

OCCUPATIONAL HEALTH

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Occupation Health Program &
Occupational Health Services

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
السلام عليكم ورحمة الله وبركاته

Activities of Occupation Health Program & Occupational Health Services



- ~~1- Maintenance of healthful work environment~~
- ~~2- Diagnosis and treatment of OD~~
- ~~3- Promotion of workers' health.~~
- 4- Prevention of occupational health hazards.**
- 5- Control of occupational health hazards.
- 6- Rehabilitation and compensation.
- 7- Provide special care for vulnerable groups
- 8- Keep good health recording system

4- Prevention of occupational health hazards.

a) Medical prevention:

- i. : Pre-employment medical examination
- ii. Pre-placement examination:
- iii. Periodic medical examination
- iv. Health education
- v. Immunization of workers and chemoprophylaxi

b) Engineering prevention

c) Hygienic prevention

Cont. ..Prevention of occupational health hazards

Prevention of occupational health hazards

a) Medical prevention:

b) Engineering prevention:

Hygienic prevention

b) **Engineering prevention:** through:-

1. **Mechanization** of heavy work process to lighten the physical strain.

2. **Substitution** of hazardous substance or operation, by non hazardous one

3. **Enclosure:**
machine guarding

4. **Isolation:**
isolation of hazardous process inside the work place (*radiation*).

5. **Good ventilation:**

- i. by fans to increase air movement or
- ii. by exhaust system for suction of hazardous gases or
- iii. dust to be collected in a special disposal system



Prevention of occupational health hazards

Prevention of occupational health hazards

a) Medical prevention:

b) **Engineering prevention:**

Hygienic prevention

Engineering prevention Cont. ..



6. Segregation

of hazardous process away from work places

7. **Good lighting** and **control of other physical hazards** at workplace as heat, noise and radiation.

8. **Assurance of Ergonomics** at work place:

- a. to adapt the work situation to physical capabilities of the worker
- b. to prevent loss of effort and time and
- c. to prevent development of **accidents** and
- d. to prevent development **musculo-skeletal disorders**

c) Hygienic prevention: through:-

- ❖ Providing good sanitary facilities as washing, changing clothes before and after work, skin and mouth hygiene.
- ❖ Supplying Personal protective equipment(PPE) as respirators, protective clothes, and ear muffs or plugs.
- ❖ Work environment **monitoring** for **detection** and **evaluation** of environmental pollutants,
 - **threshold limit value (TLV)** of a chemical substance.
- ❖ Ensuring that work legislations are **applied as**:
 - work and rest hours,
 - setting rules for **employment of women** and children and
 - investigation for detection of the cause of **workers' absenteeism**.



- 1-Maintenance of healthful work environment
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- 6- Rehabilitation and compensation.
- 7- Provide special care for vulnerable groups
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5- Control of occupational health hazards:

- ❖ It includes **early detection** of OD
- ❖ and **early treatment** through the following measures:

A- Pre-placement medical examination

B- Periodic medical examination:



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6- Rehabilitation and compensation of the disabled workers.

- 1- Maintenance of healthful work environment
- 2- Diagnosis and treatment of OD
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- 5- Control of occupational health hazards.
- 6- **Rehabilitation and compensation.**
- 7- Provide special care for vulnerable groups
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Rehabilitation of disabled workers **aims to:**

- **Minimize** or prevent the disability.
- **Retraining the disabled** worker for a new job suitable for his new physical and mental capacities.
- **Compensation** of the disabled workers **after evaluation of the disability** resulted from occupational disease or accident and giving him some privileges.

Rehabilitation types include: ➔



Rehabilitation types include:



A- Psychosocial services :تأهيل نفسي وإجتماعي

Family counseling.

Social, psychiatric and recreation services.

All these tasks are carried by **psychologist and psychiatrist**

B- Medical services :تأهيل طبي

- **Diagnosis**
- **Treatment**
- **Follow up**

All these tasks are carried by **industrial doctor**.

C- Vocational services :تأهيل مهني

- **Vocational assessment and attitude exploration**
- **Vocational training.**
- **Placement in a suitable job.**

Occupational Health Services

Promotion of workers' health.

Prevention of occupational health hazards.

Control of occupational health hazards.

Rehabilitation and compensation of the disabled workers.

-Provide special care for vulnerable groups of workers

Keep good health recording system

7-Provide Special Care For Vulnerable Groups of Workers:

Namely women and children.

