

# OCCUPATIONAL HEALTH

VI

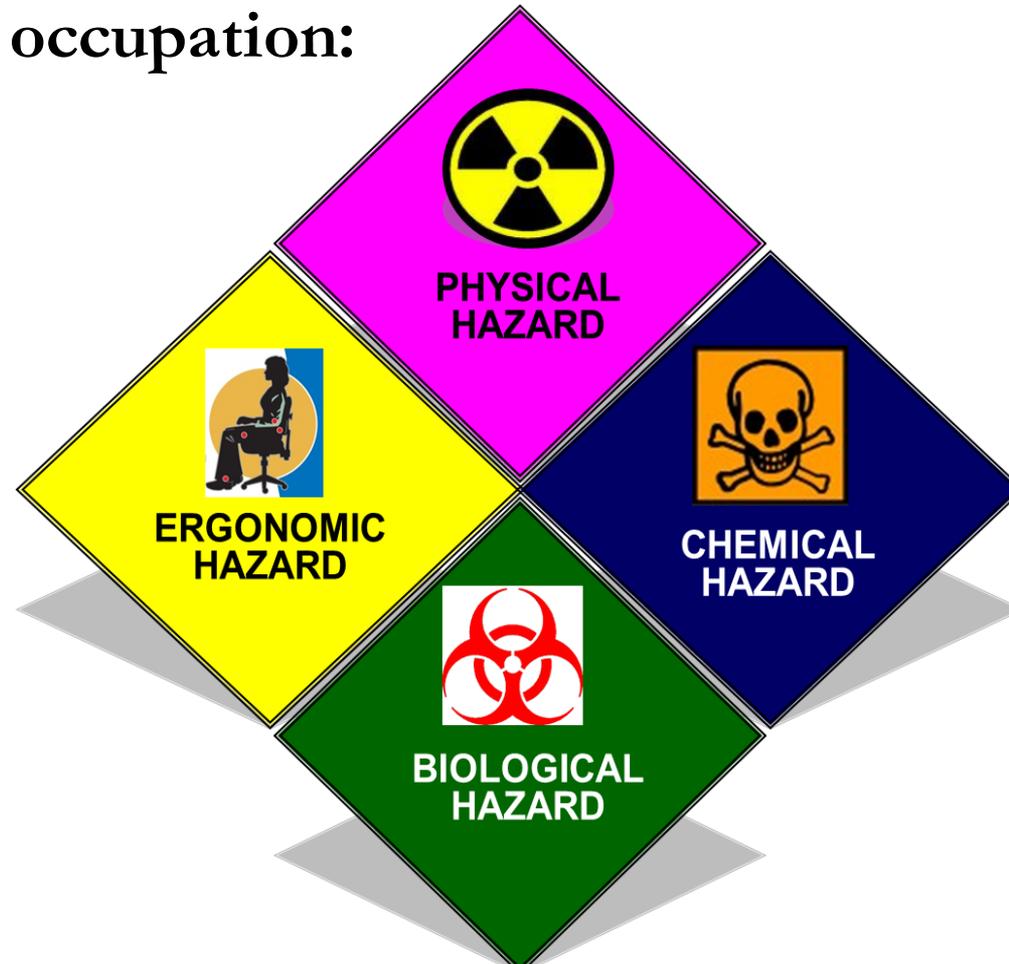
PROF. DR . WAQAR AL-KUBAISY

25<sup>TH</sup> MARCH 2024

# 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

# 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,

**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, 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**.

- job content,
- work organization,
- management,
- other environmental. & organizational conditions

**Interaction**

**employees' Competencies and needs**



## 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**.



www.shutterstock.com · 420085183

# 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**



www.shutterstock.com · 420085183

Pressure at the workplace is **unavoidable** due

□ **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 and learn,**
- depending on the available resources and personal characteristics

