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TRAINING MATERIAL FOR ASSESSING THE RISK IN HOTELS AND RESTAURANTS



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Short description of the chapter

Goals of this chapter:

- Acquaint with restaurant and hotel staff structure,
- Analyse risk factors that hotel and restaurant employees are exposed to in relation to their workplace, type of work performed and working tools used.
- Understand the notion of occupational risk,
- Briefly discuss occupational risk factors and learn to classify them.

This chapter will give the employee, the employer or the owner of an enterprise a general view of hazards present in workplaces in hospitality industry, to understand the complexity of the effect of these hazards on human health and the benefit of occupational risk assessment **##G16##**.

M9-EN.1.1 Restaurant and hotel staff structure

The sector under discussion involves two big areas of hospitality industry - hotels and restaurants. There are many jobs in hotels and restaurants, the majority of employees being involved in customer service working in the kitchen, restaurant and hotel.

Therefore, while assessing the workplace risk, it is important to assess the premises where the workplace is located (**M9.1.1.jpg**)

- Kitchen
- Restaurant
- Hotel

Restaurant staff is conventionally divided into two parts (by workplace):

- Waiting staff
- Kitchen staff

Waiting staff includes	Kitchen staff includes
Waiters	Chefs
Barmen	Chef assistants
Receptionists	Kitchen assistants

Depending on the number of serviced customers, one or more chefs may be employed in the kitchen. If more than one chef works in the kitchen their functions may be divided by the type of dishes prepared, namely vegetable dishes, meat dishes or desserts. The same applies to kitchen assistants, cleaners and other positions, the number of which may depend on various issues.

M9-EN.1.2 Description restaurant personnel activities

M9.1.2.jpg

Depending on the workplace and the nature of work (the activity of an employee) we may distinguish work tools used by restaurant personnel (see Table1).

Table 1: Work tools used by restaurant personnel

Workplace	Position	Activities	Work tools
Restaurant	Waiter	<ul style="list-style-type: none"> - Meeting customers and seeing them to the table - Setting the table - Preparing glasses and cutlery - Providing the menu, fetching food and drinks for the 	Cash-register

		<p>customer</p> <ul style="list-style-type: none"> - Collection of dirty dishes - Collection and washing of used ashtrays - Table clearing and cleaning - Collecting payment from the customer 	
Restaurant	Barman	<ul style="list-style-type: none"> - Serving customers at the bar, preparing and serving cocktails - Preparing simple meals and drinks, explaining the technology of food and drink preparation to the customer - Clearing the bar – taking away empty glasses and cleaning - Ordering and accepting goods, evaluating the quality of deliveries - Working with technological equipment, scales, cash-registers 	<ul style="list-style-type: none"> - Coffee machine - Various technological equipment – beer, juice dispensers etc - Cash-register
Kitchen	Chef	<ul style="list-style-type: none"> - Preparing all sorts of cold and hot meals, snacks, soups; - Making the menu; - Precise weighting, preparing servings, mixing products according to the recipes 	<ul style="list-style-type: none"> - Pots - Pans - Electrical kitchen appliances Electrical and gas cookers - Grills - Ovens - Cutting equipment - Food products
Kitchen	Kitchen assistants	Cutting vegetables, preparing salads, decorating dishes, washing plates, pans, pots and tidying the kitchen	Knives, vegetable graters, meat mincers, dough blenders, kitchen appliances, detergents

M9-EN.1.3 – Description of hotel personnel activities

M9.1.3.jpg

Depending on the workplace and the character of work (the activity of an employee), we may distinguish work tools used by hotel personnel (see Table 2).

Table 2: Work tools used by hotel personnel

Work place	Job	Activity	Work tools
Hotel	Receptionist	<ul style="list-style-type: none"> – Welcoming and registering customers – Giving orders to the porter – Accepting room orders and bookkeeping 	Office equipment
Hotel	Chambermaids	<ul style="list-style-type: none"> – Cleaning and tidying rooms – the floor, furniture, the bathroom, the toilet, taking out garbage, making up beds, changing bed linen and towels, filling soap containers etc, arranging dry cleaning service 	<ul style="list-style-type: none"> – Domestic cleaning appliances, various cleaning, washing and disinfecting detergents
Hotel	Hotel cleaners	<ul style="list-style-type: none"> – Tidying general premises of the hotel – the floors, furniture, toilets, sinks etc 	<ul style="list-style-type: none"> – Cleaning equipment and detergents
Hotel (swimming pool)	Instructors	<ul style="list-style-type: none"> – Client supervision and instructing – Providing first aid 	
Hotel (swimming pool)	Service staff	<ul style="list-style-type: none"> – Maintaining hygiene and order in the swimming pool and surrounding area, cleaning, disinfecting 	<ul style="list-style-type: none"> – Chemical substances, cleaning and disinfecting substances – Electrical swimming-pool cleaning equipment
Hotel	Service staff – gardeners, outdoor workers	<ul style="list-style-type: none"> – Hotel grounds keeping – lawn moving, trimming bushes and scrubs, planting flowers etc. 	<ul style="list-style-type: none"> – Electrical equipment, – Hand tools for grounds keeping
Hotel	Administrative workers	<ul style="list-style-type: none"> – Work with PC, communication with suppliers, clients, etc 	<ul style="list-style-type: none"> – Computers, office equipment

M9- EN.1.4 The notion of hazard

This chapter introduces key definitions, explains the difference between risk and hazard, teaches about occupational risk assessment and the purpose of assessment. The chapter also deals with the main elements of occupational risk and their classification.

(M9.1.4.jpg)

M9- EN.1.4.1 Key definitions

Occupational risk – injury or any other employee health disorder due to harmful and/or hazardous factor (effect) in the work environment

Hazard – property or ability of an object (e.g. work material, work tool or process) with inherent potential to cause harm: electrical hazard, crushing hazard, cutting hazard, fall hazard, burn hazard etc.)

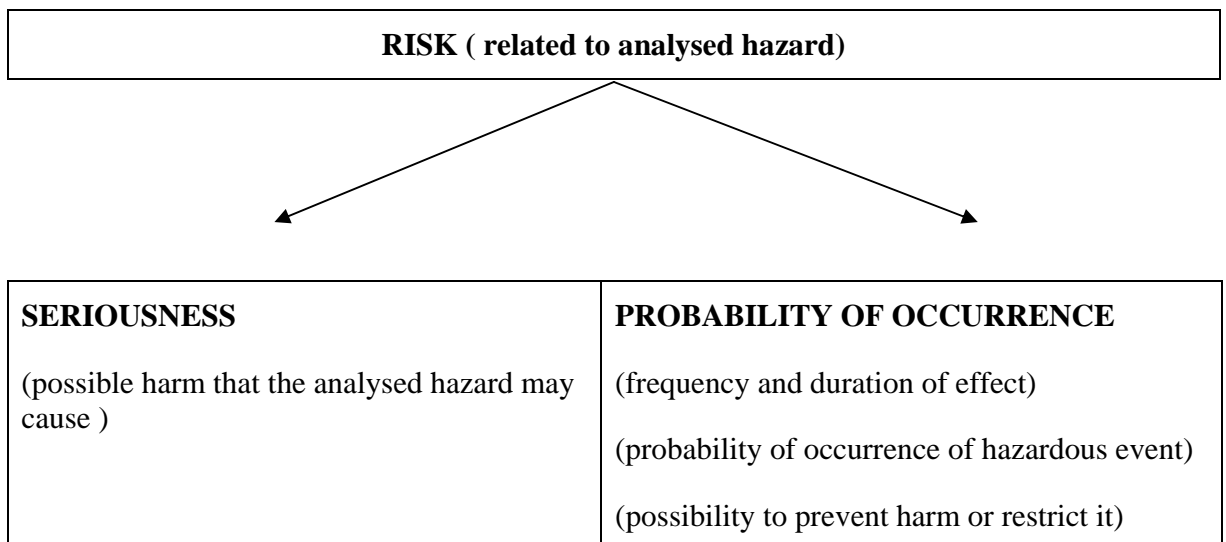
Hazardous situation - any situation where a person is exposed to hazard or hazards

Hazardous event (hazardous factor) - an event or factor which may cause harm

Harm – physical injury and/or health disorder or property damage

Preventive measure – a measure that eliminates or reduces risk

M9- EN.1.4.2 Main elements of occupational risk



M9- EN.1.4.3 Classification of occupational risk factors

The main harmful and hazardous risk factors that can affect health of employees in the sector under review:

– **Chemical (hazardous chemical substances or preparations)**

What are the substances, which employees and where do they have contact with them (in the sector under review)?

- Cleaning, disinfecting, washing, substances, various aerosols...
- Cleaners, chambermaids, kitchen workers, auxiliary workers.

– **Biological (substances of biological origin, microbes, cell cultures, human endoparasites)**

What are the substances, which employees and where do they have contact with them?

- Unprocessed food, flour dust, all sorts of waste – kitchen workers, dirty laundry – chambermaids, laundresses etc.

– **Physical**

What to your opinion are physical risk factors? Give examples.

- Noise, vibration, electromagnetic field, hot, cold environment, lighting...

– **Ergonomic**

Please provide examples how you understand these factors:

- Physical work load, work strain, adjustment of workplace to the employee

– **Psychosocial (factors that can cause mental stress to the employee).**

What are the factors?

- Work conditions, work requirements, work organisation, work content, employee relations, employer – employee relations.

Physical (factors with inherent injure potential: work tools and their moving parts, lifting equipment, lifted load, vehicles, falling items, explosion and/or fire, liable to fall work tools etc.)

Give specific examples of physical risk factors that you encounter while performing a specific task.

When risk factors characteristic to each workplace are determined it is easier to define and assess risk in every particular workplace of the enterprise. Hereby, an employer or an enterprise owner may easily assess the exposure of each particular workplace to risk, basing on the types of involved hazards and adapting the study material to his enterprise.

Risk factors will be analyzed in more detail to give a better understanding of potential hazards to employees working in hotel and restaurant sector.

M9-EN.1.4.4 Aim of occupational risk assessment

Assessment of occupational risk in workplaces is a consistent analysis of the effect of hazards and harmful factors on employees in their workplaces, which enables to assess nature and degree of present or potential risk and to make decisions whether this risk is acceptable or unacceptable.

Residual risk is risk that remains after safety measures are applied.

It should be emphasised that except for a few types of injuries and health disorders (e.g. hazards or injuries or health disorders due to noise or poisonous substances), when the degree of risk can be estimated after measuring marginal duration of noise level or maximum permissible concentration of poisonous substances in the environment, most often risk assessment of is subjective.

The purpose of risk assessment is to define the probability of employee injuries and/or other health disorders due to a harmful environment factor or effect of the factors by assessing how the workplace, work environment, work tools, work conditions conform to employees safety and health requirements established in legislative acts on health and safety and to provide for preventive measures to protect employees from risk or reduce the risk as much as possible.

However, in all cases it is very important to identify possible hazards, know them, name and foresee safety measures in order to minimise risk.

Risk assessment enables to define if there are enough measures to assure employee safety and health, if there a necessity to take additional technical or organisational measures in order to avoid injuries and occupational illnesses.

Accidents at work place, cases of occupational illnesses can happen due to improperly arranged workplaces, non-observance of safety and health requirements which result in long-term loss of working capacity, invalidity or death.

M9-EN.1.5 Self-assessment test

Check your comprehension of presented study-material by answering questions in document **##D1##**.

Correct answers are available on page **##D2##**.

M9-EN.2 MECHANICAL HAZARDS

M9-EN.2.1. Mechanical factors of occupational risk in hotels and restaurants

M9-EN.2.2. Hazards of using manual and mechanical cutting equipment

M9-EN.2.2.1. Risk factors and their effect on human health

M9-EN.2.2.2. Personal protective equipment

M9-EN.1.3. Hazards related to parts moving out of control

M9-EN.2.3.1. Risk factors

M9-EN.2.3.2. Personal protective equipment

M9-EN.2.4. Hazards related to slips, trips and falls

M9-EN.2.4.1. Risk factors and their effect on human health

M9-EN.2.4.2. Personal protective equipment

M9-EN.2.5. Self assessment test

Short description of the chapter

This chapter covers **mechanical risk factors** related to various mechanical hazards to human health. The following mechanical risk factors **##G4##** that employees working in hotel and restaurant sector are most often exposed to (major attention is given to **kitchen and waiting staff, housekeeping staff**) are distinguished:

- Manual and mechanical cutting equipment
- Parts moving out of control
- Slips, trips and falls.

Goals of this chapter:

- Define mechanical risk factors
- Analyse the most common types of mechanical factors that can cause harm to **kitchen and waiting staff, housekeeping staff, grounds keepers.**
- Discuss the effect of these mechanical factors on human health
- Present safety measures and equipment helping to reduce or prevent the negative effect on human health.

This chapter will help the managers to determine mechanical factors of occupational risk in hotel and restaurant sector, to assess each particular situation and take appropriate preventive measures to reduce the risk. (M9.2.jpg)

M9-EN.2.1 Mechanical Factors of Occupational Risk in hotels and restaurants

According to the definition (**##G4##**), risk factors can be divided into the following groups:

- Manual and mechanical cutting equipment (knives, spits, can openers, cutting and mixing equipment, meat mincers and the like)

- Things with dangerous surfaces (roasting tins, sharp edges, cans, glassware and the like)
- Moving equipment (carts, swing doors)
- Parts moving out of control (falling shelves, slipping drawers, stacks of plates)
- Trips and slips (slippery floor, e.g. spilled grease, floor cleaned with improper detergent, wet floor, improper footwear, unsuitable floor surface, changes in floor level, narrow gangways, untidy surroundings, improper lighting, absence of emergency lighting and the like)
- Falls (absence of handrails, steep staircase, defective or unstable ladders)

Accidents related to mechanical risk factors most often result from:

- Staff attempts to repair faulty equipment and ignoring safety requirements
- Using not properly prepared equipment
- Equipment cleaning without following safety instructions
- Failure to abide to equipment maintenance schedules
- Using unsafe stairs or ladders
- Failure to keep safe distances
- Failure to use personal protective equipment
- Narrow, block or poorly illuminated gangways
- Improperly cleaned, slippery, not regularly maintained floor

M9-EN.2.2 Hazards caused by manual and mechanical cutting equipment

M9-EN.2.2.1 Risk factors and their effect on human health

Taking into consideration groups of physical risk factors, hotel and restaurant employee structure (see: M9-EN.1.2, M9-EN.1.3), employee activities, and tools and equipment used we may see that **kitchen and waiting staff, gardeners and grounds keepers** are most often exposed to hazards caused by manual and mechanical cutting equipment.

Kitchen staff while using different cutting, mincing, mixing and similar equipment for food preparation

Waiting staff while laying tables, cleaning cutlery and glassware

Gardeners and grounds keepers using mechanical and electric lawn movers, tree and scrub trimmers

Body injuries resulting from mechanical effect may differ from easy cuts to deadly injuries. Any part of the body may be injured; however, the following parts suffer most often:

- hands
- arms
- feet

- head
- chest

The seriousness of injury depends on the energy of the object that caused the injury. Wounds are classified as follows:

- cuts (even edges, heavy bleeding, quicker healing and seldom suppuration. Dangerous in palm area as blood vessels may be damaged)
- lacerations and abrasions (uneven edges, not heavy bleeding, more tissues are damaged, problematic healing, possibility of infection)
- puncture wounds (very small area (1-2 cm) of skin is damaged, however the wound may be very deep, blood vessels and internals may be affected)
- other types of wounds

Therefore, the analysis of hazards caused by machinery and equipment with unprotected moving parts should cover all equipment used and answer the following questions:

- Is it possible to be injured while using the equipment and machinery (e.g. cut, bang, squeeze etc.)?
- Are modifications made in order to prevent touching hazardous zones during cleaning or maintenance?
- Is personal protective equipment (PPE) used while working with knives and applying force (meat boning, opening oyster shells etc.)?
- Is equipment guarded from causing incidental cuts, punctures by sharp edges, can tops, broken glass?

All equipment must be inspected separately.

M9-EN.2.2.2 Personal protective equipment

To avoid mechanical hazards it is important to comply with safe equipment operation instructions:

- Never open covers of machines while the engine is still running
- Never touch interlocks and safeguarding systems
- Never put anything into the container while the machine is in operation
- Never press ingredients by hands.
- Not overload the machine
- Regularly check the fuses
- Switch off the power while changing components of the machine
- Switch off the power while cleaning the machine

In addition, it is necessary to:

- Handle all sharp things (knives and cutting discs, bands, graters, spits) with appropriate care

- Keep all tools and instruments in designated places (**M9.2.2.2.jpg**)
- Install appropriate holders for knives
- Collect glass and cans in separate containers
- If possible, use PPE (protective aprons, special cut-proof gloves)

M9-EN.2.3 Hazards related to parts moving out of control

M9-EN.2.3.1 Risk factors and their effect on human health

Parts moving out of control are those, which may:

- **Fall and sway**

Things or work tools with unstable centre of gravity may fall when the centre of gravity changes after the thing or work tool is pushed or moved (for instance a stack of packs loaded on top of each other in several lines. When attempts are made to take a pack from the bottom row there is great possibility that the stack will start swaying and may fall).

- **Roll and slide**

When rolling or sliding things (loaded things, beer barrels, drawers etc.) are impacted by force they may start rolling or sliding and injure people. The effect may be caused by external force, shock, slippery surface and the like.

- **Fall, disengage, spread and scatter**

Things loaded on elevated surfaces (bottles, plates, glasses etc.) may fall through openings, get disengaged as a result of vibration, pushing or moving and injure people.

Taking into consideration groups of physical risk factors, hotel and restaurant employee structure (see: M9-EN.1.2, M9-EN.1.3), employee activities, tools and equipment used we may see that **kitchen and waiting staff** are most often exposed to hazards caused by parts moving out of control.

The following shall be determined during risk assessment:

- Are there any things in kitchen premises that may fall, roll or slide?
- Are equipment safely fixed to the base, is their stability ensured during handling?
- Are supplies in the storage safely loaded, with respect to the allowed height, appropriate order, not obstructing gangways or exits?
- Are shelves firm and not overloaded, are they used for their intended purpose?
- Are protective sides used to avoid the falling of things from elevated surfaces?
- Are clean plates loaded in a manner preventing falls?

M9.2.3.1.jpg

M9-EN.2.3.2 Personal protective equipment

To avoid hazards caused by parts moving out of control the following shall be ensured:

- Stable position of machinery and equipment
- Correct loading and unloading of supplies
- Form, dimensions and load capacity of shelves shall be adjusted to specific items stored on them
- Protective sides and strips shall be used to protect things stored on elevated surfaces from falling
- Employees shall be instructed on correct loading and unloading procedures

M9.2.3.2.jpg

M9-EN.2.4 Hazards related to slips, trips and falls

M9-EN.2.4.1 Risk factors and their effect on human health

M9.2.4.jpg

Slips, trips and falls are the most common cause of major accidents at work in hotels and restaurants. Especially great attention shall be given to **kitchen and waiting staff** as working conditions in the kitchen inherently involve greater risk compared to other workplaces. (M9-EN.3.2, M9-EN.3.3).

Instructors and service staff working in swimming pool areas face a big risk of slipping and tripping on wet surface.

While assessing risk factors resulting in slips, trips and falls the following shall be inspected:

- Are working surrounding neat and tidy?
- Is lightening sufficient?
- Are oil and other spillages in the kitchen and dining hall cleaned immediately?
- Are suitable detergents used for cleaning the floor?
- Are warning signs used after cleaning to keep people off the wet area?
- Are employees supplied with proper slip preventing footwear?
- Is the floor surface free from holes, damage or unevenness and properly fixed?
- Are there any sudden changes in floor level?
- Are gangways of appropriate width?
- Are gangways free of electric wires and cables trailing across the floor?
- Are stairs marked out?
- Are staircase steps of appropriate height?
- Is the surface of steps not slippery?
- Are handrails installed on the staircase?
- Are ladders used for reaching things safe and in proper order?
- Is emergency lighting installed?

Negative effect on human health:

- Strained leg and arm ligaments
- Torn tendons
- Broken bones
- Slips, trips and falls may result in unexpected combinations of injuries, for instance broken leg and hand burn when a kitchen employee slipped and tried to catch hold of the nearest surface – a grill pan
- Slips, trips and falls may result in heavy injuries and even death

##W25## ##W26##

M9-EN.2.4.2 Personal protective equipment

Slips, trips and falls are the most common reason of accidents and injuries in all sectors. However, it is an occupational safety area requiring least investment for risk prevention. Usually, good housekeeping practice and compliance with safety rules prevents from hazards:

- Organize the workspace so that everything has a place
- Make sure walkways have proper lighting, a free of obstructions, electric wires and cables are fixed following the requirements
- The whole floor surface must be well lit and all potential hazards (obstacles or spills) must be clearly visible
- Spillages must be cleaned immediately with suitable cleaning substances (chemical detergents may also be used depending on the nature of spilled liquid)
- Handrails, handles or other holding means shall be installed in inconvenient places
- Steps of stairs must be covered with non-slippery material, equipped with handrails, properly lit; steps must be not too steep
- The floor condition must be inspected on a regular basis: is it free from holes, damage or unevenness, is floor carpet in good shape and securely fixed, is floor free of obstacles that may cause slips and trips

To avoid falls:

- Use only proper functioning equipment and maintain them regularly
- Instruct employees on safe use of equipment (ladders etc.)
- If possible, perform the job from the floor or another safe surface

M9-EN.2.5 SELF ASSESSMENT TEST

Based on the above information list mechanical risk factors that people working in hotel and restaurant sector are exposed to.

Try to name essential safety measures to prevent these hazards.

Fill in the form below using the template. You can check your knowledge ##D12##.

Mechanical risk factors		Employee	Harm	Essential safety measures
Activity/source	Hazard description			

M9-EN.3. PHYSICAL FACTORS OF OCCUPATIONAL RISK

M9-EN.3.1 Types of physical risk factors

M9-EN.3.2 Inappropriate microclimate in premises, impact on human health, safety measures

M9-EN.3.3 Inappropriate lighting, impact on human health, work safety measures

M9-EN.3.4 Exposure hot and cold materials and/or surfaces

M9-EN.3.4.1 Impact on human health

M9-EN.3.4.2 Safety measures

M9-EN.3.4.3 First aid

M9-EN.3.5 Noise

M9-EN.3.5.1 Impact on human health

M9-EN.3.5.2 Safety measures

M9-EN.3.6 Self-assessment test

Short description of the chapter (M9.3.jpg)

This chapter covers **physical risk factors** related to various physical hazards to human health. The following physical risk factors **##G2##** that employees working in hotel and restaurant sector are most often exposed to (major attention is given to **kitchen and waiting staff, housekeeping staff**) are distinguished):

- Inappropriate microclimate
- Inappropriate lighting
- Contact with hot and cold materials and/or surfaces
- Noise

Goals of this chapter:

- Explain the types of physical risk factors
- Analyse the most common types of physical risk factors that can cause harm to **kitchen and waiting staff, housekeeping staff**
- Discuss the impact of the most common physical risk factors on human health
- Present safety measures and equipment preventing or minimizing the negative impact on human health.

This chapter will help the managers to determine physical factors of occupational risk in hotel and restaurant sector, to assess each particular situation and take appropriate preventive measures to reduce the risk.

M9-EN.3.1. Types of physical risk factors

Employees working in restaurant and hotel sector are exposed to the following types of physical risk factors:

- Inappropriate microclimate in premises
- Inappropriate lighting
- Contact with hot materials and/or surfaces
- Contact with cold materials and/or surfaces
- Noise
- Hand-arm vibration
- Infrasound
- Electric field
- Electromagnetic radiation

Risk factors that may cause greatest harm to the health of employees working in hotel and restaurant sector will be analyzed in more detail.

M9-EN.3.2. Inappropriate microclimate in premises, impact on human health, safety measures

Workplace microclimate separately and altogether is influenced by:

- temperature
- humidity
- air velocity
- thermal radiation

M9.3.2.jpg

When all these parameters are well balanced the employee feels well, can perform efficiently and is exposed to minimal risk. However, there are cases when one or several of the aforementioned parameters do not comply with occupational health and safety requirements and compromise employee health and safety.

The following shall be considered during the assessment of microclimate:

- air temperature
- air humidity
- air velocity
- thermal radiation
- work loads
- clothing and total duration of exposure

Taking into consideration all parameters influencing workplace microclimate, hotel and restaurant employee structure (see: M9-EN.1.2), employee activities, and tools and equipment used we may see that **kitchen staff** are most often exposed to hazards caused by inappropriate environment (heat, humidity, noise).

Influence of high temperature **on human health**:

- heart and blood vessel disorders
- breathing disorders
- lower electrolyte and water content

The aforementioned factors cause exhaustion, fatigue, lack of concentration, errors and accidents at work.

To prevent the negative influence of workplace microclimate the following should be implemented:

- natural ventilation and HVAC systems to control air temperature, humidity, reduce vapour condensing, remove fumes and dust
- additional mechanical ventilation (above stoves, grills, ovens, gas equipment etc.)
- install easily reachable, removable and cleanable screens or other type of protective covers on ventilation holes
- preventive measures against direct sun rays (blinds, reflecting or heat absorbing windows)
- proper work clothing
- work breaks in special rooms
- cold water dispensers
- introductory workplace instructions to new and especially young employees highlighting heat caused accidents and ways to prevent them and first aid measures

[##W7##](#), [##W8##](#)

M9-EN.3.3. Inappropriate lighting, impact on human health, work safety measures

Lighting [##G8##](#) is one of the most important physical risk factors to restaurant kitchen because of the type of their activities, namely food preparation. Workplaces where cooking is done must be properly lit to prevent other risk factors, such as cutting, pricking, slipping or burning. (M9.3.3.jpg)

The following should be considered during the assessment of lighting:

- level of overall lighting
- level of lighting in a specific workplace
- even distribution of lighting
- sources of direct glare: raised lamp, direct sunshine, reflections

- safe construction of light fixtures above cooking zones preventing broken glass from getting into food (e.g. light bulbs should have a protective glass cover, luminescent tubes should be protected with lattice or meshes keeping the tubes from falling down)
- access for cleaning and cleanness

Inappropriate lighting results in:

- eye strain
- sore eyes
- dizziness
- worse orientation
- deteriorating eye-sight

The aforementioned problems are potential causes of traumas and accidents at work (injuries, burns, slips, falls etc.).

To avoid the negative effect of inappropriate lighting the following should be implemented:

- light fixtures complying with relevant requirements
- timely replacement of blown or reduced in brightness light bulbs and tubes
- regular cleaning of light fixtures
- Regular maintenance of emergency lighting

M9-EN.3.4. Exposure to hot and cold materials and/or surfaces

M9-EN.3.4.1 Impact on human health

Contact with hot and cold materials and/or surface is inherent in the work of **restaurant kitchen and waiting staff** (M9-EN.1.2; M9-EN.1.3) with respect to their work specificity, tools and equipment used. **(M9.3.4.1.jpg)**

The following should be considered during the assessment of this occupational risk factor: are measures taken to prevent burning and scalding?

Accidental or expected contact with hot, hard, liquid or gaseous materials may cause burns (scalds) of different degrees **(#G3#)**.

Negative effect on human health depends on:

- Surface temperature
- Contact duration
- Type of surface
- Part of the body exposed to hazard (e.g. face, hands)
- Area of affected part of the body
- Appropriateness of PPE used

Examples of risk:

- Hot surfaces - heating plates, grills, bowls, roasting tins
- Hot liquids – hot oil, boiling water, hot drinks
- Hot vapour etc

M9-EN.3.4.2 Safety measures

The following should be used to prevent risk of burns:

- Compliance with work safety rules
- Use of handles, holders and heat resistant materials
- Use pots and pans of adequate size
- Boil with the lid covered to avoid over boiling
- Use safety gloves and potholders
- Use heat resistant aprons and footwear
- Use PPE
- Regularly instruct employees on safety at work and first aid in the event of accident
- Place dishes with hot food in the middle of the tray to prevent scalding of other employees or clients in the event of accidental spilling
- Avoid top filling coffee and tea cups or soup plates
- Warn the clients, especially children if dishes are hot
- Always use a dry wiper because damp wiper conducts heat quicker

M9.3.4.2.jpg

M9-EN.3.4.3 First aid

1. Remove clothes from the wounded place as soon as possible
2. If there is a possibility, cool the wounded place with cold water at least for five minutes immediately after the accident
3. If there is no water, moisten the wounded place with 70° spirit; it has the same cooling effect on scalded skin like water
4. Cover badly scalded and injured skin surface with sterile bandage or a clean towel
- 5. Important – do not smear with any oil and consult a doctor**

M9-EN.3.5. Noise

Noise is one of the oldest and most widespread workplace risk factors relevant for hotel and restaurant employees, especially **kitchen staff and waiting staff** (M9-EN.1.2; M9-EN.1.3). (M9.3.5.jpg)

Potential sources of noise:

- Loud music in bars, restaurants and discos;
- Loud equipment (ventilators, dishwashers, mixers, mincers etc) (##W13##)

The following should be considered during the assessment of noise:

- Do employees work in noisy conditions for the most part of their day
- Do employees use loud equipment longer than 30 minutes per day
- What measures were taken to avoid that

M9-EN.3.5.1 Effect on human health

Loud noise ##G1## has a negative effects human health and work efficiency. While working in a noisy environment a person “gets used” to it, however, noise increases fatigue, impairs hearing. The main health effect caused by exposure to noise is loss of hearing.

