



Universidad
Zaragoza

PREVENTION: A GUIDE

*for students at
the University of Zaragoza*

Laboratories

Ergonomics

Emergencies

Accidents

In its Statement (Governing Body, 13 February 2009), the University of Zaragoza established occupational risk prevention as an ethical, legal and social requirement that needed to be included as part of the modernization and improvement of the organization of the University across each of the activities taking place therein and to be part of any action undertaken at any level in the organization.

Thus, the function of the Institution as a purveyor of knowledge enables it to propagate a culture of Prevention among future professionals trained at the University who, in time, shall play leading roles in all segments of society.

It is the responsibility of the University Governors (through the Occupational Risk Prevention Unit) to foster a preventive culture within the University of Zaragoza. The aim is to ensure a safe and pleasant work environment, while enhancing health and safety at work through the application of preventive measures and the development of activities aimed at risk elimination / minimization.

The goal of this guide to Prevention is to present and make people aware of how prevention is organized at the University of Zaragoza.

Alberto Gil Costa

**Manager of the University of
Zaragoza**

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**Responsible for the
Occupational Risk Prevention
Unit**

COMMITMENTS IN THE OCCUPATIONAL RISK PREVENTION POLICY AT THE UNIVERSITY OF ZARAGOZA

- Achieve the highest standards in effective health and safety at work, complying with current legislation on Occupational Risk Prevention.
- Develop, apply and maintain a Prevention Management model aimed at continuous improvement of both general and specific work conditions.
- Integrate this system into the Management of the University of Zaragoza, including it in all activities and decision-making to impact on the health, safety and well-being of the university community.
- Develop, apply and keep up-to-date the Risk Prevention Plan at the University for all its activities.
- Ensure the participation of a well-informed university community and implement the right of consultation in workplace health and safety issues for employees.
- Develop all necessary training and coaching plans for all members of the university community to achieve the aims of the Prevention Policy.
- Undertake systematic controls and inspections to check compliance with and the effectiveness of the Prevention Policy.
- Assimilate our new suppliers, dealers and subcontractors into active commitment to improved work conditions in compliance with the Coordination of Business Activities, per article 24 of the Occupational Risk Prevention Act.
- Provide the University of Zaragoza with the human, technical and material resources necessary to pursue this Prevention Policy.
- Circulate this policy among all members of the university community.

Governing Body, 13 February 2009

During practical classes in laboratories, workshops or the field, you must follow all the instructions given by your lecturer, as they are responsible for your health and safety at this time.

Ask any questions you need to and do not place either yourself or your classmates at risk.

In the laboratory or workshop

- ☒ Respect safety signs.
- ☒ Identify the closest safety devices: extinguishers, safety showers, eye washes, etc.
- ☒ Use the personal protective equipment (PPE) as indicated by the teaching staff.
- ☒ Read the safety labels on chemical products before using them.
- ☒ Follow laboratory safety instructions and rules.
- ☒ The teaching personnel in charge will tell you which rules to follow in each laboratory or workshop; these may be included in the teaching guide.
- ☒ If in doubt, ask the teaching personnel who will help you to work safely.

Further information can be found in:

http://www.insht.es/InshtWeb/Contenidos/Documentacion/FichasTecnicas/NTP/Ficheros/401a500/ntp_432.pdf

http://www.insht.es/InshtWeb/Contenidos/Normativa/TextosLegales/RD/1997/1215_97/PDFs/realdecreto12151997de18dejulioporelqueseestablecenlasTxtAnt.pdf

Safety signs

WARNING		MANDATORY		FORBIDDEN		EMERGENCY	
							
ATENCIÓN RIESGO DE SALPICADURAS	¡ATENCIÓN! RIESGO DE ATRAPAMIENTO	ES OBLIGATORIO EL USO DE MASCARILLA	ES OBLIGATORIO USAR GUANTES	ALTO SOLO PERSONAL AUTORIZADO	NO USAR EN CASO DE INCENDIO DO NOT USE IN CASE OF FIRE NE PAS UTILISER EN CAS D'INCENDIE NUTZUNG VERBODEN BEI BRANDGEFÄHRDUNG	LAVAJOS DE EMERGENCIA	PULSADOR DE ALARMA

Further information can be found in:

<http://www.insht.es/InshtWeb/Contenidos/Documentacion/FichasTecnicas/NTP/Ficheros>

Personal protective equipment (PPE)

You need to protect yourself properly when doing practical classes. The teaching personnel will tell you which protective gear to use.

