

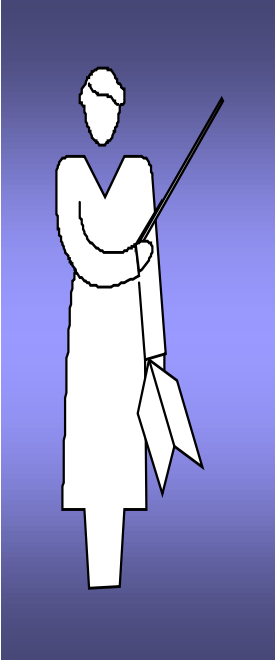
**More than
safety!**

KOMPLEX

**„Occupational
Health and Safety”**



OCCUPATIONAL HEALTH AND SAFETY



State of conditions and organization of work and behavior of employees ensuring the required level of protection of human life and health from hazards in the workplace.



Work safety

actions and measures engaged in them intended to prevent injuries and accidents at work.



Work Hygiene

actions and measures engaged in them intended to prevent occupational diseases.

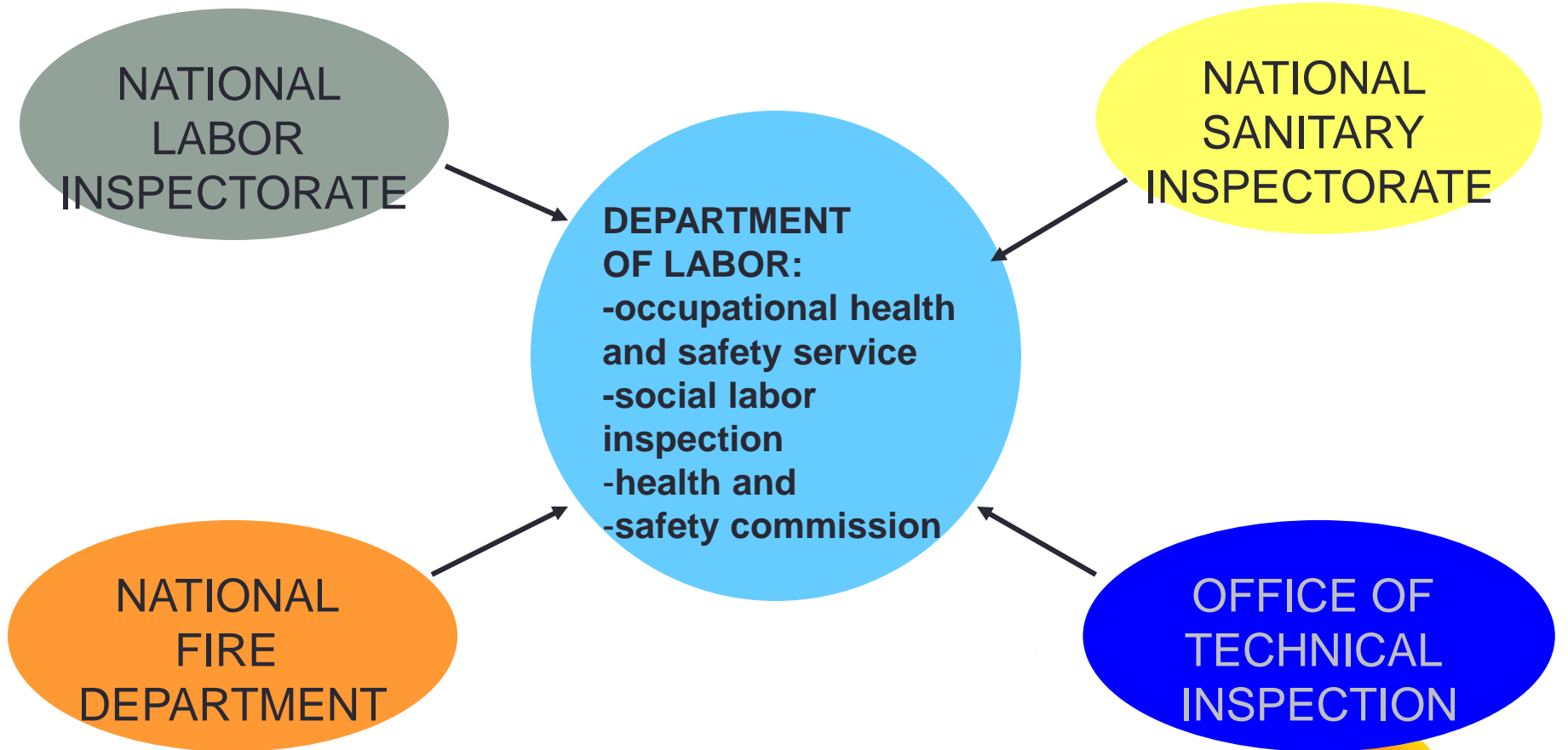


The system of labor protection in Poland



Safety and working conditions supervision

External and internal supervisory authorities



SOURCES OF LABOUR LAW

The rules applicable generally:

- The Constitution
- The Labour Code
- Other laws
- Regulations
- Other legal acts
- Polish norms
- Industry norms



Specific sources of law:

- Collective labor agreements
- Work regulations
- Internal provisions
- International agreements
- ILO Conventions
- Health and safety rules

1. *One of the most characteristic features of the provisions concerning health and safety is that they have the character of law in force, and so:*

provisions of the legal provisions can not be changed, even if both sides (the employment relationship) wish it.

2. *Health and safety rules - rules unwritten by the letter of the law, resulting from the experience of life, the development of techniques and logical reasoning, which enables a factual work safety.*



Shaping of the conditions of safe work.





KP Art. 237 ³, § 1. Do not allow the employee to the work to which he does not have the required qualifications or skills as well as sufficient knowledge of the rules and principles of occupational health and safety

Detailed provisions concerning the occupational health and safety training contains regulation of the Minister of Labour and Social Policy of 28 May 1996. on detailed principles of training in the field of occupational health and safety (OJ No 62, pos. 285).

Training (in the area of OSH) is conducted as follows:

- 1) Preliminary training,**
- 2) Training and periodical improving called "periodic training"**



OCCUPATIONAL HEALTH AND SAFETY INSTRUCTIONS

Ministry of Labour Ordinance of 26 September 1997. concerning the general health and safety regulations (Journal of Laws No. 129, item. 844, as amended.)



The employer is obligated to provide employees for permanent use occupational health and safety up to date instructions regarding :

- Used in the plant technological processes and performing works connected with accidental threats or health risks of workers,
- Operating machinery and other technical equipment,
- Dealing with materials harmful to health and dangerous,
- Giving first aid.

The instructions should define :

- ✓ Activities to perform before starting work,
- ✓ Rules and methods of safe performance of given work,
- ✓ Steps to perform after completion,
- ✓ Rules of conduct in emergency situations posing a threat to the life or health of workers.



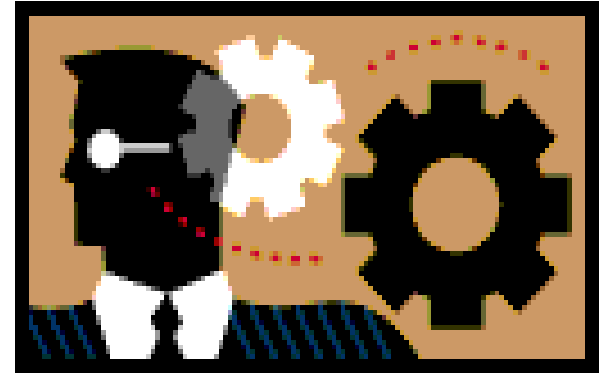
The basic responsibilities of the employer, are :

Art. 207 § 2 and 3, Art.208 and Art.212 of the Labour Code

➤ Knowledge, in the scope necessary to perform his obligations, labor protection laws, including the provisions and principles of occupational health and safety.