In addition exposure to noise of 90-100dB results in:

- Impaired eyesight
- Changed breathing rhythm and pulse
- Rise in blood pressure
- Weakened attention
- In some cases slowdown of reaction

Noise can become the crucial factor of accidents, cause stress at work and may cause damage to health altogether with other hazards arising in the work place.

First of all, the degree of auditory health effects depends on noise intensity and duration of effect.

Allowable acoustic noise levels in residential and work environments are regulated by HN 33-1:2003 (<http://www.vdi.lt/norminia/hn.htm>).

Noise levels in residential and working environments are estimated according to the results of measurements while comparing them to respective values of Allowable Noise Level (ANL).

Allowable Noise Level (ANL) is the level of noise which cannot cause illnesses or health disorders during long or short exposure.

Protection of employees from exposure to noise is provided in EU Directive of 2003 that came into force in all member states from February 2006 established the weekly noise exposure level that shall not exceed the exposure limit value of 87 dB(A) and introduced a requirement that the risks arising from exposure to noise shall be eliminated at their source or reduced to a minimum.

##W11## ##W12##

M9-EN.3.5.2 Safety measures

Exposure to noise may be reduced by:

- appropriate planning of premises and acoustic finishes (noise level in closed premises reduces by 10-15dB reflecting from walls, ceiling, various objects compared to open space) (##W28##)
- installing sound insulating partitions, mounting speakers appropriately and directing along the route of sound spreading
- Installing automatic music sound controls
- Considering noise levels, designation and capacity while purchasing new equipment
- Organizing work in such a manner that employees spent as little time as possible in loud noise zones
- Arranging silence oases (premises insulated from noise and designated for the rest of employees)
- Transferring employees with hearing disorders or very sensitive to noise to other less noisy work place

The aforementioned measures do not allow reducing the effect of noise in all cases because in the sector analysed the use of Personal Protective Equipment (ear plugs, earphones or helmets) is impossible due to the nature of work.

M9-EN.3.6 Self-assessment test

Based on the above information list physical risk factors in different workplaces (administrative office, hotel premises, restaurant and kitchen).

Try to name the hazards and safety measures to prevent these hazards.

Fill in the form below using the template. You can check your knowledge ##D11##.

Physical risk factors		Employee	Harm	Essential safety measures
Activity/source	Hazard description			

M9-EN.4 CHEMICAL HAZARDS

M9-EN.4.1. Harmful chemical substances

M9-EN.4.2. Impact to harmful chemical substances on human health

M9-EN.4.3. Safety measures in working with chemical substances

M9-EN.4.4. Marking of harmful substances

M9-EN.4.5. Environmental tobacco smoke at workplace, impact on human health and safety measures

M9-EN.4.6. Self-assessment test

Short description of the chapter (M9.4.jpg)

This chapter covers and analyses **chemical risk factors** that employees using various chemical substances and preparations in their work are exposed to (see: M9-EN.1.2, M9-EN.1.3 work description in hotels and restaurants):

Goals of this chapter:

- Explain the definition of hazardous chemical substances
- Analyse the impact of chemical substances on human health
- Present safety measures preventing or minimizing the negative effect on human health.

Information presented in this chapter will help the managers to determine chemical risk factors in hotel and restaurant sector, to assess each particular situation and take appropriate preventive measures to prevent or minimize the risk.

M9-EN.4.1. Harmful chemical substances

Harmful chemical substances are substances get into human organism through:

- airways
- digestion system
- skin

and have a negative impact on human health.

Harmful chemical substances can be in the form of:

- liquids
- gas

- vapour
- aerosols
- tobacco smoke.

Taking into consideration type of activities in hotels and restaurants and tools and equipment used (see: M9-EN.1.2, M9-EN.1.3), we may see that **kitchen assistants, maids and cleaning staff** are most often exposed to chemical risk when they use:

- different cleaning substances (for floor, walls, windows, furniture)
- disinfecting substances
- odour improvers
- bleachers
- laundry detergents.

Restaurant **kitchen staff** is exposed to hazardous substances in the cooking process:

- vapour of boiling food
- boiling oil vapour
- carbon dioxide (dispensers of drinks)

Restaurant **waiting staff** is exposed to:

- cigarette smoke

The following should be considered and implemented during the assessment of chemical risk:

- chemical substances and preparations used by employees
- harmful substances generated during the working process
- all substances used should be registered in the list.

Based on the list the following should be determined (the employer shall use material safety data sheets submitted by manufacturers or suppliers of chemical substances and preparations):

- characteristics of substances and compounds
- composite substances
- substance classification and marking specifying the basis of the assessment. Are impacts such as 'acute toxicity', 'skin irritation' 'mucous irritation' and 'mutagenic potential' assessed?

- Purpose and method of using
- Type of risk/impact taking into consideration contact with skin and spreading through air
- Specific protective equipment: substitutes, technical and organizational measures.

Based on the above information chemical substances should be inspected and implementation of safety measures should be controlled.

M9-EN.4.2. Impact to harmful chemical substances on human health

The **impact** of hazardous chemical substances depends on:

- concentration
- toxicity
- way of getting into the human body.

According to the speed of effect harmful chemical substances are divided into:

- Harmful chemical substances of **acute effect**
- Harmful chemical substances of **chronic effect**.

Chemical substances have different effect on human body depending on immune system and sensitivity to various allergens.

The most common effects are respiratory system problems and skin allergies (**##G18##**):

- Acute rhinitis
- Cough
- Breathlessness, bronchus spasms
- Running eyes
- Sore eyes, eye redness
- Skin dryness, chapping, soreness and/or redness
- Various rashes.

If one of the above symptoms occurs, contact with harmful substance shall be immediately discontinued (e.g.: hand washing, eye rinsing, leaving and airing the premises where the chemical substance is used)

Symptoms may occur not immediately after using the substance but a few hours later. Therefore the relation with the work performed using a chemical substance cannot be

directly determined. If allergic reaction eases or disappears during the weekend and renews during working time it means that allergic symptoms is the effect of chemical substances used in the process of work.

Toxicity of chemical substance is characterized by the so-called risk phrases.

The type of risk phrase is specified by the letter 'R' and a digital code showing the toxicity of a hazardous substance. If the substance causes confounding effect, the risk phrase consists of several groups of digits (e.g. R28/27/48).

By toxicity hazardous substances are classified as follows

The degree of toxicity of the chemical substance or preparation	Symbol of danger	Indication of danger	Risk phrases	Short description
Very toxic substances and preparations	T+	Very toxic	R28 R27 R26 R39	<ul style="list-style-type: none"> – Very toxic if swallowed – Very toxic in contact with skin – Very toxic if inhaled – Hazardous: causes very severe irreversible harm
Toxic substances and preparations	T	Toxic	R25 R24 R23 R39 R48	<ul style="list-style-type: none"> – Toxic if swallowed – Very Toxic: danger of very serious irreversible effects in contact with skin and if swallowed – Danger of serious damage to health by prolonged exposure
Harmful substances and preparations	Xn	Harmful	R22 R21 R20 R65 R40 R48	<ul style="list-style-type: none"> – Harmful if swallowed – Harmful in contact with skin – Harmful if inhaled – Harmful: may cause lung damage if swallowed. – Danger of serious damage to health by prolonged exposure
Depleting (corrosive) Substances and preparations	C	Depleting (corrosive)	R35 R34	<ul style="list-style-type: none"> – Severe burns – Burns
Irritating	Xi	Irritating	R38	<ul style="list-style-type: none"> – Irritates skin

substances and preparations			R36 R41 R37	– Irritates eyes – Can severely affect the eyes – Irritates airways
Sensitizing substances and preparations	Xn	Harmful	R42 R43	– May cause allergy if inhaled – May cause allergy if in contact with the skin
Carcinogen substances and preparations	T Xn	Toxic Harmful	R45 R49 R40	– May cause cancer – May cause cancer if inhaled – Possible risk of irreversible effect
Mutagenic substances and preparations	T Xn	Toxic Harmful	R46 R40	– May cause heritable genetic damage – May cause irreversible health disorders
Toxic to reproduction substances and preparations	T Xn	Toxic Harmful	R60 R61 R62 R63	– May impair fertility – May cause harm to the unborn child – Possible risk of harm to the unborn child

M9-EN.4.3. Safety measures in working with chemical substances

Employees (cleaners, chambermaids, auxiliary kitchen workers) who use chemical substances for work must know about their hazard, type of risk and mandatory safety measures. Usually all this information is presented in the safety data sheet **##G11##** (**##D14##**) and on package labels. (M9.4.3.jpg)

To avoid risk related to chemical substances, it is advisable to follow the rules below:



READ THE INSTRUCTION ON THE LABEL AND FOLLOW INSTRUCTIONS OF USE



FIND OUT WHERE YOU CAN GET INFORMATION ON SAFE USE OF CHEMICAL SUBSTANCES AND WEAR PROTECTIVE CLOTHING



ASSURE THAT YOU KNOW HOW TO PROVIDE FIRST AID IF ACCIDENTALLY CHEMICAL PRODUCTS GET INTO THE AIRWAYS, MUCOUS MEMBRANE OR SKIN



NEVER POUR CHEMICAL SUBSTANCES INTO CONTAINERS DESIGNATED FOR OTHER PURPOSES, E.G. BOTTLES FOR DRINKS



NEVER STORE CHEMICAL SUBSTANCES IN UNLABELLED CONTAINERS



DO NOT MIX CHEMICAL SUBSTANCES. IT CAN BE VERY DANGEROUS



INFORM THE AUTHORITIES ABOUT ANY BREAKDOWN OF THE EQUIPMENT, SPILLAGE OF CHEMICAL PRODUCTS OR DAMAGED CONTAINER



ALWAYS FOLLOW THE RULES. LEARN TO WORK SAFELY IN THE WORKPLACE



HAVING NOTICED ANY FAULT, ALWAYS INFORM THE MANAGER



USE ONLY THE PRODUCTS ASSESSED AND CERTIFIED BY THE CONTROL OF HARMFUL SUBSTANCES

If any chemical substance allergy is diagnosed or a person is allergic, the employee should avoid contact with allergen. If that is impossible the following should be implemented:

- Use of personal protective equipment
- Control the duration of work with allergens to minimize the effect of chemical substance

To avoid and prevent the negative effect of chemical substances the following should be implemented:

- Proper ventilation
- Mechanical ventilation in all premises where smoke and oily vapours are generated (above grills, stoves, pans); draughts shall be prevented
- Regular maintenance of ventilations screens and filters to ensure efficient operation of mechanical ventilation equipment
- Oil should be heated only when necessary, not constantly
- Oils should be replaced and checked frequently
- Emergency alarm system should be installed and regularly maintained in cellars or warehouses where containers with carbonic acid are stored

M9-EN.4.4. Marking of harmful substances

M9.4.4.jpg

Employees working with any chemical substances or preparations shall be aware not only of warning signs but also of toxicity symbols used on the labels of chemical substance packaging:

Xi (IRRITANT) - Irritant chemical substances irritating skin, eyes and airways, such as detergents, fertilizers.

Xn (HARMFUL) – Substances harmful by inhalation, in contact with skin and if swallowed, such as cleansers, paint. Such substances should be handled with gloves and respiration protective equipment.

C (CORROSIVE) – Corrosive substances, such as sewage cleaning detergents, powder for dishwashers, heavy cleaning detergents should be handled with gloves and direct contact must be avoided.

F (HIGHLY FLAMMABLE) – Products in a aerosol containers are highly flammable and must not be kept close to open fire or heating equipment.

F+ (EXTREMELY FLAMMABLE) –Extremely flammable substances must be protected from direct sunshine, higher than 50°C temperature. It is forbidden to spray them into open fire or hot surfaces. They must be kept away from sources of fire.

T (TOXIC) – Substances carrying this marking are very harmful by inhalation, in contact with skin and if swallowed.

T+ (VERY TOXIC) – Substances and preparations carrying this marking expose to danger of very serious irreversible effects. They are classified as carcinogenic, dangerous for reproductions or causing heritable genetic damage.

O (OXIDISING) – Explosive with or without contact with air.

IRRITANT



DIRGINANTI

**EXTREMELY
FLAMABLE**



YPAČ DEGI

HARMFUL



KENKSMIRGA

TOXIC



TOKSISKA

CORROSIVE



ARDANTI (ĖSDINANTI)

VERY TOXIC



LABAI TOKSISKA

**HIGHLY
FLAMABLE**



LABAI DEGI

OXIDISING



OKSIDUOJANTI

M9-EN.4.5. Environmental tobacco smoke in the workplace, effect on human health and safety measures

This section deals with environmental tobacco smoke or second-hand smoke.
M9.4.5.jpg

Administrators, barmen, waiters and busboys working in bars, restaurants, cafes and other service places spend a lot of time in places polluted with tobacco smoke. The risk of harm depends on the concentration of smoke and time spent in smoky environment. Test results proved that passive smoking has the same effect as 0.1-2 cigarettes smoked.

Long-term passive smoking can be the cause of more severe diseases. Children are especially sensitive to the effect of various poisons.

Breathing of smoke-filled air:

- Accelerates fatigue
- Worsens health state
- Reduces work efficiency
- Irritates the mucous membrane of eyes and airways of sensitive or ill persons, may cause migraine, bronchitis, asthma, angina pectoris attacks
- Flares up allergic diseases

The aforementioned factors increase the potential of accidents in the workplace.

It was scientifically proved that no ventilation can eliminate harmful compounds formed from a burning cigarette. Therefore, **mechanical ventilation** systems in bars, cafes, restaurants and other premises where customers are served is only an **auxiliary measure** protecting employees from the harmful effect of tobacco smoke exposure.

The only way to protect employees and clients from hazardous effect of tobacco smoke is banning of smoking in bars and restaurants.

Several countries have already solved the problem implementing a very progressive measure recommended by World Health Organisation and banned smoking in bars, restaurants and other premises designated for serving customers. The ban came into effect in Ireland, Italy, Malta, Norway, Sweden and several states of the USA. Public opinion polls were carried out in the countries planning to introduce the ban for smoking. 47% of Norwegians supported the ban (a year later the percentage of supporters reached 58%), 59% in Ireland, in Sweden 85% supported banning of smoking in restaurants and 77% supported banning of smoking in bars and clubs.

The research showed that the positive effect of the smoking ban was felt rather soon. After three months of the ban in New York the amount of cotinine, the main metabolite of nicotine in plasma, in the blood of employees working in bars, restaurants and cafes, which is the main metabolite of nicotine in plasma, reduced by

85%. Out of 74% of employees complaining of respiratory disorders, the symptoms disappeared in 59% of the employees after smoking was banned in their workplace. It not just protected the non-smokers from passive smoking, but reduced the spread of smoking and the quantity of cigarettes smoked per day among the smokers. In Italy every tenth smoker quit smoking within the five initial months, 6.6% smoked less.

The negative economic effect caused by the ban of smoking in restaurants, cafes and bars is often feared but the research show that the ban had no effect or a positive effect on the volume of sales in cafes, restaurants and bars after implementation of the smoking ban. In New York the money spent in bards increased by 8.7% during the first year compared to the previous year, the number of employees in this sector increased. In Ireland the volume of sales reduced by 4.4 % during the first year of the ban (2004), but that drop resulted not from the smoking ban: sales dropped as a result of rising prices since 2001, changing lifestyle, demographic factors. In Norway the number of customers of cafes, restaurants and bars remained the same.

##W15##

M9-EN.4.6. Self-assessment test

Based on the above information list chemical risk factors that employees working in hotel and restaurant sector are exposed to.

Try to name safety measures to prevent these hazards.

Fill in the form below using the template. You can check your knowledge: ##D4##.

Chemical risk factors		Employee	Harm	Essential safety measures
Activity/source	Hazard description			

M9-EN.5 BIOLOGICAL HAZARDS

M9-EN.5.1. Biological factors of occupational risk and impact on human health

M9-EN.5.2. Safety measures - Basic principles of good hygiene practice

M9-EN.5.3. Safety measures - Staff hygiene and health

M9-EN.5.4. Safety measures - Storing of waste and technical materials

M9-EN.5.5. Safety measures - Cleaning, washing, disinfecting

M9-EN.5.6. Safety measures - Rodent and insect eradication

M9-EN.5.7. Safety measures - Swimming pools.

M9-EN.5.8. Self-assessment test

Short description of the chapter (M9.5.jpg)

The purpose of this chapter is to introduce biological factors of occupational risk in the sector of hotels and restaurants and exposure of **kitchen employees** to biological risk inherent in food preparation, storage and handling.

Goals of this chapter:

- Define biological risk factors and types of occurrence
- Present possible prevention measures to reduce the negative effect on human health
- Discuss measures that must be taken to ensure safe use of swimming pools

Information presented in this chapter will help the managers to determine biological factors of occupational risk in hotel and restaurant sector, to assess each particular situation and take appropriate preventive measures to prevent or reduce the risk.

M9-EN.5.1. Biological factors of occupational risk and impact on human health

M9.5.1.jpg

Biological risk factors are:

- Microorganisms (bacteria, viruses, parasites, fungi, etc.)
- Substances of biological origin
- Natural components of the organisms (amino acids, vitamins, proteins etc.)

As biological substances are usually invisible, it is difficult to assess the exposure.

Biological substances in all the places that have contact with can affect employees:

- Natural or organic substances: e.g.; soil, clay, plant substances)
- Substances of animal origin (chicken, pork, beef, eggs etc)
- Food
- Organic dust (e.g. flour)
- Waste or effluent
- Blood or other bodily fluids (e.g. liquid from defrosting meat or the like)

Taking into consideration type of activities of employees working in hotel and restaurant sector and tools and equipment used (see: M9-EN.1.2, M9-EN.1.3) we may see that all **kitchen staff** involved in the process of food preparation, storage and handling are most often exposed to biological risk factors.

Biological factors can cause 3 types of illnesses:

- **Infections** caused by parasites, viruses or bacteria, e.g. infectious or virus caused gastro-enteritis, hepatitis A, Roto virus and the like
- **Allergies** caused by mould or organic dust, e.g. flour dust, enzyme mites etc.
- **Poisoning or intoxication**, e.g. salmonella poisoning, a food-born illness caused by insufficient thermal processing of food products or contact of cooked and uncooked products

Microorganisms can access a human body in different ways:

- Aerosolized droplets through airways
- Gastrointestinal – through digestive tract
- Transmissible – from blood to blood after sting of an insect
- Contact – through skin or mucous membrane

Pathogenesis of microbes (ability to cause a disease) depends on their genetic properties and many other circumstances. Microbes spread and multiply in the place of penetration, cause process of infection that depends on quantity of microbes, their properties (virulence and toxicity), place of penetration and immunity of the organism.

M9-EN.5.2 Safety measures - The basic principles of good hygiene practice

Considering biological risk factors discussed in the previous chapter, we can make a conclusion that one of the main ways to avoid the negative effect of these factors both to employees and customers are the principles of good hygiene practice. **M9.5.2.jpg**

The following should be determined in the assessment of biological risk from the point of view of good hygiene practice:

- Is food product delivery-acceptance log maintained in the enterprise?
- Is food product storage log maintained in the enterprise?
- Is thermal processing temperature and time taking log maintained in the enterprise?
- Is cleaning work log maintained in the enterprise?
- Are documents confirming that the employees are introduced to legislative acts and their amendments regulating food handling and safety filed?
- Do employees preparing food have necessary knowledge about hygiene?
- Do employees handling food have regular health check-ups?
- Does the enterprise have a valid contract with an accredited laboratory to test raw foodstuff, food products, water, and effluents?
- Does the enterprise have a valid contract with pest exterminating company?
- Does the enterprise have a valid contract with refuse handling company?

M9-EN.5.3 Safety measures - Staff hygiene and health

Employee hygiene and health is one of the main ways to avoid risk related to biological factors. (**M9.5.3.jpg**) Below examples of rules are given, all employees working with foodstuff must follow that:

- Prior to starting work, all employees handling food must have a medical check-up and hold a personal health check-up. Health check-ups must be performed annually
- Employees handling foodstuff must hold certificates showing proof of mandatory course on hygiene taken
- Ill employees with at least one of these symptoms: diarrhoea, hepatitis, fever, sore throat with fever, secretion from nose, eyes or ears, infected or open wound, contagious dermatitis which can be transmitted through food are not allowed to work in places where food is handled

- All employees of the enterprise must be informed about rules on hand washing and follow the rules in their workplaces
- Hands must be washed before work, after each break, before starting a new operation, having touched decayed foodstuff, various waste, after using the toilet, after touching money and so on
- Hand washing instructions must be placed above wash basins
- Disposable towels must be available at every wash basin
- Use electric dryers in remises where foodstuff is handled is not allowed
- All employees handling foodstuff must have at least three sets of work clothes so that dirty clothes can be changed by clean ones

All employees must be introduced to these requirements, regularly instructed, trained and examined. Prevention and control helps to avoid large-scale health disorders.

M9-EN.5.4. Safety measures - Storing of waste and technical materials

Proper handling of food remains/waste, cleaning of dish washing equipment and places and cooling the premises is essential measures preventing the growth of bacteria and surviving spores. (M9.5.4.jpg)

The following must be determined during risk assessment:

- Is food and non-food waste generated in the process of food preparation collected into special closed containers lined with polyethylene bags?
- Are waste bins made of impermeable material, easily cleaned and disinfected?
- Is food and non-food waste taken away from food handling premises into closed containers outside?
- Is waste sorted, if necessary?
- Are waste bins emptied when 2/3 of the bin is filled with waste?
- Are plastic bags tied up and taken away into outside containers?
- Are waste bins cleaned, washed and disinfected at least once a day?
- Is the workplace free of any substances that can contaminate food?
- Are premises ventilated to avoid formation of mould?

- Are premises cleaned as scheduled?

M9-EN.5.5. Safety measures - Cleaning, washing, disinfecting

The main purpose of keeping premises clean is preventing the growth of bacteria and surviving spores by removing dirt and organic waste. Lithuanian like other European countries has a number of rules, norms and regulations ensuring cleanliness in food preparation enterprises. (M9.5.5.jpg)

The following must be determined during the assessment of cleaning, washing and disinfecting procedure:

- Are detergents used for cleaning allowed to be used in catering industry?
- Are chemical substances used following the manufacturers directions?
- Are premises, equipment and surfaces cleaning, washing and disinfecting rules (plans) prepared (##D5##) and the following is determined:
 - Objects to be cleaned and disinfected
 - Frequency of object cleaning
 - Ways and methods of cleaning
- Are premises, equipment and surfaces cleaning, washing and disinfecting procedures and schedules developed and implemented?
- Are documents confirming the compliance with the rules, procedures and schedules filed?
- Are tools used for cleaning properly labelled (by purpose)?
- Are dishwashing rules prepared?
- Does the staff comply with dishwashing rules?
- Are work safety rules for using cleaning and disinfecting substances prepared?
- Does the staff wear protective gloves?

M9-EN.5.6 Safety measures - Rodent and insect eradication

Pest control is a very important biological risk prevention measure as pests transmit many infectious diseases. (M9.5.6.jpg)



The following should be determined in the assessment of pest control:

- Is there a valid contract with pest exterminating company?
- Are pest control measures applied on a regular basis?
- Are pest control measures efficient (any traces of pest existence)?
- Is food waste and other refuse regularly collected, removed and stored in closed bins?
- Premises where food is handled free from unnecessary things and packaging?
- Are all measures taken to prevent pests from getting into food handling and storage areas? E.g. do doors close tightly, are ventilation openings equipped with screens?
- Do pest control measures comply with requirements of legal acts and ensure that food is not poisoned with pest baits (HN 90:2000)

Some interesting facts about pests:

1. Pests such as mice, rats, cockroaches, bugs and crawling insects transmit various infectious diseases.
2. Cockroaches can not only cause material harm by contaminating food, but also have a negative psychological effect giving rise to phobias. Besides, extermination of cockroaches requires a large amount of insecticides which may result in poisoning if chemical substances are used inappropriately.
3. Rodents not just devour the food but contaminate it with excrements, urine, fur, offal. According to some authors, the losses resulting from contamination by rodents are ten times higher compared to destroyed food.

##W24##

M9-EN.5.7. Safety measures - Swimming pools

Swimming pool water is a perfect media for proliferation of various microorganisms (bacteria, fungi and algae). Rapidly propagating bacteria on swimming pool surfaces or in dreggy water may cause illnesses and infections for those swimming in the pool.

The compliance of pool water quality with HN requirements is one of the key factors protecting the swimmers from negative health effects.

The following shall be considered to ensure health and safety of swimming pool users:

- Pools must be designed, installed and remodeled in compliance with applicable laws and regulations

- Floor surface and walls of the pool, changing rooms and showers shall be water impermeable and resistant to mildew and other fungi, frequent cleaning, chemical agents, easily cleaned and disinfected
- A separate room must be installed for dosing and filtering of chemical agents
- All swimming pools must have a separate filtering and agent dosing system along the perimeter of the pool
- A required number of sanitary equipment must be installed in service premises
- Pool water must be coagulated, filtered and disinfected
- Disinfecting substances must be certified and approved
- Microclimate in pool premises must comply with HN requirements
- A suitable heating and ventilation system must be installed
- A system of chemical agents and physical factors (UV rays and the like) must be used for pool water disinfecting
- Pools must be cleaned and disinfected as often as required by hygiene norms (e.g. pool bottom must be pumped and brushed at least twice per week and walls at least once in two weeks. Once per year (in smaller pools once every three months) water must be removed from the pool and the entire system, pool bottom and walls must be cleaned and disinfected by high-pressure equipment. After cleaning and disinfecting surfaces must be flushed with clean water

M9-EN.5.7. Self-assessment test

Having analysed the aforementioned biological risk factors list biological hazards encountered in the work place. Fill in the form below using the template. You can check your knowledge: **##D6##**.

Biological risk factors		Employee	Harm	Essential safety measures
Activity/source	Hazard description			

M9-EN.6 ELECTRICAL HAZARDS

M9-EN.6.1. Electrical appliances and electrical safety

M9-EN.6.2. Types of electrical hazards and effect on human health

M9-EN.6.3. Work safety measures

M9-EN.6.3.1. Five basic safety rules

M9-EN.6.3.2. Safety labels

M9-EN.6.4. Self assessment test

Short description of the chapter

The chapter presents and analyses electrical risk factors which are encountered by employees using electrical appliances in their work places (see M9-EN.1.2 and M9-EN.1.3 Description of activity of employees in hotels and restaurants).

Goals of this chapter:

- Explain definitions electrical equipment and electrical safety
- Discuss electrical hazards and effect on human health
- Present available safety measures preventing or minimizing the negative effect on human health

Information presented in this chapter will help the managers to determine electrical risk factors in hotel and restaurant sector, to assess each particular situation and take appropriate preventive measures to prevent or minimize the risk

M9- EN.6.1 Electrical appliances and electrical safety

Electrical appliance (equipment) means any apparatus, appliance, cable, conductor, fitting, insulator, material, meter or wire used for controlling, generating, supplying, transforming, transmitting or using electricity. (**M9.6.1.jpg**)

Electrical equipment is divided into:

- Fixed - These are electrical equipment installed in a specific work place (electric ovens, grills, stoves)
- Portable - Any equipment that has a lead and a plug and may be easily moved from one place to another (e.g. office equipment such as copiers, fax machines, desktop computers, kitchen equipment such as mixers, cutting, beating, mincing and similar appliances, laundry equipment such as irons, cleaning equipment such as vacuum cleaners, floor cleaners)

Taking into consideration type of activities of employees working in hotel and restaurant sector and tools and equipment used (see: M9-EN.1.2, M9-EN.1.3) we may see that almost all employees use electrical equipment and are exposed to electrical hazards.

