

# Occupational Health

Dr Mustafa Waheed Khawaja

MBBS , MPH.

Department of Public Health & Research ,  
Khyber Girls Medical College Peshawar

# Occupational Health

- **Definition** : Occupational health is the promotion and maintenance of the highest degree of
- Physical
- Mental
- Social well being, of workers in all occupation

# Occupational Health

These Includes :

- Prevention of workers from Departure of health
- Protection of worker in their employment.
- Placing and maintance of the workers in an occupational environment .
- The adaption of work to man and man to his job.

# Ergonomics

Greek word

Ergon → Work

Nomos → Law

Definition : The “law of Work”

OR

“Science of Work”.

Fitting the Right person for the Right job

# Occupational Hazards

**Definition** : Sources or Situation with a potential for harm in term of ,

Injury or ill health ,

Damage to Property ,

Damage to Work Place Environment

**OR**

Combination of All.

# Occupational Hazards

## Types of Occupational Hazards

- a) Physical
- b) Chemical
- c) Biological
- d) Mechanical
- e) Psychosocial
- f) Animal

# Physical Hazards

Examples of physical hazard.

Occupational Safety & Health  
Training & Consulting

		
Noise	Vibration	Heat
	etc...	

# Physical Hazards

Physical Hazards Includes :

- ✓ Heat
- ✓ Cold
- ✓ Light
- ✓ Pressure
- ✓ Noise
- ✓ Radiation
- ✓ Mechanical factors
- ✓ Electricity
- ✓ Vibrations



# Physical Hazards

## Heat

Cause : Steel and Glass Industries , Mines etc.

## Includes :

- ✓ Burn Injury
- ✓ Heat Syncope
- ✓ Heat Cramps
- ✓ Heat Hyper pyrexia
- ✓ Heat Exhaustion
- ✓ Heat Strokes.

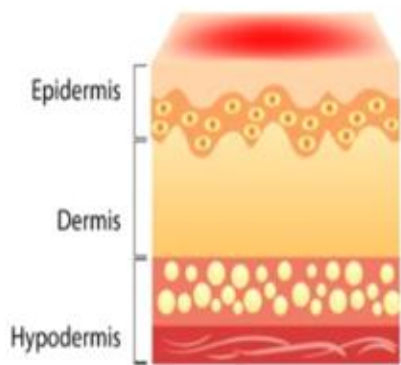


# Physical Hazards

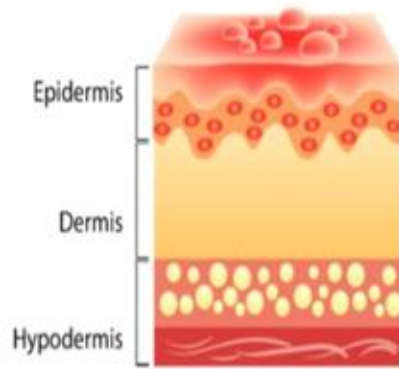
## 1) Burn Injury:



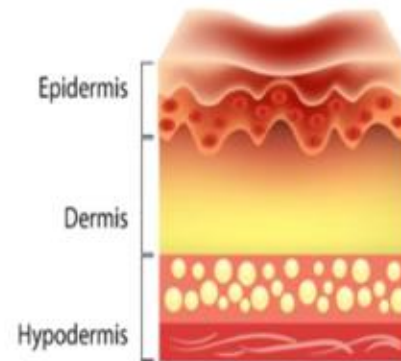
- ✓ **Cause** : Due to injury of skin and other organic tissue primarily cause by heat or due to radiation .
- ✓ **Complication** : Infection
- ✓ **Types** : 1<sup>st</sup> , 2<sup>nd</sup> , 3<sup>rd</sup> and 4<sup>th</sup> .
- ✓ **Treatment** : Depends upon the severity.



First-degree Burn



Second-degree Burn



Third-degree Burn

# Physical Hazards

## Heat Syncope :



- ✓ **Cause** : Impaired of heat Regulation mechanism
- ✓ **Temp** : Body Temperature gets above 39degree centigrade
- ✓ **Symptoms** : Dry hot skin but sweating occurs
- ✓ **Treatment** : Sit in cool place and slowly drink water and maintain the fluid status of the patient

# Physical Hazards



## Physical Exhaustion :

- ✓ **Cause** : Salt and Water Imbalance
- ✓ **Body Temp** : <40.5 degree centigrade
- ✓ **Skin** : Moist Skin
- ✓ **Sweating** : Sweating is present
- ✓ **Treatment** : Salts and water replacement

# Physical Hazards



## Heat stroke :

- ✓ **Cause** : Failure of heat regulation of body
- ✓ **Body Temperature** :  $>40.5$  degree centigrade
- ✓ **Skin** : Dry hot skin and no sweating
- ✓ **Treatment** : Rapid cooling



# Physical Hazards

## (Cold)

- Trench foot :
- **Cause** : Wet foot ,
- Occurs due to impression of foot in cold water / snow .
- **Symptoms** :Swelling and paleness of foot



# Occupational Health

Frost bite : Freezing of the tissue

## Stages :

- ✓ Frost nip
- ✓ Superficial frostbite
- ✓ Deep frost bite



**Treatment :** Re-warm to 42centigrade for 20-30mins



# Physical Hazards

## Noise :

Auditory effect : Hearing Loss , Occupational Deafness .

Non Auditory Effect : Interference in Communication .



# Physical Hazards

- Light :

**Cause** : Poor Illumination or excessive glare

- **Diseases** : Occupational Cataract , Miner's nystagamus , refractive errors etc.

Pressure : Air Embolism , calsson Disease

# Physical Hazards

## Radiation :

- ✓ UltraVoilet Radiaton: Welder's Flash
- ✓ Ionizzing Radiation : X-rays , sterility
- ✓ Others : Cancer , Leukemia , A plastic Anemia.

# Physical Hazards

- Mechanical Hazards :
- Injuries and Accident

Electricity: Burns

- Vibrations :
- White Finger (drillers) – after prolong exposure to vibrations fine blood vessels are extremely sensitive to spasm .

# Physical hazards

## Prevention of physical Hazards

- ✓ Reduce noises.
- ✓ Reduce vibrations present in the workplace.
- ✓ Improve working conditions.
- ✓ Place barriers between employees and physical hazards such as radiation or microwaves.
- ✓ Provide proper ventilation and air conditioning for employees.
- ✓ Insulate any surfaces that could be prone to extremes in temperature

# Physical Hazard