In general, the following PPE should be used:

- Lab coats: protect the skin against possible splashes from any chemical products used.
- Safety goggles / screens: protect the eyes against flying particles from mechanical operations or splashes when using chemical products.
- Safety gloves: protect hands from possible cuts during mechanical operations or burns when using chemical products.
- Other PPE: respiratory masks, electrical protective gloves, etc., depending on the practical class. In this case, the teaching personnel will inform you of any specific PPE that must be used.



Goggles or Screen



Gloves



Mask

Further information can be found in:

http://www.insht.es/InshtWeb/Contenidos/Documentacion/FichasTecnicas/NTP/Ficheros/501a600/ntp_517.pdf

http://www.insht.es/InshtWeb/Contenidos/Documentacion/FichasTecnicas/NTP/Ficheros/501a600/ntp_518.pdf

http://www.istas.net/web/index_imprimir.asp?idpagina=1128

Safety Labels:

Reagent packs feature pictograms and phrases detailing the hazard, correct usage and measures to adopt in case of an accident.

The information given on the safety data sheet should contain:

4 →	 <p>Tóxico</p>	 <p>Fácilmente inflamable</p>	<p>ABCDE-33 ← 1</p> <p>Contiene... ← 2</p> <p>Químicas Sureste, S.A Av. Del Mediterráneo... ← 3 Tel. 968 555 555</p>
5 →	<p>Tóxico por inhalación y por ingestión Fácilmente inflamable</p>		
6 →	<p>Manténgase el recipiente bien cerrado. Conservar alejado de toda llama o fuente de chispas. No fumar Evítese el contacto con la piel. En caso de accidente o malestar, acúdase inmediatamente al médico (si es posible, muéstrole la etiqueta)</p>		
			<p>Etiqueta CE Nº CE: 123456789 ← 7</p>

1. Product identification (chemical name of the substance / trade name of the preparation).
2. Composition (for preparations, ratio of hazardous substances present based on concentration and toxicity).
3. Party responsible for commercialisation (name, address & telephone number).

SAFETY IN LABORATORIES & WORKSHOPS

Laboratories

4. Standard hazard symbols and statements.
5. Risk description (R-Phrases).
6. Preventive measures (S-Phrases).
7. CE record number for the substance and, additionally, for substances in Annex I of RD 363/1995, the statement "EC Label".



EXPLOSIVE



INFLAMMABLE



COMBUSTIBLE



PRESSURISED
GAS



HAZARDOUS FOR
THE
ENVIRONMENT



TOXIC



CORROSIVE



IRRITANT /
SENSITIZER



DANGEROUS FOR
HEALTH

Ergonomics

Emergencies

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Further information can be found in:

<http://www.insht.es/InshtWeb/Contenidos/Documentacion/FichasTecnicas/NTP/Ficheros/821a921/878w.pdf>

<http://uprl.unizar.es/seguridad/pdfs/seglaborUZ.pdf>

BIOLOGICAL RISKS IN PRACTICAL CLASSES WITH PATIENTS, ANIMALS OR BIOLOGICAL AGENTS

1. Recommendations prior to starting practical classes:

Ensure your vaccinations are up to date, with the correct shots received (against tetanus [most especially], hepatitis B, diphtheria, flu) depending on the practical course to be done.

Should you have a health condition that may compromise your immunological system or increase the risk of getting an infectious disease, inform the lecturer in charge of the practical classes to find out which preventive measures should be taken.

2. Recommendations for during practical classes:

Take the following into consideration:

- Use of gloves: this is mandatory if you are in contact with blood and bodily fluids, contaminated instruments, catalogued biological agents or a contagious patient. Should the gloves break or be pierced when in use, they should be removed and your hands washed immediately prior to putting on a new pair. Always wash your hands after using gloves.