Electrical safety first of all, is relates to:

- Technical measures
- Organizational measures
- Legal norms

that are used to protect employees from dangerous or hazardous effect of electric current, electric arc, electromagnetic field and static electricity

M9- EN.6.2 Types of electrical hazards and their effect on human health

M9.6.2.jpg

Electrical injury occurs when electric current passes through human body:

- after directly contact with the parts with potential difference
- during unauthorized presence in high voltage zone where electric arc is created across an air gap between the human being and voltage

The following shall be determined in the assessment of electrical risk:

- Is there a possibility of direct contact with electrical conductor or metal part located under voltage (e.g. is distribution panel locked)?
- Is written procedure of using electrical equipment (installation, maintenance, repairs, modification) developed and maintained?
- Is frequency of electrical equipment maintenance determined?
- Due to hazardous conditions of operation portable kitchen equipment should be inspected monthly
- Overall check-up and testing should done every six months
- Hotel electrical equipment should be visually inspected every 6-12 months
- Overall technical check-up and testing should be done every 1-5 years.
- Are persons in charge of electrical safety appointed?
- Do person in charge of electrical safety hold required qualifications and permits?
- Have employees using electrical equipment received proper training?

- Are electrical equipment operation instructions complied with?
- Are electrical equipment, cables, switches, sockets in good working condition (##W29##)?

Electric current may cause internal and external body injuries:

- Burns of different degree
- Metallization of skin
- Scars
- Inflammation of eye membrane
- Breathing disorders
- Blood vessel disorders
- Ventricular fibrillation
- Loss of consciousness
- Death

The effect of electric current depends on:

- intensity of current
- duration of impact
- path the current takes
- resistance of the body

While providing first aid the first thing is to discontinue the hazardous effect of electricity:

- Switch off the power in the distribution panel
- Push the injured person away from the source of electric current using a non-conductive object such as a dry wooden or plastic stick
- Provided first aid depending on the type of injury (put a sterile bandage on the wound or burn after disinfecting edges of the wound with 5% iodine solution, give artificial ventilation or cardiopulmonary resuscitation)
- Call the ambulance and deliver the injured person to hospital

M9- EN.6.3 Work safety measures

M9.6.3.jpg

To avoid accidents at workplace related to electrical equipment the following shall be implemented:

- Install protection from direct or indirect contact with electric current
- Regularly inspect technical condition of electrical equipment pursuant to valid legal acts and manufacturer's instructions and ensure work safety
- Ensure that electrical equipment are regularly maintained and repaired only by qualified specialists
- Use only appropriate and tested equipment
- Make sure that electrical equipment are connected to electric current only by qualified personnel. Before choosing the connection check which current is applicable to your equipment
- Ensure that equipment are installed and operated in compliance with applicable requirements (e.g., grills cannot be placed close to the wall or partition made of flammable material, surrounding surfaces should be thermally insulated with high quality material)
- Organise training and instructions of employees
- Have employees acquainted with electrical equipment operation and handling instructions
- Ensure the compliance with equipment operating instructions
- Mark out hazardous zones

One of the most important requirements for electrical safety is using of RCD-residual current device.

RCD – is an electrical wiring device that disconnects a circuit whenever it detects that the flow of current is not balanced between the phase conductor and the neutral conductor.

According to the law or National Electrical Code different countries require RCDs are installed in certain areas (bathrooms, kitchens, garages, exterior areas, crawl spaces, unfinished basements, near wet bars, swimming pools, and spas), especially in wet areas.

While working with portable electric machines and tools, it is forbidden to:

- carry out repair of any manual electric machines, tools or their electric installation
- hold electrical wires and cables of machines and tools in hands

- touch cutting and moving tools, remove shaves while the machine or tool is still running
- work standing on straight single ladder
- leave electrical equipment connected to power und unattended plug-switch

M9- EN.6.3.1 Five basic safety rules

- Disconnect
- Tag out
- Ensure there is no voltage
- Ground and ensure discharge
- Cover or circuit break adjacent powered parts.



M9- EN.6.3.2 Safety signs

Hazardous places should be marked out by safety signs warning about electrical risk:



M9- EN.6.4 Self-assessment test

Based on the above information list electrical equipment used in different workplaces (administrative office, hotel premises, restaurant and kitchen).

Try to name the hazards caused by these equipment and safety measures to prevent these hazards.

Fill in the form below using the template. You can check your knowledge: ##D3##.

Electrical risk factors		Employee	Harm	Essential safety measures
Activity/source	Hazard description			

M9-EN.7 FIRE AND EXPLOSION

M9-EN.7.1. Fire risk and impact on human health

M9-EN.7.2. Gas related explosion risk, safety measures

M9-EN.7.3. Fire prevention measures

M9-EN.7.3.1. Primary fire fighting means

M9-EN.7.3.2. Evacuation routes and emergency exits

M9-EN.7.4. Fire safety signs

M9-EN.7.5. Self-assessment test

Short description of the chapter

This chapter covers and analyses **fire and explosion risk factors** that employees working in hotel and restaurant sector are exposed to.

Taking into consideration type of activities and tools and equipment used, we may see that **restaurant kitchen staff** are most often exposed to fire and explosion risk.

Goals of this chapter:

- Explain the notions of fire and explosion risk factors
- Discuss their influence and effect on human health
- Present available methods and measures preventing fire and explosion
- Introduce fire safety labels

The information given in this chapter will help managers to determine fire and explosion risk factors in hotel and restaurant sector, to evaluate the situation individually and, on the basis of given recommendations, to take appropriate preventive measures to minimize this risk.

M9-EN.7.1 Fire risk and impact on human health

Fire is a complicated physical and chemical phenomenon that often results not only in material damage but also may cause harm for human health or life. (M9.7.1.jpg)

The following should be considered during the assessment of fire risk:

- Is fire safety of the buildings sufficient enough?
- Are natural gas equipment installed in the building?
- Does air ventilation system comply with safety requirements?
- Are ventilation equipment maintained on a regular and timely basis?
- Are ventilation system filters changed in time?
- Is electrical equipment operation and maintenance safety ensured (M9-EN.2)?
- Is open fire used in cooking process? Are there any other sources of open fire: oil lamps, candles?
- Is oil used for cooking continuously heated?

- Do people smoke in specially arranged places?
- Are suitable ashtrays provided?

Possible consequences of fire include:

- Burns of different degrees
- Smoke poisoning. Smoke contains a wide variety of poisonous gases that make up different mixtures during fire. Those mixtures are much more dangerous than each type of gas taken separately. Those mixtures may spread long distances from the fire place
- Material losses
- Possible death of people

M9-EN.7.2 Gas related explosion risk, safety measures

Natural gas is one type of fuel used in food preparation process. Gas itself is not toxic. When gas is on, it does not emit any dust, soot or smoke. Explosion can occur only in the event of fire leak when gas and oxygen mixture present in confined environment is in contact with a sparks or flame. (M9.7.2.jpg)

The following should be determined in the assessment of gas related explosion risk:

- Is gas equipment maintained regularly?
- Is technical maintenance of gas equipment performed by qualified specialists?
- Are gas appliances used properly? Do the people operating gas appliances comply with all safety requirements?
- Are old and worn-out components of gas appliances replaced in a timely manner?
- Are employees aware of safety procedures in the event of gas leak?
- Are employees instructed regularly on emergency and first aid procedures?
- Is air ventilation system installed?

Safety measures ensuring safe work environment include:

- Regular leakage test of gas supply pipes and control of their technical condition
- Installation of gas detectors in the kitchen area
- Installation and acceptance of equipment performed by certified specialists
- Regular technical maintenance of operated equipment and timely replacement of worn-out components
- Sufficient air ventilation system
- Initial and periodical instruction of employees and on site training
- Emergency action plan

##W20##

M9-EN.7.3 Fire prevention measures

Different fire prevention measures are used to prevent fire in buildings:

- Obstructions for fire spreading
- Means enhancing the resistance of constructions to flame (covers, fire panels, etc.)
- Means reducing combustibility of materials
- Stationary fire detection systems (complex systems where combined detectors of smoke, heat, flame are used)
- Stationary fire fighting systems (complex systems designed for automatic or manual fire detection and extinguishing)
- Primary fire fighting means (designed to fight small fire in its primary stage: fire-extinguishers, fire-cocks, flameproof cloths, etc)
- Fire emergency action plan
- Safe, unlocked and unobstructed evacuation exits
- Evacuation exits mark-out signs
- Pursuant to EU requirements in addition to all safety measures related with firefighting risk assessment and management of emergency situations in working environment each entity must have a **rescue team** made of persons appointed by the employer

This team must be equipped with appropriate equipment and trained to respond to fire emergencies, attempt to kill the fire and arrange evacuation of people. Persons in charge shall be appointed with respect to the size of the enterprise or specific fire risk factors determined during risk assessment. In other words, persons in charge must be responsible for the following:

- Implementation of fire prevention measures,
- Evacuation of employees in the event of direct hazard,
- Emergency management procedures,
- **First aid** - Persons responsible for providing first aid must also be appointed by the employer with respect to the size of the company and type of the company's activity. A first-aider should have undergone a training course in administering first aid at work and hold a current first aid at work certificate. They can assume duties of a person in charge: 1) take care of someone injured, including calling an ambulance if required; 2) look after first-aid equipment, e.g. restocking the first-aid box.

M9-EN.7.3.1 Primary fire fighting means

- Fire-extinguishers (water scum, carbon dioxide, powder) ([##W4##](#)) (**M9.7.3.1.jpg**)
- Flameproof cloth (for fighting small fire and such substances that inflame without air, e.g. burning fat. Fireproof cloth is made of fibreglass)
- Fire-cocks

- Fire hoses

M9-EN.7.3.2 Evacuation routes and emergency exits (M9.7.3.2.jpg)

Requirements for safe evacuation of people from the building:

- Evacuation routes and exits should be unobstructed
- Door of the emergency exit must open outwards; it should not be locked
- If automatic door is installed in workplaces, a manual door opening mechanism has to be arranged
- Transparent door should be marked at a clearly visible height
- Appropriate clearly seen signs should mark out evacuation routes and exits. In case of electric system failure, back-up lighting system should operate
- If there is no possibility to arrange evacuation routes in existing buildings, adequate measures should be implemented
- Doors of premises must open and close easily, ensuring quick evacuation of people outside the building or to safe places marked on the plans

M9-EN.7.4 Fire safety signs

Fire safety signs should be arranged in compliance with the requirements of laws and regulations. The number of safety signs must be sufficient.

The signs should be maintained and used properly (**##W6##**):

- Escape route (safe escape) signs
- Fire fighting equipment signs
- Informing signs
- Prohibiting signs
- Warning signs

M9-EN.7.5 Self-assessment test

Having analysed the aforementioned explosion risk factors, try to name hazards that you are exposed to in your workplace. Fill in the form given below using the template. You can check your knowledge: **##D8##**.

Fire and explosion risk factors		Employee	Harm	Essential safety measures
Activity/source	Hazard description			

M9-EN.8 – ERGONOMIC HAZARDS

M9-EN.8.1 What is ergonomics?

M9-EN.8.2 Problems resulting from work in a standing position and preventive measures

M9-EN.8.3 Physical work load during manual handling of materials and preventive measures

M9-EN.8.4 Dynamic work load and preventive measures

M9-EN.8.5 Work with computers. Hazards and safety measures

M9-EN.8.6 Self-assessment test

Short description of the chapter

The chapter analyzes the definition of ergonomics, ergonomic occupational risk factors that employees working in hotel and restaurant sector are exposed to and the effect of these factors on human health. (M9.8.jpg)

Goals of this chapter:

- Analyze the notion of ergonomic risk factors
- Analyze in detail critical ergonomic risk factors experienced by restaurant employees: **kitchen staff and waiting staff** (i.e. employees most often exposed to ergonomic risk factors), and **administrative personnel**
- Discuss the effect of the most critical ergonomic risk factors on human health
- Present safety measures preventing or minimizing the negative effect on human health

Information presented in this chapter will help the managers to determine ergonomic risk factors in hotel and restaurant sector, to assess each particular situation and take appropriate preventive measures to prevent or minimize the risk.

M9-EN.8.1. What is ergonomics?

Work intensity has been increasing recently, therefore for at least one fourth of working time more and more employees face up with the lack of time determined by strict terms, which is directly related to health problems and accidents in the workplace. Therefore, more often the notion “ergonomics” is emphasized. (M9.8.1.jpg)

There is a short answer to the question about the notion of ergonomics. Ergonomics is the science about how to make work environment and work tools more comfortable to use.

The main ergonomic occupational risk factors include:

- Load lifting
- Repetitive movements
- Static work load

- Working posture
- Body inclination
- Movement distance in work environment
- Tensions of attention
- Monotony, etc

Considering the data of the Third European Study about work conditions of the employees carried out in 2000, the most frequent health problems related to work conditions include:

- Backache (33%)
- Stress (28%)
- Pain in the neck and shoulder muscles (23%)

The following chapters will discuss the effect of the above-mentioned factors on employees working in hospitality industry: kitchen staff, waiting staff, and hotel staff (chambermaids, cleaners, porters, etc.).

M9-EN.8.2 Problems resulting from work in a standing position and preventive measures

Work in a standing position is a typical body posture of chefs, waiters, barmen, washers-up, receptionists and employees of other professions. Standing is a natural posture by itself poses no particular health hazard. (M9.8.2.jpg)

However, working in a standing position on a regular basis **can have many different negative effects** on human health:

- Swelling legs and feet
- Heaviness in legs, worsened blood circulation in legs
- Varicose veins, frequent inflammatory processes in legs
- Micro traumas of hips, knees and spine bone
- Rheumatic diseases occur within a longer period of time
- Backache
- Other health problems

To avoid health problems caused by standing work, the employee should:

- Have a possibility to change position from time to time
- Have enough space to make movements in the workplace (e.g., a chef, a receptionist)
- Have necessary equipment and work means located comfortably, so that they could be reached without any bending or turning
- If the workplace is arranged on the table, have the height of the table adjusted to the type of work (##D9##)

- If work is done in a standing position during the whole shift, have an appropriate leg support in order to be able to change the position from time to time
- Organize work in such a manner that employees would be able to have a rest in the run of the whole shift

M9-EN.8.3 Physical work load during manual handling of materials and preventive measures

Manual handling of materials is one of the most frequent reasons of backache or injuries at workplace. (M9.8.3.jpg)

Back muscles take part in such work as lifting, carrying, putting in or taking out. Sometimes when the load is taken improperly, when it is too heavy, or when inclination or turning is too intensive, the following serious hazards are possible:

- Laceration of inter-vertebral tendons or ligaments;
- Overlapping or vertebrae, etc

Load characteristics, such as weight, shape, surface, grasping and lifting conditions, posture before and after the lifting process, as the number of repetitive motions, are also of great importance.

According to the type of work, this risk factor is often experienced by **kitchen staff (chefs, washers-up) and waiting staff (waiters, barmen)**.

In order to reduce the risk factors during manual handling of materials, intensive hand work should be reduced as much as possible:

- Heavy loads should be carried by two or more people
- If possible, loads should be pushed, pulled or rolled (e.g., beer barrels)
- If possible, trolleys should be used for carrying dishes or food stuff
- Heavy loads should be held at the waist height
- Full pots should not be lifted
- Heavy things should be kept on lower shelves so that it would be more comfortable to put or take them
- Light things should be kept on upper shelves
- Breaks must be done during the work
- Intense work should be interchanged with less intense work
- When selecting the staff, it is necessary to consider whether the work load does not exceed employee's capabilities
- Employees should be taught to lift loads correctly and safely (straight back, using leg muscles and holding the load as close to the body as possible)

##W19##

M9-EN.8.4 Dynamic work load and preventive measures (M9.8.4.jpg)

Work done in an awkward posture requires more energy:

- **Washers-up** usually work in bent down posture and their work involves repetitive movements of hands, wrists and shoulders
- **Waiters** usually carry trays with food in uncomfortable posture
- **Chefs** prepare meals using repetitive movements of hands, wrists and shoulders

As a result of this, fatigue, pain in muscles, discomfort occurs, and the risk of injuries and accidents increases.

One of the ways to reduce those risk factors includes:

- Reorganization of work so that monotonous work would be done by using appropriate equipment, e.g. dishwashers, dough whipping machines, cutting equipment, etc
- If this is not possible, sharp cutting tools should be used in the process of food preparation, in order to employ as little force as possible
- Tools with comfortable ergonomic handles must be used
- Kitchen equipment must be re-located so that it would be possible to reduce the amount of lifting, strain, turning, bending and stooping: large bowls should be carried on wheeled platforms

If there is no possibility to use a dishwasher, in order to reduce the risk of washing up by hands:

- Use double-bottom sinks to reduce unnecessary waist bending
- Use leg supports so that it would be possible to change the standing posture periodically by raising one or another foot on the support and in such way avoiding prolonged back load during long-lasting standing process
- Use water sprinkler when washing huge and heavy pots so that not to hold them under the water flow
- Use washing brushes with long handles so that bottoms of big pots could be reached easily without any bending
- Use brushes with hard bristles for washing up dirty surfaces. This might make the washing up process less difficult and reduce the strain of muscles
- Use chemical substances that may make the washing up process easier
- Use gloves with rough surface so that the washing up process would require less energy

M9-EN.8.5. Work with computers. Hazards and safety measures

These days it is difficult to imagine administrative worker's work place without a PC workstation, which is a rather big occupational risk factor affecting human health. Research data reveal that computer may be the reason of visual system and musculoskeletal disorders and increased fatigue.

Working with computer is related with various inappropriate postures caused by different reasons:

- Palms are turned too much outwards during data entering

- The neck is bent too much because of a too low desk
- Static stress of backbone because of inconvenient chair
- Wrong elbow angle because of inappropriate desk height

Key factors, the change and modeling of which may positively affect the quality of work and reduce the risk of health disorders are presented in the table below:

Working posture	Chair and desk	Movements	Computer accessories
<ul style="list-style-type: none"> - Absence of hand supports - Inconvenient position of hands 	<ul style="list-style-type: none"> - Limited space for feet - Too small working area of the desk - Inconvenient chair - Too wide working zone - Not adjustable height of the desk 	<ul style="list-style-type: none"> - Monotonous movements of hands and arms 	<ul style="list-style-type: none"> - High position of keyboard - Too big angle of vision - Foreign reflections on the screen

Basic principles of prevention:

- Ergonomic work place
- Variety of job tasks
- Possibility to change the working position
- Short-term breaks

M9-EN.8.6 Self-assessment test

Having analysed the aforementioned ergonomic risk factors, try to list hazards that you that you are exposed to in your workplace and appropriate prevention measures. Fill in the form given below using the template. You can check your knowledge: **##D10##**.

Ergonomic risk factors	Employee	Harm	Essential safety measures
Activity/source	Hazard description		

M9-EN.9 PSYCHOSOCIAL FACTORS OF OCCUPATIONAL RISK

M9-EN9.1. Work conditions, requirements and organization of work

M9-EN9.2. Violence and harassment

M9-EN.9.3. Stress at work

M9-EN.9.4. Organization of work and leisure time

M9-EN.9.5. Work conditions of pregnant women and women with recent childbirth

M9-EN.9.6. Staff employed on temporary or seasonal contracts

M9-EN.9.7. Self-assessment test

M9.9.jpg

Short description of the chapter

The chapter covers and analyses the main psychosocial risk factors that hotel and restaurant staff are frequently exposed to. This chapter also gives the analysis of the negative effect enhanced by improper work conditions, bad work organization and stressful atmosphere affecting the health of employees.

Goals of this chapter:

- Emphasize the typical psychosocial risk factors, violence and stress experienced by **restaurant waiting staff** (barmen, waiters) and **kitchen staff** (chefs, chef assistants)
- Analyze the organization of work and rest time
- Discuss work conditions of pregnant women and young mothers
- Analyze the requirements for the employer when hiring employees for temporary work
- Present preventive measures for psychosocial risk factors

The information presented in this chapter will help the managers of an enterprise to determine psychosocial risk factors in hotel and restaurant sector, to evaluate the situation individually and, on the basis of given recommendations, to take appropriate preventive measures to reduce the risk.

M9-EN.9.1 Work conditions, requirements and organization of work

Remuneration alone does not guarantee efficient performance of employees in a new workplace. There are five factors the implementation of which ensures much more efficient work results of the employee:

- **Comfortable workplace** - An employee must feel comfortable and safe in his workplace in order to be able to concentrate on his job
- **Pleasant work** - An employee must do the work that he likes and that he was hired for. Otherwise the employee as well as the employer may be dissatisfied; there will be no expected results and the employer will find himself in the initial situation: search for a new employee, new training, new expenses

- **Enthusiasm** - An employee must regularly get new, more complicated tasks requiring more responsibility and skills. Otherwise, however pleasant the work is, it may cause boredom resulting in reduced efficiency of employee's work
- **Adequate workload** - Workload should not exceed employee's abilities. Otherwise, the employee will overstrain physically as well as mentally, which will result in reduced efficiency of work
- **Relations among the staff members** - Employee's work efficiency much depends on the interrelations of staff, also on employer-employee relations. If employer-employee relations are based on fear rather than respect, if colleagues slander each other secretly, if there is an unhealthy competition among colleagues, then work relations develop into a mutual war, wasting the energy for conflicts, not for work.

M9-EN.9.2 Violence and harassment

According to the results of studies carried out by the European Union, 4% of employees have experienced violence at work. Violence is more frequent in enterprises the activity of which is related to big values (banks, chemist's). However, recently a tendency of violence to move into other types of enterprises has been observed, particularly into the service sector (e.g. doctors, nurses, teachers, restaurant and bar employees, etc.).

The following should be considered during the assessment of this occupational risk factor:

- Whether employees experience external violence at their workplace
 - External violence at work** is understood as offence, threatening, physical and psychological aggression directed to the employee by persons not working in this enterprise (e.g., customers, clients, etc.) and exposing his health, safety or welfare to risk. Violence may also be racist or sexual
- Whether the employee's work involves cash and/or valuable items
- Whether the employee works alone
- Whether security of employees and clients is ensured, whether security service is available
- Whether the employee deals with clients that may be potentially aggressive as a result of intoxication by alcohol or drugs
- Whether there is sufficient number of employees able to service all customers
- Whether there is sufficient number of employees serving other branches of the enterprise

In each case, the outcomes of violence are individual, depending on the circumstances under which the violence occurred, also on personal human qualifications. The outcomes of violence are manifested by:

- Reduced motivation and work satisfaction
- Stress

- Physical and sociological damage resulting in the development of different fears and phobias
- Increased absenteeism
- Deteriorated work relations
- Hiring problems

Preventive factors reducing violence risk:

- Work environment
- Work organization
- Training and instructing of employees

Violence prevention is developed in two levels:

1. seeking to avoid acts of violence or reduce them in number
2. giving necessary help and assistance to a person who is a victim of an act of violence

M9-EN.9.3 – Stress at work

Stress (##17##) at work is the second most frequent health problem related to work. Stress at work may result from:

- Psychological factors (work organization and management, i.e. high requirements for work and insufficient work control, too big work load, work deadlines, intimidation and violence at work)
- Physical factors (unsuitable conditions of work environment, such as heat, cold, noise, work tools, etc.)

The following should be considered during the assessment of this risk factor:

- Whether employees work in proper environment
- Whether working tools used are in good condition and comfortable to use
- Whether the work is well-organized, i.e. whether the number of employees is sufficient for clients to be served
- Whether work breaks are properly organized: whether employees have enough time to have a rest and eat;
- Whether orders of clients are fulfilled quickly and exactly;
- Whether there is a possibility of conflicts with clients due to delayed or improper fulfilment of orders
- Whether employees do the work corresponding to their qualifications and abilities
- Whether employees are instructed and trained sufficiently to do the assigned work

Despite the conditions enhancing the stress, the reaction of a human body is the same:

- Increased breathing frequency
- Lack of air

- Increased or disturbed heartbeat
- Increased perspiration
- Spasms in the stomach

In the course of time, stress results in the following psychological problems:

- Mood fluctuations and depression
- Bad memory
- Inability to concentrate

Stress at work may cause depression, anxiety, nervousness, fatigue and heart diseases. This results in decreased work efficiency of employees, reduced creativity and competitiveness. [##W22##](#)

Preventive measures to reduce the risk of violence include:

- Work environment
- Work organization
- Employee training and informing

M9-EN.9.4 Organization of work and leisure time

Organization of work and leisure time of employees should be based following the Directive 2003/88/EB of 4 November 2003 concerning certain aspects of the organisation of working time.

The main aspects to be considered when making up work schedules would be as follows:

- Every worker is entitled to a minimum daily rest period of 11 consecutive hours per 24-hour period
- Per each seven-day period every worker is entitled to a minimum uninterrupted rest period of 24 hours time plus the 11 hours' daily rest
- Where the working day is longer than six hours, every worker is entitled to a rest break
- the average working time for each seven-day period, including overtime, should not exceed 48 hours
- Each employee is entitled to paid four-week annual leave that cannot be replaced by monetary remuneration, except for the cases when work relations are terminated
- Usual work hours of employees working nightshifts should not exceed on the average 8 hours per 24-hour period

M9-EN.9.5 Work conditions of pregnant women and women with recent childbirth

When evaluating risks in workplaces, particular attention should be paid to workplaces where pregnant women or young mothers are working.

If there is any possibility that work may be harmful for an expecting mother and/or her baby, all possible measures to eliminate the risks are to be taken.

If it is impossible to eliminate the harmful factors, the employer must improve work conditions so that the pregnant woman would not experience any effect of such factors.

If the risk factor remains after the change of work conditions, the woman must be relocated to another position in the same enterprise with the salary not less than before the relocation.

If there is no possibility to relocate the pregnant woman to another position (workplace) without any harmful effects on her or her future baby's health, the pregnant woman is to be provided with a leave until maternity leave, during which she will be paid the average monthly salary.

There is no inherent risk in nightshift work. Nevertheless, if the woman does not agree to work nightshifts and gives the certificate proving that such work would harm her safety and health, the pregnant woman is to be offered dayshift work. If it is impossible to replace nightshifts by dayshifts due to any objective reasons, the employee is entitled to a leave until the beginning of maternity leave or child care leave until the child is one year old. At the beginning of maternity leave the employee is to be paid the average monthly salary.

The most frequent risk factors possibly affecting the health of a young mother or a pregnant woman and/or the health of her baby include:

- Tasks involving lifting or bending activities
- High temperature of the work environment, lack of liquids, fatigue caused by improper temperature regime
- Standing work, heavy work load
- Hypertension caused by different stressful situations
- Bad feeling due to early working hours
- Bad feeling caused by different smells
- Possibility to slip, particularly in the last decades of pregnancy

The following should be implemented to prevent the above-mentioned risk factors:

- Ensure that the woman's work does not require big physical efforts. The woman perform only easy tasks
- Ensure regular breaks and possibility to have a drink
- Ensure that the woman could have short breaks to sit down and have a rest
- Provide the woman with flexible work schedule and suitable workplace
- Clean spillages immediately and ensure appropriate footwear is worn

M9-EN.9.6 Staff employed on temporary or seasonal contracts

In hotel and restaurant sector employees are often hired for temporary or seasonal job.

Due to their incompetence and insufficient training such employees face are exposed to increased risk.

The main requirement ensuring the safety and health of employees hired under temporarily contracts is the same level of instructing and training as that applied for employees hired for permanent work.

M9-EN.9.7 Self-assessment test

Having analysed the information above name the psychological risk factors that people working in hotel and restaurant sector are exposed to.

Try to list preventive measures to eliminate or minimize such risk.

Fill in the form given below using the template. You can check your knowledge: **##D13##**.