➤ Protection of safety and health of workers by ensuring safe and healthy working conditions with the proper use of science and technology, including :

- ✓ *organizing the work in a way that ensures protection of workers against accidents at work, occupational diseases and other conditions related to the environment of work*
- ✓ *ensuring compliance with laws and principles of health and safety in the workplace, issuing commands to remove shortcomings in this area, and controlling their execution, ensuring the implementation of the recommendations of the social labor inspector*
- ✓ *taking care of efficiency of individual and collective protection measures, and their use as intended*
- ✓ *ensure the execution of orders, speeches, decisions and orders issued by the authorities of supervision over working conditions*
- ✓ *ensuring the implementation of the recommendations of a doctor responsible for health care of the employees*



The basic responsibilities of the employer, cd:

Art. 207 § 2 and 3, the
Labour Code Art.208

➤ If at the same time in the same place performs work staff employed by different employers, those employers are obliged to:



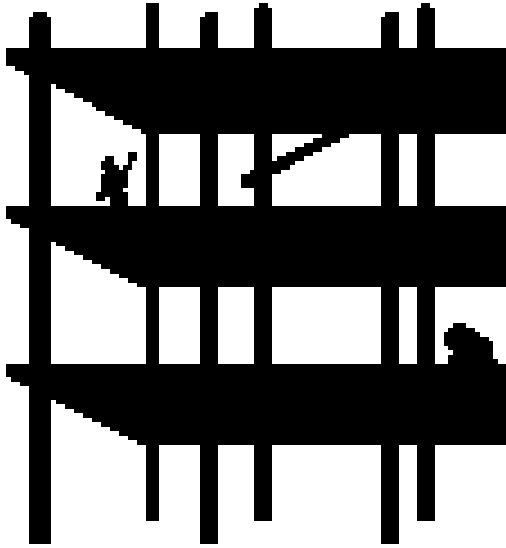
- ✓ *cooperate with each other*
- ✓ *appoint a coordinator supervising the health and safety of all employees in the same place*
- ✓ *determine the principles of cooperation, taking into account the procedures in case of threats to the life or health of employees*

➤ The appointment of a coordinator does not relieve individual employers from the obligation to ensure the safety and health of staff employed by them..



The basic responsibilities of the employer, cd :

Art. 209 § 1-3 of the Labor Code



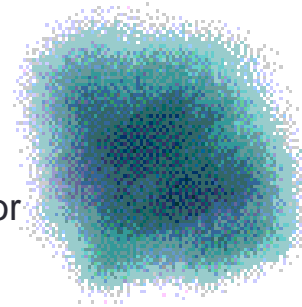
➤ Employer starting business is obliged, within 14 days from the date of the start of business, notify in writing the competent labor inspector and competent state sanitary inspector about:

- ✓ place
- ✓ kind
- ✓ range of business
- ✓ anticipated number of employees and submit written information about the measures and procedures adopted to meet the requirements of safety and health at work relating to the area of business

➤ The employer is obliged to notify in writing the competent Labour Inspector and the appropriate State Sanitary Inspector about the change of:

- ✓ place;
- ✓ type;
- ✓ range of activities, especially the change of technology or production profile.

➤ The employer notifies competent labor inspector and competent state sanitary inspector about cease of operations or liquidation of the company.



Responsibility for offenses against the rights of the employee.

Art. 283 § 1 of the Labour Code

„Who is being responsible for the state of occupational health and safety in the workplace or directing the employees is not complying with regulations or rules of occupational health and safety, shall be punished by a fine”.



§ 2. The same penalty is subject who :

- within 30 days does not notify SLI and SSI about starting operations,
- leads constructions or reconstructions on the basis of projects, not accepted by appraisers,
- equips workplaces in machinery and equipment that do not meet the requirements of the conformity assessment,
- does not provide a means of individual protection, clothing and footwear to workers,
- uses materials without determining their harmfulness to health,
- uses not labeled substances or chemical preparations or preparations not having the characteristics cards of these substances,
- does not notify the State Labor Inspectorate and the prosecutor about fatal, serious or collective accident at work or occupational disease,
- does not perform the SLI injunctions within the time limit ,
- hinders the activities of National Labour Inspectorate.



Responsibility for offenses against the rights of the employee, cd.

Art. 220 of the Penal Code

§ 1. „ Who, being responsible for the safety and health at work does not complement the consequent obligation, and thus exposes the employee to the immediate danger of death or serious bodily injury is punishable by imprisonment up to 3 years.

§ 2. If he acts unintentionally, is subject to the penalty of restriction of liberty or imprisonment for a year.

§ 3. Is not punishable perpetrator who voluntarily set aside the potential risk.



EMPLOYEE RIGHTS

The right to safe work



The right to salary



The right to vacation



The right to medical care



The protection of young people at work



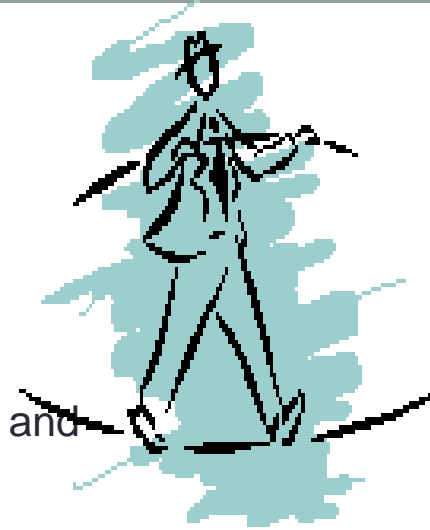
The protection of women's work



EMPLOYEE RIGHTS

The right to safe work

Art.210 of the Labour Code



The employee has the right to refrain from work, reporting it immediately to your supervisor, if :

- working conditions do not meet requirements of occupational health and safety and pose a direct threat to the health or life of the employee or
- work performed by him is a hazard to others

If refraining from work does not eliminate the threat, the employee has the right to leave the endangered area, immediately notifying the supervisor.

For the time refraining from performing work or leaving the endangered area, in the cases mentioned in point 1 and 2, the employee preserves his right to salary.

The employee has the right, after noticing his supervisor, to refrain from performing work which requires special psychophysical efficiency when his psychophysical state does not ensure safe work and poses a threat to others.

The rights referred above do not apply to an employee whose occupational duty is to save lives of human and property.



EMPLOYEE RIGHTS

The right to salary

Art.210 of the Labour Code



- Salary for work should be set so as to correspond to the type of work performed and the qualifications required for its performance, as well as should take into account the quantity and quality of work
- Salary is paid for the work that has been done
- An employee may not waive the right to salary or transfer that right to another person
- Payment is made at least once a month in a regular and predetermined time limit
- Payment is made in cash into the hands of the employee or in another form



EMPLOYEE RIGHTS

The right to vacation



Art.152 of the Labour Code

- An employee is entitled to an annual, paid leave
- An employee may not waive his entitlement to leave
- Duration of the leave is :
 - ✓ 20 working days if the employee is employed for less than 10 years
 - ✓ 26 working days after 10 years of service
- The employee obtains his right to first leave after 6 months of work at a rate of half the dimension of leave available to him after one year
- At the request of the employee's leave may be divided into parts
- At least one part should cover no less than 14 consecutive days



EMPLOYEE RIGHTS

The right to medical care



Art.226 - 233 of the Labour Code

- An employer may not allow a person to perform work without a valid medical certificate confirming the absence of contraindications to perform a specific job / occupy specific position
- Preliminary medical tests - perform all recruited employees
- Periodic medical examination - perform all employees in specific terms
- Control medical examination - in case of incapacity for work lasting longer than 30 days
- Medical examinations are paid by the employer



RESPONSIBILITIES OF AN EMPLOYEE



Art.211 of the Labour Code

Compliance with the rules and principles of occupational health and safety ss the responsibility of the employee, in particular, the employee is obliged :

- know the rules and principles of occupational health and safety, participate in the training and teaching in this field as well as pass the required examinations,
- perform work in accordance with the rules and principles of occupational health and safety and adhere to the issued in this field commands and guidelines of superiors,
- take care of the proper condition of machinery, tools and equipment and maintain order in the workplace,
- use collective protection measures, as well as use the allocated personal protective equipment, clothing and footwear, according to their purpose,
- undergo preliminary, periodic, control and other recommended medical examinations and adhere to medical indications; immediately notify the supervisor about noticed in the workplace accident or danger to the lives or health of people and warn co-workers and other persons in the area of the hazards about dangers threatening them,
- cooperate with the employer and superiors in fulfilling obligations relating to occupational health and safety.