□ 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**

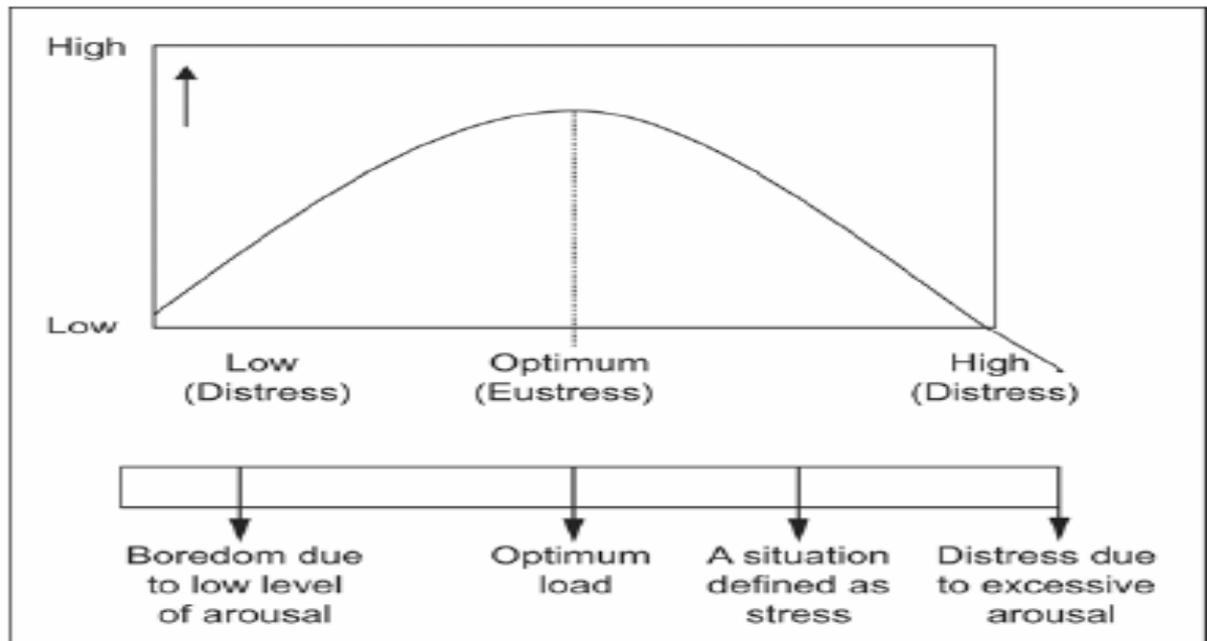
- ❖ After the optimum level, more stress will have a
- ❖ negative effect on the performance of workers.

❑ 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.