Psychological risk factors		Employee	Harm	Essential safety measures
Activity/source	Hazard description			

M9-EN.10. RISK ASSESSMENT FORMS

Hazard		Who (type of worker)	Harm	Required Safety Measures
Source	Hazard description			
Mechanical risk factors				
Mechanical and manual cutting tools (mincer, cutting machines, knives, roasting-jacks, hooks, can opening tools, etc.), sharp items (tins, sharp edges, glass dishes, cans).	Mechanical effect on body	Kitchen and waiting staff, housekeeping staff.	- Cuts, -Injuries.	<ul style="list-style-type: none"> - Never open covers of machines while the engine is still running; - Never touch interlocks and safeguarding systems; - Never put anything into the container while the machine is in operation; - Never press ingredients by hands; - Not overload the machine; - Regularly check the fuses; - Switch off the power while changing components of the machine; - Switch off the power while cleaning the machine; - Handle all sharp things (knives and cutting discs, bands, graters, spits) with appropriate care; - Keep all tools and instruments in designated places; - Install appropriate holders for knives; - Collect glass and cans in separate containers; - If possible, use PPE (protective aprons, special cut-proof gloves).
Moving equipment	Fall and sway, roll and slid,	Kitchen and	Traumas, lacerations and abrasions	-Stable position of machinery and equipment;

and parts moving out of control	fall, disengage, spread and scatter.	waiting staff		<ul style="list-style-type: none"> -Correct loading and unloading of supplies; -Form, dimensions and load capacity of shelves shall be adjusted to specific items stored on them; -Protective sides and strips shall be used to protect things stored on elevated surfaces from falling; -Employees shall be instructed on correct loading and unloading procedures.
Absence of handrails, steep staircase, defective or unstable ladders	Slips, trips and falls	Kitchen and waiting staff	<ul style="list-style-type: none"> - Strained leg and arm ligaments; - Torn tendons; -Broken bones; -Unexpected combinations of injuries, for instance broken leg and hand burn; -Death. 	<ul style="list-style-type: none"> - Properly organize the workspace; - Make sure walkways have proper lighting, a free of obstructions, electric wires and cables are fixed following the requirements; - Spillages must be cleaned immediately with suitable cleaning substances (chemical detergents may also be used depending on the nature of spilled liquid); - Handrails, handles or other holding means installed in inconvenient places - Steps of stairs must be covered with non-slippery material, equipped with handrails, properly lit; steps must be not too steep; - The floor condition must be inspected on a regular basis.
Physical risk factors				
Microclimate conditions	Inappropriate environment: <ul style="list-style-type: none"> - Temperature level; - Draught; - Insufficient ventilation; - Humidity; - Equipment emitting heat; - Unsuitable work outfit. 	Kitchen employees	<ul style="list-style-type: none"> -Fatigue; - Lack of oxygen cause drowsiness which results in weakened attention, occurrence of mistakes and possibility of accidents; - Heart problems; - The body loses liquids and the 	<ul style="list-style-type: none"> - To ensure a normal regime of temperature in work premises; - To mount ventilation above the equipment emitting heat and to take care of natural air supply; - To take care of suitable work outfit; - To ensure prevention from direct sunrays;

			person may faint.	<ul style="list-style-type: none"> - To equip with cold water automatic-machines; - To provide conditions for employees to have a rest during breaks - To inform new and especially young employees about health problems caused by heat and preventive measures, first aid measures.
<p>Dirty lighting lamps; Blinding; Shadows; Flashing; Absence of emergency lighting.</p>	Insufficient lighting	All employees	Different types of traumas: stumbling, falling down, hurting etc.	<ul style="list-style-type: none"> - Light fixtures complying with relevant requirements; - Timely replacement of blown or reduced in brightness light bulbs and tubes; - Regular cleaning of light fixtures; - Regular maintenance of emergency lighting.
<p>Hot surfaces (baking trays, pots, boards, etc.) hot liquids (hot fat, boiling water, hot meals), hot steam</p>	Contact with hot materials	Kitchen employees, barmen, waiters.	Burns of different degrees	<ul style="list-style-type: none"> - Compliance with work safety rules; - Use of handles, holders and heat resistant materials; - Use pots and pans of adequate size; - Boil with the lid covered to avoid over boiling; - Use safety gloves and potholders; - Use heat resistant aprons and footwear; - Use PPE; - Regularly instruct employees on safety at work and first aid in the event of accident; - Place dishes with hot food in the middle of the tray; - Avoid top filling coffee and tea cups or soup plates; - Warn the clients, especially children if

				dishes are hot; - Always use a dry wiper because damp wiper conducts heat quicker.
Loud music; loudly operating machines dishwashers, stirring machines, meat mincing machines, etc).	Noise	Waiters, barmen, kitchen workers	-Fatigue, - Loss of hearing; -Changed breathing rhythm and pulse; - Rise in blood pressure; - Weakened attention; - Slowdown of reaction.	- Use noise insulating materials; - Properly install loudspeakers and adjust their direction; - Install automatic music sound limiter; - If possible move noisy equipment to separate premises; - Change old parts of equipment into new ones in order to avoid unnecessary noise; - While purchasing new equipment, pay attention to their blatancy; - Form zones of silence, where employees could rest from the noise.
Chemical risk factors				
Various cleaning, disinfecting detergents, odour improvers, bleachers, laundry detergents	- Vaporization of chemical subsistence; -Toxicity; - Getting into the human body	Kitchen assistants, maids and cleaning staff	- Acute rhinitis - Cough - Breathlessness, bronchus spasms - Running eyes - Sore eyes, eye redness - Skin dryness, chapping, soreness and/or redness - Various rashes.	- Read the instruction on the label and follow instructions of use; -Find out where you can get information on safe use of chemical substances and wear protective clothing; - Assure that you know how to provide first aid if chemical products get into the airways, mucous membrane or skin; - Never pour chemical substances into containers designated for other purposes, e.g. bottles for drinks; - Never store chemical substances in unlabelled containers; - Do not mix chemical substances; - Inform the authorities about any breakdown of the equipment, spillage of chemical

				products or damaged container; - Always follow the rules; - Learn to work safely in the workplace; - Having noticed any fault, always inform the manager; -Use only the products assessed and certified by the control of harmful substances
Boiling oil	- Vaporization of hazardous substances.	Kitchen staff	- Cough - Breathlessness, bronchus spasms - Running eyes - Sore eyes, eye redness.	- Proper ventilation - Mechanical ventilation in all premises where smoke and oily vapours are generated (above grills, stoves, pans); - Regular maintenance of ventilations screens and filters to ensure efficient operation of mechanical ventilation equipment; - Oil should be heated only when necessary, not constantly; - Oils should be replaced and checked frequently.
Tabacco smoke	-Poluted, smoky environment	Administrators, Barmen, Waiting staff	- Accelerates fatigue; - Worsens health state; - Reduces work efficiency; - Irritates the mucous membrane of eyes and airways of sensitive or ill persons; -May cause migraine, bronchitis, asthma, angina pectoris attacks; - <i>Flares up allergic diseases.</i>	- Mechanical ventilation; - Banning of smoking.
Biological risk factors				
- Natural or organic substances: e.g.; soil, clay, plant	- Micro organisms (bacteria, viruses, parasites, fungi, etc.); - Substances of biological	Kitchen employees	- Infections caused by parasites, viruses or bacteria, e.g. infectious or virus caused gastro-enteritis, hepatitis	- To follow the main principles of good hygiene practice; - To follow the rules on storing the waste and

Devices operating in the premises of the hotel (floor cleaning devices; hovers; hair dryers; irons; TV sets, lamps, etc.		Housekeeping staff, guests		operated in compliance with applicable requirements - Organise training and instructions of employees. - Ensure the compliance with equipment operating instructions. - Mark out hazardous zones.
Fire and explosion risk factors				
Overheated fat Oily deposits in ventilation channels, Open fire (candles, oil lamps...) Smoking equipment	- Overheated fat that may start burning; - Oily deposits in ventilation channels; - Smoking in the places not designated for smoking, overheated equipment, flammable decoration materials or Non-observance of safety rules while exploiting electrical appliances may cause fire	Restaurant and kitchen staff	- Burns of different degrees; - Smoke poisoning; - Material losses; - Possible death of people.	- Means enhancing the resistance of constructions to flame (covers, fire panels, etc.); - Means reducing combustibility of materials; - Stationary fire detection systems; - Stationary fire fighting systems; - Primary fire fighting means; - Fire emergency action plan; - Safe, unlocked and unobstructed evacuation exits; - Evacuation exits mark-out signs.
Equipment using gas	Explosion can occur in the event of fire leak	Restaurant and kitchen staff	- Burns of different degrees; - Smoke poisoning; - Wounds; - Material losses; - Possible death of people.	- Regular leakage test of gas supply pipes and control of their technical condition; - Installation and acceptance of equipment performed by certified specialists; - Regular technical maintenance of operated equipment and timely replacement of worn-out components; - Sufficient air ventilation system; - Initial and periodical instruction of employees and on site training; - Emergency action plan.
Ergonomic risk factors				

Working in the standing position	Working in a standing position on a regular basis	Chefs, waiters, barmen, washers-up, Receptionists.	<ul style="list-style-type: none"> - Swelling legs and feet; - Heaviness in legs, worsened blood circulation in legs; - Varicose veins, frequent inflammatory processes in legs; - Micro traumas of hips, knees and spine bone; - Rheumatic diseases occur within a longer period of time; - Backache. 	<ul style="list-style-type: none"> - A possibility to change position from time to time - have enough space to make movements in the workplace (e.g., a chef, a receptionist) -Have necessary equipment and work means located comfortably, so that they could be reached without any bending or turning - If the workplace arranged at the table, have the height of the table adequate to the work character - If work is done in a standing position during the whole shift, have an appropriate leg support in order to be able to change the position from time to time - Organize work in such a manners that employees would be able to have a rest in the run of the whole shift.
Lifting loads (pots, dishes, boxes of bottles, etc) manually	- The load can be taken improperly, it can be too heavy, or when inclination or turning is too intensive.	Kitchen and restaurant employees, waiters, barmen.	<ul style="list-style-type: none"> - Different strains of ligaments and tendons; -Fractures; -Spinal cord moves or hernias etc. 	<ul style="list-style-type: none"> - Heavy loads should be carried by two or more people; - If possible, loads should be pushed, pulled or rolled (e.g., beer barrels); - If possible, trolleys should be used for carrying dishes or food stuff; - Heavy loads should be held at the waist height; - Full pots should not be lifted; - Heavy things should be kept on lower shelves so that it would be more comfortable to put or take them; - Breaks must be done during the work; - Intense work should be interchanged with less intense is work;

				<ul style="list-style-type: none"> - When selecting the staff, it is necessary to consider whether the work load does not exceed employee's capabilities; - Employees should be taught to lift loads correctly and safely.
Working in an awkward position	Repetitive movements of hands and wrists, uncomfortable posture	Washers-up, Waiters, Chefs	<ul style="list-style-type: none"> - Fatigue, - Pain in muscles; - Discomfort occurs, as well as the risk of injuries and accidents. 	<ul style="list-style-type: none"> - Reorganization of work so that the monotonous work would be done by using appropriate equipment; - Sharp cutting tools should be used in the process of food preparation, in order to employ as little force as possible; - Tools with comfortable ergonomic handles must be used; - Kitchen equipment must be re-located so that it would be possible to reduce the number of lifting, strain, turning, bending and stooping.
Psychosocial risk factors				
Violence and harassment	Offence, threatening, physical and psychological aggression	All hotel and restaurant staff	<ul style="list-style-type: none"> - Reduced motivation and work satisfaction; - Stress; - Physical and sociological damage resulting in the development of different fears and phobias; - Increased absenteeism; - Deteriorated work relations; - Hiring problems. 	<p>To work on preventive factors reducing violence risk:</p> <ul style="list-style-type: none"> ▪ Work environment ▪ Work organization ▪ Training and instructing of employees
Stress at work	-Psychological factors (work organization and management, i.e. high requirements for work and insufficient work control, too	All hotel and restaurant staff	<ul style="list-style-type: none"> - Depression; - Anxiety; - Nervousness; - Fatigue and heart diseases. - This results in decreased work 	<ul style="list-style-type: none"> - Inform employees about changes in work organisation in due time; - Keep to the schedule of shifts and days-off; - Adequately organise work of the personnel by ensuring the number of employees in the

	<p>big work load, work deadlines, intimidation and violence at work);</p> <ul style="list-style-type: none"> - Physical factors (unsuitable conditions of work environment, such as heat, cold, noise, work tools, etc.). 		<p>efficiency of employees, reduced creativity and competitiveness.</p>	<p>rota with the view to flows of customers;</p> <ul style="list-style-type: none"> - Evenly distribute unfavourable shifts among all employees; - Have a reserve of the personnel for the time of holidays, festive days, illness or rush hours; - Involve employees into process of planning labour hours; - Co-ordinate work fields; - Distribute work zones properly.
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M9-EN.11 INTERNET REFERENCES

No.	Link	Short description
1.	http://www.vdi.lt/risk/2_1_1_aspect.html	Occupational risk assessment and prevention
2.	http://www.vdi.lt/risk/annex_1.html	Seminar material: physical risk, types of mechanical risk, electricity risk, biological risk, ergonomic-physiological factors.
3.	http://www.hse.gov.uk/pubns/indg237.pdf	Operation of portable electrical equipment in hotels
4.	http://www.eugvilsta.lt/en/gesintuvai.htm	Fire fighting means. Types of fire extinguishers
5.	http://www.aroste.lt/catalog/articles.php?tPath=2_10&op=list&language=en	Fire fighting means. Use of different of fire extinguishers
6.	http://www.labelsourceonline.co.uk	Safety signs and labels
7.	http://www.hse.gov.uk/temperature/	HSE information sheet on safe work in hot environment
8.	http://www.hse.gov.uk/pubns/geis1.pdf	Risk of overheating while working in hot environment and preventive measures
9.	http://www.hse.gov.uk/pubns/fis03.pdf	HSE information sheet on workroom temperatures in places where food is handled
10.	http://www.hse.gov.uk/pubns/cais24.pdf	HSE information sheet on preventing back aches and to kitchen and food service staff
11.	http://ew2005.osha.eu.int/hl_prevention	Noise and hearing loss prevention. Musical samples for impaired and normal hearing
12.	http://www.hse.gov.uk/noise/worried.htm#symptoms	HSE information sheet on hearing conservation
13.	http://www.hse.gov.uk/pubns/indg362.pdf	Noise control at work manual
14.	http://ew2005.osha.eu.int	Animated cartoon on noise at work
15.	http://www.smokefreeatwork.ie/pdf/guide_3_sectionhandsmoke.pdf	Passive smoking and impact on human health
16.	http://www.hse.gov.uk/pubns/cais12.pdf	Maintenance priorities in catering. HSE information sheet
17.	http://www.hse.gov.uk/pubns/cais16.pdf	Safety signs in catering industry. HSE information sheet
18.	http://www.hse.gov.uk/pubns/cais17.pdf	Safety during emptying and cleaning of fryers. HSE information sheet
19.	http://www.hse.gov.uk/pubns/cais20.pdf	Health and safety for waiting staff. HSE information sheet
20.	http://www.hse.gov.uk/pubns/cais23.pdf	Gas safety in catering and hospitality. HSE information sheet
21.	http://www.hse.gov.uk/pubns/fis06.pdf	Slips and trips. Summary guidance for the food industry. HSE information sheet
22.	http://www.hse.gov.uk/pubns/misc686.pdf	Working together-to reduce stress at work
23.	http://www.sanitex.lt/index.php?show_content_id=92015	Compliance to hygiene and sanitary norms in a professional kitchen
24.	http://www.ddd.lt/motyvai.htm	Pest control
25.	http://www.hse.gov.uk/pubns/cais6.pdf	Prevention of slips and trips in catering sector
26.	http://www.hse.gov.uk/slips/issues.htm	Live issues
27.	http://osha.vdi.lt/PDF/Topics/stress/FS23LT.htm	Information sheet on psychosocial risk factors, harassment and prevention
28.	http://www.soundblock.com.au/machinery6.html	Noise blocking measures
29.	http://www.hse.gov.uk/electricity/electricequipment#condition	Visual inspection of electrical equipment

INTRODUCTION

This module is designated to the employees working in the sector of hotels and restaurants.

Purpose of the module – to introduce the employees of hotels and restaurants to occupational risk factors at their workplace, teach employees to identify potential hazards, avoid hazard or reduce it's impact on human health to a safe limit by observing work safety conditions and rules.

Therefore, the employees of restaurants and hotels were divided into three subdivisions.

In consideration of particularity of each subdivision, we have distinguished hazards typical to each subdivision, analysed it's impact on human health and submitted recommendations on avoiding a hazard or reducing it's impact on health to a safe limit.

M9.jpg

M9-EN.1 NATURE OF HOTEL AND RESTAURANT ACTIVITIES

M9-EN.1.1 Restaurant and hotel staff structure

M9-EN.1.2 Description of restaurant personnel activities

M9-EN.1.3 Description of hotel personnel activities

M9-EN.1.4 The notion of occupational risk

M9-EN.1.4.1 Key definitions

M9-EN.1.4.2 Main elements of occupational risk

M9-EN.1.4.3 Classification of occupational risk factors

M9-EN.1.4.4 Aim of occupational risk assessment

M9-EN.1.5 Self-assessment test

Short description of the chapter

Goals of this chapter:

- Acquaint with restaurant and hotel staff structure,
- Analyse risk factors that hotel and restaurant employees are exposed to in relation to their workplace, type of work performed and working tools used.
- Understand the notion of occupational risk,
- Briefly discuss occupational risk factors and learn to classify them.

This chapter will give the employee, the employer or the owner of an enterprise a general view of hazards present in workplaces in hospitality industry, to understand the complexity of the effect of these hazards on human health and the benefit of occupational risk assessment **##G16##**.

M9-EN.1.1 Restaurant and hotel staff structure

The sector under discussion involves two big areas of hospitality industry - hotels and restaurants. There are many jobs in hotels and restaurants, the majority of employees being involved in customer service working in the kitchen, restaurant and hotel.

Therefore, while assessing the workplace risk, it is important to assess the premises where the workplace is located (**M9.1.1.jpg**)

- Kitchen
- Restaurant
- Hotel

Restaurant staff is conventionally divided into two parts (by workplace):

- Waiting staff
- Kitchen staff

Waiting staff includes	Kitchen staff includes
Waiters	Chefs
Barmen	Chef assistants
Receptionists	Kitchen assistants

Depending on the number of serviced customers, one or more chefs may be employed in the kitchen. If more than one chef works in the kitchen their functions may be divided by the type of dishes prepared, namely vegetable dishes, meat dishes or desserts. The same applies to kitchen assistants, cleaners and other positions, the number of which may depend on various issues.

M9-EN.1.2 Description restaurant personnel activities

M9.1.2.jpg

Depending on the workplace and the nature of work (the activity of an employee) we may distinguish work tools used by restaurant personnel (see Table1).

Table 1: Work tools used by restaurant personnel

Workplace	Position	Activities	Work tools
Restaurant	Waiter	<ul style="list-style-type: none"> - Meeting customers and seeing them to the table - Setting the table - Preparing glasses and cutlery - Providing the menu, fetching food and drinks for the 	Cash-register

		<p>customer</p> <ul style="list-style-type: none"> - Collection of dirty dishes - Collection and washing of used ashtrays - Table clearing and cleaning - Collecting payment from the customer 	
Restaurant	Barman	<ul style="list-style-type: none"> - Serving customers at the bar, preparing and serving cocktails - Preparing simple meals and drinks, explaining the technology of food and drink preparation to the customer - Clearing the bar – taking away empty glasses and cleaning - Ordering and accepting goods, evaluating the quality of deliveries - Working with technological equipment, scales, cash-registers 	<ul style="list-style-type: none"> - Coffee machine - Various technological equipment – beer, juice dispensers etc - Cash-register
Kitchen	Chef	<ul style="list-style-type: none"> - Preparing all sorts of cold and hot meals, snacks, soups; - Making the menu; - Precise weighting, preparing servings, mixing products according to the recipes 	<ul style="list-style-type: none"> - Pots - Pans - Electrical kitchen appliances Electrical and gas cookers - Grills - Ovens - Cutting equipment - Food products
Kitchen	Kitchen assistants	Cutting vegetables, preparing salads, decorating dishes, washing plates, pans, pots and tidying the kitchen	Knives, vegetable graters, meat mincers, dough blenders, kitchen appliances, detergents

M9-EN.1.3 – Description of hotel personnel activities

M9.1.3.jpg

Depending on the workplace and the character of work (the activity of an employee), we may distinguish work tools used by hotel personnel (see Table 2).

Table 2: Work tools used by hotel personnel

Work place	Job	Activity	Work tools
Hotel	Receptionist	<ul style="list-style-type: none"> – Welcoming and registering customers – Giving orders to the porter – Accepting room orders and bookkeeping 	Office equipment
Hotel	Chambermaids	<ul style="list-style-type: none"> – Cleaning and tidying rooms – the floor, furniture, the bathroom, the toilet, taking out garbage, making up beds, changing bed linen and towels, filling soap containers etc, arranging dry cleaning service 	<ul style="list-style-type: none"> – Domestic cleaning appliances, various cleaning, washing and disinfecting detergents
Hotel	Hotel cleaners	<ul style="list-style-type: none"> – Tidying general premises of the hotel – the floors, furniture, toilets, sinks etc 	<ul style="list-style-type: none"> – Cleaning equipment and detergents
Hotel (swimming pool)	Instructors	<ul style="list-style-type: none"> – Client supervision and instructing – Providing first aid 	
Hotel (swimming pool)	Service staff	<ul style="list-style-type: none"> – Maintaining hygiene and order in the swimming pool and surrounding area, cleaning, disinfecting 	<ul style="list-style-type: none"> – Chemical substances, cleaning and disinfecting substances – Electrical swimming-pool cleaning equipment
Hotel	Service staff – gardeners, outdoor workers	<ul style="list-style-type: none"> – Hotel grounds keeping – lawn moving, trimming bushes and scrubs, planting flowers etc. 	<ul style="list-style-type: none"> – Electrical equipment, – Hand tools for grounds keeping
Hotel	Administrative workers	<ul style="list-style-type: none"> – Work with PC, communication with suppliers, clients, etc 	<ul style="list-style-type: none"> – Computers, office equipment

M9- EN.1.4 The notion of hazard

This chapter introduces key definitions, explains the difference between risk and hazard, teaches about occupational risk assessment and the purpose of assessment. The chapter also deals with the main elements of occupational risk and their classification.

(M9.1.4.jpg)

M9- EN.1.4.1 Key definitions

Occupational risk – injury or any other employee health disorder due to harmful and/or hazardous factor (effect) in the work environment

Hazard – property or ability of an object (e.g. work material, work tool or process) with inherent potential to cause harm: electrical hazard, crushing hazard, cutting hazard, fall hazard, burn hazard etc.)

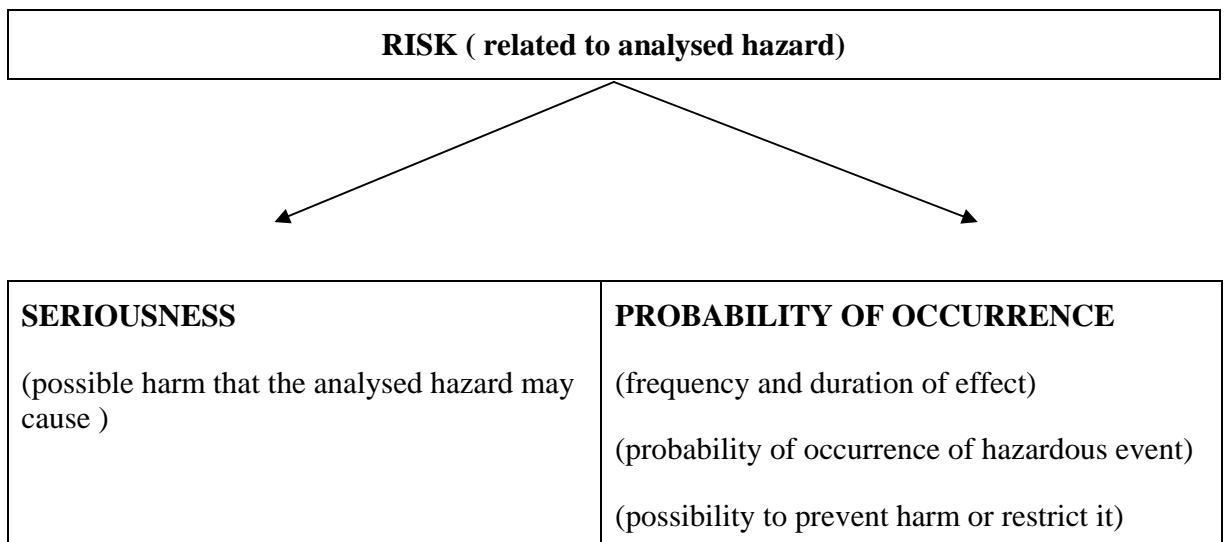
Hazardous situation - any situation where a person is exposed to hazard or hazards

Hazardous event (hazardous factor) - an event or factor which may cause harm

Harm – physical injury and/or health disorder or property damage

Preventive measure – a measure that eliminates or reduces risk

M9- EN.1.4.2 Main elements of occupational risk



M9- EN.1.4.3 Classification of occupational risk factors

The main harmful and hazardous risk factors that can affect health of employees in the sector under review:

– **Chemical (hazardous chemical substances or preparations)**

What are the substances, which employees and where do they have contact with them (in the sector under review)?

- Cleaning, disinfecting, washing, substances, various aerosols...
- Cleaners, chambermaids, kitchen workers, auxiliary workers.

– **Biological (substances of biological origin, microbes, cell cultures, human endoparasites)**

What are the substances, which employees and where do they have contact with them?

- Unprocessed food, flour dust, all sorts of waste – kitchen workers, dirty laundry – chambermaids, laundresses etc.

– **Physical**

What to your opinion are physical risk factors? Give examples.

- Noise, vibration, electromagnetic field, hot, cold environment, lighting...

– **Ergonomic**

Please provide examples how you understand these factors:

- Physical work load, work strain, adjustment of workplace to the employee

– **Psychosocial (factors that can cause mental stress to the employee).**

What are the factors?

- Work conditions, work requirements, work organisation, work content, employee relations, employer – employee relations.

Physical (factors with inherent injure potential: work tools and their moving parts, lifting equipment, lifted load, vehicles, falling items, explosion and/or fire, liable to fall work tools etc.)

Give specific examples of physical risk factors that you encounter while performing a specific task.

When risk factors characteristic to each workplace are determined it is easier to define and assess risk in every particular workplace of the enterprise. Hereby, an employer or an enterprise owner may easily assess the exposure of each particular workplace to risk, basing on the types of involved hazards and adapting the study material to his enterprise.

Risk factors will be analyzed in more detail to give a better understanding of potential hazards to employees working in hotel and restaurant sector.

M9-EN.1.4.4 Aim of occupational risk assessment

Assessment of occupational risk in workplaces is a consistent analysis of the effect of hazards and harmful factors on employees in their workplaces, which enables to assess nature and degree of present or potential risk and to make decisions whether this risk is acceptable or unacceptable.

Residual risk is risk that remains after safety measures are applied.

It should be emphasised that except for a few types of injuries and health disorders (e.g. hazards or injuries or health disorders due to noise or poisonous substances), when the degree of risk can be estimated after measuring marginal duration of noise level or maximum permissible concentration of poisonous substances in the environment, most often risk assessment of is subjective.

The purpose of risk assessment is to define the probability of employee injuries and/or other health disorders due to a harmful environment factor or effect of the factors by assessing how the workplace, work environment, work tools, work conditions conform to employees safety and health requirements established in legislative acts on health and safety and to provide for preventive measures to protect employees from risk or reduce the risk as much as possible.

However, in all cases it is very important to identify possible hazards, know them, name and foresee safety measures in order to minimise risk.

Risk assessment enables to define if there are enough measures to assure employee safety and health, if there a necessity to take additional technical or organisational measures in order to avoid injuries and occupational illnesses.

Accidents at work place, cases of occupational illnesses can happen due to improperly arranged workplaces, non-observance of safety and health requirements which result in long-term loss of working capacity, invalidity or death.

M9-EN.1.5 Self-assessment test

Check your comprehension of presented study-material by answering questions in document **##D1##**.

Correct answers are available on page **##D2##**.

