



# Work ability evaluation and rehabilitation related to the occupational diseases



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Best practice in occupational diseases prevention, diagnostics, registration, rehabilitation and control and Detection and system of registration of occupational diseases with particular emphasis on the Russian Federation

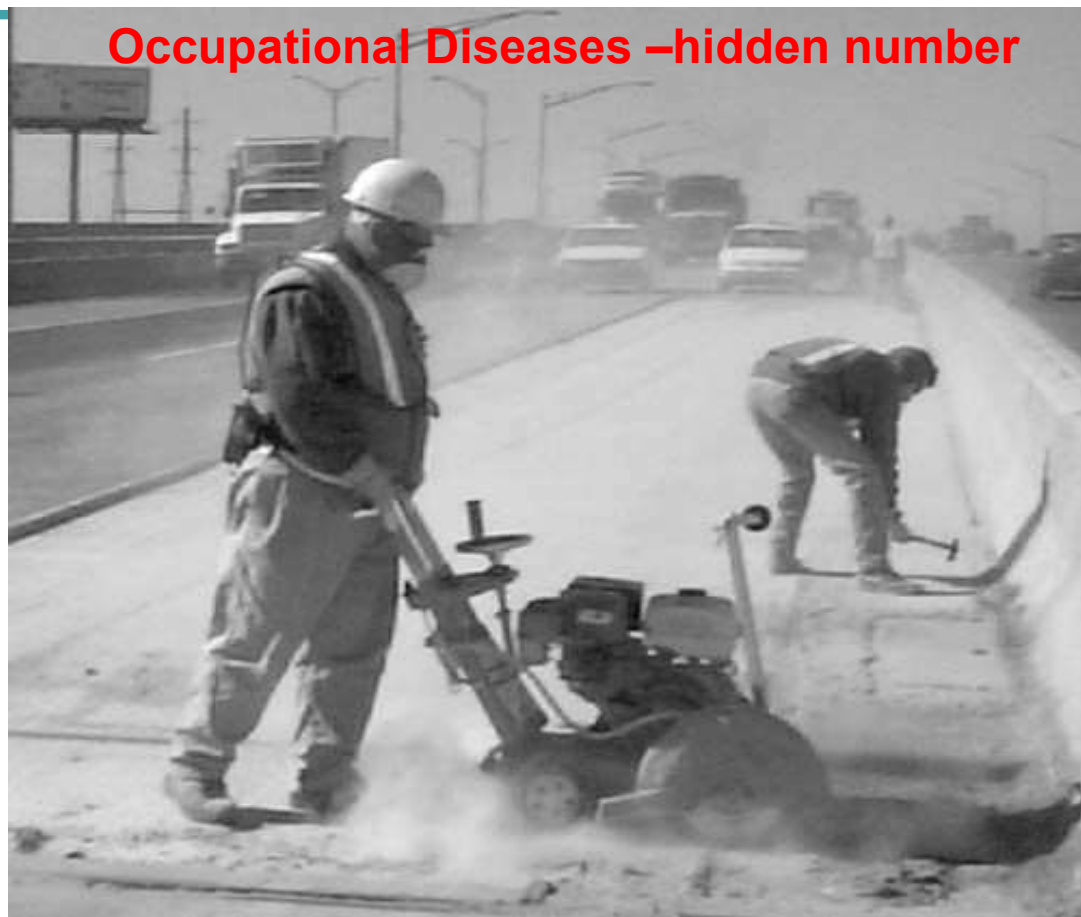