Employee ordinal responsibility

Art. 108 - 113 of the Labour Code



For not following the given order by the employee, work regulations, health and safety and fire safety regulations. the employer may apply the penalty :

⇒warning
⇒reprimand
⇒financial penalty

- penalty for one excess, as well as for each day of unexcused absence can not be higher than the one-day salary
- penalty can not be applied after 2 weeks of becoming aware of the infringement of the employee duty and after 3 months of admission to the infringement
- penalty can be applied only after hearing the employee
- about the applied penalty employer notifies the employee in writing
- when applying the penalty are taken into account the type of misconduct, the degree of fault of the employee and his attitude towards work
- if the use of punishment occurred in breach of the law, the employee may, within 7 days of being notified of the penalty raise an objection
- employee who filed an objection may, within 14 days from the date of notification of the rejection of the objection to ask the work court to waive the penalty applied towards him

penalty shall be deemed null and void, and a copy of the notice of the penalty is removed from the employee's personal file after the year of impeccable work.



Work with monitor screens



Employer is obliged to provide employees :

combining commutative work related to usage of screen monitor with other types of work not aggravating eyesight and performed in other positions of the body - with no crossing hours of continuous operation when operating the screen monitor

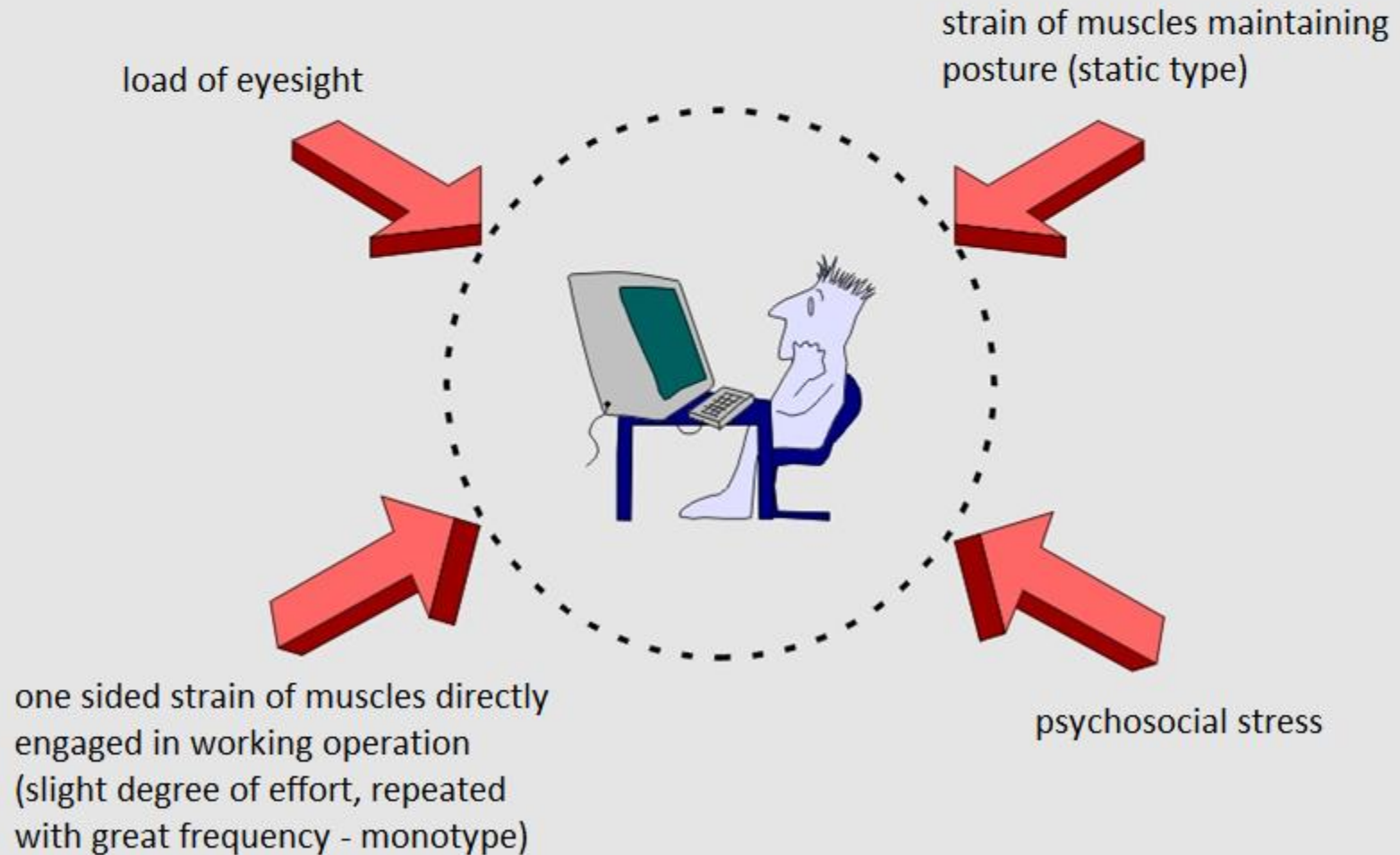


An alternative is the introduction of at least a 5-minute break, which is included in working time, after every hour of using the monitor.

This act applies to employees (including apprentices and trainees) using while working screen monitors for at least half of the daily working time.



Factors causing the load of the body while working in sitting position



Lighting

- ▶ The use of general lighting
- ▶ Illuminance : PN = 500 lx,
foreign standards = 300-750 lx

Microclimate

- ▶ Recommended air temperature is appropriately: winter 20 - 24 °C,
summer 23 - 26 °C