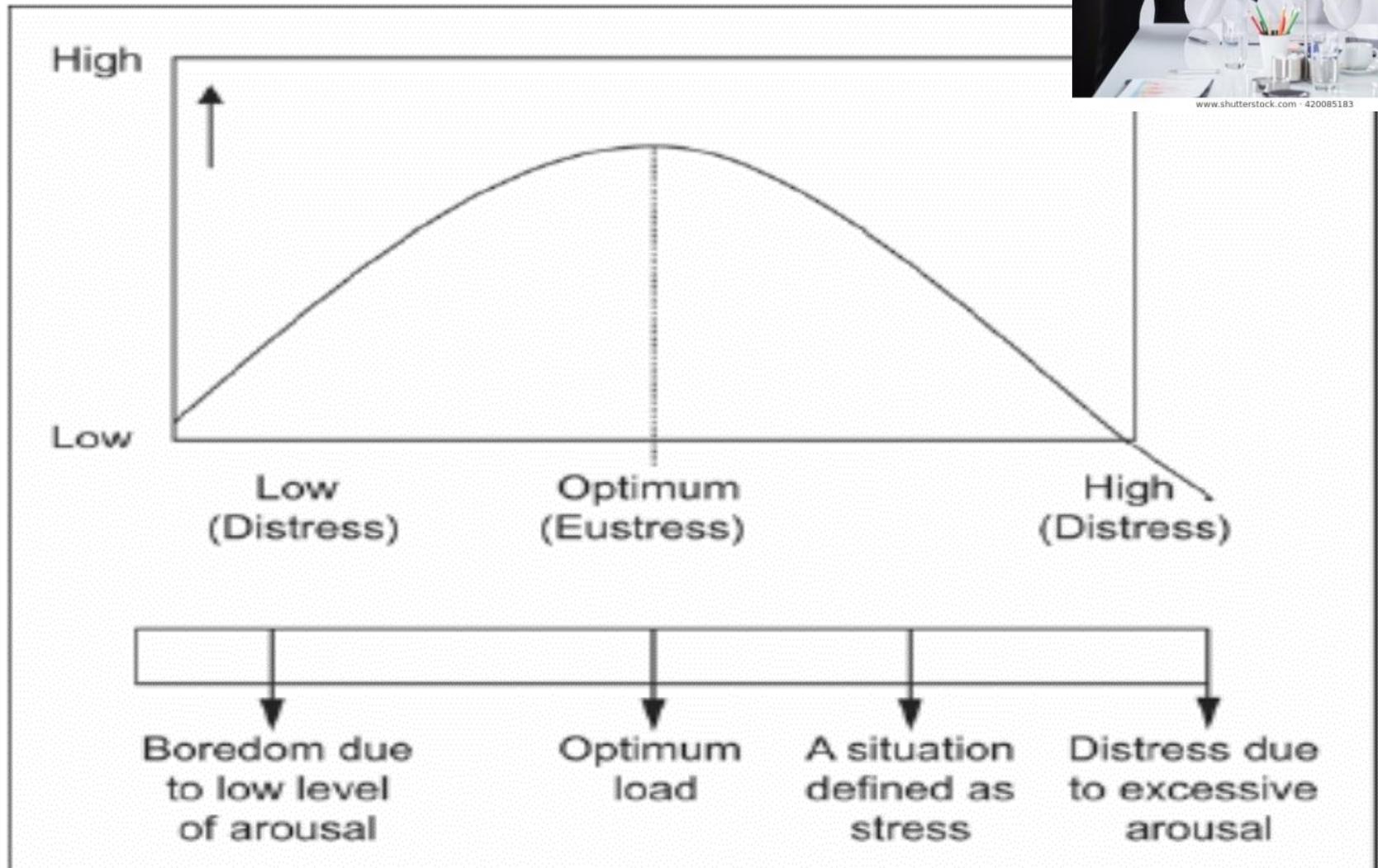


www.shutterstock.com · 420085183





www.shutterstock.com · 420085183



- 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
- B. Diseases such as *heart disease, stroke* and so on; and
- C. Behavioral effects such as *violence, abuse of power*.



❑ The effects on Organizations,  
distress will result in additional costs due to:

- Absenteeism,
- High turnover rate,
- Decline in workers performance,
- Decline in quality and productivity,
- Increasing **compensation** claims due to **accidents**
- Increasing **tardiness** (Slowness)
- Decreasing **growth rates and profit** and
- **Work-related Stress.**





www.shutterstock.com · 420085183

# Work related stress

## Work-related Stress

### Definition:

- ❖ Work-related stress is a **pattern of reactions** that occurs
- ❖ when workers are presented with **work demands**
- ❖ **not matched to their knowledge, skills or abilities** and
- ❖ which challenge their ability to cope

### Work-related stress

- ❖ is the **response** people may have. when presented with
- ❖ **work demands and pressures that are not matched**
- ❖ **to their knowledge and abilities** and which **challenge their ability to cope.**



# 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 bear losses and
- ✓ will **enable workers to enjoy** a healthy, harmonious and **quality life**.
- ✓ Furthermore it will **enhance the productivity** of the workers and **organizations**

# Stress-related hazards at work



❑ Stress related hazards at work can be divided into:

A. Work content.

B. Work context.

A. **Work content includes:**

## 1. Job content:

- ✓ monotony
- ✓ under-stimulation
- ✓ meaningless of tasks
- ✓ lack of variety, etc.

## 3. Working hours:

- strict or inflexible,
- long and unsocial,
- unpredictable,
- badly designed shift systems.