This can be achieved through the following measures:

- 1) Selection of **suitable jobs** that match with their capacities.
- 2) **Pre-placement in another** job when **woman get pregnant**.
- 3) **Proper M.C.H** care for pregnant females.
- 4) Make sure of the **application of certain laws** for employment of **working women and children namely:**

- no night shift,
- limitation of working hours,
- paid leave for infant care and
- **Prohibition from working in certain hazardous jobs.**



6- Keep Good Health Recording System:

Medical records:

- ❖ It is very important that **good medical record system is maintained in any occupational health** program.
- ❖ Every employee should have an **accurate & complete medical report** from the time **of his first employment** examination.
- ❖ The records must **be detailed enough** to provide adequate information for **job placement health maintenance workmen's compensation and rehabilitation** .

Health record is the seeing eye of the industrial physician and industrial health team.

It should include,



It should include,

Medical records:

- personal data,
- data of pre-employment,
- periodical examination,
- history of exposures and
- diseases (occupational and non-occupational),
- history of accidents,
- sick absenteeism, retirement, clinical exam
- any previous immunization taken



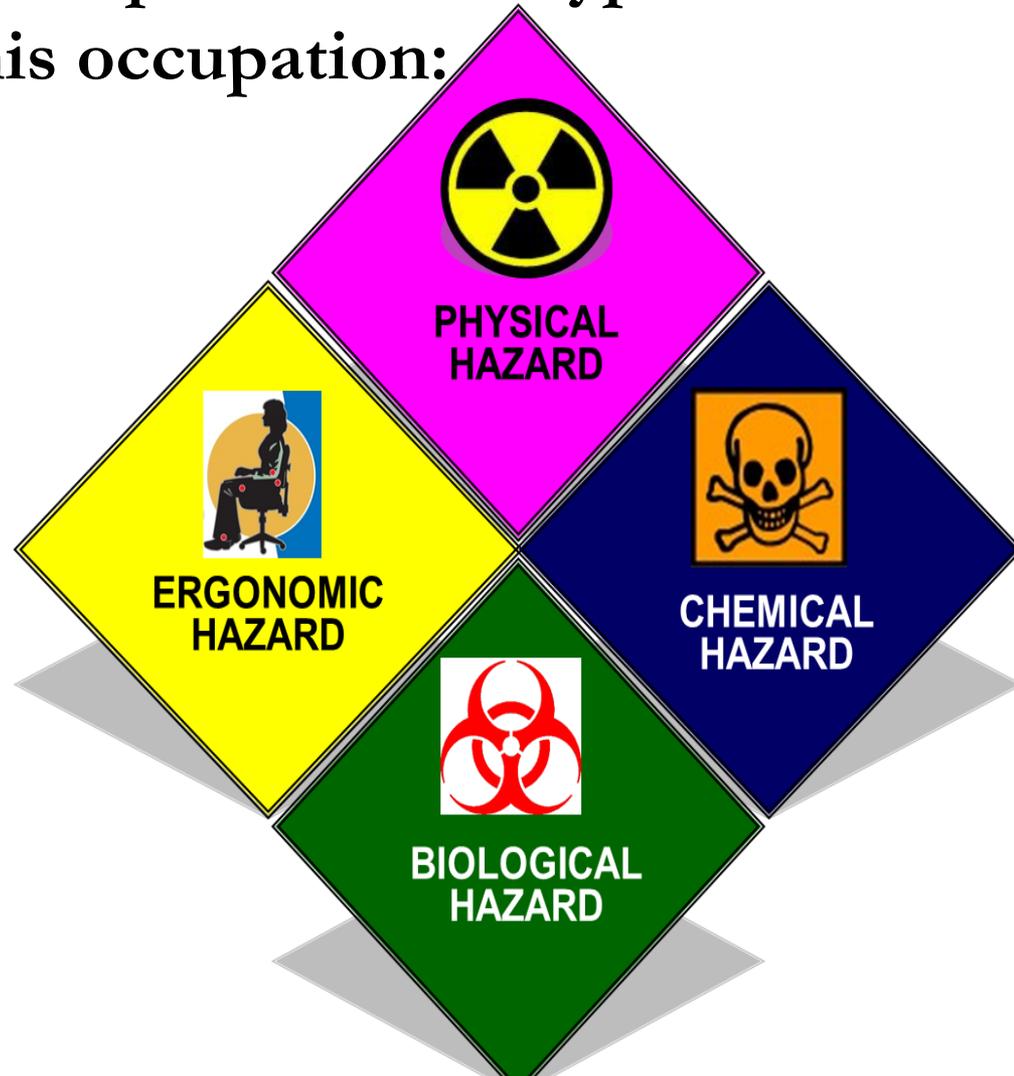
Value of keeping and analyzing health records:

- ✓ · Basic data for statistical analysis.
- ✓ · Help to know morbidity and mortality rates.
- ✓ · Help to **see trends in** health and disease.
- ✓ · Help to identify plant areas of **high accidents**, sick **absenteeism** and **occupational disease**.
- ✓ · Help in planning and **evaluation** of industrial health program.