**Relative air humidity in the room
should be 50-65%.**

Noise

**It is recommended that the sound
level does not exceed 40-50 dB(A).**



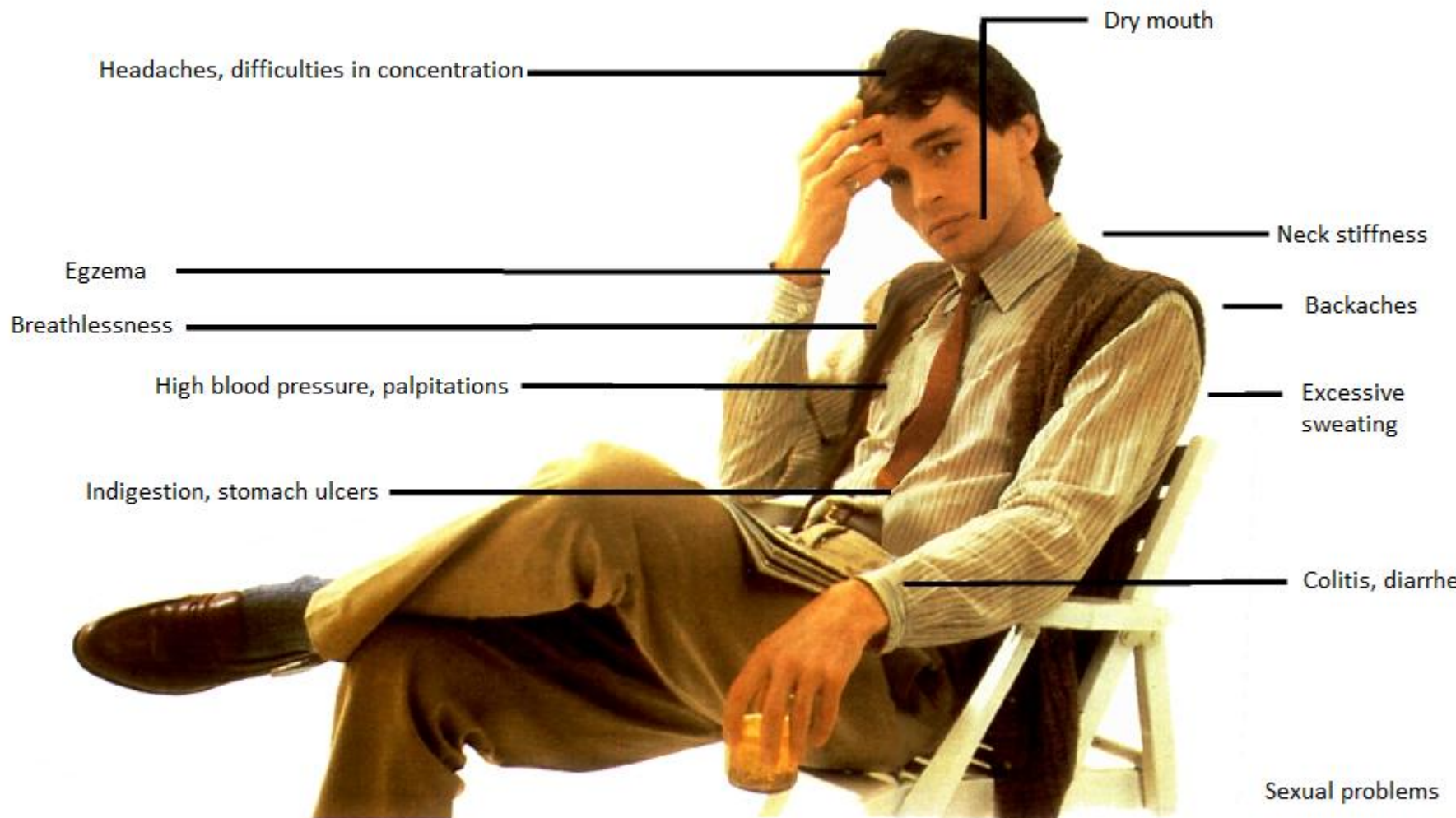
Threats

Among the diseases can be mentioned :

- **tennis elbow,**
- **carpal tunnel syndrome,**
- **neck muscle tension syndrome,**
- **subclavian vein oppression syndrome.**



Disorders caused by stress



SOURCE : T. Trauer: *Stres*. Warszawa, Publisher TENTEN 1992, s. 22-23.

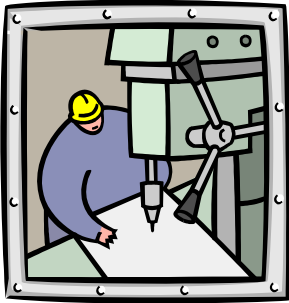
THREATS



THREATS
resulting from state of the environment which may cause an accident or disease

Hazardous factors (traumatic)

Harmful and burdensome factors



- Threats by moving and loose parts
- Threats sharp and protruding elements
- Risks associated with the movement of people
- Risk of electric shock
- Risks of burns
- A fire or explosion hazards

- Chemical:**
- Toxic substances
 - Irritant substances
 - Allergenic substances
 - Carcinogenic substances
 - Mutagenic substances
 - Substances impairing the reproductive functions

- Physical:**
- Noise
 - Vibrations
 - Microclimate
 - Ionizing radiation
 - Laser radiation
 - Electromagnetic field
 - Electrostatic field
 - Industrial dusts



- Psychophysical :**
- Physical burden (static and dynamic)
 - Psycho-neural burden

- Biological:**
- Plant and animal microorganisms (bacteria, viruses, rickettsiae, fungi, protozoa) and produced by them toxins and allergens;
 - Plant and animal macroorganisms



WORKING ENVIRONMENT PHYSICAL FACTORS position of computer operation (work of monitor)



Radiation (field) electromagnetic

- The monitor is the source;
- The intensity depends on the type of the monitor, value of the current, voltage and the quality of shielding;
- This is similar to the TV, but the operator is within 40 - 70 cm from the screen.

Electrostatic field

- It results from the positively charged screen and it forms between the screen and the operator's face;
- The positive charges of the screen change the amount of air ions on the operator post;
- The charge may accumulate on the man.

Lighting

- PN - 84/E - 02033 - 500Lx
- Set the monitor screen transversely to the windows;
- Avoid reflections of daylight and artificial light, which can cause eye fatigue;
- Taking wrong position can lead to pathological changes in muscular and skeletal system of the spine.

Noise

- Value allowed by NL - 86/3110 - 03 for 8-hours exposure is 75 dB in rooms with calculating machines and equipment;
- In rooms for theoretical work and data compilations - 55 dB.

X-rays

- It comes from the high voltage, but has a very weak intensity values detectable at a distance of approx. 5 cm in front of the screen.

Ultrasounds

- Accompany the operation of the reverse transformer and can reach relatively high levels in the operating frequency band of the monitor.

Ultraviolet and infrared radiation

- They may originate from the phosphor of the screen, but the intensity is very weak (at the sensitivity limit of the measuring equipment).

Hum. air (relative)

- In rooms with monitors - 40%;
- Humidity and wiping the screen with a damp cloth affect the electrostatic field strength occurring in front of the monitor.

Microclimate

- The impact on the mood of the operator;
- Temperature, air movement, humidity;
- Heat is nearly 4/5 of the energy produced in the human body;
- At rest, the man produces heat value of 1 kcal / min.



Classification of factors

Injuries to the body, even the death of the worker, occupational disease or lowering the efficiency of the body are formed under the influence of factors :

- dangerous,
- harmful,
- burdensome

- Contact of the employee with these factors is decisive here



Office work burdensome factors



Threats

Lp.	threat	possible source of hazard	effects	preventive measures
1	Load of eyesight	The exploitation of the computer (screen display), dazzle, reflections	visual disturbances Sicca syndrome (noticeable reduction in the frequency of eyes blinking), headache, dizziness ,	- Use 5min breaks after each hour of uninterrupted display screen work.
2	Musculoskeletal Load	<ul style="list-style-type: none"> - Prolonged work at the computer, forced posture (sitting) - Incorrect keyboard setting, ie. Raising her legs - Load of the hands muscles performing thousands of movements per working day using keyboard. 	<ul style="list-style-type: none"> Muscle pain, degeneration of the spine and joints - Strained tendons in the carpal tunnel. - A decrease in physical and mental efficiency. hands disorder 	<ul style="list-style-type: none"> - The use of work breaks - Periodically change the type of work, - Ergonomically designed office work station in accordance with the regulations, - Perform relaxation and correction exercises (deep breathing, massage of the head, neck, hands, tension and relaxation of the muscles of the legs and hands, twisting the body) - Proper nutrition of workers (rational distribution and caloric content of meals, a diet rich in fruits, vegetables, high-protein and low-fat products);
3	Fire	<ul style="list-style-type: none"> - Large number of documents, - The electrical system short-circuit - Careless handling with an open fire, - Faulty installation in the car 	Death, burns	<ul style="list-style-type: none"> - Compliance with manual fire safety., - Appropriate equipment for fire protection in accordance with the provisions, - Taking care of systematic inspections of car and efficiency of the electrical system
4	Inadequate lighting	Too intensive work at the computer, bad lighting, many hours of driving	The weakening of eyesight, eye pain, tearing,	<ul style="list-style-type: none"> - Compliance with the bench instructions concerning, among others monitor settings, proper lighting etc., - The use of work breaks



Threats continued.

