

# Introduction to Occupational Health

أحمد  
السلي

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→ Health : state of complete ~~↗~~ ↘ Physical well being + not merely absence of disease!  
↘ ↗ mental  
↘ ↗ social

→ Occupational Health ≡ ≡ ≡ in their Jobs

# Introduction

International Labor Organization  
منظمة العمل الدولية

• ILO estimates > 2.3 million fatalities every year due to

تعريفية فقط  
قد ايد الـ prevalence

occupational accidents and work-related diseases.

branch فرع

• It is also estimated that > 337 million workers sustain injuries and >160 million cases of work-related diseases.

• Many accidents at work go unreported and most occupational diseases go undiagnosed

كثير من الامراض المهنية لا يتم تشخيصها!

• It is estimated to cost countries 4% of GDP

صنع العالم تبعها  
تبدل الرضخ

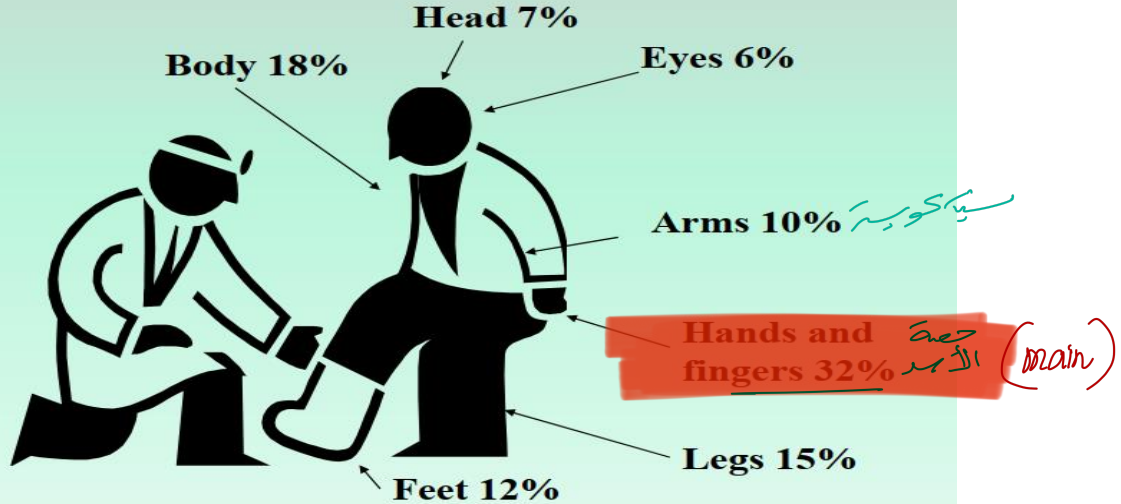
Gross Domestic Product  
الناتج المحلي الإجمالي

# TYPICAL WORKPLACE INJURIES AND DISEASES

مستقبل العمل الصحي ILO

The Ministry/Department of Labour is expected to compile and collate data such as:

## Injuries



في عدد كبير من حالات الإصابة

# Occupational diseases

physical Hazard  
Noise

- vibration
- hot
- cold
- Noise

Hearing loss 22%

partial → complete

تسبب

Infectious diseases 6%

تسبب کمین جہا

Skin diseases 33%

chemical  
radiation  
allergy irritation  
cancer

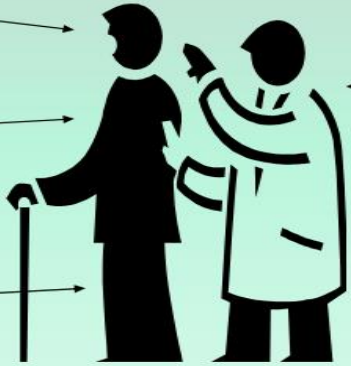
Others 9%

Respiratory

diseases 21%  
occupitional lung diseases

Joints 9%

Ergonomics Hazards.



