

HSE ALERT - 013

Injury Prevention

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For more information refer to GSEC website to get the latest updates
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1.0 Purpose

- **Creating a safe and hygiene work environment will lead to immense staff job satisfaction and Business Success!**

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2.0 Scope

Management commitment and support to recognize outstanding safety performing employee. Safety is a core business and personal value. Constant and broad based communications needed. A strong operating discipline through standards, procedures and compliance is necessary. Frequent management safety meeting (monthly) is required for team building and group safety audits is necessary for felt leadership.

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3.0 Safety Attributes

- The common themes in an ideal injury prevention management
- All staffs comply with Safety Rules & Regulation
- All staffs continuously search for safety Hazards
- All staffs take initiative to correct Safety Hazards as a first priority
- All staffs are eager to participate in Safety related activities
- All safety related issues are Communicated and addressed immediately. Fear of reprimand or discipline does not inhibit discussions

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3.0 Safety Attributes

- Safety incidents are viewed as an opportunity to identify system failures and therefore improve the system
- Participation in safety-related activities is promoted and encouraged through respect and positive recognition
- Training systems result in all staffs having the needed knowledge, skills and abilities to perform their jobs safely
- All business activities are managed with a constant focus on injury prevention and occupational health
- All staffs do not consider taking unnecessary risks
- Peer pressure acts toward, rather than against safety

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4.0 Injury Concepts

- *Injuries have causes – they don't simply befall us from fate or bad luck.*
- *To prevent injuries it is necessary to have information about the factors that contribute to their occurrence*

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- *The common belief is that "risk of injury is so great, hence most people sustain a significant injury at some time during their lives... it is simply unavoidable"!*
- *But remember the basics: All injuries can be prevented*

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5.0 Definition

- *Unintentional Injuries are related to unsafe acts, unsafe conditions or unsafe behaviour; (e.g PPE violations, trips, slips, falls, fires, splashes, poisonings vehicle crashes including those involving pedestrians, non compliance to rules and regulations)*

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6.0 Injury Statistics

Are those related to ones diligent act:
(eg – suicide, Homicide, work place violence, deliberate defiance & family violence)

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- About 400 people die from injuries each day, including 55 children and teenagers. One death out of every 17 in the US results from injury
- Of these deaths 67% are classified as unintentional and 33% as intentional
- Unintentional injury deaths include approximately 42,000 resulting from accidents per year
- In 1997, Injuries accounted for 20% more years of potential life lost (YPPL) than cancer did (1,990/100,000 compared to 1,500/100,000)

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7.0 Injury Causation Model

- The Epidemiological Triad of injury causation can be explained in terms of the epidemiological triangle
- Injury causation is the result of the interaction between three broad types of factors - host factors, environment factors, and force/vector factors

```

graph TD
    Host["Host (Human Factor)  
i.e susceptibility, exposure, experience, gender etc."]
    Agent["Agent (Force or Vector)  
i.e energy & it's channels, eg. electricity - electrical pressure, mechanical - motion, vehicular, chemical reactions, radiations, wind etc."]
    Env["Environment (Physical / Socio Cultural)  
i.e buildings, roads, construction work site, process plant etc."]
    Host --- INJURY((INJURY))
    Agent --- INJURY
    Env --- INJURY
    
```

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Pre-Event	Event	Post-Event
<ul style="list-style-type: none"> Age Sex Trainings Culture 	<ul style="list-style-type: none"> Hand Injury (Work Site) 	<ul style="list-style-type: none"> Eng. / Design Education / Trainings Legislation / Penalty
<ul style="list-style-type: none"> Age Sex Trainings Culture 	<ul style="list-style-type: none"> Body Injury (Work Site) 	<ul style="list-style-type: none"> Eng. / Design Education / Trainings Legislation / Penalty

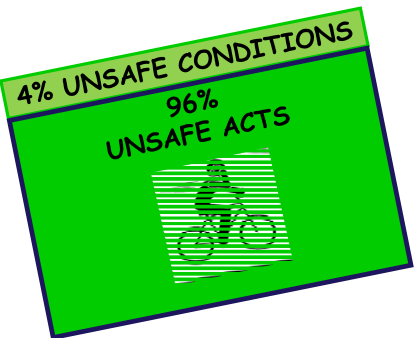
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- **8.0 Injury Prevention**



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The 'agent' (force or vector) of injury is energy. Energy, an in injury causation is equivalent to bacteria in infectious diseases, the latter being the agent which causes the harm done by a disease to the human body

The role of the vehicle or vector is to transfer the energy to the body

The definition of injury used by safety professionals, conveys the concept of energy as the agent of injury

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- Nevertheless, this widespread human damage too often is taken for granted, in the erroneous belief that *injuries happen by chance and are the result of unpreventable accidents*
- *In fact, many injuries are not accidents, or random, uncontrollable acts of fate; rather, all injuries are predictable and preventable. We aim for "Zero" injuries.*

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- More persons aged 1 to 34 years die as a result of unintentional injuries than any other cause of death.
Across all ages, 95,644 people died in 1997 as a result of unintentional injuries (US statistics)
- Motor vehicle crashes account for approximately half the deaths from unintentional injuries; other unintentional Injuries rank second, and falls rank third, followed by poisonings, suffocations, drowning & blindness

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- Additional millions of persons are incapacitated by unintentional injuries, with many suffering lifelong disabilities
- These events occur disproportionately among the young and the elderly, In 1995, 29 million persons visited Emergency departments as a result of unintentional injuries.

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- Although the greatest impact of injury is in human suffering and loss of life, the financial cost is staggering. Ask anyone who is on a prosthetic limb and they will tell you their ordeal
- Included in the costs associated with injuries are the costs of direct medical care and rehabilitation as well as lost income and productivity.

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- As with other health problems, it costs far less to prevent injuries than to treat them

For example (daily cost savings):

- Every child safety seat saves \$85 in direct, medical costs and an additional \$1,275 in other costs
- Every bicycle helmet saves \$395 in dire medical costs and other costs
- Every smoke detector saves \$35 in direct medical costs and an additional \$865 in other costs
- Every dollar spent on poison control / prevention program saves \$6.50 in medical costs

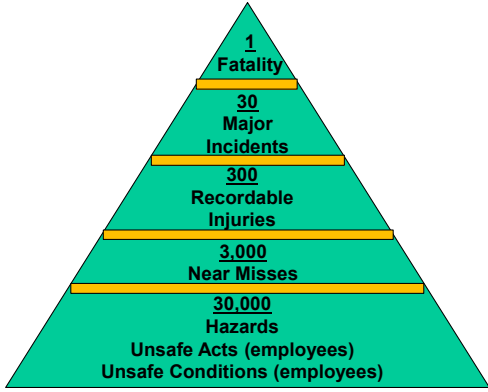
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**1
Fatality**

**30
Major
Incidents**


**300
Recordable
Injuries**

**3,000
Near Misses**

**30,000
Hazards
Unsafe Acts (employees)
Unsafe Conditions (employees)**

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Thank You for Working Safely

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