## 4. Participation and control:

- lack of participation in decision-making,
- lack of control over work processes, pace, hours, methods, and the work environment

## 2. Work load and work pace طريقة السير

- ✓ too much or too little to do,
- ✓ work under time pressure, etc

## **B- Work context includes:**

### **1. Career development, status and pay:**

- ✓ job insecurity
- ✓ lack of promotion opportunities
- ✓ under- or over-promotion
- ✓ work of 'low social value
- ✓ piece rate payment schemes
- ✓ unclear or unfair performance evaluation systems
- ✓ being over- or under-skilled for a job



### **3. Role in the organization:**

unclear role,  
conflicting roles.

### **2. Interpersonal relationships:**

- inadequate, inconsiderate or **unsupportive supervision**
- **poor relationships with colleagues**
- **harassment and violence,**
- **isolate or solitary work, etc**

4. Organizational culture

## 4. Organizational culture:



- **poor communication,**
- **poor leadership,**
- **lack of behavioral rule,**
- **lack of clarity about organizational objectives, structures and strategies.**

## 5. Work-life balance:

- **Conflicting demands of work & home,**
- **lack of support for domestic problems at work,**
- **lack of support for work problems at home,**
- **lack of organizational rules and policies to support work-life balance**

## Consequences of work-related stress

1. Physiological reactions
2. Emotional reactions
3. Cognitive reactions
4. Behavioural Reactions
5. Long-term risks
6. Mental and physical disorders



### 1. Physiological reactions to stress:

- increasing heart rate
- increasing blood pressure
- increasing muscle tension
- sweating
- increased adrenaline production and secretion,



## 2. Emotional reactions may include:

- fear
- irritation
- depressive mood
- anxiety
- anger
- diminished motivation

## 3. Cognitive reactions may include

- Decreased attention
- Narrowing of perception
- Forgetfulness
- less effective thinking
- less problem solving,
- Reduced learning ability

## 4. Behavioural Reactions may include:

- Decreasing Productivity
- Increasing Smoking
- Increasing drug use and / Or Alcohol consumption
- Making Errors,
- Reporting Sick





## 5. Long-term risks of reduced health and Disease for the worker expressed in :

- high blood pressure
- angina complaints
- burnout and affective disorders الإرهاق والاضطرابات العاطفية
- depression
- disturbed metabolism (risk of Type II diabetes)
- alcohol dependence,
- musculoskeletal disorders

6. When exposure to stress does not decrease and continues over prolonged periods, workers do not have enough time to recover.

- ❖ Stress may eventually cause mental and physical disorders
- ❖ and impair the immune system, resulting in
- ❖ sickness and absence from work and work disability

## Managing Work-related Stress

Employees are less likely to experience work-related stress when

- A. **Demands** and pressures of work are **matched to** their knowledge and abilities.
- B. **Control** can be exercised **over their work** and the way they do it.
- C. **Support** is received from **supervisors** and **colleagues**.
- D. **Participation** in decisions that **concern their jobs** is provided.

## Managing Work-related Stress:

- A. Actions and solutions should primarily focus on **changes in the organizational culture** and the **organization of work**
- B. **Improving workers' individual abilities, skills** and **coping capacity through training and education** 

**A. Actions and solutions** should **primarily** focus on change in the organizational culture and the organization of work, such as:

- 1. Redistributing work** among colleagues,
- 2. Introducing job rotation** (moving to a number of different tasks usually according to a rotation plan),
- 3. Introducing job enlargement** (adding more tasks of the same difficulty),
- 4. Introducing job enrichment** (adding more difficult tasks),
- 5. Improving managerial ability** (e.g by management skills training)
- 6. Ergonomic improvements** in the work place
- 7. Improving working schedules** and **working** and **resting times** (for example **forward or backward rotation of shifts**)

Actions focus on organization culture and work, Cont. ..

8. Implementing **direct worker consultation** at work,
9. Improving **communication** between **groups** of **workers**, or between the **client** and the workers, and between workers and **supervisors**,
10. Providing **clear job descriptions** or tasks,
11. Providing **clear job promotion rules** and **paths**.