Moscow, Russian Federation

06-07 December, 2016

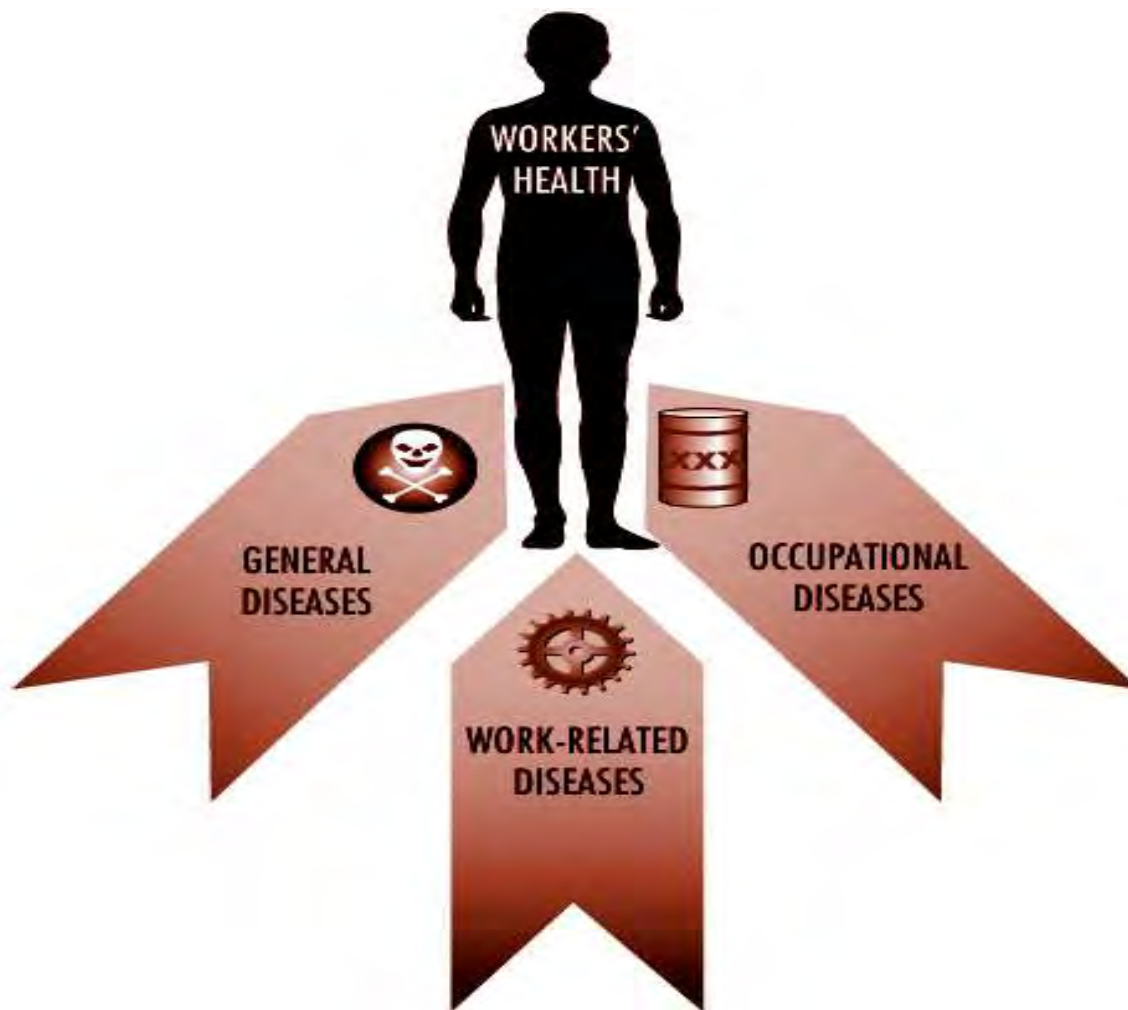
# Occupational diseases cause huge suffering and loss in the world of work

The nature of occupational diseases is altering rapidly: technological and social changes, global economic conditions are aggravating existing health hazards and creating new ones.

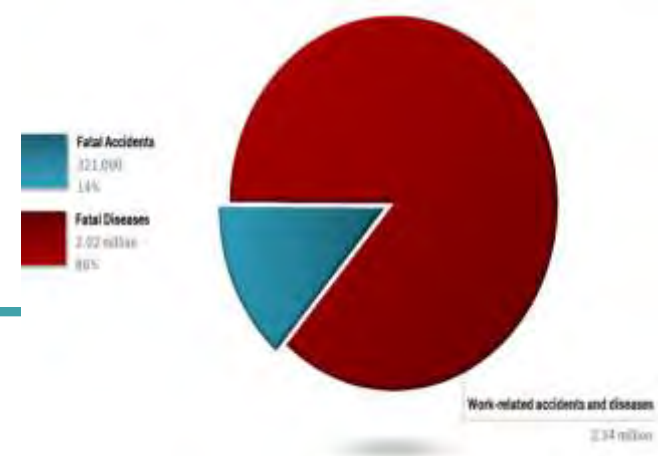
**Occupational Diseases –hidden number**