M9-EN.2 MECHANICAL HAZARDS

M9-EN.2.1. Mechanical factors of occupational risk in hotels and restaurants

M9-EN.2.2. Hazards of using manual and mechanical cutting equipment

M9-EN.2.2.1. Risk factors and their effect on human health

M9-EN.2.2.2. Personal protective equipment

M9-EN.1.3. Hazards related to parts moving out of control

M9-EN.2.3.1. Risk factors

M9-EN.2.3.2. Personal protective equipment

M9-EN.2.4. Hazards related to slips, trips and falls

M9-EN.2.4.1. Risk factors and their effect on human health

M9-EN.2.4.2. Personal protective equipment

M9-EN.2.5. Self assessment test

Short description of the chapter

This chapter covers **mechanical risk factors** related to various mechanical hazards to human health. The following mechanical risk factors **##G4##** that employees working in hotel and restaurant sector are most often exposed to (major attention is given to **kitchen and waiting staff, housekeeping staff**) are distinguished:

- Manual and mechanical cutting equipment
- Parts moving out of control
- Slips, trips and falls.

Goals of this chapter:

- Define mechanical risk factors
- Analyse the most common types of mechanical factors that can cause harm to **kitchen and waiting staff, housekeeping staff, grounds keepers.**
- Discuss the effect of these mechanical factors on human health
- Present safety measures and equipment helping to reduce or prevent the negative effect on human health.

This chapter will help the managers to determine mechanical factors of occupational risk in hotel and restaurant sector, to assess each particular situation and take appropriate preventive measures to reduce the risk. (M9.2.jpg)

M9-EN.2.1 Mechanical Factors of Occupational Risk in hotels and restaurants

According to the definition (**##G4##**), risk factors can be divided into the following groups:

- Manual and mechanical cutting equipment (knives, spits, can openers, cutting and mixing equipment, meat mincers and the like)

- Things with dangerous surfaces (roasting tins, sharp edges, cans, glassware and the like)
- Moving equipment (carts, swing doors)
- Parts moving out of control (falling shelves, slipping drawers, stacks of plates)
- Trips and slips (slippery floor, e.g. spilled grease, floor cleaned with improper detergent, wet floor, improper footwear, unsuitable floor surface, changes in floor level, narrow gangways, untidy surroundings, improper lighting, absence of emergency lighting and the like)
- Falls (absence of handrails, steep staircase, defective or unstable ladders)

Accidents related to mechanical risk factors most often result from:

- Staff attempts to repair faulty equipment and ignoring safety requirements
- Using not properly prepared equipment
- Equipment cleaning without following safety instructions
- Failure to abide to equipment maintenance schedules
- Using unsafe stairs or ladders
- Failure to keep safe distances
- Failure to use personal protective equipment
- Narrow, block or poorly illuminated gangways
- Improperly cleaned, slippery, not regularly maintained floor

M9-EN.2.2 Hazards caused by manual and mechanical cutting equipment

M9-EN.2.2.1 Risk factors and their effect on human health

Taking into consideration groups of physical risk factors, hotel and restaurant employee structure (see: M9-EN.1.2, M9-EN.1.3), employee activities, and tools and equipment used we may see that **kitchen and waiting staff, gardeners and grounds keepers** are most often exposed to hazards caused by manual and mechanical cutting equipment.

Kitchen staff while using different cutting, mincing, mixing and similar equipment for food preparation

Waiting staff while laying tables, cleaning cutlery and glassware

Gardeners and grounds keepers using mechanical and electric lawn movers, tree and scrub trimmers

Body injuries resulting from mechanical effect may differ from easy cuts to deadly injuries. Any part of the body may be injured; however, the following parts suffer most often:

- hands
- arms
- feet

- head
- chest

The seriousness of injury depends on the energy of the object that caused the injury. Wounds are classified as follows:

- cuts (even edges, heavy bleeding, quicker healing and seldom suppuration. Dangerous in palm area as blood vessels may be damaged)
- lacerations and abrasions (uneven edges, not heavy bleeding, more tissues are damaged, problematic healing, possibility of infection)
- puncture wounds (very small area (1-2 cm) of skin is damaged, however the wound may be very deep, blood vessels and internals may be affected)
- other types of wounds

Therefore, the analysis of hazards caused by machinery and equipment with unprotected moving parts should cover all equipment used and answer the following questions:

- Is it possible to be injured while using the equipment and machinery (e.g. cut, bang, squeeze etc.)?
- Are modifications made in order to prevent touching hazardous zones during cleaning or maintenance?
- Is personal protective equipment (PPE) used while working with knives and applying force (meat boning, opening oyster shells etc.)?
- Is equipment guarded from causing incidental cuts, punctures by sharp edges, can tops, broken glass?

All equipment must be inspected separately.

M9-EN.2.2.2 Personal protective equipment

To avoid mechanical hazards it is important to comply with safe equipment operation instructions:

- Never open covers of machines while the engine is still running
- Never touch interlocks and safeguarding systems
- Never put anything into the container while the machine is in operation
- Never press ingredients by hands.
- Not overload the machine
- Regularly check the fuses
- Switch off the power while changing components of the machine
- Switch off the power while cleaning the machine

In addition, it is necessary to:

- Handle all sharp things (knives and cutting discs, bands, graters, spits) with appropriate care

- Keep all tools and instruments in designated places (**M9.2.2.2.jpg**)
- Install appropriate holders for knives
- Collect glass and cans in separate containers
- If possible, use PPE (protective aprons, special cut-proof gloves)

M9-EN.2.3 Hazards related to parts moving out of control

M9-EN.2.3.1 Risk factors and their effect on human health

Parts moving out of control are those, which may:

- **Fall and sway**

Things or work tools with unstable centre of gravity may fall when the centre of gravity changes after the thing or work tool is pushed or moved (for instance a stack of packs loaded on top of each other in several lines. When attempts are made to take a pack from the bottom row there is great possibility that the stack will start swaying and may fall).

- **Roll and slide**

When rolling or sliding things (loaded things, beer barrels, drawers etc.) are impacted by force they may start rolling or sliding and injure people. The effect may be caused by external force, shock, slippery surface and the like.

- **Fall, disengage, spread and scatter**

Things loaded on elevated surfaces (bottles, plates, glasses etc.) may fall through openings, get disengaged as a result of vibration, pushing or moving and injure people.

Taking into consideration groups of physical risk factors, hotel and restaurant employee structure (see: M9-EN.1.2, M9-EN.1.3), employee activities, tools and equipment used we may see that **kitchen and waiting staff** are most often exposed to hazards caused by parts moving out of control.

The following shall be determined during risk assessment:

- Are there any things in kitchen premises that may fall, roll or slide?
- Are equipment safely fixed to the base, is their stability ensured during handling?
- Are supplies in the storage safely loaded, with respect to the allowed height, appropriate order, not obstructing gangways or exits?
- Are shelves firm and not overloaded, are they used for their intended purpose?
- Are protective sides used to avoid the falling of things from elevated surfaces?
- Are clean plates loaded in a manner preventing falls?

M9.2.3.1.jpg

M9-EN.2.3.2 Personal protective equipment

To avoid hazards caused by parts moving out of control the following shall be ensured:

- Stable position of machinery and equipment
- Correct loading and unloading of supplies
- Form, dimensions and load capacity of shelves shall be adjusted to specific items stored on them
- Protective sides and strips shall be used to protect things stored on elevated surfaces from falling
- Employees shall be instructed on correct loading and unloading procedures

M9.2.3.2.jpg

M9-EN.2.4 Hazards related to slips, trips and falls

M9-EN.2.4.1 Risk factors and their effect on human health

M9.2.4.jpg

Slips, trips and falls are the most common cause of major accidents at work in hotels and restaurants. Especially great attention shall be given to **kitchen and waiting staff** as working conditions in the kitchen inherently involve greater risk compared to other workplaces. (M9-EN.3.2, M9-EN.3.3).

Instructors and service staff working in swimming pool areas face a big risk of slipping and tripping on wet surface.

While assessing risk factors resulting in slips, trips and falls the following shall be inspected:

- Are working surrounding neat and tidy?
- Is lightening sufficient?
- Are oil and other spillages in the kitchen and dining hall cleaned immediately?
- Are suitable detergents used for cleaning the floor?
- Are warning signs used after cleaning to keep people off the wet area?
- Are employees supplied with proper slip preventing footwear?
- Is the floor surface free from holes, damage or unevenness and properly fixed?
- Are there any sudden changes in floor level?
- Are gangways of appropriate width?
- Are gangways free of electric wires and cables trailing across the floor?
- Are stairs marked out?
- Are staircase steps of appropriate height?
- Is the surface of steps not slippery?
- Are handrails installed on the staircase?
- Are ladders used for reaching things safe and in proper order?
- Is emergency lighting installed?

Negative effect on human health:

- Strained leg and arm ligaments
- Torn tendons
- Broken bones
- Slips, trips and falls may result in unexpected combinations of injuries, for instance broken leg and hand burn when a kitchen employee slipped and tried to catch hold of the nearest surface – a grill pan
- Slips, trips and falls may result in heavy injuries and even death

##W25## ##W26##

M9-EN.2.4.2 Personal protective equipment

Slips, trips and falls are the most common reason of accidents and injuries in all sectors. However, it is an occupational safety area requiring least investment for risk prevention. Usually, good housekeeping practice and compliance with safety rules prevents from hazards:

- Organize the workspace so that everything has a place
- Make sure walkways have proper lighting, a free of obstructions, electric wires and cables are fixed following the requirements
- The whole floor surface must be well lit and all potential hazards (obstacles or spills) must be clearly visible
- Spillages must be cleaned immediately with suitable cleaning substances (chemical detergents may also be used depending on the nature of spilled liquid)
- Handrails, handles or other holding means shall be installed in inconvenient places
- Steps of stairs must be covered with non-slippery material, equipped with handrails, properly lit; steps must be not too steep
- The floor condition must be inspected on a regular basis: is it free from holes, damage or unevenness, is floor carpet in good shape and securely fixed, is floor free of obstacles that may cause slips and trips

To avoid falls:

- Use only proper functioning equipment and maintain them regularly
- Instruct employees on safe use of equipment (ladders etc.)
- If possible, perform the job from the floor or another safe surface

M9-EN.2.5 SELF ASSESSMENT TEST

Based on the above information list mechanical risk factors that people working in hotel and restaurant sector are exposed to.

Try to name essential safety measures to prevent these hazards.

Fill in the form below using the template. You can check your knowledge ##D12##.

Mechanical risk factors		Employee	Harm	Essential safety measures
Activity/source	Hazard description			

M9-EN.3. PHYSICAL FACTORS OF OCCUPATIONAL RISK

M9-EN.3.1 Types of physical risk factors

M9-EN.3.2 Inappropriate microclimate in premises, impact on human health, safety measures

M9-EN.3.3 Inappropriate lighting, impact on human health, work safety measures

M9-EN.3.4 Exposure hot and cold materials and/or surfaces

M9-EN.3.4.1 Impact on human health

M9-EN.3.4.2 Safety measures

M9-EN.3.4.3 First aid

M9-EN.3.5 Noise

M9-EN.3.5.1 Impact on human health

M9-EN.3.5.2 Safety measures

M9-EN.3.6 Self-assessment test

Short description of the chapter (M9.3.jpg)

This chapter covers **physical risk factors** related to various physical hazards to human health. The following physical risk factors **##G2##** that employees working in hotel and restaurant sector are most often exposed to (major attention is given to **kitchen and waiting staff, housekeeping staff**) are distinguished):

- Inappropriate microclimate
- Inappropriate lighting
- Contact with hot and cold materials and/or surfaces
- Noise

Goals of this chapter:

- Explain the types of physical risk factors
- Analyse the most common types of physical risk factors that can cause harm to **kitchen and waiting staff, housekeeping staff**
- Discuss the impact of the most common physical risk factors on human health
- Present safety measures and equipment preventing or minimizing the negative impact on human health.

This chapter will help the managers to determine physical factors of occupational risk in hotel and restaurant sector, to assess each particular situation and take appropriate preventive measures to reduce the risk.

M9-EN.3.1. Types of physical risk factors

Employees working in restaurant and hotel sector are exposed to the following types of physical risk factors:

- Inappropriate microclimate in premises
- Inappropriate lighting
- Contact with hot materials and/or surfaces
- Contact with cold materials and/or surfaces
- Noise
- Hand-arm vibration
- Infrasound
- Electric field
- Electromagnetic radiation

Risk factors that may cause greatest harm to the health of employees working in hotel and restaurant sector will be analyzed in more detail.

M9-EN.3.2. Inappropriate microclimate in premises, impact on human health, safety measures

Workplace microclimate separately and altogether is influenced by:

- temperature
- humidity
- air velocity
- thermal radiation

M9.3.2.jpg

When all these parameters are well balanced the employee feels well, can perform efficiently and is exposed to minimal risk. However, there are cases when one or several of the aforementioned parameters do not comply with occupational health and safety requirements and compromise employee health and safety.

The following shall be considered during the assessment of microclimate:

- air temperature
- air humidity
- air velocity
- thermal radiation
- work loads
- clothing and total duration of exposure

Taking into consideration all parameters influencing workplace microclimate, hotel and restaurant employee structure (see: M9-EN.1.2), employee activities, and tools and equipment used we may see that **kitchen staff** are most often exposed to hazards caused by inappropriate environment (heat, humidity, noise).

Influence of high temperature **on human health**:

- heart and blood vessel disorders
- breathing disorders
- lower electrolyte and water content

The aforementioned factors cause exhaustion, fatigue, lack of concentration, errors and accidents at work.

To prevent the negative influence of workplace microclimate the following should be implemented:

- natural ventilation and HVAC systems to control air temperature, humidity, reduce vapour condensing, remove fumes and dust
- additional mechanical ventilation (above stoves, grills, ovens, gas equipment etc.)
- install easily reachable, removable and cleanable screens or other type of protective covers on ventilation holes
- preventive measures against direct sun rays (blinds, reflecting or heat absorbing windows)
- proper work clothing
- work breaks in special rooms
- cold water dispensers
- introductory workplace instructions to new and especially young employees highlighting heat caused accidents and ways to prevent them and first aid measures

[##W7##](#), [##W8##](#)

M9-EN.3.3. Inappropriate lighting, impact on human health, work safety measures

Lighting [##G8##](#) is one of the most important physical risk factors to restaurant kitchen because of the type of their activities, namely food preparation. Workplaces where cooking is done must be properly lit to prevent other risk factors, such as cutting, pricking, slipping or burning. (M9.3.3.jpg)

The following should be considered during the assessment of lighting:

- level of overall lighting
- level of lighting in a specific workplace
- even distribution of lighting
- sources of direct glare: raised lamp, direct sunshine, reflections

- safe construction of light fixtures above cooking zones preventing broken glass from getting into food (e.g. light bulbs should have a protective glass cover, luminescent tubes should be protected with lattice or meshes keeping the tubes from falling down)
- access for cleaning and cleanness

Inappropriate lighting results in:

- eye strain
- sore eyes
- dizziness
- worse orientation
- deteriorating eye-sight

The aforementioned problems are potential causes of traumas and accidents at work (injuries, burns, slips, falls etc.).

To avoid the negative effect of inappropriate lighting the following should be implemented:

- light fixtures complying with relevant requirements
- timely replacement of blown or reduced in brightness light bulbs and tubes
- regular cleaning of light fixtures
- Regular maintenance of emergency lighting

M9-EN.3.4. Exposure to hot and cold materials and/or surfaces

M9-EN.3.4.1 Impact on human health

Contact with hot and cold materials and/or surface is inherent in the work of **restaurant kitchen and waiting staff** (M9-EN.1.2; M9-EN.1.3) with respect to their work specificity, tools and equipment used. **(M9.3.4.1.jpg)**

The following should be considered during the assessment of this occupational risk factor: are measures taken to prevent burning and scalding?

Accidental or expected contact with hot, hard, liquid or gaseous materials may cause burns (scalds) of different degrees **(#G3#)**.

Negative effect on human health depends on:

- Surface temperature
- Contact duration
- Type of surface
- Part of the body exposed to hazard (e.g. face, hands)
- Area of affected part of the body
- Appropriateness of PPE used

Examples of risk:

- Hot surfaces - heating plates, grills, bowls, roasting tins
- Hot liquids – hot oil, boiling water, hot drinks
- Hot vapour etc

M9-EN.3.4.2 Safety measures

The following should be used to prevent risk of burns:

- Compliance with work safety rules
- Use of handles, holders and heat resistant materials
- Use pots and pans of adequate size
- Boil with the lid covered to avoid over boiling
- Use safety gloves and potholders
- Use heat resistant aprons and footwear
- Use PPE
- Regularly instruct employees on safety at work and first aid in the event of accident
- Place dishes with hot food in the middle of the tray to prevent scalding of other employees or clients in the event of accidental spilling
- Avoid top filling coffee and tea cups or soup plates
- Warn the clients, especially children if dishes are hot
- Always use a dry wiper because damp wiper conducts heat quicker

M9.3.4.2.jpg

M9-EN.3.4.3 First aid

1. Remove clothes from the wounded place as soon as possible
2. If there is a possibility, cool the wounded place with cold water at least for five minutes immediately after the accident
3. If there is no water, moisten the wounded place with 70° spirit; it has the same cooling effect on scalded skin like water
4. Cover badly scalded and injured skin surface with sterile bandage or a clean towel
- 5. Important – do not smear with any oil and consult a doctor**

M9-EN.3.5. Noise

Noise is one of the oldest and most widespread workplace risk factors relevant for hotel and restaurant employees, especially **kitchen staff and waiting staff** (M9-EN.1.2; M9-EN.1.3). (M9.3.5.jpg)

Potential sources of noise:

- Loud music in bars, restaurants and discos;
- Loud equipment (ventilators, dishwashers, mixers, mincers etc) (##W13##)

The following should be considered during the assessment of noise:

- Do employees work in noisy conditions for the most part of their day
- Do employees use loud equipment longer than 30 minutes per day
- What measures were taken to avoid that

M9-EN.3.5.1 Effect on human health

Loud noise ##G1## has a negative effects human health and work efficiency. While working in a noisy environment a person “gets used” to it, however, noise increases fatigue, impairs hearing. The main health effect caused by exposure to noise is loss of hearing.

In addition exposure to noise of 90-100dB results in:

- Impaired eyesight
- Changed breathing rhythm and pulse
- Rise in blood pressure
- Weakened attention
- In some cases slowdown of reaction

Noise can become the crucial factor of accidents, cause stress at work and may cause damage to health altogether with other hazards arising in the work place.

First of all, the degree of auditory health effects depends on noise intensity and duration of effect.

Allowable acoustic noise levels in residential and work environments are regulated by HN 33-1:2003 (<http://www.vdi.lt/norminia/hn.htm>).

Noise levels in residential and working environments are estimated according to the results of measurements while comparing them to respective values of Allowable Noise Level (ANL).

Allowable Noise Level (ANL) is the level of noise which cannot cause illnesses or health disorders during long or short exposure.

Protection of employees from exposure to noise is provided in EU Directive of 2003 that came into force in all member states from February 2006 established the weekly noise exposure level that shall not exceed the exposure limit value of 87 dB(A) and introduced a requirement that the risks arising from exposure to noise shall be eliminated at their source or reduced to a minimum.

##W11## ##W12##

M9-EN.3.5.2 Safety measures

Exposure to noise may be reduced by:

- appropriate planning of premises and acoustic finishes (noise level in closed premises reduces by 10-15dB reflecting from walls, ceiling, various objects compared to open space) (##W28##)
- installing sound insulating partitions, mounting speakers appropriately and directing along the route of sound spreading
- Installing automatic music sound controls
- Considering noise levels, designation and capacity while purchasing new equipment
- Organizing work in such a manner that employees spent as little time as possible in loud noise zones
- Arranging silence oases (premises insulated from noise and designated for the rest of employees)
- Transferring employees with hearing disorders or very sensitive to noise to other less noisy work place

The aforementioned measures do not allow reducing the effect of noise in all cases because in the sector analysed the use of Personal Protective Equipment (ear plugs, earphones or helmets) is impossible due to the nature of work.

M9-EN.3.6 Self-assessment test

Based on the above information list physical risk factors in different workplaces (administrative office, hotel premises, restaurant and kitchen).

Try to name the hazards and safety measures to prevent these hazards.

Fill in the form below using the template. You can check your knowledge ##D11##.

Physical risk factors		Employee	Harm	Essential safety measures
Activity/source	Hazard description			

M9-EN.4 CHEMICAL HAZARDS

M9-EN.4.1. Harmful chemical substances

M9-EN.4.2. Impact to harmful chemical substances on human health

M9-EN.4.3. Safety measures in working with chemical substances

M9-EN.4.4. Marking of harmful substances

M9-EN.4.5. Environmental tobacco smoke at workplace, impact on human health and safety measures

M9-EN.4.6. Self-assessment test

Short description of the chapter (M9.4.jpg)

This chapter covers and analyses **chemical risk factors** that employees using various chemical substances and preparations in their work are exposed to (see: M9-EN.1.2, M9-EN.1.3 work description in hotels and restaurants):

Goals of this chapter:

- Explain the definition of hazardous chemical substances
- Analyse the impact of chemical substances on human health
- Present safety measures preventing or minimizing the negative effect on human health.

Information presented in this chapter will help the managers to determine chemical risk factors in hotel and restaurant sector, to assess each particular situation and take appropriate preventive measures to prevent or minimize the risk.

M9-EN.4.1. Harmful chemical substances

Harmful chemical substances are substances get into human organism through:

- airways
- digestion system
- skin

and have a negative impact on human health.

Harmful chemical substances can be in the form of:

- liquids
- gas

- vapour
- aerosols
- tobacco smoke.

Taking into consideration type of activities in hotels and restaurants and tools and equipment used (see: M9-EN.1.2, M9-EN.1.3), we may see that **kitchen assistants, maids and cleaning staff** are most often exposed to chemical risk when they use:

- different cleaning substances (for floor, walls, windows, furniture)
- disinfecting substances
- odour improvers
- bleachers
- laundry detergents.

Restaurant **kitchen staff** is exposed to hazardous substances in the cooking process:

- vapour of boiling food
- boiling oil vapour
- carbon dioxide (dispensers of drinks)

Restaurant **waiting staff** is exposed to:

- cigarette smoke

The following should be considered and implemented during the assessment of chemical risk:

- chemical substances and preparations used by employees
- harmful substances generated during the working process
- all substances used should be registered in the list.

Based on the list the following should be determined (the employer shall use material safety data sheets submitted by manufacturers or suppliers of chemical substances and preparations):

- characteristics of substances and compounds
- composite substances
- substance classification and marking specifying the basis of the assessment. Are impacts such as 'acute toxicity', 'skin irritation' 'mucous irritation' and 'mutagenic potential' assessed?

- Purpose and method of using
- Type of risk/impact taking into consideration contact with skin and spreading through air
- Specific protective equipment: substitutes, technical and organizational measures.

Based on the above information chemical substances should be inspected and implementation of safety measures should be controlled.

M9-EN.4.2. Impact to harmful chemical substances on human health

The **impact** of hazardous chemical substances depends on:

- concentration
- toxicity
- way of getting into the human body.

According to the speed of effect harmful chemical substances are divided into:

- Harmful chemical substances of **acute effect**
- Harmful chemical substances of **chronic effect**.

Chemical substances have different effect on human body depending on immune system and sensitivity to various allergens.

The most common effects are respiratory system problems and skin allergies (**##G18##**):

- Acute rhinitis
- Cough
- Breathlessness, bronchus spasms
- Running eyes
- Sore eyes, eye redness
- Skin dryness, chapping, soreness and/or redness
- Various rashes.

If one of the above symptoms occurs, contact with harmful substance shall be immediately discontinued (e.g.: hand washing, eye rinsing, leaving and airing the premises where the chemical substance is used)

Symptoms may occur not immediately after using the substance but a few hours later. Therefore the relation with the work performed using a chemical substance cannot be

directly determined. If allergic reaction eases or disappears during the weekend and renews during working time it means that allergic symptoms is the effect of chemical substances used in the process of work.

Toxicity of chemical substance is characterized by the so-called risk phrases.

The type of risk phrase is specified by the letter 'R' and a digital code showing the toxicity of a hazardous substance. If the substance causes confounding effect, the risk phrase consists of several groups of digits (e.g. R28/27/48).

By toxicity hazardous substances are classified as follows

The degree of toxicity of the chemical substance or preparation	Symbol of danger	Indication of danger	Risk phrases	Short description
Very toxic substances and preparations	T+	Very toxic	R28 R27 R26 R39	<ul style="list-style-type: none"> – Very toxic if swallowed – Very toxic in contact with skin – Very toxic if inhaled – Hazardous: causes very severe irreversible harm
Toxic substances and preparations	T	Toxic	R25 R24 R23 R39 R48	<ul style="list-style-type: none"> – Toxic if swallowed – Very Toxic: danger of very serious irreversible effects in contact with skin and if swallowed – Danger of serious damage to health by prolonged exposure
Harmful substances and preparations	Xn	Harmful	R22 R21 R20 R65 R40 R48	<ul style="list-style-type: none"> – Harmful if swallowed – Harmful in contact with skin – Harmful if inhaled – Harmful: may cause lung damage if swallowed. – Danger of serious damage to health by prolonged exposure
Depleting (corrosive) Substances and preparations	C	Depleting (corrosive)	R35 R34	<ul style="list-style-type: none"> – Severe burns – Burns
Irritating	Xi	Irritating	R38	<ul style="list-style-type: none"> – Irritates skin

substances and preparations			R36 R41 R37	– Irritates eyes – Can severely affect the eyes – Irritates airways
Sensitizing substances and preparations	Xn	Harmful	R42 R43	– May cause allergy if inhaled – May cause allergy if in contact with the skin
Carcinogen substances and preparations	T Xn	Toxic Harmful	R45 R49 R40	– May cause cancer – May cause cancer if inhaled – Possible risk of irreversible effect
Mutagenic substances and preparations	T Xn	Toxic Harmful	R46 R40	– May cause heritable genetic damage – May cause irreversible health disorders
Toxic to reproduction substances and preparations	T Xn	Toxic Harmful	R60 R61 R62 R63	– May impair fertility – May cause harm to the unborn child – Possible risk of harm to the unborn child

M9-EN.4.3. Safety measures in working with chemical substances

Employees (cleaners, chambermaids, auxiliary kitchen workers) who use chemical substances for work must know about their hazard, type of risk and mandatory safety measures. Usually all this information is presented in the safety data sheet **##G11##** (**##D14##**) and on package labels. (M9.4.3.jpg)

To avoid risk related to chemical substances, it is advisable to follow the rules below:



READ THE INSTRUCTION ON THE LABEL AND FOLLOW INSTRUCTIONS OF USE



FIND OUT WHERE YOU CAN GET INFORMATION ON SAFE USE OF CHEMICAL SUBSTANCES AND WEAR PROTECTIVE CLOTHING



ASSURE THAT YOU KNOW HOW TO PROVIDE FIRST AID IF ACCIDENTALLY CHEMICAL PRODUCTS GET INTO THE AIRWAYS, MUCOUS MEMBRANE OR SKIN



NEVER POUR CHEMICAL SUBSTANCES INTO CONTAINERS DESIGNATED FOR OTHER PURPOSES, E.G. BOTTLES FOR DRINKS



NEVER STORE CHEMICAL SUBSTANCES IN UNLABELLED CONTAINERS



DO NOT MIX CHEMICAL SUBSTANCES. IT CAN BE VERY DANGEROUS



INFORM THE AUTHORITIES ABOUT ANY BREAKDOWN OF THE EQUIPMENT, SPILLAGE OF CHEMICAL PRODUCTS OR DAMAGED CONTAINER



ALWAYS FOLLOW THE RULES. LEARN TO WORK SAFELY IN THE WORKPLACE



HAVING NOTICED ANY FAULT, ALWAYS INFORM THE MANAGER



USE ONLY THE PRODUCTS ASSESSED AND CERTIFIED BY THE CONTROL OF HARMFUL SUBSTANCES

If any chemical substance allergy is diagnosed or a person is allergic, the employee should avoid contact with allergen. If that is impossible the following should be implemented:

- Use of personal protective equipment
- Control the duration of work with allergens to minimize the effect of chemical substance

To avoid and prevent the negative effect of chemical substances the following should be implemented:

- Proper ventilation
- Mechanical ventilation in all premises where smoke and oily vapours are generated (above grills, stoves, pans); draughts shall be prevented
- Regular maintenance of ventilations screens and filters to ensure efficient operation of mechanical ventilation equipment
- Oil should be heated only when necessary, not constantly
- Oils should be replaced and checked frequently
- Emergency alarm system should be installed and regularly maintained in cellars or warehouses where containers with carbonic acid are stored

M9-EN.4.4. Marking of harmful substances

M9.4.4.jpg

Employees working with any chemical substances or preparations shall be aware not only of warning signs but also of toxicity symbols used on the labels of chemical substance packaging:

Xi (IRRITANT) - Irritant chemical substances irritating skin, eyes and airways, such as detergents, fertilizers.