**Note :** The advantage of this approach is that:

- it deals directly with the **causes of stress** in the work environment,
- may have a **positive effect** on the **total workforce** of a company.



**B. Improving workers' individual abilities, skills and coping capacity through training and education, such as courses in:**

1. Time management,
2. **Dealing** with aggressive customers,
3. Lifting heavy goods,
4. **Using appropriate** machines or equipment,
5. stress management, and training,
6. **seeking support** from family, community, and religion and spirituality.



www.shutterstock.com · 1164147817

Note:

This individual-focused approach has **two disadvantages** when there are major problems in the work place:

1. The beneficial effects on stress symptoms are often **short lived;**
2. **Important causes of stress** in the work environment are **ignored** and will **continue** to cause work stress.



1. The **beneficial effects** on stress symptoms are often **short lived**;
2. Important **causes of stress** in the work environment are **ignored** and will **continue** to cause work stress.

**As a general rule, organizational strategies** to prevent work-related stress **should be given top priority.**

However, even the **most** Reliable **efforts to improve working conditions** are **unlikely to eliminate stress completely** for all workers.

**For this reason, a combination of the **organizational** and **individual approach** is often the **most useful way to prevent** work-related stress while staying focused on organizational and work-organizational measures.**

## MANAGING WORK-RELATED STRESS:

The occupational health service, professional psychologists or professionals with a related expertise, if they are available, can advise the employer about prevention measures or interventions which are best indicated for the identified risk situations.

### MANAGING WORK-RELATED STRESS: Examples:

#### Box 7: Examples of actions to prevent work-related stress

| Problems:                   | Possible actions:  |
|-----------------------------|--|
| High workload               | <ul style="list-style-type: none"><li>• Redistribution of work among colleagues</li><li>• Prioritize work/tasks</li><li>• Offer a training course (e.g. on stress or time management)</li></ul>  |
| Monotonous and routine work | <ul style="list-style-type: none"><li>• Make sure that where possible workers have some control over work pace</li><li>• Make sure there are enough breaks</li><li>• Job rotation (moving to a number of different tasks usually according to a rotation plan)</li><li>• Job enlargement (add more tasks of same difficulty)</li><li>• Job enrichment (add more difficult tasks)</li><li>• Where necessary, offer additional training or education</li></ul> |

## **Box 7: Examples of actions to prevent work-related stress**

| <b>Problems:</b>                                | <b>Possible actions:</b>   |
|---|--|
| <b>Physical risks at the work place</b>         | <ul style="list-style-type: none"><li>• Replace the risk producing machines or devices by others that produce less risk</li><li>• Shield the source of risk (noise or other)</li><li>• Inform workers about the negative effects of exposure to these risks</li><li>• Offer workers personal protection devices (ear plugs, hand cuffs to protect them from hot surfaces etc.)</li></ul> |
| <b>Conflicting or unclear tasks or roles</b>    | <ul style="list-style-type: none"><li>• Make a clear job description with clear and appropriate demands</li></ul>  |
| <b>Insufficient work experience for the job</b> | <ul style="list-style-type: none"><li>• Provide suitable training where necessary</li><li>• Appoint a personal mentor at work</li><li>• Offer help and encourage help from colleagues</li><li>• Leave more difficult tasks to other more experienced colleagues</li></ul>  |

## Box 7: Examples of actions to prevent work-related stress

### Problems:

### Possible actions:

**Lack of social support from manager and/or colleagues**

- Offer managers training to learn how to treat their workers
- Arrange regular team building activities (dinner after work, team excursions, or other social activities)
- Have lunch and coffee breaks together
- Stimulate and reward team work
- Arrange regular meetings in which work problems can be discussed and solved (together)

**Work-home interface**

- Support or provide child care facilities
- Flexible working times, such as temporary and/or part-time work
- Teleworking/working from home
- Address the needs of the family, children in addition to care for the worker
- Provide worker transportation when needed