# Ill-Health issue and Workers



# Some statistical data

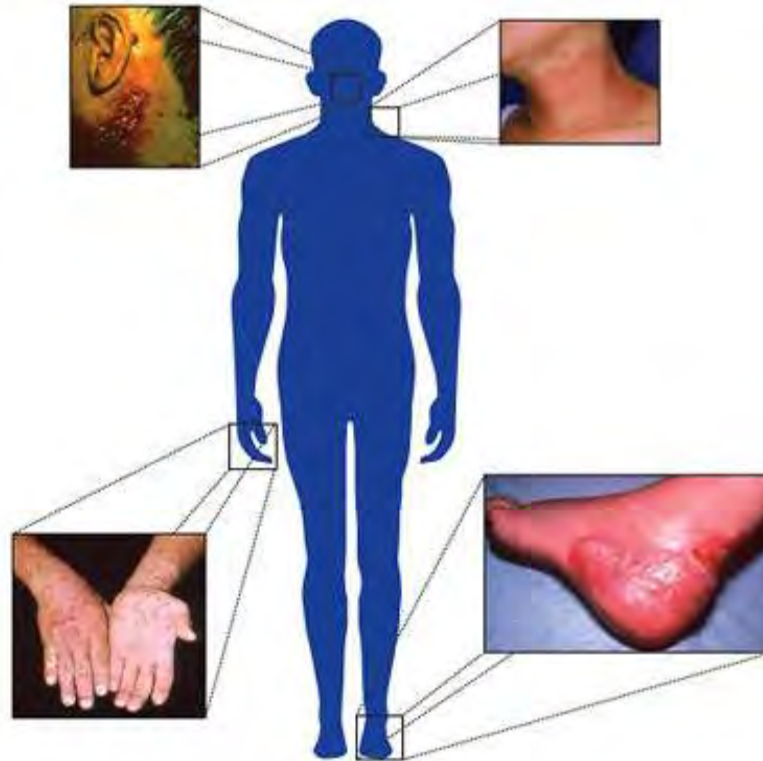


- An estimated 2.34 million people die each year from work-related accidents and diseases.
- Of these, the vast majority -an estimated 2.02 million- die from a wide range of work-related diseases.
- The ILO also estimates that 160 million cases of non-fatal work-related diseases occur annually.

International Labour Office (ILO). 2011.

# Occupational disease

## What does it mean?



# Definition

- An occupational disease is any disease contracted primarily as a result of an exposure to risk factors arising from work activity.

or

- Occupational diseases are illnesses primarily caused by a physical, chemical or biological factor at the workplace.

[http://www.who.int/occupational\\_health/activities/occupational\\_work\\_diseases](http://www.who.int/occupational_health/activities/occupational_work_diseases)

# Occupational diseases- some specific features

- Workplace as the cause of the occupational disease
- Occupational diseases have a long latency period
- Most occupational diseases pose challenges in assessment and treatment
- In some situations -among the general community (workplace- environment )
- All occupational diseases can be prevented



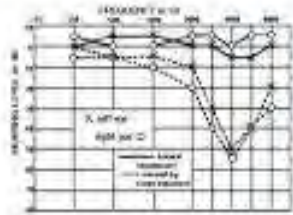
# Diagnosis of occupational disease

- **Medical diagnosis** (occupational anamnesis, physical examination, specific diagnostic tests) and treatment of the concrete disease- physicians should be familiar
- **Specific procedure for confirmation** of the occupational origin of the disease



# Noise

## Occupational deafness



11/1/2011

Occupational Health



# Occupational Lung Disease



- Definition:
  - Repeated exposure to airborne particles, chemicals, vapors, or gases that result in various diseases involving the lungs



- Examples:
  - Pneumoconiosis, asbestosis, silicosis

RCS

### Benzene

*Hexagonal ring structure with alternating single and double bonds*

**ABOUT THE SUBSTANCE**

Benzene is a colorless, flammable liquid with a sweet, aromatic odor. It is a major component of gasoline and is used in the production of many plastics and dyes.

**WHERE IS IT?**

Benzene is found in many household products, such as adhesives, detergents, and solvents. It is also found in the air and in some foods.

**EXPOSURE TO BENZENE**

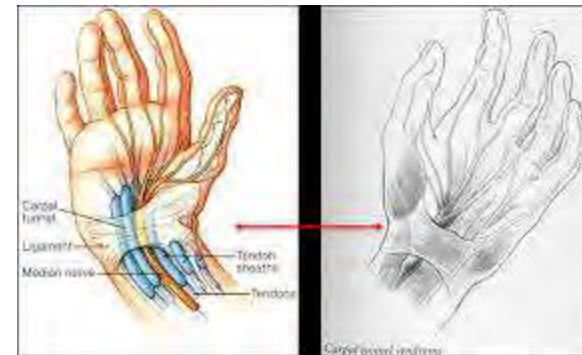
Exposure to benzene can occur through inhalation, skin contact, or ingestion. It is a known carcinogen and can cause various health effects, including leukemia and bone marrow damage.

**HEALTH EFFECTS**

- Leukemia
- Chromosomal damage
- Reproductive and developmental effects
- Neurotoxicity
- Immune system damage
- Other effects

**SAFETY PRECAUTIONS**

- Use proper ventilation
- Wear protective clothing
- Avoid skin contact
- Do not ingest
- Store properly



# Recognition of the occupational disease

## **Main principle:**

**Establishment of a causal relationship between the disease and the worker ' s exposure to concrete hazards at the workplace.**