AT PRESENT THERE IS LIMITED DATA IN THE REGION

Diseases Not injuries

المجلد رقم 1

# WHAT IS OCCUPATIONAL SAFETY AND HEALTH?

According to the ILO and WHO, it is:

- the promotion and maintenance of the highest degree of physical, mental and social well-being of all workers; *تعزيز حفاظ complete state of*
- the prevention of adverse effects on health caused by the working conditions; *منع مصادر ال Hazard*
- the protection of workers from health risks at work; *استخدام معدات حماية: ملابس / mask / نقيض model مع الآلات*
- **the placing and maintenance of workers in occupational environments adapted to his/her physical and mental needs** *الاحتياجات البدنية والحسية - مثل حلوله مناسب لظروف المكان المناسب*
- **the adaptation of work to humans.** *والعمل من صميم! manpower & resources ←*

# WHAT TYPE OF HAZARDS ARE FOUND AT WORK?

① **Mechanical** (machines, layout, housekeeping etc)

الآلات  
التصميم  
injuries  
accident

**Physical** (noise, vibration, light, temperature, radiation, etc)

too cold  
too hot

diagnostic  
therapeutic

**Chemical** (dusts, fumes, vapours etc)

**Ergonomic**

(Sitting, standing, lifting etc)

**Biological** (bacteria, viruses etc)

**Psycho-social** (stress etc)

work environment بيئة العمل



# Mechanical Hazards

## Sources:

- machines and machine parts;
- <sup>وسائل النقل</sup> transport, aisles;
- <sup>المنطقة</sup> floors, platforms;
- <sup>أو تصفحة</sup> ladders and other means of access; and
- <sup>لما يكون منى صنظم يكونوا أكثر عرضة</sup> poor housekeeping

## Effects:

- cuts, wound, <sup>صحة اليد 33%</sup> loss of fingers, hands, etc.
- bruises, sprains, fractures and, in extreme cases, death  
<sup>كدمات التواء كسور</sup>

# Poor Housekeeping



# Poor Housekeeping



**POOR HOUSEKEEPING  
ON BUILDING SITES  
AND INADEQUATE  
FOOTWEAR =  
INJURY AND POSSIBLE  
INFECTION.**

# Good Housekeeping



- A neat and tidy workplace is also a more productive workplace.
- It is also safer and healthier



# Poor Machine Guarding



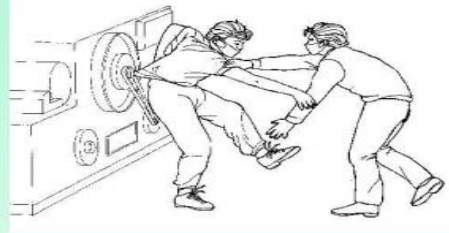
*Shelter* *deis* →



# Poor Machine Guarding



**YOU MAY LOSE YOUR  
FINGERS.**



**IT IS ALL TOO EASY TO GET  
CAUGHT IN THE GEAR.**

# Effective Guarding



# Physical Hazards

vibration / Noise / temp /

## Noise and Vibration

Effects:

- <sup>مؤقتة</sup>reversible temporary and <sup>دائم</sup>permanent hearing loss
- vibration disease (eg ~~VWF~~).<sup>١١</sup> كفى للزم تعرفوا الامامي

## Electricity

Effects:

- burns, electric shock and death  
<sup>حروق</sup> الصعق الكهربائي

# Physical Hazards

## Temperature

Effects:

- heat stress: <sup>تشنجات</sup> cramps, exhaustion and stroke.

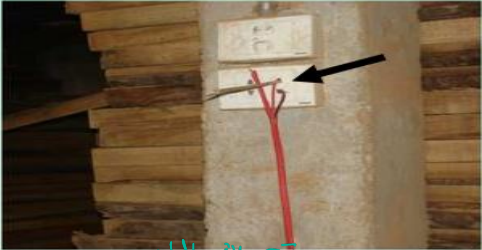
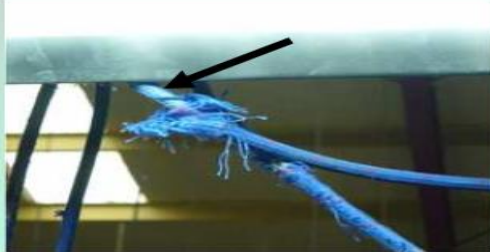
## Lighting

Effects:

- <sup>اصباح العين</sup> glare and eye strain
- fatigue (and accidents)

sun stroke الشمس فوقة دماي (أضطر)  
Heat stroke بدون جنس (أضطر برفه)  
سر المحارفا مالو كجبة (ممكن يتوتج)

# Poor Electrical Safety



تعمیر الاسلاك



# Lighting



**Adequate lighting is required for close work**

برہنہ الحاتمہ سیکل

# Chemical Hazards صحت ولامرج

Chemicals have a **whole range** of effects on workers ranging from irritation and burns of the skin to genetic disorders and cancer.