5	Limited spaces	Blocked passages, misaligned tables and equipment, etc. inside rooms	Breakings	<ul style="list-style-type: none"> - Taking care for the order, proper organization of individual positions in the room - Caution
6	Electrocution	<ul style="list-style-type: none"> - Exploitation of office equipment (computer, copier) - Damaged electrical power cables, - Electrical breakdown to the device housing 	Burns, death	<ul style="list-style-type: none"> - Up to date condition check of the cable isolation, use proper fire protection in the plant (eg RCD), - Periodic inspection of electrical installations, - Compliance with the rules regarding the operation of electrical equipment
7	Level difference	Moving on the stairs	Fractures of the limbs, spine injury, bruises, hands, wrist injuries.	<ul style="list-style-type: none"> - The use by an employee of suitable shoes - Caution when climbing, descending the stairs, - The use of anti-slip protection on outdoors stairs
8	Psycho-neural loads	<ul style="list-style-type: none"> - The monotony of work - Contact with customers - The excess of duties - Pressure of deadlines - haste. - Management: contacts with employees, representatives of other institutions 	<ul style="list-style-type: none"> - The stress might lead to neurosis, depression, emotional disorders, heart disease - Professional burnout 	<ul style="list-style-type: none"> - Analysis of the course of work, the relevant planning - The introduction of the circulation at positions - Unloading stress by physical activity. - Developing the skills of assertive behavior.



Methods of liquidation or limiting
the impact on workers of
dangerous, harmful and
burdensome factors



Prohibition signs

Prohibition signs are the signs of protection and hygiene at work used to prevent accidents, health detriment and to avoid danger.



general prohibition sign



prohibition of passage



prohibition of drinking water



No entry with animals



prohibition of starting machinery, equipment



No trespassing



prohibition of movement of industrial trucks



prohibition of the use of ladders

Warning signs

Warning signs are used in factories, at workplaces to alert and inform employees and other people staying there about threats surrounding them.



general warning sign (warning, the risk of danger)



warning about the danger of poisoning by toxic substances



warning about corrosive substances



warning against a hanging objects (hanging weight)



warning about devices for horizontal transport



Warning about electric shock



beware, bad dog



warning about a fragile roof



warning about the dangers of head injury

Warning signs

Warning signs are used in places where there is risk of hazards like:

- aggressive physical, chemical and biological properties of the materials
- means of transport
- electric current
- structural building elements
- animals



warning about a height limitation



warning about laser radiation



warning about radioactive substances and ionizing radiation



warning about biological contamination



warning about the danger of tripping



warning about a slippery surface



warning about a strong magnetic field

Regulatory signs

Regulatory signs are the signs of protection and hygiene used to provide the employees and to any third party people information about the need for appropriate technical and organizational measures to prevent accidents, health detriment and avoiding danger.



general regulatory sign



warrant for the use of eye protection



warrant for the use of head protection



warrant for the use of foot protection



warrant for the use of hand protection



warrant for the use of face shields



warrant for the use of seat belts



warrant for the passage in the marked place



warrant for the use of an adjustable cover

Regulatory signs

Regulatory signs are used in areas with hazardous risks that require the use of appropriate protective measures in the form of :

- individual protection
- guards for moving or dangerous protruding parts of machinery and equipment
- fencing and securing dangerous places
- hygienic activities
- sound, light signaling etc..



warrant
for the use
of hearing protection



warrant
for the use
of respiratory protection



warrant
for the use of cover



warrant
for the use of closure



warrant to wash hands



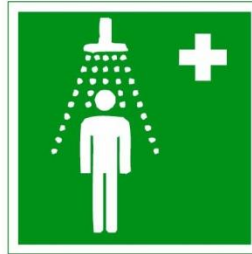
warrant
for the use
of a signal

Information signs

Information signs are the signs of protection and hygiene used to mark places where are located equipment and installations for the personal care and equipment needed in case of emergency situations.



first aid



safety shower



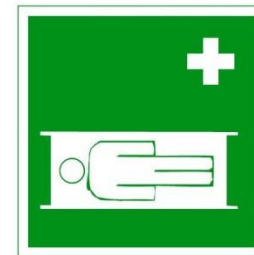
shower for rinsing eyes



emergency stop



emergency phone



stretcher

Supplementation of protection and hygiene signs

Supplement of the signs of protection and hygiene are prohibition, injunction and warning signs, used when there is no suitable symbol for the determination of the type of hazard, prohibition, injunction or warning.

These signs are :

A. General prohibition, regulatory and warning signs



closed space



The prohibition of
eating and drinking
inside



Keep away

B. Signs of protection and health at work



Wear safety
glasses



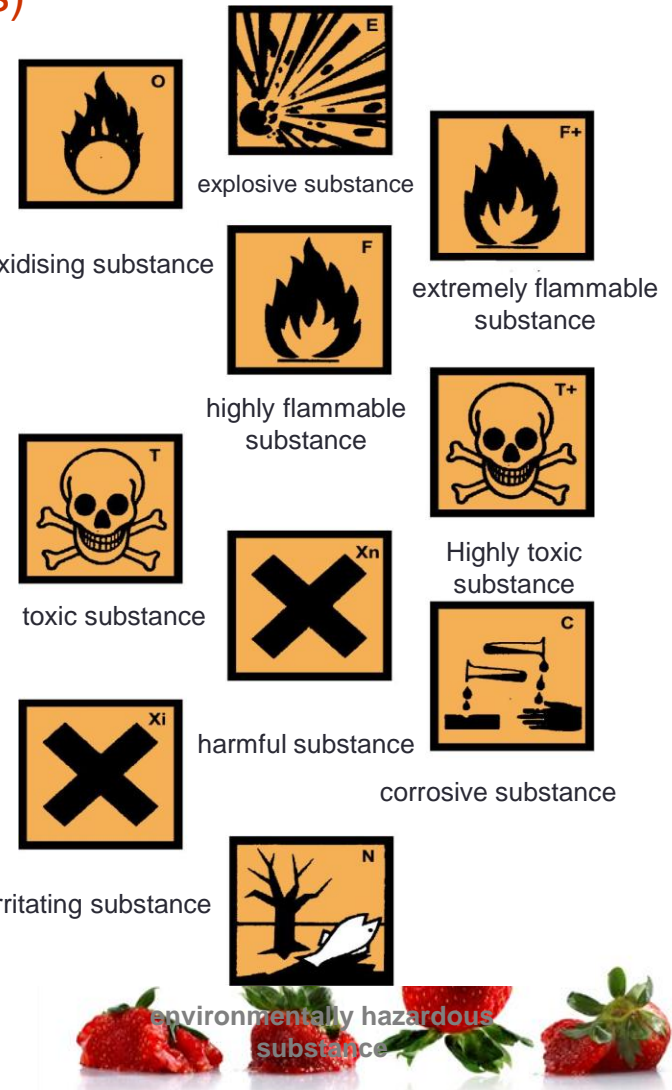
No entry and passage for
unauthorized

Hazardous chemical substances (elements, their compounds, mixtures of elements or their compounds) are substances hazardous to health or life.

As hazardous chemicals are classified:

- with explosive properties
- with oxidising properties
- extremely flammable
- highly flammable
- inflammable
- highly toxic
- toxic
- harmful
- corrosive
- irritating
- sensitizing
- carcinogenic
- mutagenic
- affecting reproduction
- environmentally hazardous

Signs and symbols indicating safety categories of health or life



Occupational hazards



„The employer is obliged to inform employees about the occupational risks associated with their work and the principles of protection against hazards”.

Art. 226 of the Labour Code

Art. 1041. § 1.

„ Regulations of work, specifying the rights and obligations of the employer and employees associated with the order in the workplace, should establish in particular :

8) obligations relating to health and safety at work and fire protection, including the way of information on occupational risks associated with work”

§ 39 Ministry of Labour Regulation of 26.09.1997. concerning the general health and safety regulations

1. The employer is obliged to assess and document the occupational risks occurring at specific works, and apply the necessary preventive measures to reduce the risk.

In particular, employer is obliged to :

1) ensure the organization of work and workstations in a manner that protects employees from accidental threats and the impact of factors harmful to health and nuisance.

2) ensure the elimination of threats to the health and lives of workers primarily through the use of technology, equipment, materials and substances that do not cause threats



ACCIDENTS



ACCIDENTS

Accident at work

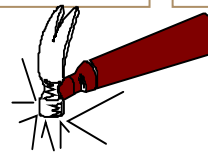
An accident at work is: - a sudden event caused by external factor, which took place in connection with the work, and which resulted in injury.