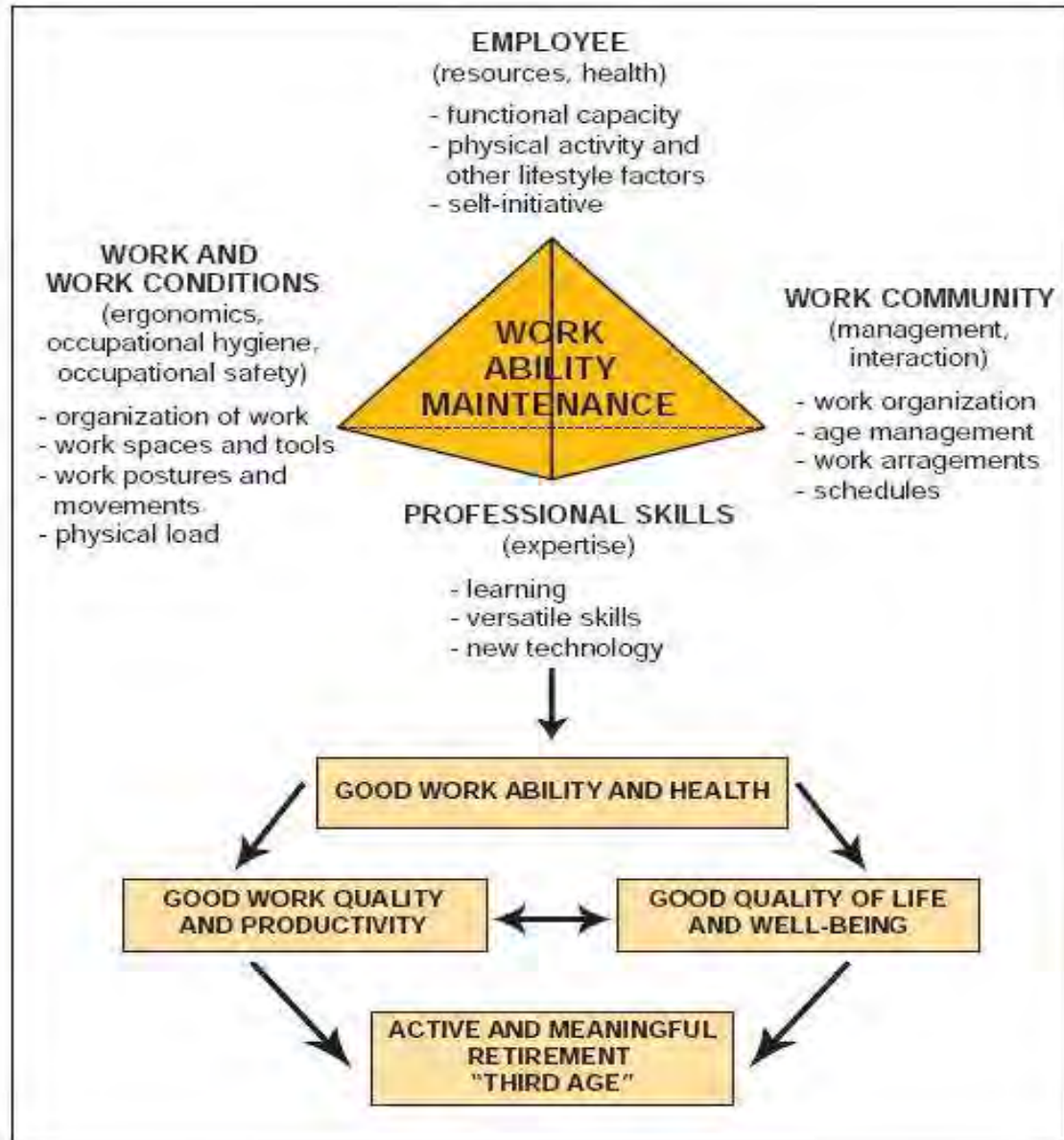
## **Confirmation of occupational origin of diseases is based on:**

- occupational history (anamnesis) and job analysis
- identification and evaluation of occupational hazards
- exposure verification

**When a disease is clinically diagnosed and a causal link is established, the disease is then recognized as occupational.**

# Work ability

**Work ability is the match or balance between an individual's personal capacities and resources and demands and requirements of their work.**



# Sustaining work ability- the role of Occupational Health Services

## The mutual collaboration employees, employers, and occupational health services

- Employees bear responsibility for their own work ability
- Employers must create safe and healthy working conditions that do not adversely affect the health of employees
- Occupational health care expertise supports the promotion of work ability and health at the workplace
- OHS should assist to reintroduce people with partial work ability into the workforce

