PROBABILITY : what is the likelihood of it happening?	CONSEQUENCE CATASTROPHIC kills, disables, permanently injures	E: how severely could it MAJOR significantly injures, NOT permanently	t hurt someone? MINOR first aid only, no work time lost	8 Fren
VERY LIKELY: it could happen	1	2	3	
LIKELY: it could happen occasionally	2	3	4	
UNLIKELY: it could happen, although uncommon	3	4	5	
VERY UNLIKELY: it could happen, although probably	4	5	6	

- If you score a 1 or 2, do something <u>NOW</u>.
- If you score a 3 or 4, plan to do something soon.
- If you score a 5 or 6, plan to review the risk in the future.



SECURITY

SPECIFIC PROTECTION: CONTROL THE RISK



Select **Risk Control** measures from the highest possible level of the following **Hierarchy**:

Elimination
Substitution
Engineering Controls

4. Administrative controls

5. Personal protective equipment



t E				
ELIMINATION	SUBSTITUTION	ENGINEERING	ADMINISTRATION	PPE
EXAMPLES:	EXAMPLES:	EXAMPLES:	EXAMPLES:	EXAMPLES:
Work scheduled to avoid the hottest part of the day Eliminating hazadrous materials	Substitution of eliminated hazards The use of a less hazardous material or process	Using lift device to limit force exertion Reducing the weight of a load to limit force exertion	Safety check cards for all employees posted Rotating workers from a demanding job to a less demanding one	Providing personal protective equipment for workers: Hard hats, protective shoes, and safety glasses
Eliminating hazardous machinery	The use of safer chemicals upon elimination	Fall protection for wokrer's at height	Providing water and using floaters to provide workers with periodic breaks	Using padding to avoid sharp, hot, and vibrating surfaces



EMERGENCY PREPAREDNESS







SAFETY TRAINING AND EDUCATION

- Regular trainings on safety procedures and proper use of equipment
- Conduct safety drills
- New entries- comprehensive study orientation/refresher courses
- Health wellness programs(chronic co-morbidities)





ERGONOMICS

- Design workstations to reduce strain and improve posture
- Rotate tasks to minimize repetitive strain injuries
- Provide ergonomic tools and equipment







REPORT AND MONITORING

Safety audits

Maintain OSHA

standards

WORKPLACE SAFETY AUDIT AND INSPECTION CHECKLIST HR TEMPLATE

Enhance workplace safety with our streamlined HR checklist template.

YOUR	Company Address Company Email Company Website Company Number	WORKPLACE SAFETY AUDIT	AND INSPECTION CHECKLIST		
General Information		1. General Safety	5. Electrical Selety		
Department / Location	Location 1	Emergency exits are clearly marked, unobstructed, and easily accessible.	Electrical outlets, cords, and wiring are in good condition without visible damage.		
Date of Inspection	November 21, 2023	Fire extinguishers are present, properly charged, and in designated locations.	Circuit breakers and electrical panels are accessible and labeled.		
	Inspector 1	First aid kits are available, adequately stocked, and accessible.	Employees are trained in electrical safety procedures and use of equipment		
Inspectors	Inspector 2	Safety signs and warnings are visible and appropriately placed.			
	Inspector 3	Work areas are clean, organized, and free from dutter	6. Ergonomies		
	Area 1		Workstations are ergonomically designed to prevent strain or injury.		
Areas Inspected	Area 2	2. Personal Protective Equipment (PPE)	Employees are encouraged to take breaks and practice ergonomic principles		
	Area 3	Employees are using required PPE (helmets, gloves, goggles, etc.) as necessary.	Adequate training is provided on ergonomic best practices.		
		Adequate supplies of PPE are available and in good condition.			
Instructions		Employees are trained on the proper use and maintenance of PPE.	7. Worksite Security		
Please check each item a	nd indicate compliance or non-compliance.		Access controls (ID cards, locks, etc.) are in place and functioning properly.		
Note any observations or additional comments in the space provided.		3. Hazardous Materials Handling	Security cameras and alarms are operational and monitored effectively.		
Use "N/A" if the item is no	applicable to your workplace	Hazardous substances are properly labeled and stored in designated areas.	Emergency response plans are regularly reviewed and communicated to employees		
		Material Safety Data Sheets (MSDS) are readily accessible for all hazardous materials.			
		Employees handling hazardous materials have received appropriate training.	8. Observations/Additional Comments		
Signatories					
Inspectors:	Signatures Here:	4. Machinery and Equipment Safety			
Inspector 1		Machines and equipment are property guarded and have safety features in place.			
Inspector 2		Regular maintenance and servicing schedules are followed for machinery.			
Inspector 3		Lockout/tagout procedures are implemented during equipment maintenance.			





SECONDARY PREVENTION බර්ධාන කර්ස Early diagnosis and Treatment









TERTIARY PREVENTIONతృతీయ నివారణ

Disability limitation and Rehabilitation





OCCUPATIONAL HEALTH CLINIC-ESICMCH

- Started from 24th Feb. 2023 under the department of Community medicine
- Objectives: Establishing occupational health surveillance system



		Format to report Dept. of Commun	Suspected Occupational nity Medicine, ESIC Medic	Disease/illness/injury al College, Hyderabad		समा कराः	.बी.f
Name of the re	porting department:		Date of Reporting:			ES	
	<u>Şl</u> no	1	2	3	4	5 अरक्षा	∕∖s
Personal	Date of registration	14					-
	ESIC IP Number						
	Patient Phone Number						
acturis	Name						
	Age						
	Sex						
	Name of Work place (Employee)						
	Job title						
Work details	Where did the event occur (site)						
	Describe the illness/injury/part of body affected						
Outcome or	Death						
advice	Admitted in hospital						
(Tick one	On Leave						
most appropriate option)	Job transfer or restricted work						
	Injury						
jury or Type	Skin						
of illness/system involved (Tick most	Respiratory						
	ENT/hearing loss						
	Chemical exposure/poisoning						
option/s)	Eye injury						
	Others						
	Provisional diagnosis						



11

RESEARCH AND FUTURE STUDIES-DEPT OF PLASTIC AND RECONSTRUCTIVE SURGERY



QUESTIONNAIRE

		1. History of (Occupational Inju	ry				
Age								
Gender	Male			Female				
Education	Literate				Illiterate			
Occupation	Skilled				Non Skilled			
	Professional	Machine C	Ma	nual Material Han	dler			
Source of injury	Machine			Other sources				
Mechanism of Injury	Hand caught inside the machine				Other mechanism			
Hand activity at time of injury	Working on machine	Handling objects	Working on powered tool		Working on non-powered too			
		2. Clinical Inf	formation of Patie	nt				
Hand affected	Dominant				Non Dominant			
Injury involving hand	Finger	Palm	Dorsum		Wrist			
Digit Involved	Little	Ring		Middle	Index	Thumb		
Radiological evidence of fracture	Yes			No				
Cause of occupational injury	Lack of concentration (Overtime)	Wearing ill-fitted gloves	Lack of machine maintenance		Workers Chronic Disease (co-morbidities/addictions)			