1. During or in relation to performance of ordinary activities or commands of superiors.
2. During or in connection with the performance by the employee activities in the interest of the employer, even without instructions.
3. At the time the employee remains at the disposal of the employer, in way between the workplace of the employer and the place of performance of the obligation arising from the employment relationship.

Accident equated with an accident at work

Equally with accidents at work - is treated - in terms of entitlement to benefits - accident, the employee has :

1. During a business trip, in circumstances other than those specified on the left side.
2. In connection with the serving of service in corporate and departmental formations of self-defense or in relation to participation in mandatory or voluntary fire brigade operating in the workplace.
3. When performing tasks assigned by operating in the establishment professional organizations.



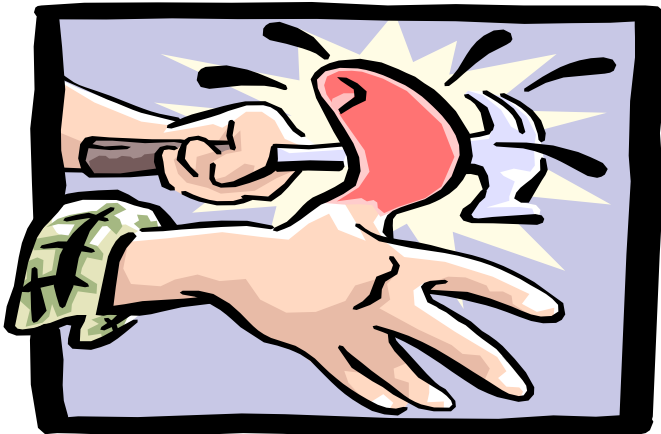
INJURY



Accident at work.

A fatal accident at work is an accident, which resulted in death at the scene of the accident or within a period not exceeding 6 months from the date of the accident.

A serious accident at work is an accident which resulted in serious bodily injury, ie, loss of sight, hearing, speech, the ability to procreate, or other injury or health disorder, affecting the basic functions of the body as well as incurable and life-threatening, durable mental illness, permanent, total or substantial inability to work in the profession or permanent serious disfigurement or distortion of the body.



The collective accident at work is an accident, which as a result of the same event, affected at least two people



Causes of accidents at work

Technical factor

Damaged machinery, equipment; their technical defects

- The use of moving machinery, equipment and parts, internal and road transport, ladders, slippery floors,
- Lack of safe technical solutions need to reside of an employee in immediate danger zone,
- Inadequate protection of equipment and machinery,
- Risk of excessive or low temperature of substances or objects,
- Traumatic threats by edges, sharp cutting parts,
- Risk of electric shock, fire, explosion, dust, gas,
- Lack of or poor condition of equipment used to remove harmful and hazardous material factors from work environment- flammable, explosive, highly toxic.



Organizational factor :

- Incorrect division of labor or tasks planning,
- No instructions about handling devices and machines,
- Incomprehensible, incorrect superiors commands,
- Tolerance by supervision deviations from the OSH,
- Lack of supervision, control,
- Inadequate coordination of collective works,
- Inadequate adaptation of equipment to the needs of worker safety,
- Inadequate professional preparation of an employee, improper selection of employees for a specific position,
- Improper positioning of the tools in the workplace,
- No personal protection or wrong selection of them,
- Inadequate transitions and access,
- Inadequate arrangement and storage of objects of labor (raw materials, products, half-products).



Human factor (The behavior of the employee)

Mistakes due to human disability (sensory disability, insufficient knowledge, experience, failure to comply with health and safety regulations), difficult, dangerous tasks, the characteristics of the physical and social work environment.

- Lack of control over threats and own behavior, activity in the zone of immediate danger.
- Mistakes, employee negligence.
- Haste, facilitating the work, which cause health and life hazards.
- Consciously perform hazardous tasks without the necessary safeguards, being sure to avoid an accident.
- Abnormal behavior resulting from the jokes, fun, desire to annoy and other signs of behavior caused by emotional state, the weakening of discipline and compliance with rules at work.
- Inaccurate response as a result of excessive fatigue.



Improper supervision behavior:

- Lack of interest in knowledge and practical skills of subordinates.
- No internal system of supervision and control over work safety.
- No initiative for prophylaxis against accident.
- Lack of control of the technical condition of machinery and equipment
- The command to perform the task in conditions contrary to the rules and principles of occupational health and safety or tolerance of the risk of accidents on entrusted section of supervision.
- Conscious referral to a job or admission to it in hazardous conditions.
- Lack of measures limiting risk of an accident.
- At works and activities, with a certain risk of an accident, poor preparation for performing these activities, inadequate supervision at their performance.



Council of Ministers regulation of 18 November 1983. On occupational diseases

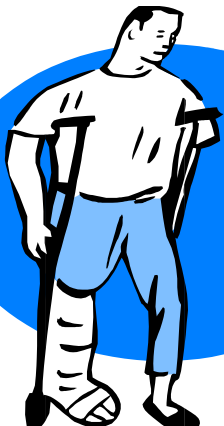
§ 1.1. Occupational diseases are considered to be diseases referred to in the list of occupational diseases if they are caused by factors harmful to health occurring in the work environment.

§ 10. 1. On the basis of the decision and the results of additional epidemiological investigations competent for the establishment workplace health inspector issues a decision on the finding of an occupational disease or a decision about no basis for its finding.

The Labour Code

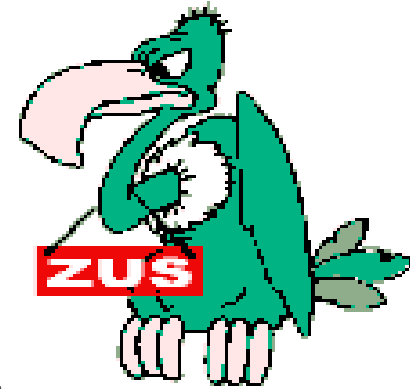
Art. 235. § 1. The employer is obliged to immediately notify the competent authority of the State Sanitary Inspectorate and the competent labor inspector about every case of occupational disease diagnosed or suspicion of such disease.

Art. 230. § 1. In case the employee indicates of the onset symptoms of occupational disease, employer is obliged to, on the basis of a medical certificate, the date and time specified in the judgment, transfer the employee to another job not exposing employee to the factor that caused the symptoms.



Benefits in respect of accidents at work :