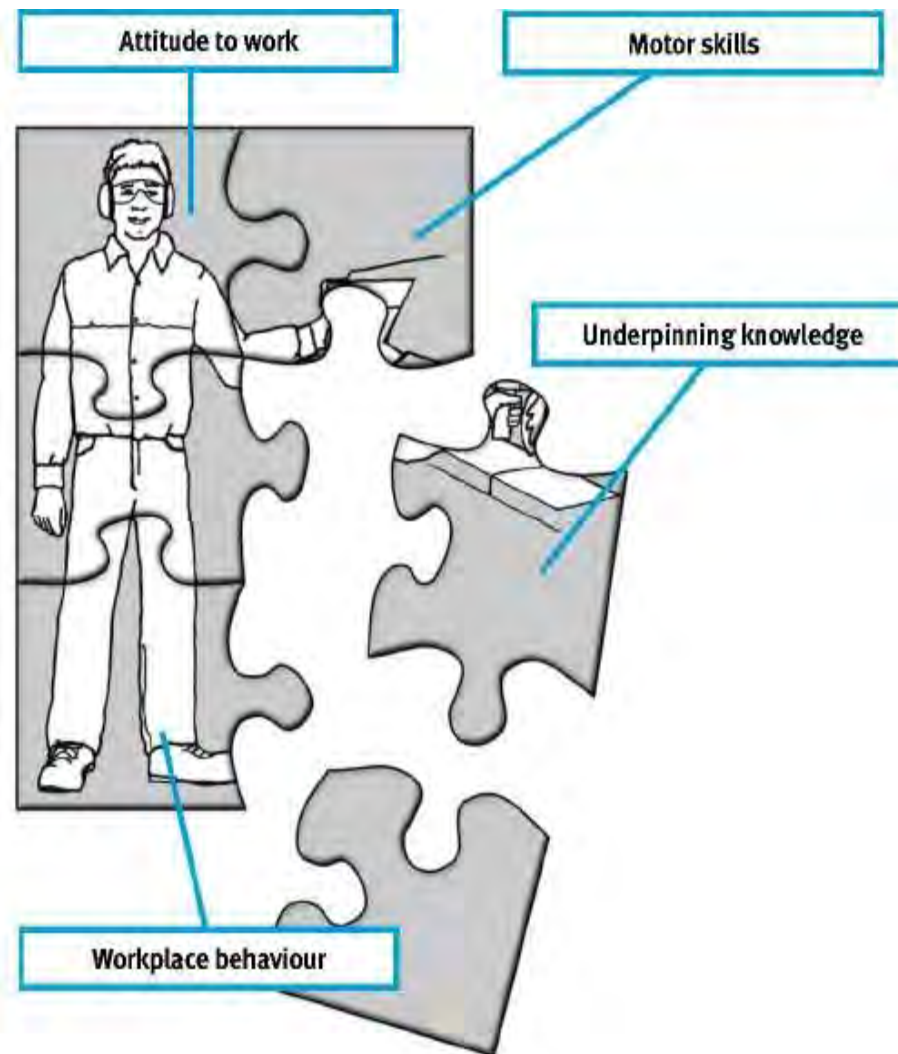


**The most important preventive measures in occupational health care are:  
maintaining work ability, sufficient early treatment, and timely rehabilitation**

# Work ability among workers with occupational diseases

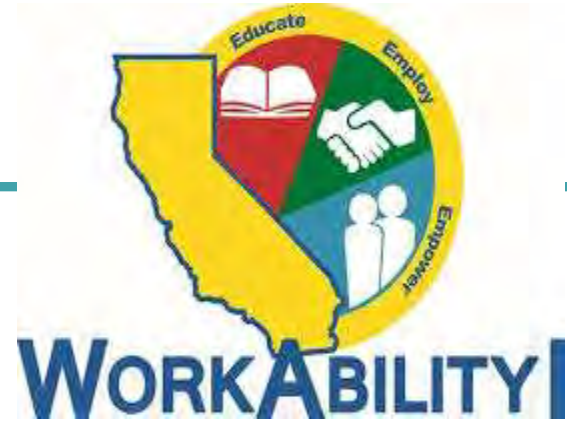
## General view

- Assessment of work capacity
- Assessment of work demands
- Case approach
- Return to work
- Legal, ethical and insurance framework



# Work Ability Index (WAI)

The **Work Ability Index (WAI)** is an **instrument-** a self-assessment questionnaire, used in clinical occupational health and research to **assess work ability** during health examinations and workplace surveys at the individual and group level.



WAI helps detect, as early as possible, work-related health risks. Appropriate action can then be taken to prevent declining capacity and early retirement.

# Holistic image of work ability

- Individual resources
- Work and working related factors
- External environment (organizations, family, society)



Active support of occupational health care and safety

# Work ability and occupational diseases -steps of prevention-

- First and most important step- Control of hazards, collective and personal protective measures, pre-employment medical examinations  
(TO PREVENT OCCUPATIONAL DISEASE)  
**PRIMARY PREVENTION**
- Second step- Health surveillance-periodical medical examinations  
(DETECTION OF EARLY SIGNS OF ODs)  
**SECONDARY PREVENTION**
- Third step-Treatment and rehabilitation of diagnosed OD  
(TO PREVENT FURTHER EVOLUTION OF ODs)  
**TERTIARY PREVENTION**



“How good is the worker at present, in the near future, and how able is he or she to do his work with respect to the work demands, health and mental resources?”