OCCUPATIONAL HAZARDS

An industrial worker may be exposed to five types of hazards, depending upon his occupation:

- (a) **Physical hazards**
- (b) **Chemical hazards**
- (c) **Biological hazards**
- (d) **Mechanical hazards**
- (e) **Psychosocial hazards.**



Psycho-social hazards

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Psychosocial hazards



The psychosocial hazards arise from the workers failure to adapt to an alien psychosocial environment.

- Frustration,
- lack of job satisfaction,
- insecurity,
- poor human relationships
- emotional tension

are some of **the psychosocial factors** which may undermine both **physical** and **mental** health of the workers.

□ The **capacity** to adapt to different working environments is *influenced by many factors such as ;*

- *Education,*
- *Cultural* background,
- Family Life,
- Social habits, and
- what the worker expects from employment.



- ❑ Reports from various parts of the world indicate that;
- ❖ **Physical factors** (*heat, noise, poor lighting*) also play a major role in adding to or **precipitating** mental disorders among workers.
- ❖ The **increasing stress** on automation, **electronic operations** and **nuclear energy** may introduce **newer psychosocial health** problems in industry.
- ❑ **Psychosocial hazards are therefore**, assuming, **more importance** than physical or chemical
- ❑ For some decades, there has been growing **concern about the causes and health consequences of psychosocial risks**, particularly **in industrialized** countries
- ❑ **Psychosocial risks** are being increasingly recognized as
- **major public health concerns in industrialized countries.**



❖ However, due to processes of **globalization** and changes in the nature of work, **these risks** are **not limited to the developed world and, only recently in developing countries**

Along with existing difficulties in controlling

- a lack of awareness of psychosocial risks and
- shortage of resources to deal with them

in
developing
countries.

The health effects can be classified in Two Main categories:

(a) **Psychological and behavioural** changes :

including ; *hostility, aggressiveness, anxiety, depression, tardiness* تأخر, *alcoholism, drug abuse, sickness, absenteeism;*

(b) **Psychosomatic ill** health :

including : *fatigue, headache; pain in the shoulders, neck & back; propensity to peptic ulcer, hypertension, heart disease and rapid aging*

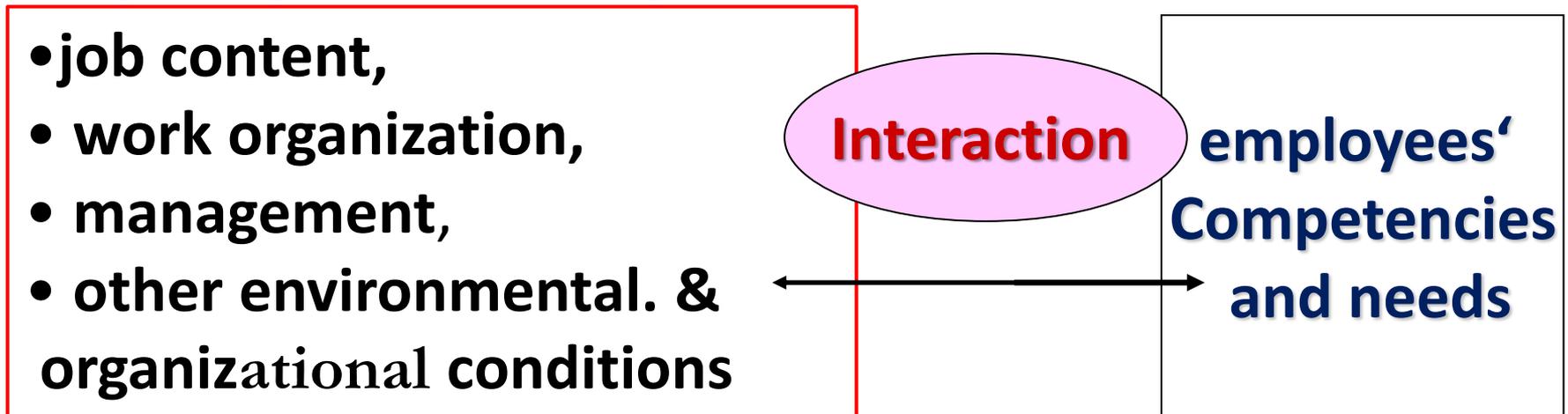
Psycho-social hazards at workplace



Definition:

defined in terms of **interactions** among **job content**, **work organization** and **management**, and **other environmental and organizational conditions**, **on the one hand**, and the **employees' competencies and needs on the other**.