Xn (HARMFUL) – Substances harmful by inhalation, in contact with skin and if swallowed, such as cleansers, paint. Such substances should be handled with gloves and respiration protective equipment.

C (CORROSIVE) – Corrosive substances, such as sewage cleaning detergents, powder for dishwashers, heavy cleaning detergents should be handled with gloves and direct contact must be avoided.

F (HIGHLY FLAMMABLE) – Products in a aerosol containers are highly flammable and must not be kept close to open fire or heating equipment.

F+ (EXTREMELY FLAMMABLE) –Extremely flammable substances must be protected from direct sunshine, higher than 50°C temperature. It is forbidden to spray them into open fire or hot surfaces. They must be kept away from sources of fire.

T (TOXIC) – Substances carrying this marking are very harmful by inhalation, in contact with skin and if swallowed.

T+ (VERY TOXIC) – Substances and preparations carrying this marking expose to danger of very serious irreversible effects. They are classified as carcinogenic, dangerous for reproductions or causing heritable genetic damage.

O (OXIDISING) – Explosive with or without contact with air.

IRRITANT



DIRGINANTI

**EXTREMELY
FLAMABLE**



YPAČ DEGI

HARMFUL



KENKSMIRGA

TOXIC



TOKSISKA

CORROSIVE



ARDANTI (ĖSDINANTI)

VERY TOXIC



LABAI TOKSISKA

**HIGHLY
FLAMABLE**



LABAI DEGI

OXIDISING



OKSIDUOJANTI

M9-EN.4.5. Environmental tobacco smoke in the workplace, effect on human health and safety measures

This section deals with environmental tobacco smoke or second-hand smoke.
M9.4.5.jpg

Administrators, barmen, waiters and busboys working in bars, restaurants, cafes and other service places spend a lot of time in places polluted with tobacco smoke. The risk of harm depends on the concentration of smoke and time spent in smoky environment. Test results proved that passive smoking has the same effect as 0.1-2 cigarettes smoked.

Long-term passive smoking can be the cause of more severe diseases. Children are especially sensitive to the effect of various poisons.

Breathing of smoke-filled air:

- Accelerates fatigue
- Worsens health state
- Reduces work efficiency
- Irritates the mucous membrane of eyes and airways of sensitive or ill persons, may cause migraine, bronchitis, asthma, angina pectoris attacks
- Flares up allergic diseases

The aforementioned factors increase the potential of accidents in the workplace.

It was scientifically proved that no ventilation can eliminate harmful compounds formed from a burning cigarette. Therefore, **mechanical ventilation** systems in bars, cafes, restaurants and other premises where customers are served is only an **auxiliary measure** protecting employees from the harmful effect of tobacco smoke exposure.

The only way to protect employees and clients from hazardous effect of tobacco smoke is banning of smoking in bars and restaurants.

Several countries have already solved the problem implementing a very progressive measure recommended by World Health Organisation and banned smoking in bars, restaurants and other premises designated for serving customers. The ban came into effect in Ireland, Italy, Malta, Norway, Sweden and several states of the USA. Public opinion polls were carried out in the countries planning to introduce the ban for smoking. 47% of Norwegians supported the ban (a year later the percentage of supporters reached 58%), 59% in Ireland, in Sweden 85% supported banning of smoking in restaurants and 77% supported banning of smoking in bars and clubs.

The research showed that the positive effect of the smoking ban was felt rather soon. After three months of the ban in New York the amount of cotinine, the main metabolite of nicotine in plasma, in the blood of employees working in bars, restaurants and cafes, which is the main metabolite of nicotine in plasma, reduced by

85%. Out of 74% of employees complaining of respiratory disorders, the symptoms disappeared in 59% of the employees after smoking was banned in their workplace. It not just protected the non-smokers from passive smoking, but reduced the spread of smoking and the quantity of cigarettes smoked per day among the smokers. In Italy every tenth smoker quit smoking within the five initial months, 6.6% smoked less.

The negative economic effect caused by the ban of smoking in restaurants, cafes and bars is often feared but the research show that the ban had no effect or a positive effect on the volume of sales in cafes, restaurants and bars after implementation of the smoking ban. In New York the money spent in bards increased by 8.7% during the first year compared to the previous year, the number of employees in this sector increased. In Ireland the volume of sales reduced by 4.4 % during the first year of the ban (2004), but that drop resulted not from the smoking ban: sales dropped as a result of rising prices since 2001, changing lifestyle, demographic factors. In Norway the number of customers of cafes, restaurants and bars remained the same.

##W15##

M9-EN.4.6. Self-assessment test

Based on the above information list chemical risk factors that employees working in hotel and restaurant sector are exposed to.

Try to name safety measures to prevent these hazards.

Fill in the form below using the template. You can check your knowledge: **##D4##**.

Chemical risk factors		Employee	Harm	Essential safety measures
Activity/source	Hazard description			

M9-EN.5 BIOLOGICAL HAZARDS

M9-EN.5.1. Biological factors of occupational risk and impact on human health

M9-EN.5.2. Safety measures - Basic principles of good hygiene practice

M9-EN.5.3. Safety measures - Staff hygiene and health

M9-EN.5.4. Safety measures - Storing of waste and technical materials

M9-EN.5.5. Safety measures - Cleaning, washing, disinfecting

M9-EN.5.6. Safety measures - Rodent and insect eradication

M9-EN.5.7. Safety measures - Swimming pools.

M9-EN.5.8. Self-assessment test

Short description of the chapter (M9.5.jpg)

The purpose of this chapter is to introduce biological factors of occupational risk in the sector of hotels and restaurants and exposure of **kitchen employees** to biological risk inherent in food preparation, storage and handling.

Goals of this chapter:

- Define biological risk factors and types of occurrence
- Present possible prevention measures to reduce the negative effect on human health
- Discuss measures that must be taken to ensure safe use of swimming pools

Information presented in this chapter will help the managers to determine biological factors of occupational risk in hotel and restaurant sector, to assess each particular situation and take appropriate preventive measures to prevent or reduce the risk.

M9-EN.5.1. Biological factors of occupational risk and impact on human health

M9.5.1.jpg

Biological risk factors are:

- Microorganisms (bacteria, viruses, parasites, fungi, etc.)
- Substances of biological origin
- Natural components of the organisms (amino acids, vitamins, proteins etc.)

As biological substances are usually invisible, it is difficult to assess the exposure.

Biological substances in all the places that have contact with can affect employees:

- Natural or organic substances: e.g.; soil, clay, plant substances)
- Substances of animal origin (chicken, pork, beef, eggs etc)
- Food
- Organic dust (e.g. flour)
- Waste or effluent
- Blood or other bodily fluids (e.g. liquid from defrosting meat or the like)

Taking into consideration type of activities of employees working in hotel and restaurant sector and tools and equipment used (see: M9-EN.1.2, M9-EN.1.3) we may see that all **kitchen staff** involved in the process of food preparation, storage and handling are most often exposed to biological risk factors.

Biological factors can cause 3 types of illnesses:

- **Infections** caused by parasites, viruses or bacteria, e.g. infectious or virus caused gastro-enteritis, hepatitis A, Roto virus and the like
- **Allergies** caused by mould or organic dust, e.g. flour dust, enzyme mites etc.
- **Poisoning or intoxication**, e.g. salmonella poisoning, a food-born illness caused by insufficient thermal processing of food products or contact of cooked and uncooked products

Microorganisms can access a human body in different ways:

- Aerosolized droplets through airways
- Gastrointestinal – through digestive tract
- Transmissible – from blood to blood after sting of an insect
- Contact – through skin or mucous membrane

Pathogenesis of microbes (ability to cause a disease) depends on their genetic properties and many other circumstances. Microbes spread and multiply in the place of penetration, cause process of infection that depends on quantity of microbes, their properties (virulence and toxicity), place of penetration and immunity of the organism.

M9-EN.5.2 Safety measures - The basic principles of good hygiene practice

Considering biological risk factors discussed in the previous chapter, we can make a conclusion that one of the main ways to avoid the negative effect of these factors both to employees and customers are the principles of good hygiene practice. **M9.5.2.jpg**

The following should be determined in the assessment of biological risk from the point of view of good hygiene practice:

- Is food product delivery-acceptance log maintained in the enterprise?
- Is food product storage log maintained in the enterprise?
- Is thermal processing temperature and time taking log maintained in the enterprise?
- Is cleaning work log maintained in the enterprise?
- Are documents confirming that the employees are introduced to legislative acts and their amendments regulating food handling and safety filed?
- Do employees preparing food have necessary knowledge about hygiene?
- Do employees handling food have regular health check-ups?
- Does the enterprise have a valid contract with an accredited laboratory to test raw foodstuff, food products, water, and effluents?
- Does the enterprise have a valid contract with pest exterminating company?
- Does the enterprise have a valid contract with refuse handling company?

M9-EN.5.3 Safety measures - Staff hygiene and health

Employee hygiene and health is one of the main ways to avoid risk related to biological factors. (**M9.5.3.jpg**) Below examples of rules are given, all employees working with foodstuff must follow that:

- Prior to starting work, all employees handling food must have a medical check-up and hold a personal health check-up. Health check-ups must be performed annually
- Employees handling foodstuff must hold certificates showing proof of mandatory course on hygiene taken
- Ill employees with at least one of these symptoms: diarrhoea, hepatitis, fever, sore throat with fever, secretion from nose, eyes or ears, infected or open wound, contagious dermatitis which can be transmitted through food are not allowed to work in places where food is handled

- All employees of the enterprise must be informed about rules on hand washing and follow the rules in their workplaces
- Hands must be washed before work, after each break, before starting a new operation, having touched decayed foodstuff, various waste, after using the toilet, after touching money and so on
- Hand washing instructions must be placed above wash basins
- Disposable towels must be available at every wash basin
- Use electric dryers in remises where foodstuff is handled is not allowed
- All employees handling foodstuff must have at least three sets of work clothes so that dirty clothes can be changed by clean ones

All employees must be introduced to these requirements, regularly instructed, trained and examined. Prevention and control helps to avoid large-scale health disorders.

M9-EN.5.4. Safety measures - Storing of waste and technical materials

Proper handling of food remains/waste, cleaning of dish washing equipment and places and cooling the premises is essential measures preventing the growth of bacteria and surviving spores. (M9.5.4.jpg)

The following must be determined during risk assessment:

- Is food and non-food waste generated in the process of food preparation collected into special closed containers lined with polyethylene bags?
- Are waste bins made of impermeable material, easily cleaned and disinfected?
- Is food and non-food waste taken away from food handling premises into closed containers outside?
- Is waste sorted, if necessary?
- Are waste bins emptied when 2/3 of the bin is filled with waste?
- Are plastic bags tied up and taken away into outside containers?
- Are waste bins cleaned, washed and disinfected at least once a day?
- Is the workplace free of any substances that can contaminate food?
- Are premises ventilated to avoid formation of mould?

- Are premises cleaned as scheduled?

M9-EN.5.5. Safety measures - Cleaning, washing, disinfecting

The main purpose of keeping premises clean is preventing the growth of bacteria and surviving spores by removing dirt and organic waste. Lithuanian like other European countries has a number of rules, norms and regulations ensuring cleanliness in food preparation enterprises. (M9.5.5.jpg)

The following must be determined during the assessment of cleaning, washing and disinfecting procedure:

- Are detergents used for cleaning allowed to be used in catering industry?
- Are chemical substances used following the manufacturers directions?
- Are premises, equipment and surfaces cleaning, washing and disinfecting rules (plans) prepared (##D5##) and the following is determined:
 - Objects to be cleaned and disinfected
 - Frequency of object cleaning
 - Ways and methods of cleaning
- Are premises, equipment and surfaces cleaning, washing and disinfecting procedures and schedules developed and implemented?
- Are documents confirming the compliance with the rules, procedures and schedules filed?
- Are tools used for cleaning properly labelled (by purpose)?
- Are dishwashing rules prepared?
- Does the staff comply with dishwashing rules?
- Are work safety rules for using cleaning and disinfecting substances prepared?
- Does the staff wear protective gloves?

M9-EN.5.6 Safety measures - Rodent and insect eradication

Pest control is a very important biological risk prevention measure as pests transmit many infectious diseases. (M9.5.6.jpg)



The following should be determined in the assessment of pest control:

- Is there a valid contract with pest exterminating company?
- Are pest control measures applied on a regular basis?
- Are pest control measures efficient (any traces of pest existence)?
- Is food waste and other refuse regularly collected, removed and stored in closed bins?
- Premises where food is handled free from unnecessary things and packaging?
- Are all measures taken to prevent pests from getting into food handling and storage areas? E.g. do doors close tightly, are ventilation openings equipped with screens?
- Do pest control measures comply with requirements of legal acts and ensure that food is not poisoned with pest baits (HN 90:2000)

Some interesting facts about pests:

1. Pests such as mice, rats, cockroaches, bugs and crawling insects transmit various infectious diseases.
2. Cockroaches can not only cause material harm by contaminating food, but also have a negative psychological effect giving rise to phobias. Besides, extermination of cockroaches requires a large amount of insecticides which may result in poisoning if chemical substances are used inappropriately.
3. Rodents not just devour the food but contaminate it with excrements, urine, fur, offal. According to some authors, the losses resulting from contamination by rodents are ten times higher compared to destroyed food.

##W24##

M9-EN.5.7. Safety measures - Swimming pools

Swimming pool water is a perfect media for proliferation of various microorganisms (bacteria, fungi and algae). Rapidly propagating bacteria on swimming pool surfaces or in dreggy water may cause illnesses and infections for those swimming in the pool.

The compliance of pool water quality with HN requirements is one of the key factors protecting the swimmers from negative health effects.

The following shall be considered to ensure health and safety of swimming pool users:

- Pools must be designed, installed and remodeled in compliance with applicable laws and regulations

- Floor surface and walls of the pool, changing rooms and showers shall be water impermeable and resistant to mildew and other fungi, frequent cleaning, chemical agents, easily cleaned and disinfected
- A separate room must be installed for dosing and filtering of chemical agents
- All swimming pools must have a separate filtering and agent dosing system along the perimeter of the pool
- A required number of sanitary equipment must be installed in service premises
- Pool water must be coagulated, filtered and disinfected
- Disinfecting substances must be certified and approved
- Microclimate in pool premises must comply with HN requirements
- A suitable heating and ventilation system must be installed
- A system of chemical agents and physical factors (UV rays and the like) must be used for pool water disinfecting
- Pools must be cleaned and disinfected as often as required by hygiene norms (e.g. pool bottom must be pumped and brushed at least twice per week and walls at least once in two weeks. Once per year (in smaller pools once every three months) water must be removed from the pool and the entire system, pool bottom and walls must be cleaned and disinfected by high-pressure equipment. After cleaning and disinfecting surfaces must be flushed with clean water

M9-EN.5.7. Self-assessment test

Having analysed the aforementioned biological risk factors list biological hazards encountered in the work place. Fill in the form below using the template. You can check your knowledge: **##D6##**.

Biological risk factors		Employee	Harm	Essential safety measures
Activity/source	Hazard description			

M9-EN.6 ELECTRICAL HAZARDS

M9-EN.6.1. Electrical appliances and electrical safety

M9-EN.6.2. Types of electrical hazards and effect on human health

M9-EN.6.3. Work safety measures

M9-EN.6.3.1. Five basic safety rules

M9-EN.6.3.2. Safety labels

M9-EN.6.4. Self assessment test

Short description of the chapter

The chapter presents and analyses electrical risk factors which are encountered by employees using electrical appliances in their work places (see M9-EN.1.2 and M9-EN.1.3 Description of activity of employees in hotels and restaurants).

Goals of this chapter:

- Explain definitions electrical equipment and electrical safety
- Discuss electrical hazards and effect on human health
- Present available safety measures preventing or minimizing the negative effect on human health

Information presented in this chapter will help the managers to determine electrical risk factors in hotel and restaurant sector, to assess each particular situation and take appropriate preventive measures to prevent or minimize the risk

M9- EN.6.1 Electrical appliances and electrical safety

Electrical appliance (equipment) means any apparatus, appliance, cable, conductor, fitting, insulator, material, meter or wire used for controlling, generating, supplying, transforming, transmitting or using electricity. (**M9.6.1.jpg**)

Electrical equipment is divided into:

- Fixed - These are electrical equipment installed in a specific work place (electric ovens, grills, stoves)
- Portable - Any equipment that has a lead and a plug and may be easily moved from one place to another (e.g. office equipment such as copiers, fax machines, desktop computers, kitchen equipment such as mixers, cutting, beating, mincing and similar appliances, laundry equipment such as irons, cleaning equipment such as vacuum cleaners, floor cleaners)

Taking into consideration type of activities of employees working in hotel and restaurant sector and tools and equipment used (see: M9-EN.1.2, M9-EN.1.3) we may see that almost all employees use electrical equipment and are exposed to electrical hazards.

Electrical safety first of all, is relates to:

- Technical measures
- Organizational measures
- Legal norms

that are used to protect employees from dangerous or hazardous effect of electric current, electric arc, electromagnetic field and static electricity

M9- EN.6.2 Types of electrical hazards and their effect on human health

M9.6.2.jpg

Electrical injury occurs when electric current passes through human body:

- after directly contact with the parts with potential difference
- during unauthorized presence in high voltage zone where electric arc is created across an air gap between the human being and voltage

The following shall be determined in the assessment of electrical risk:

- Is there a possibility of direct contact with electrical conductor or metal part located under voltage (e.g. is distribution panel locked)?
- Is written procedure of using electrical equipment (installation, maintenance, repairs, modification) developed and maintained?
- Is frequency of electrical equipment maintenance determined?
- Due to hazardous conditions of operation portable kitchen equipment should be inspected monthly
- Overall check-up and testing should done every six months
- Hotel electrical equipment should be visually inspected every 6-12 months
- Overall technical check-up and testing should be done every 1-5 years.
- Are persons in charge of electrical safety appointed?
- Do person in charge of electrical safety hold required qualifications and permits?
- Have employees using electrical equipment received proper training?

- Are electrical equipment operation instructions complied with?
- Are electrical equipment, cables, switches, sockets in good working condition (##W29##)?

Electric current may cause internal and external body injuries:

- Burns of different degree
- Metallization of skin
- Scars
- Inflammation of eye membrane
- Breathing disorders
- Blood vessel disorders
- Ventricular fibrillation
- Loss of consciousness
- Death

The effect of electric current depends on:

- intensity of current
- duration of impact
- path the current takes
- resistance of the body

While providing first aid the first thing is to discontinue the hazardous effect of electricity:

- Switch off the power in the distribution panel
- Push the injured person away from the source of electric current using a non-conductive object such as a dry wooden or plastic stick
- Provided first aid depending on the type of injury (put a sterile bandage on the wound or burn after disinfecting edges of the wound with 5% iodine solution, give artificial ventilation or cardiopulmonary resuscitation)
- Call the ambulance and deliver the injured person to hospital

M9- EN.6.3 Work safety measures

M9.6.3.jpg

To avoid accidents at workplace related to electrical equipment the following shall be implemented:

- Install protection from direct or indirect contact with electric current
- Regularly inspect technical condition of electrical equipment pursuant to valid legal acts and manufacturer's instructions and ensure work safety
- Ensure that electrical equipment are regularly maintained and repaired only by qualified specialists
- Use only appropriate and tested equipment
- Make sure that electrical equipment are connected to electric current only by qualified personnel. Before choosing the connection check which current is applicable to your equipment
- Ensure that equipment are installed and operated in compliance with applicable requirements (e.g., grills cannot be placed close to the wall or partition made of flammable material, surrounding surfaces should be thermally insulated with high quality material)
- Organise training and instructions of employees
- Have employees acquainted with electrical equipment operation and handling instructions
- Ensure the compliance with equipment operating instructions
- Mark out hazardous zones

One of the most important requirements for electrical safety is using of RCD-residual current device.

RCD – is an electrical wiring device that disconnects a circuit whenever it detects that the flow of current is not balanced between the phase conductor and the neutral conductor.

According to the law or National Electrical Code different countries require RCDs are installed in certain areas (bathrooms, kitchens, garages, exterior areas, crawl spaces, unfinished basements, near wet bars, swimming pools, and spas), especially in wet areas.

While working with portable electric machines and tools, it is forbidden to:

- carry out repair of any manual electric machines, tools or their electric installation
- hold electrical wires and cables of machines and tools in hands

- touch cutting and moving tools, remove shaves while the machine or tool is still running
- work standing on straight single ladder
- leave electrical equipment connected to power und unattended plug-switch

M9- EN.6.3.1 Five basic safety rules

Disconnect
 Tag out
 Ensure there is no voltage
 Ground and ensure discharge
 Cover or circuit break adjacent powered parts.



M9- EN.6.3.2 Safety signs

Hazardous places should be marked out by safety signs warning about electrical risk:



M9- EN.6.4 Self-assessment test

Based on the above information list electrical equipment used in different workplaces (administrative office, hotel premises, restaurant and kitchen).

Try to name the hazards caused by these equipment and safety measures to prevent these hazards.

Fill in the form below using the template. You can check your knowledge: ##D3##.

Electrical risk factors		Employee	Harm	Essential safety measures
Activity/source	Hazard description			

M9-EN.7 FIRE AND EXPLOSION

M9-EN.7.1. Fire risk and impact on human health

M9-EN.7.2. Gas related explosion risk, safety measures

M9-EN.7.3. Fire prevention measures

M9-EN.7.3.1. Primary fire fighting means

M9-EN.7.3.2. Evacuation routes and emergency exits

M9-EN.7.4. Fire safety signs

M9-EN.7.5. Self-assessment test

Short description of the chapter

This chapter covers and analyses **fire and explosion risk factors** that employees working in hotel and restaurant sector are exposed to.

Taking into consideration type of activities and tools and equipment used, we may see that **restaurant kitchen staff** are most often exposed to fire and explosion risk.

Goals of this chapter:

- Explain the notions of fire and explosion risk factors
- Discuss their influence and effect on human health
- Present available methods and measures preventing fire and explosion
- Introduce fire safety labels

The information given in this chapter will help managers to determine fire and explosion risk factors in hotel and restaurant sector, to evaluate the situation individually and, on the basis of given recommendations, to take appropriate preventive measures to minimize this risk.

M9-EN.7.1 Fire risk and impact on human health

Fire is a complicated physical and chemical phenomenon that often results not only in material damage but also may cause harm for human health or life. (M9.7.1.jpg)

The following should be considered during the assessment of fire risk:

- Is fire safety of the buildings sufficient enough?
- Are natural gas equipment installed in the building?
- Does air ventilation system comply with safety requirements?
- Are ventilation equipment maintained on a regular and timely basis?
- Are ventilation system filters changed in time?
- Is electrical equipment operation and maintenance safety ensured (M9-EN.2)?
- Is open fire used in cooking process? Are there any other sources of open fire: oil lamps, candles?
- Is oil used for cooking continuously heated?

- Do people smoke in specially arranged places?
- Are suitable ashtrays provided?

Possible consequences of fire include:

- Burns of different degrees
- Smoke poisoning. Smoke contains a wide variety of poisonous gases that make up different mixtures during fire. Those mixtures are much more dangerous than each type of gas taken separately. Those mixtures may spread long distances from the fire place
- Material losses
- Possible death of people

M9-EN.7.2 Gas related explosion risk, safety measures

Natural gas is one type of fuel used in food preparation process. Gas itself is not toxic. When gas is on, it does not emit any dust, soot or smoke. Explosion can occur only in the event of fire leak when gas and oxygen mixture present in confined environment is in contact with a sparks or flame. (M9.7.2.jpg)

The following should be determined in the assessment of gas related explosion risk:

- Is gas equipment maintained regularly?
- Is technical maintenance of gas equipment performed by qualified specialists?
- Are gas appliances used properly? Do the people operating gas appliances comply with all safety requirements?
- Are old and worn-out components of gas appliances replaced in a timely manner?
- Are employees aware of safety procedures in the event of gas leak?
- Are employees instructed regularly on emergency and first aid procedures?
- Is air ventilation system installed?

Safety measures ensuring safe work environment include:

- Regular leakage test of gas supply pipes and control of their technical condition
- Installation of gas detectors in the kitchen area
- Installation and acceptance of equipment performed by certified specialists
- Regular technical maintenance of operated equipment and timely replacement of worn-out components
- Sufficient air ventilation system
- Initial and periodical instruction of employees and on site training
- Emergency action plan

##W20##

M9-EN.7.3 Fire prevention measures

Different fire prevention measures are used to prevent fire in buildings:

- Obstructions for fire spreading
- Means enhancing the resistance of constructions to flame (covers, fire panels, etc.)
- Means reducing combustibility of materials
- Stationary fire detection systems (complex systems where combined detectors of smoke, heat, flame are used)
- Stationary fire fighting systems (complex systems designed for automatic or manual fire detection and extinguishing)
- Primary fire fighting means (designed to fight small fire in its primary stage: fire-extinguishers, fire-cocks, flameproof cloths, etc)
- Fire emergency action plan
- Safe, unlocked and unobstructed evacuation exits
- Evacuation exits mark-out signs
- Pursuant to EU requirements in addition to all safety measures related with firefighting risk assessment and management of emergency situations in working environment each entity must have a **rescue team** made of persons appointed by the employer

This team must be equipped with appropriate equipment and trained to respond to fire emergencies, attempt to kill the fire and arrange evacuation of people. Persons in charge shall be appointed with respect to the size of the enterprise or specific fire risk factors determined during risk assessment. In other words, persons in charge must be responsible for the following:

- Implementation of fire prevention measures,
- Evacuation of employees in the event of direct hazard,
- Emergency management procedures,
- **First aid** - Persons responsible for providing first aid must also be appointed by the employer with respect to the size of the company and type of the company's activity. A first-aider should have undergone a training course in administering first aid at work and hold a current first aid at work certificate. They can assume duties of a person in charge: 1) take care of someone injured, including calling an ambulance if required; 2) look after first- aid equipment, e.g. restocking the first – aid box.

M9-EN.7.3.1 Primary fire fighting means

- Fire-extinguishers (water scum, carbon dioxide, powder) ([##W4##](#)) (**M9.7.3.1.jpg**)
- Flameproof cloth (for fighting small fire and such substances that inflame without air, e.g. burning fat. Fireproof cloth is made of fibreglass)
- Fire-cocks

- Fire hoses

M9-EN.7.3.2 Evacuation routes and emergency exits (M9.7.3.2.jpg)

Requirements for safe evacuation of people from the building:

- Evacuation routes and exits should be unobstructed
- Door of the emergency exit must open outwards; it should not be locked
- If automatic door is installed in workplaces, a manual door opening mechanism has to be arranged
- Transparent door should be marked at a clearly visible height
- Appropriate clearly seen signs should mark out evacuation routes and exits. In case of electric system failure, back-up lighting system should operate
- If there is no possibility to arrange evacuation routes in existing buildings, adequate measures should be implemented
- Doors of premises must open and close easily, ensuring quick evacuation of people outside the building or to safe places marked on the plans

M9-EN.7.4 Fire safety signs

Fire safety signs should be arranged in compliance with the requirements of laws and regulations. The number of safety signs must be sufficient.

The signs should be maintained and used properly (**##W6##**):

- Escape route (safe escape) signs
- Fire fighting equipment signs
- Informing signs
- Prohibiting signs
- Warning signs

M9-EN.7.5 Self-assessment test

Having analysed the aforementioned explosion risk factors, try to name hazards that you are exposed to in your workplace. Fill in the form given below using the template. You can check your knowledge: **##D8##**.

Fire and explosion risk factors		Employee	Harm	Essential safety measures
Activity/source	Hazard description			

M9-EN.8 – ERGONOMIC HAZARDS

M9-EN.8.1 What is ergonomics?

M9-EN.8.2 Problems resulting from work in a standing position and preventive measures

M9-EN.8.3 Physical work load during manual handling of materials and preventive measures

M9-EN.8.4 Dynamic work load and preventive measures

M9-EN.8.5 Work with computers. Hazards and safety measures

M9-EN.8.6 Self-assessment test

Short description of the chapter

The chapter analyzes the definition of ergonomics, ergonomic occupational risk factors that employees working in hotel and restaurant sector are exposed to and the effect of these factors on human health. (M9.8.jpg)

Goals of this chapter:

- Analyze the notion of ergonomic risk factors
- Analyze in detail critical ergonomic risk factors experienced by restaurant employees: **kitchen staff and waiting staff** (i.e. employees most often exposed to ergonomic risk factors), and **administrative personnel**
- Discuss the effect of the most critical ergonomic risk factors on human health
- Present safety measures preventing or minimizing the negative effect on human health

Information presented in this chapter will help the managers to determine ergonomic risk factors in hotel and restaurant sector, to assess each particular situation and take appropriate preventive measures to prevent or minimize the risk.