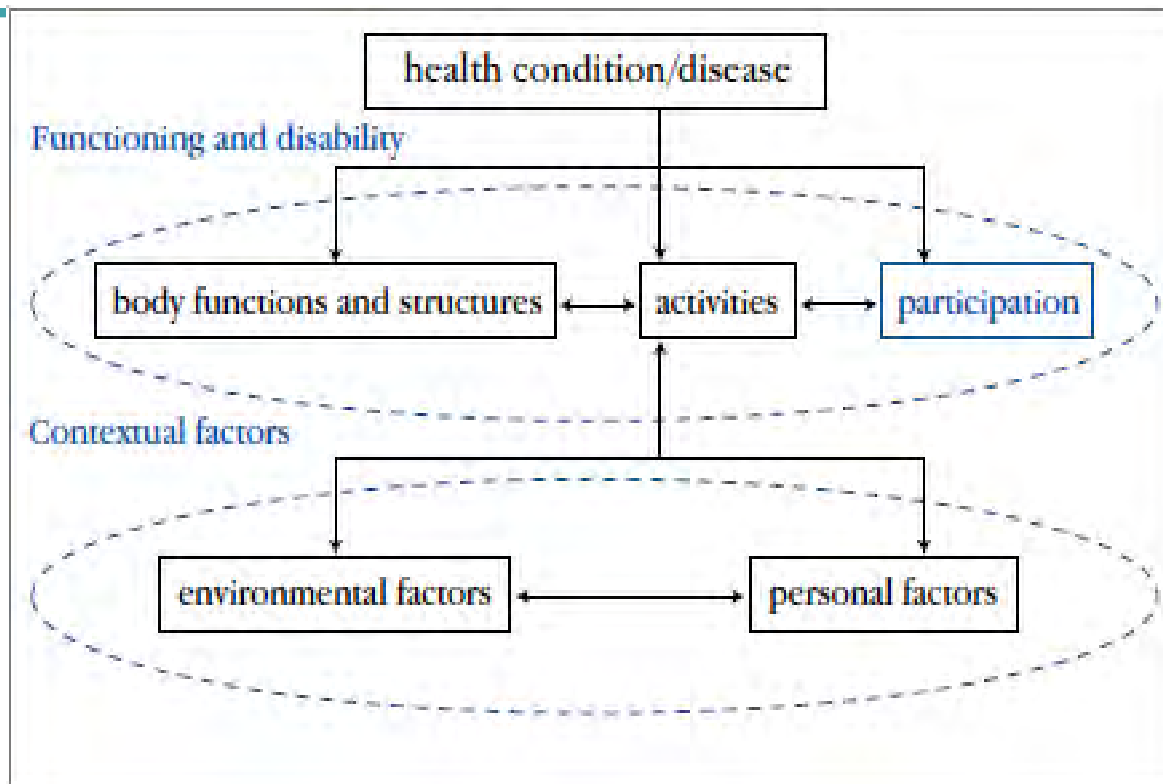


FIGURE 2. The framework of the WHO International Classification of Functioning, Disability and Health (ICF).<sup>3</sup>

\*Illmarinen J, Tuomi K,(2005)

six different  
model  
components

# And what is special in the work ability evaluation in the case of occupational disease?

- To assess work ability/ disability or measure the extent to which individuals with OD have or lack work ability
  - possible situation: permanent (total) disability - retirement, partial disability– part-time work, lighter work
- To assess the work ability of the individual with OD in relation to sickness benefits, and to evaluate the need for occupational rehabilitation measures and return to work (RTW) options
- Compensation scheme, benefits-social security system

**IN CORELATION TO THE  
workplace and specific exposure**

# Two main principles

- Early detection of ODs
- Stop of exposure

Early detection of ODs, often, can prevent reduction of functional capacity and provide maintaining of work ability.

Ending exposure to the specific cause of OD, at the workplace may prevent an aggravation of the disease and, in some cases, the disease may be cured completely.



# Management of occupational disease

## -one example-

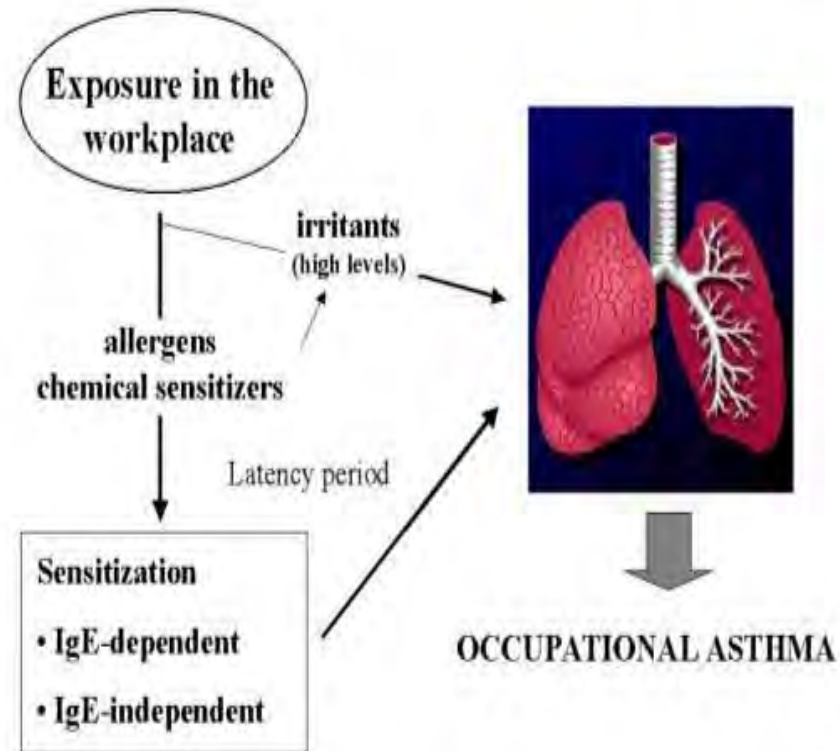
-**Early evaluation** of symptomatic workers and obtain an accurate Dg

-**Remove worker from further exposure** to the causative agent after confirmed Dg of OD.