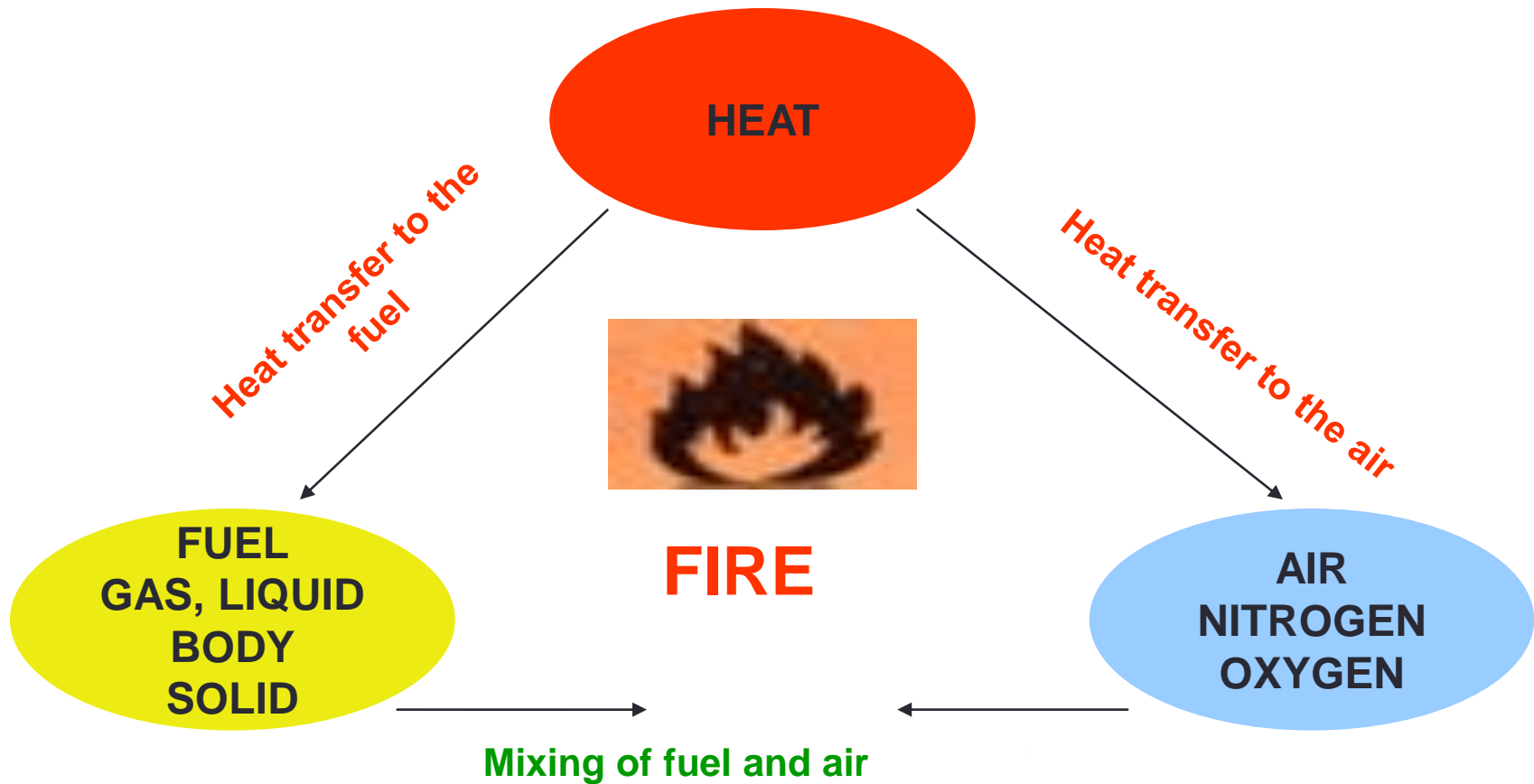
- one-time compensation - for an employee who has suffered a permanent or long-term loss of health;
- one-time compensation - for family members of the deceased employee or pensioner;
- compensatory benefits - for employees whose pay has decreased due to permanent or long-term loss of health;
- compensation for items lost or damaged due to an accident at work - for the worker or his family members;
- training pension for an employee in relation to whom was ruled a desirability of retraining due to the inability to work in current occupation;
- family pension - for family members of the deceased employee or pensioner;
- disability pension - for an employee who has become disabled person;
- free medical benefits, obstetric and rehabilitation, supply of medicines, orthopedic equipment, prostheses, auxiliaries and the right to professional training and other benefits in kind - for an employee or pensioner and the members of his family.



Fire Protection



Conditions for the formation of a fire.



Fire Protection

Rules of conduct in case of fire.

Article 9 of the Law on the Protection of fire of 24 August 1991

Employees should know their duties in the event of a fire, in particular :

- be able to alert the fire brigade;
- be able to use the pop-fighting equipment;
- be able to act in case of fire in the workplace including cooperation with the emergency services.



- keep calm, warn co-workers;
- alert the fire brigade;



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- disconnect from the power supply electrical equipment, turn off ventilation systems, transport and heating;
- close the main gas valve, block pipelines;
- immediately leave dangerous place by marked escape routes, in the event of smoke move with your head at a height of approx. 1 m (protection against smoke and heat);
- Do not use elevators.

Who will notice a fire, natural disaster or other local threat is obliged to immediately notify the people in the danger zone and fire protection unit, or police...



Fire Protection

Alarming the fire brigade :

To alert the fire department you should :

- Press the manual fire alarm



- From the nearest phone connect to the station to alert firefighters or factory headquarters and report:



➤ What is burning?

- (what kind of a room or building, etc .. relatively any other type of event at which intervention of rescue services is necessary);

➤ Where is burning?

- address, what is the threat? whether in the facility are people, what objects are in the neighborhood and are they at risk?.

➤ Who reports?



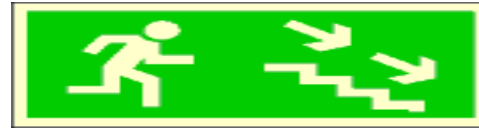
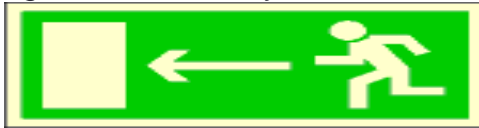
Fire Protection

Evacuation :

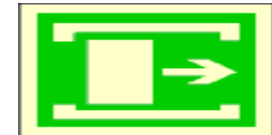


❑ **Evacuation routes, emergency roads** and emergency exits, as well as their routes should be marked in a visible and lasting manner;

❑ **Evacuation and fire protection signs** should be made of photoluminescent materials, if use of emergency lighting is not necessary.



- ❑ Do not block (either from inside or outside) and do not close emergency exits;
- ❑ Doors must be at any time quickly and easily opened without any additional aids, as long as there are people in the room;
- ❑ The requirements for emergency exits are not met, if there is no box with the key next to the emergency exit;
- ❑ Fire doors and smoke-tight doors must be kept closed, except for doors equipped with properly functioning, efficient self-closing devices;
- ❑ No objects can hinder self-closing door.



❑ **Evacuation** – of property in the plant should be carried out taking into account the items that are the basis for the establishment for its operation: eg. : plans, projects, computer diskettes, unique equipment, prototypes. Evacuation of large and heavy items is unrealistic and pointless.



FIRE PREVENTION

- ❑ Do not change the location of the installed fire-fighting equipment and fire alarm;
- ❑ Don't obstruct and don't limit the escape routes;
- ❑ Escape routes can not be used for storage of items and different materials;
- ❑ Familiarize employees with fire regulations in force in the workplace;
- ❑ In potentially explosive areas, in the fire hazardous materials storage places and set by the owner of the object, do not use open flames or smoke;



- ❑ Smoking cigarettes is only allowed in the designated areas;
- ❑ Devices and electrical equipment should be used in accordance with the manual;
- ❑ Do not store flammable materials in the distance of less than 0.5 m from :
 - equipment and installations whose exterior surfaces can heat up to temperatures in excess of 1000C;
 - cable lines with a voltage above 1 kV;
 - grounding wires and lightning protection wires;
- ❑ The distance from the heat radiation sources should be at least 1 m;



- ❑ Storage of flammable liquids and substances only in the areas designated for that purpose;
- ❑ Limiting the amount of combustible materials stored at the workplace - no more than the daily demand;
- ❑ The systematic removal of flammable waste;
- ❑ Decantation of residues of highly inflammable liquids to separate containers by type of chemical composition,



Flammable waste materials and liquids of unknown composition should be stored separately.

Flammable wastes, including oil saturated rags, dispose of to non-flammable sealed containers



First-aid



First-aid



Set of operations performed in the event of an accident, injury, or a sudden attack of illness in order to protect the life or health of the victim and minimize adverse consequences, before it will be possible to provide specialist medical care (after transportation to the hospital).



First Aid Steps

- Evaluate safety
- Evaluate consciousness
- Shout for help
- Open the airway
- Evaluate breath
- call 112
- 2 rescue breaths
- 30 chest compressions



Evaluate Safety:

- Place of event
- Rescuer
- The injured
- Witnesses



EVALUATE CONSCIOUSNESS



- Shake the shoulders
- Ask: "Is everything all right"
- If the victim responds:
- Leave him in the existing position
- Find out what is wrong
- Regularly repeat evaluation



ASSESSMENT OF THE VICTIM CONDITION

LIFE SIGNS

BREATH

PULSE

Is victims respiratory system clear and if he can breathe?:

CHECK

Is blood circulation not stopped?:

- Look, if you can see the movement of the chest or stomach - make sure they are even and regular;
- listen for breath near the nose or mouth of the injured;
- You should feel the breath of the injured on the face.