- Use of masks: masks should be worn when working with a biological agent where aerosols may be produced, with patients who have communicable diseases (air or droplets), or when undertaking procedures on a patient or animal with the likelihood of spatter from blood or bodily fluids

- Needles and cutting/sharp materials: you must always handle needles and cutting instruments with the greatest care. Once used, they must be placed in the yellow containers designed for this purpose, touching them as little as possible. Do not leave cutting/sharp objects lying around as there is the risk that other people may suffer accidents as a consequence of your negligence. Do not put them down the sink or put the cap back on (cover the needle again).

3. Recommendations if there is an accident

If there is an accident involving a cut or puncture wound, use the first aid kit from the caretaker's office (or from the facility itself) to disinfect the injury. The staff running the practical classes will inform the Occupational Risk Prevention Unit at the University of Zaragoza of the incident and assess the risk in order to take corrective or preventive measures.

Source: Department of Microbiology, Preventive Medicine and Public Health, University of Zaragoza

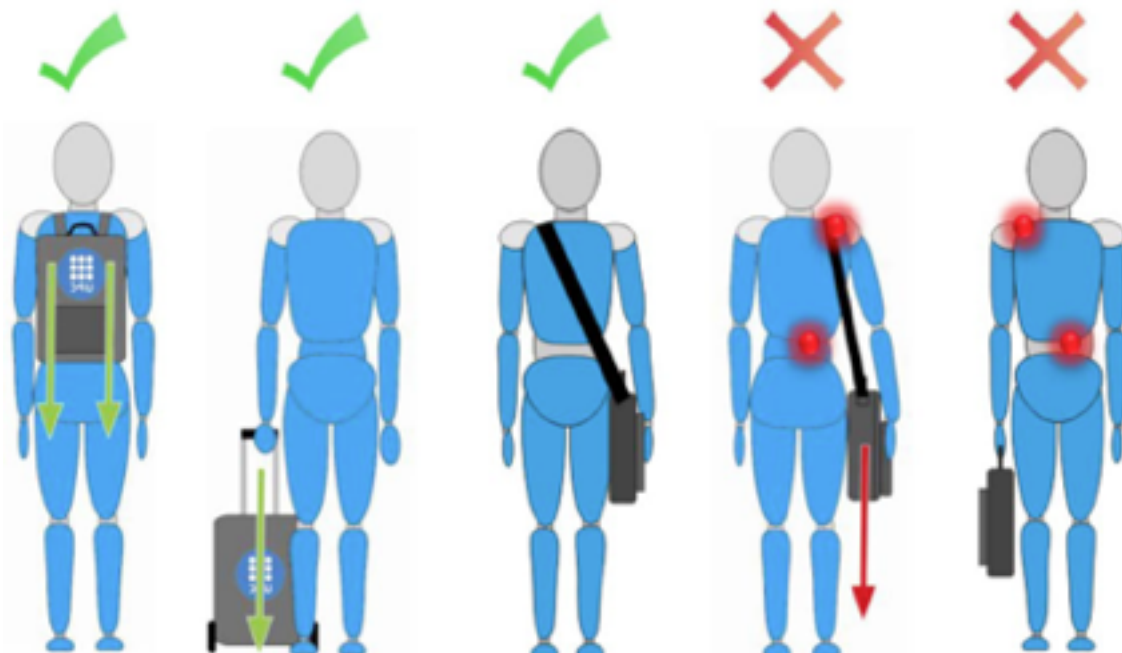
RECOMMENDATIONS

Going to the University

- When carrying materials (files, books, etc.) or computing devices (laptops), the best option is a backpack:
- Make sure the centre of gravity of the items is close to your body.
- Distribute the weight evenly.

Remember

- Use a backpack with two straps to distribute the weight evenly.
- Do not overfill the backpack, messenger bag or briefcase. Do not carry something weighing over 10% of your body weight.
- If using a wheeled backpack, do not use the same arm for the whole journey.
- When picking up materials/equipment lower than knee level, bend from the knees and keep your back upright.