M9-EN.8.1. What is ergonomics?

Work intensity has been increasing recently, therefore for at least one fourth of working time more and more employees face up with the lack of time determined by strict terms, which is directly related to health problems and accidents in the workplace. Therefore, more often the notion “ergonomics” is emphasized. (M9.8.1.jpg)

There is a short answer to the question about the notion of ergonomics. Ergonomics is the science about how to make work environment and work tools more comfortable to use.

The main ergonomic occupational risk factors include:

- Load lifting
- Repetitive movements
- Static work load

- Working posture
- Body inclination
- Movement distance in work environment
- Tensions of attention
- Monotony, etc

Considering the data of the Third European Study about work conditions of the employees carried out in 2000, the most frequent health problems related to work conditions include:

- Backache (33%)
- Stress (28%)
- Pain in the neck and shoulder muscles (23%)

The following chapters will discuss the effect of the above-mentioned factors on employees working in hospitality industry: kitchen staff, waiting staff, and hotel staff (chambermaids, cleaners, porters, etc.).

M9-EN.8.2 Problems resulting from work in a standing position and preventive measures

Work in a standing position is a typical body posture of chefs, waiters, barmen, washers-up, receptionists and employees of other professions. Standing is a natural posture by itself poses no particular health hazard. (M9.8.2.jpg)

However, working in a standing position on a regular basis **can have many different negative effects** on human health:

- Swelling legs and feet
- Heaviness in legs, worsened blood circulation in legs
- Varicose veins, frequent inflammatory processes in legs
- Micro traumas of hips, knees and spine bone
- Rheumatic diseases occur within a longer period of time
- Backache
- Other health problems

To avoid health problems caused by standing work, the employee should:

- Have a possibility to change position from time to time
- Have enough space to make movements in the workplace (e.g., a chef, a receptionist)
- Have necessary equipment and work means located comfortably, so that they could be reached without any bending or turning
- If the workplace is arranged on the table, have the height of the table adjusted to the type of work (##D9##)

- If work is done in a standing position during the whole shift, have an appropriate leg support in order to be able to change the position from time to time
- Organize work in such a manner that employees would be able to have a rest in the run of the whole shift

M9-EN.8.3 Physical work load during manual handling of materials and preventive measures

Manual handling of materials is one of the most frequent reasons of backache or injuries at workplace. (M9.8.3.jpg)

Back muscles take part in such work as lifting, carrying, putting in or taking out. Sometimes when the load is taken improperly, when it is too heavy, or when inclination or turning is too intensive, the following serious hazards are possible:

- Laceration of inter-vertebral tendons or ligaments;
- Overlapping or vertebrae, etc

Load characteristics, such as weight, shape, surface, grasping and lifting conditions, posture before and after the lifting process, as the number of repetitive motions, are also of great importance.

According to the type of work, this risk factor is often experienced by **kitchen staff (chefs, washers-up) and waiting staff (waiters, barmen)**.

In order to reduce the risk factors during manual handling of materials, intensive hand work should be reduced as much as possible:

- Heavy loads should be carried by two or more people
- If possible, loads should be pushed, pulled or rolled (e.g., beer barrels)
- If possible, trolleys should be used for carrying dishes or food stuff
- Heavy loads should be held at the waist height
- Full pots should not be lifted
- Heavy things should be kept on lower shelves so that it would be more comfortable to put or take them
- Light things should be kept on upper shelves
- Breaks must be done during the work
- Intense work should be interchanged with less intense work
- When selecting the staff, it is necessary to consider whether the work load does not exceed employee's capabilities
- Employees should be taught to lift loads correctly and safely (straight back, using leg muscles and holding the load as close to the body as possible)

##W19##

M9-EN.8.4 Dynamic work load and preventive measures (M9.8.4.jpg)

Work done in an awkward posture requires more energy:

- **Washers-up** usually work in bent down posture and their work involves repetitive movements of hands, wrists and shoulders
- **Waiters** usually carry trays with food in uncomfortable posture
- **Chefs** prepare meals using repetitive movements of hands, wrists and shoulders

As a result of this, fatigue, pain in muscles, discomfort occurs, and the risk of injuries and accidents increases.

One of the ways to reduce those risk factors includes:

- Reorganization of work so that monotonous work would be done by using appropriate equipment, e.g. dishwashers, dough whipping machines, cutting equipment, etc
- If this is not possible, sharp cutting tools should be used in the process of food preparation, in order to employ as little force as possible
- Tools with comfortable ergonomic handles must be used
- Kitchen equipment must be re-located so that it would be possible to reduce the amount of lifting, strain, turning, bending and stooping: large bowls should be carried on wheeled platforms

If there is no possibility to use a dishwasher, in order to reduce the risk of washing up by hands:

- Use double-bottom sinks to reduce unnecessary waist bending
- Use leg supports so that it would be possible to change the standing posture periodically by raising one or another foot on the support and in such way avoiding prolonged back load during long-lasting standing process
- Use water sprinkler when washing huge and heavy pots so that not to hold them under the water flow
- Use washing brushes with long handles so that bottoms of big pots could be reached easily without any bending
- Use brushes with hard bristles for washing up dirty surfaces. This might make the washing up process less difficult and reduce the strain of muscles
- Use chemical substances that may make the washing up process easier
- Use gloves with rough surface so that the washing up process would require less energy

M9-EN.8.5. Work with computers. Hazards and safety measures

These days it is difficult to imagine administrative worker's work place without a PC workstation, which is a rather big occupational risk factor affecting human health. Research data reveal that computer may be the reason of visual system and musculoskeletal disorders and increased fatigue.

Working with computer is related with various inappropriate postures caused by different reasons:

- Palms are turned too much outwards during data entering

- The neck is bent too much because of a too low desk
- Static stress of backbone because of inconvenient chair
- Wrong elbow angle because of inappropriate desk height

Key factors, the change and modeling of which may positively affect the quality of work and reduce the risk of health disorders are presented in the table below:

Working posture	Chair and desk	Movements	Computer accessories
<ul style="list-style-type: none"> - Absence of hand supports - Inconvenient position of hands 	<ul style="list-style-type: none"> - Limited space for feet - Too small working area of the desk - Inconvenient chair - Too wide working zone - Not adjustable height of the desk 	<ul style="list-style-type: none"> - Monotonous movements of hands and arms 	<ul style="list-style-type: none"> - High position of keyboard - Too big angle of vision - Foreign reflections on the screen

Basic principles of prevention:

- Ergonomic work place
- Variety of job tasks
- Possibility to change the working position
- Short-term breaks

M9-EN.8.6 Self-assessment test

Having analysed the aforementioned ergonomic risk factors, try to list hazards that you that you are exposed to in your workplace and appropriate prevention measures. Fill in the form given below using the template. You can check your knowledge: **##D10##**.

Ergonomic risk factors	Employee	Harm	Essential safety measures
Activity/source	Hazard description		

M9-EN.9 PSYCHOSOCIAL FACTORS OF OCCUPATIONAL RISK

M9-EN9.1. Work conditions, requirements and organization of work

M9-EN9.2. Violence and harassment

M9-EN.9.3. Stress at work

M9-EN.9.4. Organization of work and leisure time

M9-EN.9.5. Work conditions of pregnant women and women with recent childbirth

M9-EN.9.6. Staff employed on temporary or seasonal contracts

M9-EN.9.7. Self-assessment test

M9.9.jpg

Short description of the chapter

The chapter covers and analyses the main psychosocial risk factors that hotel and restaurant staff are frequently exposed to. This chapter also gives the analysis of the negative effect enhanced by improper work conditions, bad work organization and stressful atmosphere affecting the health of employees.

Goals of this chapter:

- Emphasize the typical psychosocial risk factors, violence and stress experienced by **restaurant waiting staff** (barmen, waiters) and **kitchen staff** (chefs, chef assistants)
- Analyze the organization of work and rest time
- Discuss work conditions of pregnant women and young mothers
- Analyze the requirements for the employer when hiring employees for temporary work
- Present preventive measures for psychosocial risk factors

The information presented in this chapter will help the managers of an enterprise to determine psychosocial risk factors in hotel and restaurant sector, to evaluate the situation individually and, on the basis of given recommendations, to take appropriate preventive measures to reduce the risk.

M9-EN.9.1 Work conditions, requirements and organization of work

Remuneration alone does not guarantee efficient performance of employees in a new workplace. There are five factors the implementation of which ensures much more efficient work results of the employee:

- **Comfortable workplace** - An employee must feel comfortable and safe in his workplace in order to be able to concentrate on his job
- **Pleasant work** - An employee must do the work that he likes and that he was hired for. Otherwise the employee as well as the employer may be dissatisfied; there will be no expected results and the employer will find himself in the initial situation: search for a new employee, new training, new expenses

- **Enthusiasm** - An employee must regularly get new, more complicated tasks requiring more responsibility and skills. Otherwise, however pleasant the work is, it may cause boredom resulting in reduced efficiency of employee's work
- **Adequate workload** - Workload should not exceed employee's abilities. Otherwise, the employee will overstrain physically as well as mentally, which will result in reduced efficiency of work
- **Relations among the staff members** - Employee's work efficiency much depends on the interrelations of staff, also on employer-employee relations. If employer-employee relations are based on fear rather than respect, if colleagues slander each other secretly, if there is an unhealthy competition among colleagues, then work relations develop into a mutual war, wasting the energy for conflicts, not for work.

M9-EN.9.2 Violence and harassment

According to the results of studies carried out by the European Union, 4% of employees have experienced violence at work. Violence is more frequent in enterprises the activity of which is related to big values (banks, chemist's). However, recently a tendency of violence to move into other types of enterprises has been observed, particularly into the service sector (e.g. doctors, nurses, teachers, restaurant and bar employees, etc.).

The following should be considered during the assessment of this occupational risk factor:

- Whether employees experience external violence at their workplace
 - External violence at work** is understood as offence, threatening, physical and psychological aggression directed to the employee by persons not working in this enterprise (e.g., customers, clients, etc.) and exposing his health, safety or welfare to risk. Violence may also be racist or sexual
- Whether the employee's work involves cash and/or valuable items
- Whether the employee works alone
- Whether security of employees and clients is ensured, whether security service is available
- Whether the employee deals with clients that may be potentially aggressive as a result of intoxication by alcohol or drugs
- Whether there is sufficient number of employees able to service all customers
- Whether there is sufficient number of employees serving other branches of the enterprise

In each case, the outcomes of violence are individual, depending on the circumstances under which the violence occurred, also on personal human qualifications. The outcomes of violence are manifested by:

- Reduced motivation and work satisfaction
- Stress

- Physical and sociological damage resulting in the development of different fears and phobias
- Increased absenteeism
- Deteriorated work relations
- Hiring problems

Preventive factors reducing violence risk:

- Work environment
- Work organization
- Training and instructing of employees

Violence prevention is developed in two levels:

1. seeking to avoid acts of violence or reduce them in number
2. giving necessary help and assistance to a person who is a victim of an act of violence

M9-EN.9.3 – Stress at work

Stress (##17##) at work is the second most frequent health problem related to work. Stress at work may result from:

- Psychological factors (work organization and management, i.e. high requirements for work and insufficient work control, too big work load, work deadlines, intimidation and violence at work)
- Physical factors (unsuitable conditions of work environment, such as heat, cold, noise, work tools, etc.)

The following should be considered during the assessment of this risk factor:

- Whether employees work in proper environment
- Whether working tools used are in good condition and comfortable to use
- Whether the work is well-organized, i.e. whether the number of employees is sufficient for clients to be served
- Whether work breaks are properly organized: whether employees have enough time to have a rest and eat;
- Whether orders of clients are fulfilled quickly and exactly;
- Whether there is a possibility of conflicts with clients due to delayed or improper fulfilment of orders
- Whether employees do the work corresponding to their qualifications and abilities
- Whether employees are instructed and trained sufficiently to do the assigned work

Despite the conditions enhancing the stress, the reaction of a human body is the same:

- Increased breathing frequency
- Lack of air

- Increased or disturbed heartbeat
- Increased perspiration
- Spasms in the stomach

In the course of time, stress results in the following psychological problems:

- Mood fluctuations and depression
- Bad memory
- Inability to concentrate

Stress at work may cause depression, anxiety, nervousness, fatigue and heart diseases. This results in decreased work efficiency of employees, reduced creativity and competitiveness. [##W22##](#)

Preventive measures to reduce the risk of violence include:

- Work environment
- Work organization
- Employee training and informing

M9-EN.9.4 Organization of work and leisure time

Organization of work and leisure time of employees should be based following the Directive 2003/88/EB of 4 November 2003 concerning certain aspects of the organisation of working time.

The main aspects to be considered when making up work schedules would be as follows:

- Every worker is entitled to a minimum daily rest period of 11 consecutive hours per 24-hour period
- Per each seven-day period every worker is entitled to a minimum uninterrupted rest period of 24 hours time plus the 11 hours' daily rest
- Where the working day is longer than six hours, every worker is entitled to a rest break
- the average working time for each seven-day period, including overtime, should not exceed 48 hours
- Each employee is entitled to paid four-week annual leave that cannot be replaced by monetary remuneration, except for the cases when work relations are terminated
- Usual work hours of employees working nightshifts should not exceed on the average 8 hours per 24-hour period

M9-EN.9.5 Work conditions of pregnant women and women with recent childbirth

When evaluating risks in workplaces, particular attention should be paid to workplaces where pregnant women or young mothers are working.

If there is any possibility that work may be harmful for an expecting mother and/or her baby, all possible measures to eliminate the risks are to be taken.

If it is impossible to eliminate the harmful factors, the employer must improve work conditions so that the pregnant woman would not experience any effect of such factors.

If the risk factor remains after the change of work conditions, the woman must be relocated to another position in the same enterprise with the salary not less than before the relocation.

If there is no possibility to relocate the pregnant woman to another position (workplace) without any harmful effects on her or her future baby's health, the pregnant woman is to be provided with a leave until maternity leave, during which she will be paid the average monthly salary.

There is no inherent risk in nightshift work. Nevertheless, if the woman does not agree to work nightshifts and gives the certificate proving that such work would harm her safety and health, the pregnant woman is to be offered dayshift work. If it is impossible to replace nightshifts by dayshifts due to any objective reasons, the employee is entitled to a leave until the beginning of maternity leave or child care leave until the child is one year old. At the beginning of maternity leave the employee is to be paid the average monthly salary.

The most frequent risk factors possibly affecting the health of a young mother or a pregnant woman and/or the health of her baby include:

- Tasks involving lifting or bending activities
- High temperature of the work environment, lack of liquids, fatigue caused by improper temperature regime
- Standing work, heavy work load
- Hypertension caused by different stressful situations
- Bad feeling due to early working hours
- Bad feeling caused by different smells
- Possibility to slip, particularly in the last decades of pregnancy

The following should be implemented to prevent the above-mentioned risk factors:

- Ensure that the woman's work does not require big physical efforts. The woman perform only easy tasks
- Ensure regular breaks and possibility to have a drink
- Ensure that the woman could have short breaks to sit down and have a rest
- Provide the woman with flexible work schedule and suitable workplace
- Clean spillages immediately and ensure appropriate footwear is worn

M9-EN.9.6 Staff employed on temporary or seasonal contracts

In hotel and restaurant sector employees are often hired for temporary or seasonal job.

Due to their incompetence and insufficient training such employees face are exposed to increased risk.

The main requirement ensuring the safety and health of employees hired under temporarily contracts is the same level of instructing and training as that applied for employees hired for permanent work.

M9-EN.9.7 Self-assessment test

Having analysed the information above name the psychological risk factors that people working in hotel and restaurant sector are exposed to.

Try to list preventive measures to eliminate or minimize such risk.

Fill in the form given below using the template. You can check your knowledge: **##D13##**.

Psychological risk factors		Employee	Harm	Essential safety measures
Activity/source	Hazard description			

M9-EN.10. RISK ASSESSMENT FORMS

Hazard		Who (type of worker)	Harm	Required Safety Measures
Source	Hazard description			
Mechanical risk factors				
Mechanical and manual cutting tools (mincer, cutting machines, knives, roasting-jacks, hooks, can opening tools, etc.), sharp items (tins, sharp edges, glass dishes, cans).	Mechanical effect on body	Kitchen and waiting staff, housekeeping staff.	- Cuts, -Injuries.	<ul style="list-style-type: none"> - Never open covers of machines while the engine is still running; - Never touch interlocks and safeguarding systems; - Never put anything into the container while the machine is in operation; - Never press ingredients by hands; - Not overload the machine; - Regularly check the fuses; - Switch off the power while changing components of the machine; - Switch off the power while cleaning the machine; - Handle all sharp things (knives and cutting discs, bands, graters, spits) with appropriate care; - Keep all tools and instruments in designated places; - Install appropriate holders for knives; - Collect glass and cans in separate containers; - If possible, use PPE (protective aprons, special cut-proof gloves).
Moving equipment	Fall and sway, roll and slid,	Kitchen and	Traumas, lacerations and abrasions	-Stable position of machinery and equipment;

and parts moving out of control	fall, disengage, spread and scatter.	waiting staff		<ul style="list-style-type: none"> -Correct loading and unloading of supplies; -Form, dimensions and load capacity of shelves shall be adjusted to specific items stored on them; -Protective sides and strips shall be used to protect things stored on elevated surfaces from falling; -Employees shall be instructed on correct loading and unloading procedures.
Absence of handrails, steep staircase, defective or unstable ladders	Slips, trips and falls	Kitchen and waiting staff	<ul style="list-style-type: none"> - Strained leg and arm ligaments; - Torn tendons; -Broken bones; -Unexpected combinations of injuries, for instance broken leg and hand burn; -Death. 	<ul style="list-style-type: none"> - Properly organize the workspace; - Make sure walkways have proper lighting, a free of obstructions, electric wires and cables are fixed following the requirements; - Spillages must be cleaned immediately with suitable cleaning substances (chemical detergents may also be used depending on the nature of spilled liquid); - Handrails, handles or other holding means installed in inconvenient places - Steps of stairs must be covered with non-slippery material, equipped with handrails, properly lit; steps must be not too steep; - The floor condition must be inspected on a regular basis.
Physical risk factors				
Microclimate conditions	Inappropriate environment: <ul style="list-style-type: none"> - Temperature level; - Draught; - Insufficient ventilation; - Humidity; - Equipment emitting heat; - Unsuitable work outfit. 	Kitchen employees	<ul style="list-style-type: none"> -Fatigue; - Lack of oxygen cause drowsiness which results in weakened attention, occurrence of mistakes and possibility of accidents; - Heart problems; - The body loses liquids and the 	<ul style="list-style-type: none"> - To ensure a normal regime of temperature in work premises; - To mount ventilation above the equipment emitting heat and to take care of natural air supply; - To take care of suitable work outfit; - To ensure prevention from direct sunrays;

			person may faint.	<ul style="list-style-type: none"> - To equip with cold water automatic-machines; - To provide conditions for employees to have a rest during breaks - To inform new and especially young employees about health problems caused by heat and preventive measures, first aid measures.
<p>Dirty lighting lamps; Blinding; Shadows; Flashing; Absence of emergency lighting.</p>	Insufficient lighting	All employees	Different types of traumas: stumbling, falling down, hurting etc.	<ul style="list-style-type: none"> - Light fixtures complying with relevant requirements; - Timely replacement of blown or reduced in brightness light bulbs and tubes; - Regular cleaning of light fixtures; - Regular maintenance of emergency lighting.
<p>Hot surfaces (baking trays, pots, boards, etc.) hot liquids (hot fat, boiling water, hot meals), hot steam</p>	Contact with hot materials	Kitchen employees, barmen, waiters.	Burns of different degrees	<ul style="list-style-type: none"> - Compliance with work safety rules; - Use of handles, holders and heat resistant materials; - Use pots and pans of adequate size; - Boil with the lid covered to avoid over boiling; - Use safety gloves and potholders; - Use heat resistant aprons and footwear; - Use PPE; - Regularly instruct employees on safety at work and first aid in the event of accident; - Place dishes with hot food in the middle of the tray; - Avoid top filling coffee and tea cups or soup plates; - Warn the clients, especially children if

				dishes are hot; - Always use a dry wiper because damp wiper conducts heat quicker.
Loud music; loudly operating machines dishwashers, stirring machines, meat mincing machines, etc).	Noise	Waiters, barmen, kitchen workers	-Fatigue, - Loss of hearing; -Changed breathing rhythm and pulse; - Rise in blood pressure; - Weakened attention; - Slowdown of reaction.	- Use noise insulating materials; - Properly install loudspeakers and adjust their direction; - Install automatic music sound limiter; - If possible move noisy equipment to separate premises; - Change old parts of equipment into new ones in order to avoid unnecessary noise; - While purchasing new equipment, pay attention to their blatancy; - Form zones of silence, where employees could rest from the noise.
Chemical risk factors				
Various cleaning, disinfecting detergents, odour improvers, bleachers, laundry detergents	- Vaporization of chemical subsistence; -Toxicity; - Getting into the human body	Kitchen assistants, maids and cleaning staff	- Acute rhinitis - Cough - Breathlessness, bronchus spasms - Running eyes - Sore eyes, eye redness - Skin dryness, chapping, soreness and/or redness - Various rashes.	- Read the instruction on the label and follow instructions of use; -Find out where you can get information on safe use of chemical substances and wear protective clothing; - Assure that you know how to provide first aid if chemical products get into the airways, mucous membrane or skin; - Never pour chemical substances into containers designated for other purposes, e.g. bottles for drinks; - Never store chemical substances in unlabelled containers; - Do not mix chemical substances; - Inform the authorities about any breakdown of the equipment, spillage of chemical

				products or damaged container; - Always follow the rules; - Learn to work safely in the workplace; - Having noticed any fault, always inform the manager; -Use only the products assessed and certified by the control of harmful substances
Boiling oil	- Vaporization of hazardous substances.	Kitchen staff	- Cough - Breathlessness, bronchus spasms - Running eyes - Sore eyes, eye redness.	- Proper ventilation - Mechanical ventilation in all premises where smoke and oily vapours are generated (above grills, stoves, pans); - Regular maintenance of ventilations screens and filters to ensure efficient operation of mechanical ventilation equipment; - Oil should be heated only when necessary, not constantly; - Oils should be replaced and checked frequently.
Tabacco smoke	-Poluted, smoky environment	Administrators, Barmen, Waiting staff	- Accelerates fatigue; - Worsens health state; - Reduces work efficiency; - Irritates the mucous membrane of eyes and airways of sensitive or ill persons; -May cause migraine, bronchitis, asthma, angina pectoris attacks; -Flares up allergic diseases.	- Mechanical ventilation; - Banning of smoking.
Biological risk factors				
- Natural or organic substances: e.g.; soil, clay, plant	- Micro organisms (bacteria, viruses, parasites, fungi, etc.); - Substances of biological	Kitchen employees	- Infections caused by parasites, viruses or bacteria, e.g. infectious or virus caused gastro-enteritis, hepatitis	- To follow the main principles of good hygiene practice; - To follow the rules on storing the waste and

Devices operating in the premises of the hotel (floor cleaning devices; hovers; hair dryers; irons; TV sets, lamps, etc.		Housekeeping staff, guests		operated in compliance with applicable requirements - Organise training and instructions of employees. - Ensure the compliance with equipment operating instructions. - Mark out hazardous zones.
Fire and explosion risk factors				
Overheated fat Oily deposits in ventilation channels, Open fire (candles, oil lamps...) Smoking equipment	- Overheated fat that may start burning; - Oily deposits in ventilation channels; - Smoking in the places not designated for smoking, overheated equipment, flammable decoration materials or Non-observance of safety rules while exploiting electrical appliances may cause fire	Restaurant and kitchen staff	- Burns of different degrees; - Smoke poisoning; - Material losses; - Possible death of people.	- Means enhancing the resistance of constructions to flame (covers, fire panels, etc.); - Means reducing combustibility of materials; - Stationary fire detection systems; - Stationary fire fighting systems; - Primary fire fighting means; - Fire emergency action plan; - Safe, unlocked and unobstructed evacuation exits; - Evacuation exits mark-out signs.
Equipment using gas	Explosion can occur in the event of fire leak	Restaurant and kitchen staff	- Burns of different degrees; - Smoke poisoning; - Wounds; - Material losses; - Possible death of people.	- Regular leakage test of gas supply pipes and control of their technical condition; - Installation and acceptance of equipment performed by certified specialists; - Regular technical maintenance of operated equipment and timely replacement of worn-out components; - Sufficient air ventilation system; - Initial and periodical instruction of employees and on site training; - Emergency action plan.
Ergonomic risk factors				

Working in the standing position	Working in a standing position on a regular basis	Chefs, waiters, barmen, washers-up, Receptionists.	<ul style="list-style-type: none"> - Swelling legs and feet; - Heaviness in legs, worsened blood circulation in legs; - Varicose veins, frequent inflammatory processes in legs; - Micro traumas of hips, knees and spine bone; - Rheumatic diseases occur within a longer period of time; - Backache. 	<ul style="list-style-type: none"> - A possibility to change position from time to time - have enough space to make movements in the workplace (e.g., a chef, a receptionist) -Have necessary equipment and work means located comfortably, so that they could be reached without any bending or turning - If the workplace arranged at the table, have the height of the table adequate to the work character - If work is done in a standing position during the whole shift, have an appropriate leg support in order to be able to change the position from time to time - Organize work in such a manners that employees would be able to have a rest in the run of the whole shift.
Lifting loads (pots, dishes, boxes of bottles, etc) manually	- The load can be taken improperly, it can be too heavy, or when inclination or turning is too intensive.	Kitchen and restaurant employees, waiters, barmen.	<ul style="list-style-type: none"> - Different strains of ligaments and tendons; -Fractures; -Spinal cord moves or hernias etc. 	<ul style="list-style-type: none"> - Heavy loads should be carried by two or more people; - If possible, loads should be pushed, pulled or rolled (e.g., beer barrels); - If possible, trolleys should be used for carrying dishes or food stuff; - Heavy loads should be held at the waist height; - Full pots should not be lifted; - Heavy things should be kept on lower shelves so that it would be more comfortable to put or take them; - Breaks must be done during the work; - Intense work should be interchanged with less intense is work;

				<ul style="list-style-type: none"> - When selecting the staff, it is necessary to consider whether the work load does not exceed employee's capabilities; - Employees should be taught to lift loads correctly and safely.
Working in an awkward position	Repetitive movements of hands and wrists, uncomfortable posture	Washers-up, Waiters, Chefs	<ul style="list-style-type: none"> - Fatigue, - Pain in muscles; - Discomfort occurs, as well as the risk of injuries and accidents. 	<ul style="list-style-type: none"> - Reorganization of work so that the monotonous work would be done by using appropriate equipment; - Sharp cutting tools should be used in the process of food preparation, in order to employ as little force as possible; - Tools with comfortable ergonomic handles must be used; - Kitchen equipment must be re-located so that it would be possible to reduce the number of lifting, strain, turning, bending and stooping.
Psychosocial risk factors				
Violence and harassment	Offence, threatening, physical and psychological aggression	All hotel and restaurant staff	<ul style="list-style-type: none"> - Reduced motivation and work satisfaction; - Stress; - Physical and sociological damage resulting in the development of different fears and phobias; - Increased absenteeism; - Deteriorated work relations; - Hiring problems. 	<p>To work on preventive factors reducing violence risk:</p> <ul style="list-style-type: none"> ▪ Work environment ▪ Work organization ▪ Training and instructing of employees
Stress at work	-Psychological factors (work organization and management, i.e. high requirements for work and insufficient work control, too	All hotel and restaurant staff	<ul style="list-style-type: none"> - Depression; - Anxiety; - Nervousness; - Fatigue and heart diseases. - This results in decreased work 	<ul style="list-style-type: none"> - Inform employees about changes in work organisation in due time; - Keep to the schedule of shifts and days-off; - Adequately organise work of the personnel by ensuring the number of employees in the

	<p>big work load, work deadlines, intimidation and violence at work);</p> <ul style="list-style-type: none"> - Physical factors (unsuitable conditions of work environment, such as heat, cold, noise, work tools, etc.). 		<p>efficiency of employees, reduced creativity and competitiveness.</p>	<p>rota with the view to flows of customers;</p> <ul style="list-style-type: none"> - Evenly distribute unfavourable shifts among all employees; - Have a reserve of the personnel for the time of holidays, festive days, illness or rush hours; - Involve employees into process of planning labour hours; - Co-ordinate work fields; - Distribute work zones properly.
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M9-EN.11 INTERNET REFERENCES

No.	Link	Short description
1.	http://www.vdi.lt/risk/2_1_1_aspect.html	Occupational risk assessment and prevention
2.	http://www.vdi.lt/risk/annex_1.html	Seminar material: physical risk, types of mechanical risk, electricity risk, biological risk, ergonomic-physiological factors.
3.	http://www.hse.gov.uk/pubns/indg237.pdf	Operation of portable electrical equipment in hotels
4.	http://www.eugvilsta.lt/en/gesintuvai.htm	Fire fighting means. Types of fire extinguishers
5.	http://www.aroste.lt/catalog/articles.php?tPath=2_10&op=list&language=en	Fire fighting means. Use of different of fire extinguishers
6.	http://www.labelsourceonline.co.uk	Safety signs and labels
7.	http://www.hse.gov.uk/temperature/	HSE information sheet on safe work in hot environment
8.	http://www.hse.gov.uk/pubns/geis1.pdf	Risk of overheating while working in hot environment and preventive measures
9.	http://www.hse.gov.uk/pubns/fis03.pdf	HSE information sheet on workroom temperatures in places where food is handled
10.	http://www.hse.gov.uk/pubns/cais24.pdf	HSE information sheet on preventing back aches and to kitchen and food service staff
11.	http://ew2005.osha.eu.int/hl_prevention	Noise and hearing loss prevention. Musical samples for impaired and normal hearing
12.	http://www.hse.gov.uk/noise/worried.htm#symptoms	HSE information sheet on hearing conservation
13.	http://www.hse.gov.uk/pubns/indg362.pdf	Noise control at work manual
14.	http://ew2005.osha.eu.int	Animated cartoon on noise at work
15.	http://www.smokefreeatwork.ie/pdf/guide_3_sectionhandsmoke.pdf	Passive smoking and impact on human health
16.	http://www.hse.gov.uk/pubns/cais12.pdf	Maintenance priorities in catering. HSE information sheet
17.	http://www.hse.gov.uk/pubns/cais16.pdf	Safety signs in catering industry. HSE information sheet
18.	http://www.hse.gov.uk/pubns/cais17.pdf	Safety during emptying and cleaning of fryers. HSE information sheet
19.	http://www.hse.gov.uk/pubns/cais20.pdf	Health and safety for waiting staff. HSE information sheet
20.	http://www.hse.gov.uk/pubns/cais23.pdf	Gas safety in catering and hospitality. HSE information sheet
21.	http://www.hse.gov.uk/pubns/fis06.pdf	Slips and trips. Summary guidance for the food industry. HSE information sheet
22.	http://www.hse.gov.uk/pubns/misc686.pdf	Working together-to reduce stress at work
23.	http://www.sanitex.lt/index.php?show_content_id=92015	Compliance to hygiene and sanitary norms in a professional kitchen
24.	http://www.ddd.lt/motyvai.htm	Pest control
25.	http://www.hse.gov.uk/pubns/cais6.pdf	Prevention of slips and trips in catering sector
26.	http://www.hse.gov.uk/slips/issues.htm	Live issues
27.	http://osha.vdi.lt/PDF/Topics/stress/FS23LT.htm	Information sheet on psychosocial risk factors, harassment and prevention
28.	http://www.soundblock.com.au/machinery6.html	Noise blocking measures
29.	http://www.hse.gov.uk/electricity/electricequipment#condition	Visual inspection of electrical equipment

##D1##

- 1. Name the main occupational risk factors and describe them briefly.**
- 2. What is the purpose of occupational risk assessment?**
- 3. What are the two main elements of occupational risk? Give examples.**

TEST

##D2##

1. Name main occupational risk factors and describe them briefly.

Main occupational risk factors:

Chemical – dangerous chemical materials and preparations..