-**Control other triggers** and pharmacological management as per guidelines or protocol

-**Active participation in patient rehabilitation** and WTR Program, **assistance with worker compensation claim** if it is required

-**Monitor and follow up patients with asthma in future workplaces** to ensure safe and healthy working environment



# Occupational rehabilitation having in mind - workplace and exposure

Occupational rehabilitation is *a managed process* of returning workers to a level of work activity that is appropriate to their functional and cognitive capacity influenced by occupational disease.



Occupational rehabilitation is a process involving early intervention with appropriate, adequate and timely activities based on assessed needs, and which is aimed to maintain ill employees in, or returning them to, suitable employment.

# Ability to Work- Return to Work Considerations

Health status and specific work requirements

## **EXPOSURE:**

The individual with OD, **should be removed from the exposure** to the specific causative occupational agent

If this is not possible, the individual **must be protected with enhanced personal protective measures**, specific work restrictions and accommodations.

Employer should modify and readapt the workplace to prevent further exposure to the worker with OD and to all workers in the same working environment.

**RISK: Any job with risk, related to the exposure** to other potential hazards **should be avoided** if possible.

**CAPACITY: Specific methods and tests should be recommended** to assess the work ability related to the concrete OD and health status of patients

**TOLERANCE: Tolerance may be enhanced by ensuring medication** compliance if prescribed, verifying no concurrent conditions, and possibly offering rapid testing and physician evaluation should the patient have a recurrence of symptoms.

# Work ability and rehabilitation

Within a workers' compensation system, the focus is on:

- achievement of optimal physical and mental recovery;
- return to suitable work at the earliest possible time; and
- reduction of the human and economic costs of disability to employees, employers and the broader community.



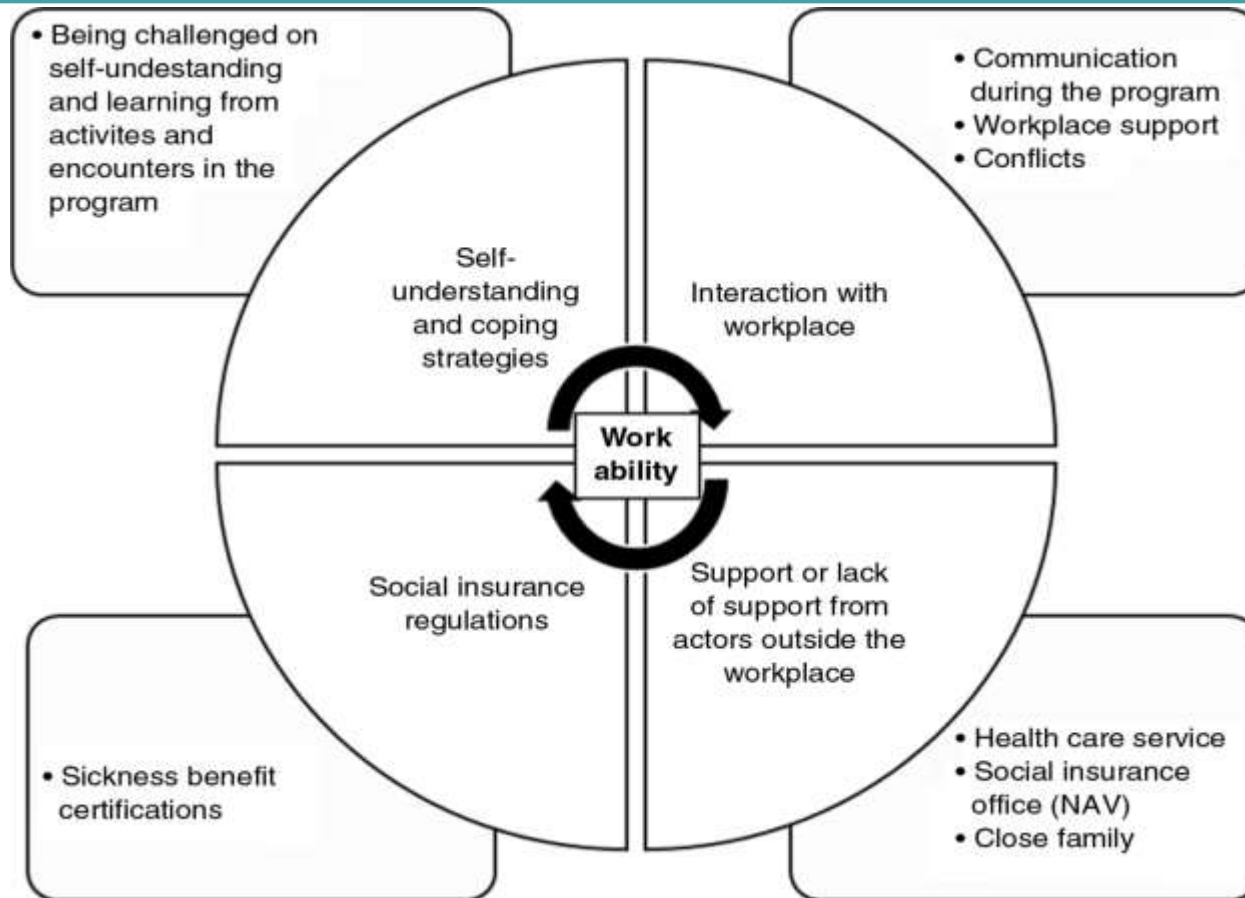
# Essential principles of rehabilitation