Further information can be found in:

<http://www.insht.es/portal/site/Ergonomia2/menuitem.8b2d6abdbe4a374bc6144a3a180311a0/?vgnextoid=0fa34da516644310VgnVCM1000008130110aRCRD>

In the classroom, library or study room

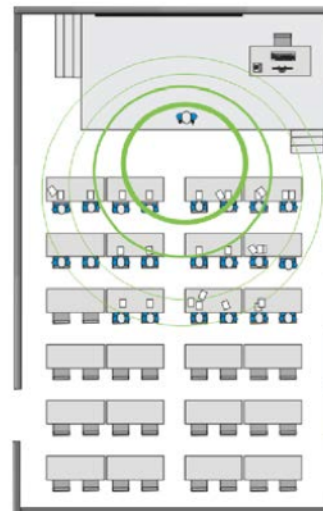
If you are sitting for any period of time:

- Sit upright against the back of the seat
- Try to keep your head, neck and body in alignment to avoid poor posture
- Rest your arms on the table



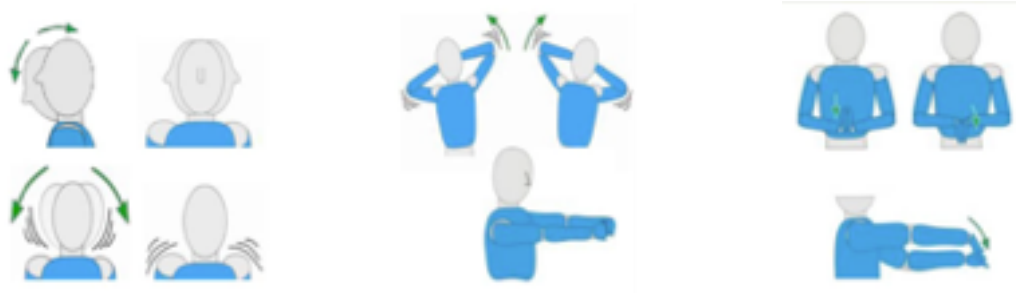
Remember

- Sit in the front rows: you can see the board easily and hear the lecturer clearly
- Do not speak to classmates during the class as this creates noise that distracts
- Put your mobile and other devices in silent mode
- Change postures between classes: get up and move around
- Have short breaks to relax your muscles (between classes or when performing static tasks in other places)



RECOMMENDATIONS

Perform relaxation exercises:



Remember

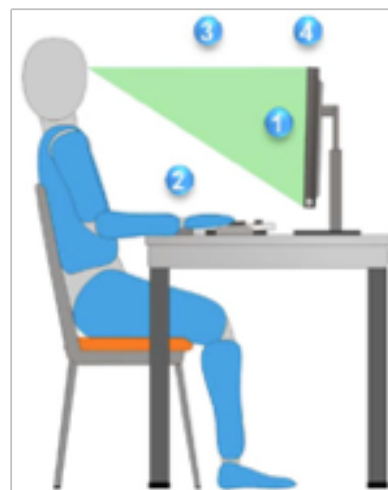
Further information can be found in:

<http://www.insht.es/portal/site/Ergonomia2/menuitem.8b2d6abdbe4a374bc6144a3a180311a0/?vgnextoid=0fa34da516644310VgnVCM1000008130110aRCRD>

Whenever possible, use a desktop computer.

For prolonged computer use:

- Place the screen in front of you
- Leave space in front of the keyboard to rest your forearms and wrist (minimum 10 cm)
- Screen-to-eye distance should be about 60-70 cm
- The top of the screen should be at or just below eye level
- Adjust seat height so your knees are at the same height as your hips. If not possible, then use a footrest