As such, they refer to those **interactions** that prove to have a **hazardous influence** over employees' health through their **perceptions and experience**.



Psycho-social hazards at workplace Cont.

❑ **Psychosocial risks** at the workplace have been identified as **significant emerging risks**.

❑ **Linked to psychosocial risks, issues as:**

➤ **Work-related stress**

➤ **Workplace violence**

Both issues are **widely recognized as major challenges** to occupational health and safety



Psychosocial risks go hand in hand with the experience of **work-related stress**.



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Work related stress

Work related stress



Introduction:

- ❖ **Workplace stress** is an **epidemic** that has hit the workplace in the current era of **high technology**.
- ❖ **Managers must prevent stress** from affecting their workers as it is **very costly** to correct the situation later
- ❖ It is capable of **reducing productivity** resulting in the
- ✓ **decline of the performance** of their workers.
- ❖ **Implementing an effective strategy**
- ✓ will prevent organizations from bearing ,losses and
- ✓ will enable **workers to enjoy** a healthy, harmonious and
- ✓ quality life.
- ✓ Furthermore it will **enhance the productivity** of the workers and organizations

Work related stress

As health is not merely the absence of disease or infirmity but a positive state of complete physical, mental and social well-being (WHO, 1948),

A healthy working environment is one in which there is **not only an absence of harmful conditions but an abundance of health-promoting ones.**

❑ Stress occurs in a wide range of work circumstances but is **often made worse when employees feel:**

➤ They **have little support** from supervisors and colleagues,

➤ **Little control** over work processes.

❖ There is often confusion between

➤ **pressure** or challenge and

➤ **stress**



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Pressure at the workplace is **unavoidable** due to the demands



- ❑ **Pressure** at the workplace is **unavoidable** due to the demands of the modern work environment.
- ❑ **Pressure** perceived as **acceptable** by an individual, may even **keep workers alert, motivated** able to **work & learn**, depending on the available resources and personal characteristics
- ❑ However, when that **pressure becomes excessive** or otherwise **unmanageable** it **leads to stress**.