- Maintenance at work, or early and appropriate return to work- prime goal
- Commitment by all parties is essential for successful outcomes
- The workplace is usually the most effective place for rehabilitation (think on workplace and OD)
- Start at the earliest possible time consistent with medical assessment
- To ensure the dignity of employees and active participation in the process
- Consultation and relevant information of the employer and employee about the rehabilitation process and applying the workers' compensation system
- No costs for employees



# Rehabilitation and Return to Work Program

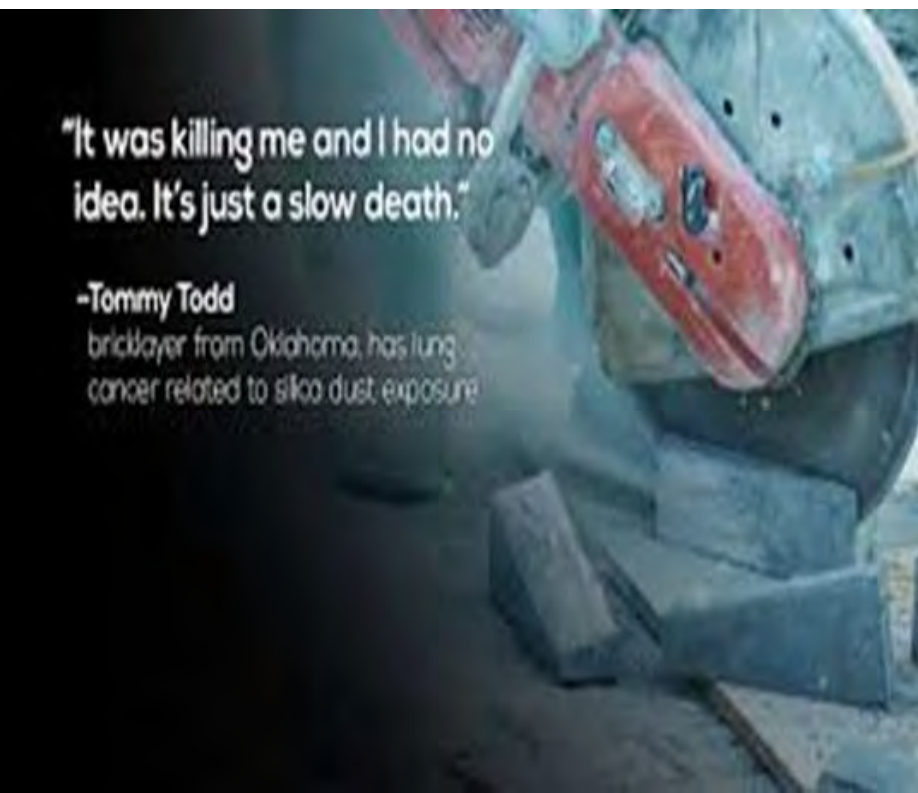


# Successful Return-to-work

## -Key elements-

- The workplace has a strong commitment to health and safety which is demonstrated by the behaviors of the workplace parties.
- The employer makes an offer of modified work to ill workers so they can return early and safely to work activities suitable to their abilities.
- Supervisors are trained in work disability prevention and included in RTW planning.
- Employers and health care providers communicate about the workplace demands as needed, and with the worker's consent
- **The differences between occupational and non-occupational diseases are most relevant in terms of rehabilitation, accommodation and support for recovery. These differences affect the services and benefits available to disabled employees.**






"It was killing me and I had no idea. It's just a slow death."

**-Tommy Todd**

bricklayer from Oklahoma, has lung cancer related to silica dust exposure



"We are people, just like anyone else, and we deserve to have good health just like anybody else."

**-Jonas Mendoza**

construction worker and safety liaison for New Labor in New Jersey



**We are here to support and realize this idea!**