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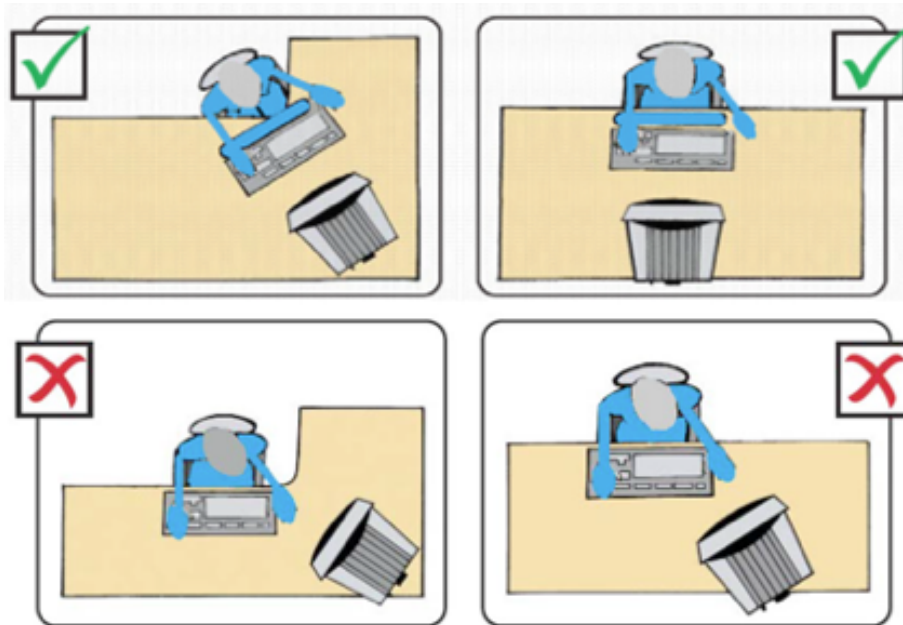
RECOMMENDATIONS

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Further information can be found in:

http://www.insht.es/InshtWeb/Contenidos/Documentacion/FichasTecnicas/NTP/Ficheros/201a300/ntp_232.pdf

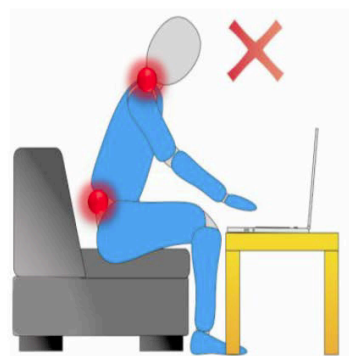
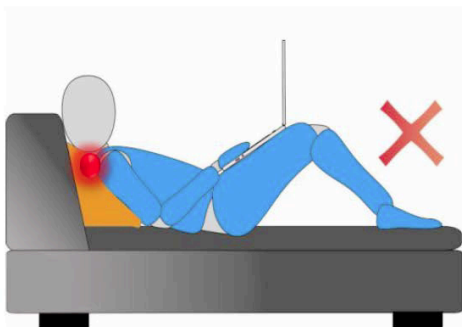
Studying on a laptop

When using a laptop for a prolonged period, try to:

- Adapt the laptop to ensure good posture
- Connect an external keyboard and mouse to the laptop
- Place the screen at a height that means you do not have to stretch or twist your neck; if necessary, use a monitor stand or a pile of books.

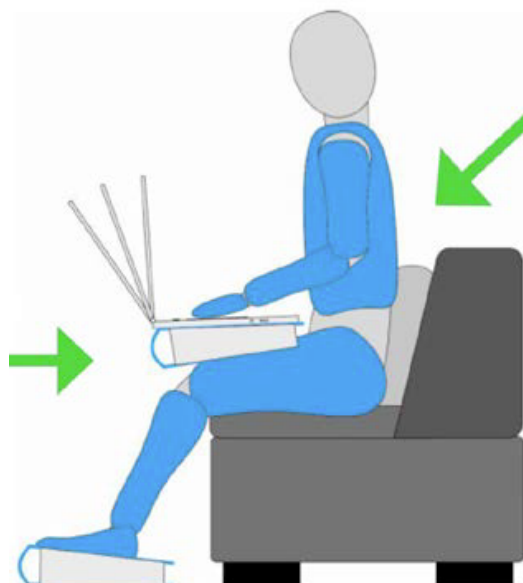
When using a laptop for a prolonged period, try to:

- Avoid poor posture



When using the laptop sporadically, try to:

- Have a support point for the device
- Support your back
- Adjust the angle of the screen
- If your feet do not touch the ground, use a footrest (or similar).