Biological – substances of biological origin, micro-organisms, cultures of cells, human endoparasites

Physical – noise, vibration, electromagnetic field, hot, cold environment, illumination.

Ergonomic – physical work load, work strain, adjustment of workplace to potential of the employee

Mechanical – factors due to which an employee may have an injury: work tools and their moving parts, lifting equipment, lifted load, transportation means, falling items, explosion and/or fire, unstable state of work equipment etc.

Psychosocial – factors which may cause mental stress to the employee

2. What is the purpose of occupational risk assessment?

The purpose of risk assessment – to define the probability of trauma or health damage of the employee and (or) hazardous work environment factor or impact of these factors, to estimate how workplace, work tools, work conditions conform to the requirements for employees safety and health established in legislative acts on employees' safety and health and to foresee preventive measures in order to protect employees from risk or reduce the risk as much as possible.

3. What are the two main elements of occupational risk? Give examples.

The main elements of occupational risk are:

- Harm that can be caused the analysed hazard
- Probability of occurrence of such harm (frequency and duration of impact, probability of occurrence of dangerous event, possibility to avoid harm or limit it)

M9-D3. ELECTRICAL RISK FACTORS

Hazard		Who (type of worker)	Harm	Required Safety Measures
Source	Hazard description			
<p>Electrical equipment installed in a specific work place (electric ovens, grills, stoves)</p> <p>Portable electrical equipment: - copying machine; fax machine; computer ; printer; etc; -Vegetable cutter; Coffee machine; Cocktail blender, Dishwasher, etc.</p> <p>Devices operating in the premises of the hotel (floor cleaning devices; hovers; hair dryers; irons; TV sets, lamps, etc.</p>	<p>- Direct contact with electrical conductor or metal part located under voltage; - Frequency of electrical equipment maintenance undetermined; - Employees working with electrical equipment without proper training; - Electrical equipment not complied with operation instructions; - Electrical equipment, cables, switches, sockets in damaged or other bad working condition.</p>	<p>Chefs, cooks</p> <p>Administration employees</p> <p>Chefs, cooks, barmen, waiters, kitchen workers</p> <p>Housekeeping staff, guests</p>	<p>- Burns of different degree - Metallization of skin - Scars - Inflammation of eye membrane - Breathing disorders - Blood vessel disorders - Ventricular fibrillation - Loss of consciousness - Death.</p>	<p>- Install protection from direct or indirect contact with electric current. - Regularly inspect technical condition of electrical equipment pursuant to valid legal acts and manufacturer's instructions and ensure work safety. - Ensure that electrical equipment are regularly maintained and repaired only by qualified specialists. - Use only appropriate and tested equipment. - Make sure that electrical equipment are connected to electric current only by qualified personnel. Before choosing the connection check which current is applicable to your equipment. - Ensure that equipment are installed and operated in compliance with applicable requirements - Organise training and instructions of employees. - Ensure the compliance with equipment operating instructions. - Mark out hazardous zones.</p>

M9-D4 CHEMICAL RISK FACTORS

Hazard		Who (type of worker)	Harm	Required Safety Measures
Source	Hazard description			
Various cleaning, disinfecting detergents, odour improvers, bleachers, laundry detergents	<ul style="list-style-type: none"> - Vaporization of chemical subsistence; - Toxicity; - Getting into the human body 	Kitchen assistants, maids and cleaning staff	<ul style="list-style-type: none"> - Acute rhinitis - Cough - Breathlessness, bronchus spasms - Running eyes - Sore eyes, eye redness - Skin dryness, chapping, soreness and/or redness - Various rashes. 	<ul style="list-style-type: none"> - Read the instruction on the label and follow instructions of use; - Find out where you can get information on safe use of chemical substances and wear protective clothing; - Assure that you know how to provide first aid if chemical products get into the airways, mucous membrane or skin; - Never pour chemical substances into containers designated for other purposes, e.g. bottles for drinks; - Never store chemical substances in unlabelled containers; - Do not mix chemical substances; - Inform the authorities about any breakdown of the equipment, spillage of chemical products or damaged container; - Always follow the rules; - Learn to work safely in the workplace; - Having noticed any fault, always inform the manager; - Use only the products assessed and certified by the control of harmful substances

Boiling oil	- Vaporization of hazardous substances.	Kitchen staff	<ul style="list-style-type: none"> - Cough - Breathlessness, bronchus spasms - Running eyes - Sore eyes, eye redness. 	<ul style="list-style-type: none"> - Proper ventilation - Mechanical ventilation in all premises where smoke and oily vapours are generated (above grills, stoves, pans); - Regular maintenance of ventilations screens and filters to ensure efficient operation of mechanical ventilation equipment; - Oil should be heated only when necessary, not constantly; - Oils should be replaced and checked frequently.
Tabacco smoke	-Poluted, smoky environment	Administrators, Barmen, Waiting staff	<ul style="list-style-type: none"> - Accelerates fatigue; - Worsens health state; - Reduces work efficiency; - Irritates the mucous membrane of eyes and airways of sensitive or ill persons; -May cause migraine, bronchitis, asthma, angina pectoris attacks; -Flares up allergic diseases. 	<ul style="list-style-type: none"> - Mechanical ventilation; - Banning of smoking.

M9-D5 PLAN OF WASHING AND DISINFECTING DETERGENTS

Object of washing and disinfecting	Detergent	Way of cleaning and disinfecting	Frequency of washing, disinfecting, cleaning
Walls	Detergent	To wipe with a wet napkin and dry properly	Once a month
Doors	Detergent Disinfectant	Handles are cleaned with a wet napkin Disinfect according the instruction of used preparation	After shift Once a week
Lamps	Detergent	Cleaned with a wet napkin	Once a month
Shelves	Detergent Disinfectant	Handles are cleaned with a wet napkin and dry properly Disinfect according the instruction of used preparation	Every day
Chairs	Detergent Disinfectant	Cleaned and dried Disinfect according the instruction of used preparation	After shift Once a week
Tables	Detergent Disinfectant	Remove food leftovers. Clean with a wet napkin and dry properly Disinfect according the instruction of used preparation	Every day After shift or if necessary
Scales	Detergent	Wash, clean with a wet napkin	After use
Cutting boards	Detergent Disinfectant	Remove food leftovers, wash with a special brush, rinse. Disinfect according the instruction of used preparation	After use After shift
Tables (with metal surfaces)	Detergent Disinfectant	Remove food leftovers, wash with a special brush, rinse. Disinfect according the instruction of used preparation	Every day After shift or if necessary
Oven, microwave oven, cookers, baking oven other equipment	Detergent Disinfectant	Scour out, wash with water, dry properly Disinfect according the instruction of used preparation	After shift or if necessary
Refrigerating equipment	Detergent Disinfectant	Defrosted, washed, dried. Disinfect according the instruction of used preparation	1 time in 3 months, or if necessary
Kitchen tools	Detergent Disinfectant	Remove food leftovers, wash, dry. Disinfect according the instruction of used preparation	After use After shift
Mincers, graters, blenders, other equipment	Detergent Disinfectant	Remove food leftovers, wash with a special brush, rinse. Disinfect according the instruction of used preparation	After use After shift
Cleaning inventory	Detergent Disinfectant	Washed, disinfected, dried. Disinfect according the instruction of used preparation	Every time after use
WC	Detergent-disinfectant	Washed with a brush	Twice a day

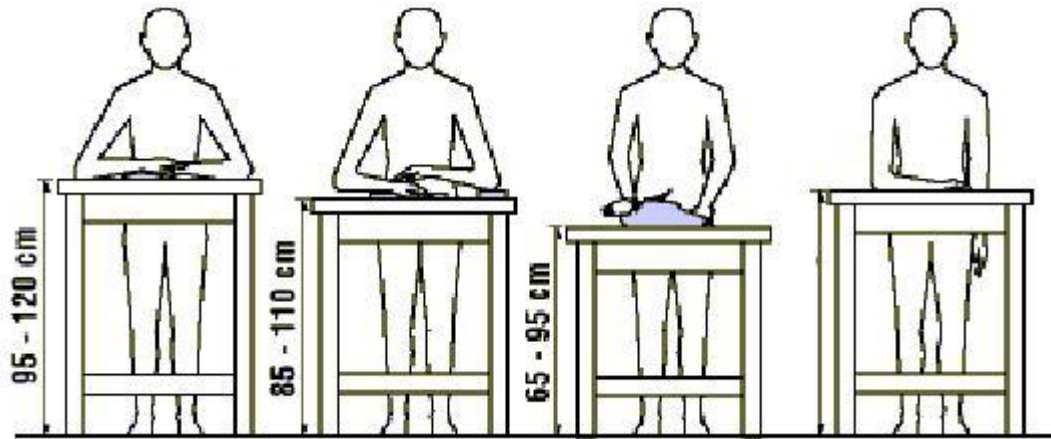
M9-D6. RISK ASSESSMENT FORMS

Hazard		Who (type of worker)	Harm	Required Safety Measures
Source	Hazard description			
Biological risk factors				
<ul style="list-style-type: none"> - Natural or organic substances: e.g.; soil, clay, plant substances); - Substances of animal origin (chicken, pork, beef, eggs etc.); - Food ; - Organic dust (e.g. flour); - Waste or effluent; - Blood or other bodily fluids (e.g. liquid from defrosting meat or the like). 	<ul style="list-style-type: none"> - Micro organisms (bacteria, viruses, parasites, fungi, etc.); - Substances of biological origin - Natural components of the organisms (amino acids, vitamins, proteins etc.) 	Kitchen employees	<ul style="list-style-type: none"> - Infections caused by parasites, viruses or bacteria, e.g. infectious or virus caused gastro-enteritis, hepatitis A, Roto virus and the like; - Allergies caused by mould or organic dust, e.g. flour dust, enzyme mites etc.; - Poisoning or intoxication, e.g. salmonella poisoning, a food-born illness caused by insufficient thermal processing of food products or contact of cooked and uncooked products. 	<ul style="list-style-type: none"> - To follow the main principles of good hygiene practice; - To follow the rules on storing the waste and technical materials; To follow the rules on cleaning, washing, disinfecting -

M9-D8. FIRE AND EXPLOSION RISK FACTORS

Hazard		Who (type of worker)	Harm	Required Safety Measures
Source	Hazard description			
Overheated fat Oily deposits in ventilation channels, Open fire (candles, oil lamps...) Smoking equipment	<ul style="list-style-type: none"> - Overheated fat that may start burning; - Oily deposits in ventilation channels; - Smoking in the places not designated for smoking, overheated equipment, flammable decoration materials or Non-observance of safety rules while exploiting electrical appliances may cause fire 	Restaurant and kitchen staff	<ul style="list-style-type: none"> - Burns of different degrees; - Smoke poisoning; - Material losses; - Possible death of people. 	<ul style="list-style-type: none"> - Means enhancing the resistance of constructions to flame (covers, fire panels, etc.); - Means reducing combustibility of materials; - Stationary fire detection systems; - Stationary fire fighting systems; - Primary fire fighting means; - Fire emergency action plan; - Safe, unlocked and unobstructed evacuation exits; - Evacuation exits mark-out signs.
Equipment using gas	Explosion can occur in the event of fire leak	Restaurant and kitchen staff	<ul style="list-style-type: none"> - Burns of different degrees; - Smoke poisoning; - Wounds; - Material losses; - Possible death of people. 	<ul style="list-style-type: none"> - Regular leakage test of gas supply pipes and control of their technical condition; - Installation and acceptance of equipment performed by certified specialists; - Regular technical maintenance of operated equipment and timely replacement of worn-out components; - Sufficient air ventilation system; - Initial and periodical instruction of employees and on site training; - Emergency action plan.

M9-D9.



Different tasks require different height of workbenches.

- For precision work (receptionist - writing) the height of workbench must be 5 cm above the elbow; armrests necessary;
- for easy work (food preparation, decoration) the height of workbench must be 5-10 cm below elbow;
- for difficult work, when necessary to press down – the workbench must be 20-40 cm below elbow.

M9-D10. ERGONOMIC RISK FACTORS

Hazard		Who (type of worker)	Harm	Required Safety Measures
Source	Hazard description			
Working in the standing position	Working in a standing position on a regular basis	Chefs, waiters, barmen, washers-up, Receptionists.	<ul style="list-style-type: none"> - Swelling legs and feet; - Heaviness in legs, worsened blood circulation in legs; - Varicose veins, frequent inflammatory processes in legs; - Micro traumas of hips, knees and spine bone; - Rheumatic diseases occur within a longer period of time; - Backache. 	<ul style="list-style-type: none"> - A possibility to change position from time to time - have enough space to make movements in the workplace (e.g., a chef, a receptionist) -Have necessary equipment and work means located comfortably, so that they could be reached without any bending or turning - If the workplace arranged at the table, have the height of the table adequate to the work character - If work is done in a standing position during the whole shift, have an appropriate leg support in order to be able to change the position from time to time - Organize work in such a manners that employees would be able to have a rest in the run of the whole shift.
Lifting loads (pots, dishes, boxes of bottles, etc) manually	- The load can be taken improperly, it can be too heavy, or when inclination or turning is too intensive.	Kitchen and restaurant employees, waiters, barmen.	<ul style="list-style-type: none"> - Different strains of ligaments and tendons; -Fractures; -Spinal cord moves or hernias etc. 	<ul style="list-style-type: none"> - Heavy loads should be carried by two or more people; - If possible, loads should be pushed, pulled or rolled (e.g., beer barrels); - If possible, trolleys should be used for carrying dishes or food stuff; - Heavy loads should be held at the waist height;

				<ul style="list-style-type: none"> - Full pots should not be lifted; - Heavy things should be kept on lower shelves so that it would be more comfortable to put or take them; - Breaks must be done during the work; - Intense work should be interchanged with less intense work; - When selecting the staff, it is necessary to consider whether the work load does not exceed employee's capabilities; - Employees should be taught to lift loads correctly and safely.
Working in an awkward position	Repetitive movements of hands and wrists, uncomfortable posture	Washers-up, Waiters, Chefs	<ul style="list-style-type: none"> - Fatigue, - Pain in muscles; - Discomfort occurs, as well as the risk of injuries and accidents. 	<ul style="list-style-type: none"> - Reorganization of work so that the monotonous work would be done by using appropriate equipment; - Sharp cutting tools should be used in the process of food preparation, in order to employ as little force as possible; - Tools with comfortable ergonomic handles must be used; - Kitchen equipment must be re-located so that it would be possible to reduce the number of lifting, strain, turning, bending and stooping.

M9-D11. PHYSICAL RISK FACTORS

Hazard		Who (type of worker)	Harm	Required Safety Measures
Source	Hazard description			
Microclimate conditions	Inappropriate environment: <ul style="list-style-type: none"> - Temperature level; - Draught; - Insufficient ventilation; - Humidity; - Equipment emitting heat; - Unsited work outfit. 	Kitchen employees	-Fatigue; <ul style="list-style-type: none"> - Lack of oxygen cause drowse which results in weakened attention, occurrence of mistakes and possibility of accidents; - Heart problems; - The body loses liquids and the person may faint. 	<ul style="list-style-type: none"> - To ensure a normal regime of temperature in work premises; - To mount ventilation above the equipment emitting heat and to take care of natural air supply; - To take care of suitable work outfit; - To ensure prevention from direct sunrays; - To equip with cold water automatic-machines; - To provide conditions for employees to have a rest during breaks - To inform new and especially young employees about health problems caused by heat and preventive measures, first aid measures.
Dirty lighting lamps; Blinding; Shadows; Flashing; Absence of emergency lighting.	Insufficient lighting	All employees	Different types of traumas: stumbling, falling down, hurting etc.	<ul style="list-style-type: none"> - Light fixtures complying with relevant requirements; - Timely replacement of blown or reduced in brightness light bulbs and tubes; - Regular cleaning of light fixtures; - Regular maintenance of emergency lighting.
Hot surfaces (baking trays, pots, boards,	Contact with hot materials	Kitchen employees, barmen, waiters.	Burns of different degrees	<ul style="list-style-type: none"> - Compliance with work safety rules; - Use of handles, holders and heat resistant

<p>etc.) hot liquids (hot fat, boiling water, hot meals), hot steam</p>				<p>materials;</p> <ul style="list-style-type: none"> - Use pots and pans of adequate size; - Boil with the lid covered to avoid over boiling; - Use safety gloves and potholders; - Use heat resistant aprons and footwear; - Use PPE; - Regularly instruct employees on safety at work and first aid in the event of accident; - Place dishes with hot food in the middle of the tray; - Avoid top filling coffee and tea cups or soup plates; - Warn the clients, especially children if dishes are hot; - Always use a dry wiper because damp wiper conducts heat quicker.
<p>Loud music; loudly operating machines dishwashers, stirring machines, meat mincing machines, etc).</p>	<p>Noise</p>	<p>Waiters, barmen, kitchen workers</p>	<ul style="list-style-type: none"> -Fatigue, - Loss of hearing; -Changed breathing rhythm and pulse; - Rise in blood pressure; - Weakened attention; - Slowdown of reaction. 	<ul style="list-style-type: none"> - Use noise insulating materials; - Properly install loudspeakers and adjust their direction; - Install automatic music sound limiter; - If possible move noisy equipment to separate premises; - Change old parts of equipment into new ones in order to avoid unnecessary noise; - While purchasing new equipment, pay attention to their blatancy; - Form zones of silence, where employees could rest from the noise.

M9-D12. MECHANICAL RISK FACTORS

Hazard		Who (type of worker)	Harm	Required Safety Measures
Source	Hazard description			
Mechanical and manual cutting tools (mincer, cutting machines, knives, roasting-jacks, hooks, can opening tools, etc.), sharp items (tins, sharp edges, glass dishes, cans).	Mechanical effect on body	Kitchen and waiting staff, housekeeping staff.	- Cuts, -Injuries.	<ul style="list-style-type: none"> - Never open covers of machines while the engine is still running; - Never touch interlocks and safeguarding systems; - Never put anything into the container while the machine is in operation; - Never press ingredients by hands; - Not overload the machine; - Regularly check the fuses; - Switch off the power while changing components of the machine; - Switch off the power while cleaning the machine; - Handle all sharp things (knives and cutting discs, bands, graters, spits) with appropriate care; - Keep all tools and instruments in designated places; - Install appropriate holders for knives; - Collect glass and cans in separate containers; - If possible, use PPE (protective aprons, special cut-proof gloves).
Moving equipment and parts moving out	Fall and sway, roll and slid, fall, disengage, spread and	Kitchen and waiting staff	Traumas, lacerations and abrasions	<ul style="list-style-type: none"> -Stable position of machinery and equipment; -Correct loading and unloading of supplies;

of control	scatter.			<ul style="list-style-type: none"> -Form, dimensions and load capacity of shelves shall be adjusted to specific items stored on them; -Protective sides and strips shall be used to protect things stored on elevated surfaces from falling; -Employees shall be instructed on correct loading and unloading procedures.
Absence of handrails, steep staircase, defective or unstable ladders	Slips, trips and falls	Kitchen and waiting staff	<ul style="list-style-type: none"> - Strained leg and arm ligaments; - Torn tendons; -Broken bones; -Unexpected combinations of injuries, for instance broken leg and hand burn; -Death. 	<ul style="list-style-type: none"> - Properly organize the workspace; - Make sure walkways have proper lighting, a free of obstructions, electric wires and cables are fixed following the requirements; - Spillages must be cleaned immediately with suitable cleaning substances (chemical detergents may also be used depending on the nature of spilled liquid); - Handrails, handles or other holding means installed in inconvenient places - Steps of stairs must be covered with non-slippery material, equipped with handrails, properly lit; steps must be not too steep; - The floor condition must be inspected on a regular basis.

M9-D13. PSYCHOSOCIAL RISK FACTORS

Hazard		Who (type of worker)	Harm	Required Safety Measures
Source	Hazard description			
Violence and harassment	Offence, threatening, physical and psychological aggression	All hotel and restaurant staff	<ul style="list-style-type: none"> - Reduced motivation and work satisfaction; - Stress; - Physical and sociological damage resulting in the development of different fears and phobias; - Increased absenteeism; - Deteriorated work relations; - Hiring problems. 	<p>To work on preventive factors reducing violence risk:</p> <ul style="list-style-type: none"> ▪ Work environment ▪ Work organization ▪ Training and instructing of employees
Stress at work	<ul style="list-style-type: none"> - Psychological factors (work organization and management, i.e. high requirements for work and insufficient work control, too big work load, work deadlines, intimidation and violence at work); - Physical factors (unsuitable conditions of work environment, such as heat, cold, noise, work tools, etc.). 	All hotel and restaurant staff	<ul style="list-style-type: none"> - Depression; - Anxiety; - Nervousness; - Fatigue and heart diseases. - This results in decreased work efficiency of employees, reduced creativity and competitiveness. 	<ul style="list-style-type: none"> - Inform employees about changes in work organisation in due time; - Keep to the schedule of shifts and days-off; - Adequately organise work of the personnel by ensuring the number of employees in the rota with the view to flows of customers; - Evenly distribute unfavourable shifts among all employees; - Have a reserve of the personnel for the time of holidays, festive days, illness or rush hours; - Involve employees into process of planning labour hours; - Co-ordinate work fields; - Distribute work zones properly.

SAFETY DATA SHEET**KI-CHEM (U.K.) LIMITED**

Unit 3, Wallace Court, Road Three, Winsford Ind. Est.
Winsford, Cheshire. CW7 3PD Tel: 01606 552288

PRODUCT: KI-007
HEAVY DUTY DEGREASER

1. Physical Properties

Appearance: Clear or slightly translucent colourless liquid.
Specific Gravity: 1.14 +/- 0.1g/ml
Solubility (Water): Infinitely soluble

2. Chemical Information

Hazardous Ingredients	CAS Number	% Range (w/w)
Sodium Hydroxide	1310-73-2	5 - 10
O.E.S. (Sodium Hydroxide):	LTEL 8 hours	2mg/m ³
	STEL 10 mins	2mg/m ³
Non-Hazardous Components	Surfactants	

3. C.O.S.H.H. Assessment:

Slight risk if material is sprayed. Recommendation: Maintain adequate ventilation during operations requiring spraying applications.

4. CHIP (1993) Labelling Information

Risk Phrases:	R35	Causes severe burns
Safety Phrases:	S2	Keep out of reach of children.
	S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical attention.
	S27	Take off immediately all contaminated clothing.
	S37/39	Wear suitable gloves and eye/face protection.
Symbol Required:	C	Corrosive

5. Transport Information

CORROSIVE LIQUID	U.N. No. 1824
IMCO:	Class 8 IMDG Code Page 8215, Em-S 8-06, MFAG 705
ADR/RID	Class 8 Item 42(b) IATA: Class 8
Packing Group: II	TREM CARD: 023

6. Accidental Release Measures

Minor spills may be diluted and washed to foul drain. Avoid ingress into natural watercourses.

7. Handling and Storage Information

Product does not present particular requirements.

8. Stability and Reactivity

Product is stable and is not considered to have dangerously reactive properties. The product is alkaline and will therefore corrode light metals and alloys.

9. Exposure Controls/ Personal Protection

Use eye protection and overalls to prevent contact with the skin and eyes. Always ensure good ventilation and avoid inhaling vapours. Do not smoke, eat or drink whilst handling product.

10. First Aid Procedures

Inhalation:	Move casualty to fresh air, restore or support breathing as necessary. Seek medical attention if difficulties persist.
Skin Contact:	Wash off with soap and water.
Eye Contact:	Wash with luke warm water for at least ten minutes. If irritation persists seek medical attention.
Ingestion:	Rinse mouth out with water and seek medical attention if irritation persists.

11. Ecological Considerations

The product does not contain materials considered to have a specific adverse effect on the environment.

12. Disposal Considerations

Process larger quantities as hazardous waste for neutralisation and disposal.

13. Fire Fighting Measures

Does not contribute towards fire.
Containers should be kept cool by using water spray.

14. Regulatory Information:

The Chemicals (Hazard Information & Packaging for Supply) Regulations (1994)
the Carriage of Dangerous Goods by Road and Rail (Classification, Packaging and Labelling) Regulations (1994).
Food Safety Act (1990).
Control of Substances Hazardous to Health Regulations (1988).

15. Other Information

This information is considered accurate and is based upon current knowledge and experience. The responsibility to ensure safe working conditions remains with the user and this information is given as a guide to maintain a safe working environment.