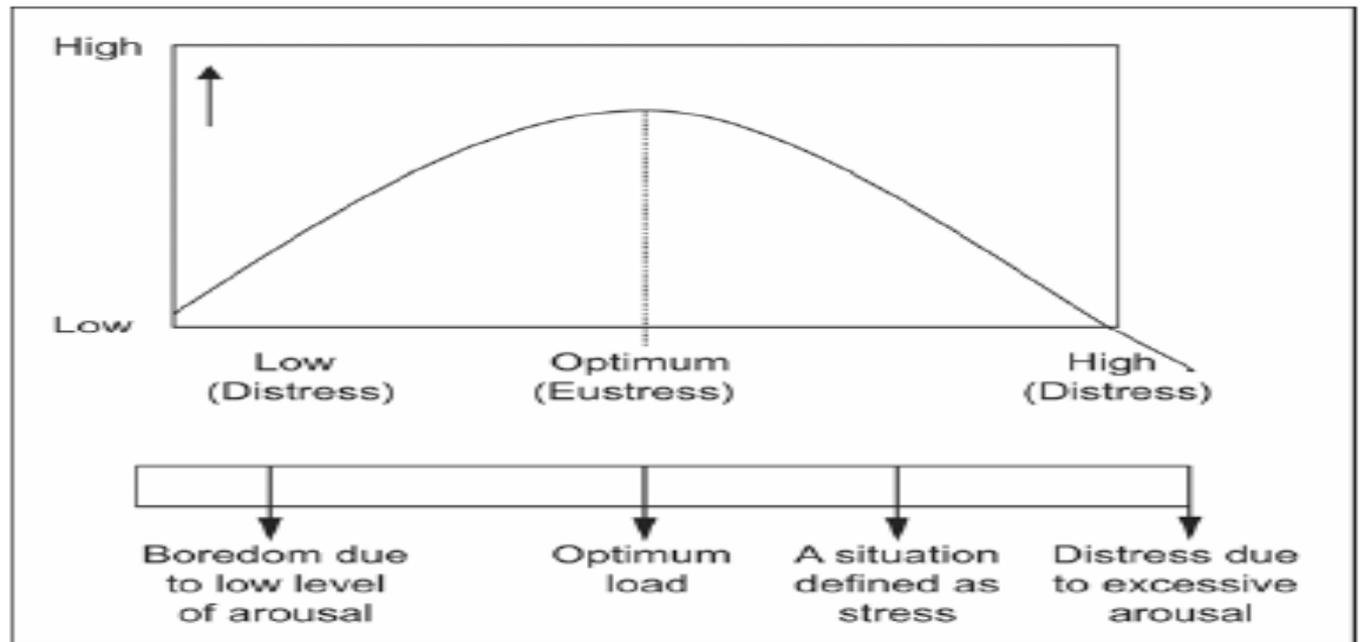


So

- ❑ There is also a **positive type of stress** that encourages workers to be more aggressive so as to increase their **productivity; eustress**
- ❑ **Eustress** is experienced **moderately** and is capable of **motivating people to achieve their goals and succeed in completing their task**.
- ❖ **After the optimum level, more stress will have a negative**



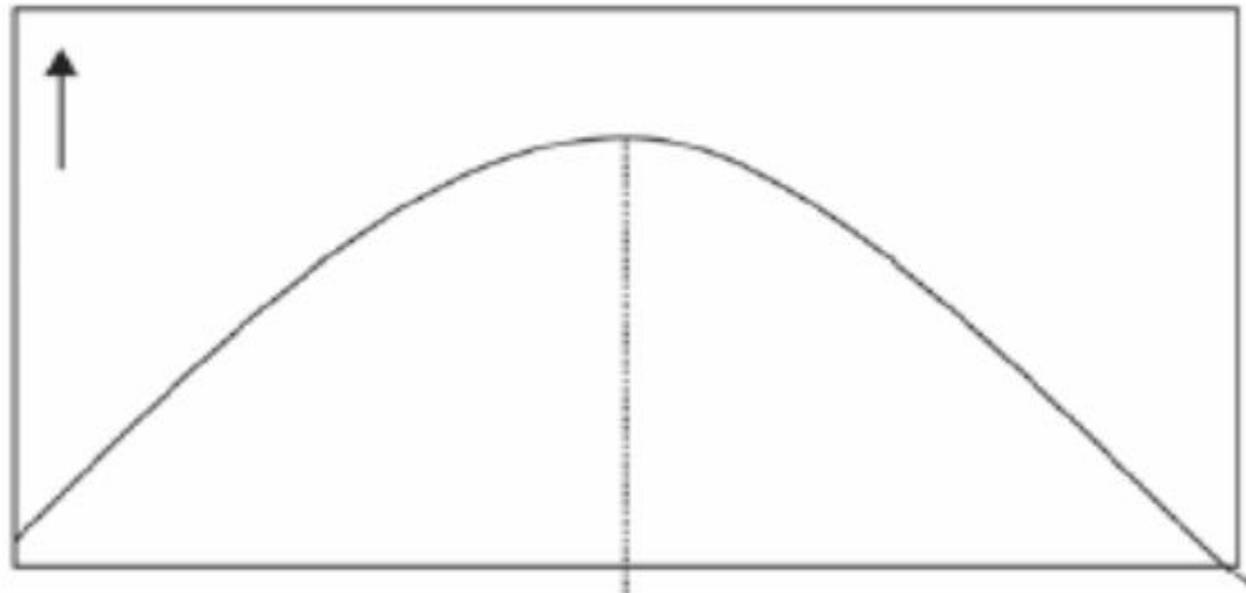
- ❖ After the optimum level, more stress will have a **negative effect** on the performance of workers.
- ❖ A low level of arousal will also cause **workers to experience distress**.
- ❑ Therefore, workers must be motivated so that they can **achieve the optimum level of arousal** or stimulation in order to improve their performance.



Yerkes-Dodson's curve

Source: Adapted from Nelson & Quick (2005)

High



Low

Low
(Distress)

Optimum
(Eustress)

High
(Distress)



Boredom due
to low level
of arousal

Optimum
load

A situation
defined as
stress

Distress due
to excessive
arousal



The effects of distress can be perceived **in two forms**, i.e.

1. **On Individuals and**
2. **On Organizations** as a whole.



□ The effects of distress on individuals can have the following **three negative** effects:

- A. Psychological effects** such as *depression, fatigue* and **the like**;
- B. Diseases such** as *heart disease, stroke* and so on; and
- C. Behavioral effects** such as *violence, abuse of power* and the like