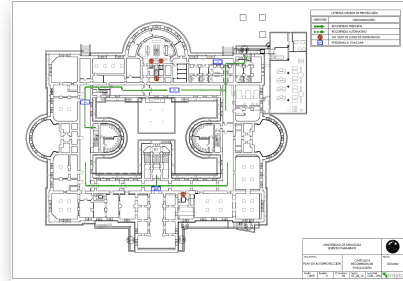
What do you need to know about your Centre or Faculty?

Evacuation routes and exits.

- Note the various evacuations routes and exits from the building. They are signposted.

- Further information:

<http://uprl.unizar.es/autoproteccion/planes/accesoplanes.html>



Assembly points.

- Find the Assembly Point for your building.



In emergencies

- Pull the fire alarm in the building
- If the first responders decide to evacuate the building:
 - Stop what you are doing, leave everything behind and listen to your lecturer's instructions
 - Keep calm; do not shout or scare others
 - Leave quickly but in an orderly fashion. Do not run
 - Do not use the lift
 - Descend the stairs in single file and against the wall
 - Head to the previously indicated assembly point

If there is a fire

If a fire starts near you:

- Leave the area or floor where the fire is
- If you are the last person to leave, close the doors behind you to contain the fire
- Warn people: pull the fire alarm and inform the caretaker

Remember:

- Smoke is always dangerous
- If you smell burning, inform the caretaker immediately
- If a door is hot or smoke is coming through the cracks, do not use it.

Further information can be found in:

http://www.insht.es/InshtWeb/Contenidos/Documentacion/FichasTecnicas/NTP/Ficheros/501a600/ntp_536.pdf

How can I help to prevent an emergency?

In the Computer Suites:

- Switch off the computer and screen at the end of your class

In Laboratories and Workshops:

- Follow the instructions from staff
- Follow the instructions in practical classes to ensure they are completed safely
- Speak to staff about any doubts regarding safety

Remember: it is forbidden to smoke in University of Zaragoza buildings.



INFORMATION FOR EMERGENCIES

Laboratories

Emergency signs: Evacuation



Usual route



Usual exit



Emergency route



Emergency exit

Ergonomics

Fire



Emergencies

Safety in the Laboratory



Accidents

University of Zaragoza Scholarship Students

Depending on the severity of the injury, the following protocol is followed

- **Very minor injury** (not requiring specialist medical attention): use the first aid kit from the caretaker's office and effect treatment using the material available
- **Minor injury** (with medical attention – NO TIME OFF): first treatment by trained personnel using the available material in the first aid kit. Expedite the transfer of the injured person to the Health Centre that corresponds to this person's insurance policy
- **Serious injury** (requiring specialist medical care and temporarily disabling): assess the injuries and be prudent. Trained personnel should apply the first treatment using the material in the first aid kit. Organize the transfer of the injured party to the health centre corresponding to the scholar's health insurance and accompany them to the hospital. Call an ambulance, if necessary, from the Zaragoza Access Control Office (ext. 841112)

The injured party will be taken to different healthcare facilities based on their type of scholarship.

The UPRL (Occupational Risk Prevention Unit) should be informed of any accident, including those requiring specialized medical attention, by phone or through the website (including the condition of the scholar in the 'job title' section).

Further information can be found in:

<http://uprl.unizar.es/seguridad/accidenteslaborales.html>

University of Zaragoza Students

Depending on the severity of the injury, the following protocol is followed:

- **Very minor injury** (not requiring specialist medical attention): use the first aid kit from the caretaker's office and effect treatment using the material available
- **Minor injury** (with medical attention – NO TIME OFF): first treatment by trained personnel using the available material in the first aid kit. Expedite the transfer of the injured person to the closest Social Security Health Centre
- **Serious injury** (requiring specialist medical care and temporarily disabling): assess the injuries and be prudent. Ask for help if necessary. Trained personnel should apply the first treatment using the material in the first aid kit. Organize the transfer of the injured party to the closest Social Security health centre. Call an ambulance, if necessary, from the Zaragoza Access Control Office (ext. 841112)

The UPRL (Occupational Risk Prevention Unit) should be informed of any accident, including those requiring specialized medical attention, by phone or through the website (including the condition of the student in the 'job title' section).



**Unidad de
Prevención de
Riesgos Laborales**

Universidad Zaragoza

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