ACTIVITIES

- if you need to, breathe deeply to calm down;
- Use only the tips of 2 fingers (not the thumb);
- move the fingertips to the back of the side of the Adam's apple into the cavity between it and the muscle lying on the side;
- if you can't feel the pulse right away, move your fingers closer or further from the Adam's apple until you feel the pulse.

RESTORATION OF PATENT AIRWAYS

ARTIFICIAL RESPIRATION

INDIRECT HEART MASSAGE



ARTIFICIAL RESPIRATION USING MOUTH TO MOUTH METHOD

The first step is to ensure that the airway is clear by placing the victim in a supine position on a hard surface and the bend of the head towards the back. We check whether the oral cavity has no items disrupting the airway, for example, prosthesis, other foreign bodies.

1. Person conducting artificial respiration kneels behind the head on the left side of injured.
2. Tilts his mandible and his head upwards and rearwards.
3. Blowing air into the mouth of the injured in each case preceded by a deep breath of lifeguard. The correct volume of air blown into the lungs is indicated by elevation of the chest of the injured.
4. Each time blowing air into the mouth of the injured, cover his nose with fingers of your free hand.
5. After deducting mouth from mouth of the injured, his chest due to the elasticity of its walls falls and you can hear the murmur of passive exhalation of the injured.
6. Respiration frequency is approximately 12 times per minute.



➤ Before artificial respiration you should raise and sustain the victim's neck and tilt her head back.

➤ Maximum unblocking of rescued person's airway requires keeping her chin up.



➤ At the time of the artificial respiration victim's nose should be tightened between thumb and forefinger.



INDIRECT HEART MASSAGE

It is a procedure performed simultaneously with artificial respiration and both of these operations must be synchronized with each other:

- the victim lies in a supine orientation on a hard surface, the same as when conducting artificial respiration;
- the person conducting cardiac massage kneels on the right side of the victim;
- stacked hands put on 1/3 of the lower part of the sternum, with straight arms in both elbows;
- perform compressions dynamically by moving the weight of the body on straight arms;
- the condition of effective cardiac massage is to lower the level of the bridge about 4 cm and the appearance of the pulse at the periphery, ie. carotid or femoral arteries;
- massage is performed at a frequency of about 60 times per minute.

- If the rescuer is alone, he should perform 2 breaths to 30 compressions of the sternum.
 - one compression per second;
 - one breath for 5 seconds.



- Compression should be carried out exactly in the middle of the sternum



- External cardiac massage connected with artificial respiration by mouth to mouth performed by 2 rescuers: the relation of breathing rhythm to the compression of the heart is as 1 to 5.



- ❑ First Aid - it's quick and organized action carried out by the people around the victim of an accident.
- ❑ Efficient and reasonably competent action when giving first aid is crucial for the further results of treatment by a professional healthcare - often determines the life of the injured person. First aid is given at the scene of the accident.

I. General principles of giving first aid:

The risk assessment and taking action;

- 🔔 Remove a factor acting on the victim as fast as possible;
- 🔔 Checking the pulse (touching carotid artery by fingers);
- 🔔 Checking breathing and airway patency;
- 🔔 Assessment of the state of consciousness;
- 🔔 Determining the type of trauma (wounds, fractures, etc.);
- 🔔 Securing the victim against the possibility of additional injury or other danger (eg. Carrying the victim out ...);
- 🔔 Call professional help (doctor, Ambulance, etc.);
- 🔔 Organising transport of the victim (if it is not possible to quickly reach a doctor).



II. Injuries:

Immediate stop of bleeding;

- 🔔 The removal of foreign bodies from the wound (only visible, removal of which is not difficult);
- 🔔 Securing the wound from infection by cleaning the wound area within a radius of 4-5 cm from the edges of the wound on the outside (don't rinse or wipe deep wounds, only cover with sterile dressing and bandage);
- 🔔 In the case of wounds contaminated rinse with 3% hydrogen peroxide;
- 🔔 Cover wounded place with sterile gauze, put a lignin or cotton on it;
- 🔔 Fix the dressing with bandage, adhesive plaster or a triangular shawl - depending on the size of the injury;
- 🔔 All patients (wounded) with serious injuries should be sent to the hospital immediately.



First aid in case of emergency

III. Bleeding :

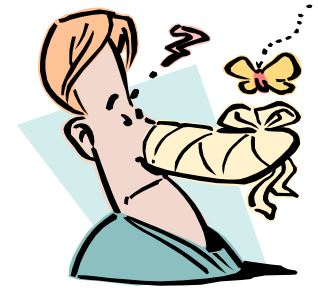
Compression bleeding vessel with fingers :

- artery is pressed against the bone above the wound site, and with bleeding from the carotid artery and temporal - below the wound site;
- with bleeding from a wound on the leg - lift it up;
- you should apply pressure firmly with your thumb, four fingers or fist.









Setup of a pressure dressing :

- temporarily stop the bleeding (fingers pressure);
- put a sterile gauze bandage (folded multiple times);
- bandage firmly.



IV. Fractures :




Put on sterile dressing on the wound (in the case of open fracture);

-  Immobilise the broken limb using the principle of immobilizing two neighboring joints (for this purpose use handheld equipment, eg. A stick, board, etc.).
-  With fractures of the upper limbs, lower legs and ribs, the victim can be moved and transported in a sitting position;
-  When thigh, pelvis and spine is broken - only in the supine position;
-  With fracture of the spine victim must be placed on a hard surface;
-  Give anesthetics;
-  Provide transport to the doctor.



V. Dislocations :

Put a cold compress on the dislocated joint (eg. from Altacet);

-  Immobilize it using rails and bands;
-  Give anesthetics;
-  Transport the patient to the doctor (with dislocation of the knee, hip and ankle - in the supine position).



First aid in case of emergency

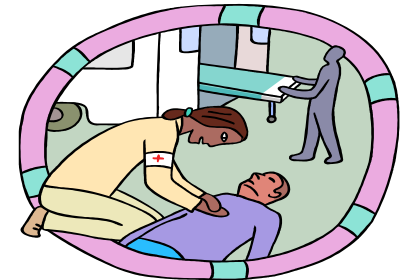


VI. Burns:

- ☀ Interrupt contact with burning factors;
- ☀ Pour with clean cold water for several minutes, give anesthetics;
- ☀ Protect the burned surface against infection by setting the dressing (sterile gauze);
- ☀ Provide medical care to injured.

VII. Electrocution :

- ☀ Immediately release electrocuted from electric current through :
 - switching off the appropriate electric circuit;
 - pulling back the electrocuted from devices with voltage, protecting themselves against the risk of;
- ☀ Depending on the condition of electrocuted take appropriate rescue steps :
 - at breathing stopped - artificial respiration;
 - in case of burns, bleeding, wounds, etc. proceed as it is necessary in such cases.



VIII. Chilblains :

- ☀ Gradually warm chilblained place (at 1st degree);
- ☀ Apply a sterile dressing (at 2nd and 3rd level);
- ☀ Give anesthetics (at 2nd and 3rd level);
- ☀ transport the injured to hospital(at 2nd and 3rd level);
- ☀ At all stages of chilblains serve warm fluids to drink.





Ministry of Labour Ordinance of 26 September 1997. On general health and safety regulations (Journal of Laws No. 129, item. 844, as amended. D.)

The employer is obliged to provide employees with:

- 1. First aid points at the faculties (departments) equipped with a sink with hot and cold water and all the necessary equipment and other resources for first aid.**
- 2. First-aid kits in different faculties (departments) of the company.**

⇒ Location, equipment, and the number of points and first aid kits should be determined with a doctor taking care of the preventive health care and should be dependent on the existing hazards.

⇒ Service of points and first aid kits should be entrusted to designated employees trained in first aid.

⇒ At points and at first aid kits instructions on giving first aid and the lists of employees trained in first aid should be posted.

⇒ Points and first aid kits should be easily accessible and labeled according to the Polish Standard.



Thank you for your attention, now I invite you to solve the test (click on the button below to start the test):

OHS Test