# Chemical Hazards



الدجاجين والقلويات الشركة

# Chemical Hazards



**THIS WORKER IS USING CAUSTIC SODA.**



*Insecticide?*



<p>CAUTION</p> <p>CONTIENE ASBESTOS FIBRES          AVOLDO GRABANDO DANI          BREATHE! ASBESTOS DUST MAY          INHALE! SERIOUSLY YOUR HEALTH          THE DANGER IS GREATER FOR SMOKERS</p>	<p>CUIDADO</p> <p>CONTIENE FIBRAS DE AMIANTO          EVITE A INHALACION DE POLVOS          RESPIRAR POCITA DE AHIANTO PODE FRENTES          GRAVEMENTE SEÑALADE          O PELIGRO MAYOR PARA LOS FUMANTES.</p>
<p>ОСТОРОЖНО</p> <p>СОДЕРЖИТ АСБЕСТОВЫЕ ВОЛОКНА          ДЫШАНИЕ АСБЕСТОВОГО ПЫЛИ          ОПАСНО!          ЧИТАЙТЕ ПРАВИЛА БЕЗОПАСНОСТИ</p>	<p>PELIGRO</p> <p>CONTIENE FIBRAS DE ASBESTO          EVITE INHALACION DE POLVOS          GRABO RIESGO DE CANCER Y ENFERMEDAD          PULMONAR</p>

5H3/Y52.5/s/2006



# Chemical Hazards



**CHEMICALS LEAKING INTO THE WATER SUPPLY.**



**THIS IS INCORRECT PPE. THE APPROPRIATE RESPIRATORS WITH CARTRIDGES MUST BE USED, AND MUST BE WORN CORRECTLY AND COVER BOTH NOSE AND MOUTH.**



**IF PPE IS USED IT MUST BE OF THE CORRECT TYPE AND BE WORN CORRECTLY.**

# Ergonomic Hazards

## Sources:

- badly designed machinery, mechanical devices and tools;
- improper seating and workstation design; *المعدات السيئة*
- poorly designed work practices, and awkward postures; *الوضعية السيئة*
- repetitive motions; and *تكرار الحركات*
- workers having to contend with heavy weights, and high forces.

→ lifting ?  
→ pushing ?

## Effects:

- fatigue;
- Repetitive Strain Injuries (RSI) and Musculoskeletal Disorders (MSD); and
- back problems especially of the lower back

*Disc prolapse*



# Ergonomic Hazards



**Standing all day on concrete floors causes fatigue –**

**the workers are provided with matting.**

کونکریٹ  
خمرانیہ

واتفہ کا سہارا ملے گی بلاج  
خمرانیہ /  
اللاصل یقفول کا ایش  
فبروس  
ملا



# Ergonomic Hazards



**Workers should be provided with seating of the appropriate size and with lower back support.**



بیشک العمل      محافظه

# Ergonomic Hazards



NO LOWER BACK SUPPORT



IMPROVISED SEATING



A FOOT BAR IS LESS FATIGUING

الارضية المصنفة للعمم تقلل التعب

# Psycho-social Hazards

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## Sources:

- quality of work (boring/monotonous work etc.)  
*ذو قيمة واحدة / رتيب / عمل*  
*نفس المرحلة*
- social/human relations at work; and  
*والإنسان*
- off-the-job problems, eg. marital/family issues.  
*مشاكل خارج العمل* *زوجية* *عائلي*

## Effects:

- stress
- discomfort and irritability
- mental disease

# **Psycho-social Hazards**



**Stress at work can affect workers, families and friends.**

## REMEMBER - AT WORK YOU SHOULD BE:

Physically fit

Socially well

Healthy



Mentally well

PROMOTION

PREVENTION

PROTECTION

**A HEALTHY AND SAFE WORKER IS A MORE PRODUCTIVE WORKER!**

THANK YOU

