

Safety and Health – Common Security Guidelines

of the Faculty of Physics

Vienna, 2020-01-07

Concerning these guidelines

- Reading the Security and Health guidelines at the place of work is mandatory for all employees.
- It is mandatory to complete the tutorial and the exam at the beginning of your work (for new employees), and thereafter once a year and after being prompted via email within 2 weeks.
- If the tutorial hasn't been completed in time, the supervisor will ask the employee to complete the tutorial within one week. (He | She) will take measures if this requirement is not met.

Concerning these guidelines

- In particular, for new employees successful completion of the tutorial is required to receive their keys.
- Nobody is allowed to enter any laboratory before they have successfully completed the tutorial and exam.

Common Security Guidelines

Common Guidelines

- These guidelines concern all persons working at or visiting the Faculty of Physics, regardless whether they are employees of the University of Vienna, students, guests of staff of external companies.
- They are kindly asked to inform themselves and any guests about the location and usage of the protective equipment present at the faculty.
- All persons must inform themselves about the secure handling of hazardous materials and how to operate the equipment and instruments.

Common Guidelines

- Smoking is strictly prohibited in the entire building!
- Always follow the instructions of the safety representatives, physicians, fire protection officers, radiation protection advisors, laser protection advisors and biological safety representatives.
- Eating, drinking and putting on make-up is forbidden inside the laboratories! Do not store food or drinks in the laboratory fridge. Use the kitchens instead!

Common Guidelines

Further mandatory guidelines can be found in the Intranet:

- [General Laboratory and Workshop Regulations](#)
- [Appendices General Laboratory and Workshop Regulations](#)
- [General Fire Safety Regulations](#)
- [House rules of the University of Vienna](#) (German)

Workplace security and protection contact persons

- A list of trained first aid providers is posted on every floor.
- Security team: Extension 777 or 12700
 - Available 24/7
 - Patrols in the night, during the weekend and on public holidays
 - Documentation of incidents like burglary, theft, vandalism, or threat, ...
 - Is also your contact if you feel molested or bothered by someone

Workplace security and protection contact persons

You can find further contact persons on the intra-net:

- [Safety representatives](#)
- [Security specialists](#) (German)
- [Occupational physicians](#) (German)
- [Occupational psychologists](#) (German)
- [Representatives](#) (German)

Emergency telephone numbers

Euro emergency telephone number	0-112
Fire brigade	0-122
Police	0-133
Ambulance	0-144
Medical emergency service	0-141
Poisoning emergency telephone number	0-406 43 43
Security manager J. Scheibenpflug	0-0664 60277 12757
Security manager H. Dagott, MSc	0-0664 60277 12845
Security team (24/7)	777 or 12700

Working alone [1]

- “Working alone or on one’s own is regarded as activities that are carried out by one working person alone, without the presence of other persons.”
- A person is regarded as “working alone and not sufficiently safe”, if after an accident (activities with increased accident risk) or after suddenly falling ill (activity without increased risk of accident = remote workstation), first aid cannot be administered within an “acceptable period of time”.
- Such situations are always related to “restricted contact possibilities” with other persons.

Increased risk of accident [1]

Increased risk of accident means that

- accidents or hazardous incidents are foreseeable,
- injuries or damage to employees and threat to life is foreseeable,
- this may result in lasting damage to the employee or unacceptable pain phases due to non-timely assistance.

Working alone at a workstation with an increased risk of accident [1]

Working alone at a workstation with an increased risk of accident is only allowed if (§ 61 Paragraph 6 ASchG)

- persons working alone and providing assurance are sufficiently informed and instructed,
- time-delayed assistance while working alone or during the shift is possible without consequential damage,
- timely assistance is ensured through suitable organizational and/or technical safety measures.

Working alone at a workstation with an increased risk of accident [1]

- The head of an organizational unit can allow working alone in exceptional cases, which would otherwise not be permissible.
- These cases have to be documented in writing under specification of which security measures have to be taken by the person carrying out the work. Additionally, records have to be kept of the work itself and the working hours.
- This explicitly excludes working with poison.

Pregnant Employees

- Immediately inform your boss (supervisor/project leader) and the human resources department. Include a medical certificate attesting the due date to calculate start and duration of maternity leave (8 weeks before and 8-12 weeks after birth).
- The occupational physician evaluates the workplace and possible activities in the laboratories.
- All work that may present a significant risk to the expectant mother and/or child must be avoided. In such circumstances, the employee must be immediately redeployed from the respective high-risk activities. A new workplace and/or new tasks can be assigned to the pregnant employee.

Safety signs

EN 7010 Safety signs

Sign	Meaning	Color	Form	Example
No/Prohibition sign	Prohibition	Red	Circle with diagonal line	
Mandatory sign	Mandatory	Blue	Circle	
Warning sign	Warning	Yellow	Equilateral triangle	
Safety condition sign	Safety	Green	Square or Rectangle	
Fire safety sign	Fire safety	Red	Square	

Image source: Wikimedia ([Public domain](#))

Safety signs – Prohibition signs

No smoking



No open flames allowed



No pacemakers



[Complete overview \(ISO\)](#) (German)

Image source: Wikimedia ([Public domain](#))

Safety signs – Mandatory signs

Wear dust mask



Wear head protection



Wear ear protection



Wear a respirator



Wear eye protection



Wear visor



Wear foot protection











Wear gloves



[Complete Overview \(ISO\)](#) (German)

Image source: Wikimedia ([Public domain](#))







Safety signs – Warning signs

Explosive Material		Toxic Material	
Radioactive Material / Radiation		Corrosive Substance	
Laser Beam		Flammable Material	
Electrical Shock / Electrocutation		Pressurized Cylinder	

[Complete Overview \(ISO\)](#) (German)

Image source: Wikimedia ([Public domain](#))






Safety signs – Safety condition signs

Emergency Exit, always with directional arrow		Emergency Shower	
Emergency Eye Shower		Assembly Point	
First Aid		Automated External Defibrillator	

[Complete Overview \(ISO\)](#) (German)

Image source: Wikimedia ([Public domain](#))

Safety signs – Fire safety signs

Fire Extinguisher		Fire Alarm	
Fire Phone			
Fire Point		optional with a directional arrow, e.g.	

[Complete Overview \(ISO\)](#) (German)

Image source: [Wikimedia](#) (Public domain)

Behavior in case of fire or emergencies

Behavior in case of a fire

1. Alert

- Activate the fire alarm
- Call 0-122 for the fire brigade!

2. Rescue

- Help injured and endangered persons and those unfamiliar with the surroundings.
- Leave the house immediately along the marked exists and head to the assembly points. Do not use elevators!

3. Extinguish (optional)

If possible try to extinguish the fire. Do not endanger yourself.
Make sure that you are always able to retreat from the fire.



Image source: [Wikimedia](#) (Public domain)

- Leave the house immediately along the marked exits or the shortest route and head to the following assembly points:

Main building of the Faculty of Physics

Strudlhofgasse 11–19, Auer-von-Welsbach-Park, Seminary entrance Strudlhofgasse 7

Sensengasse 8

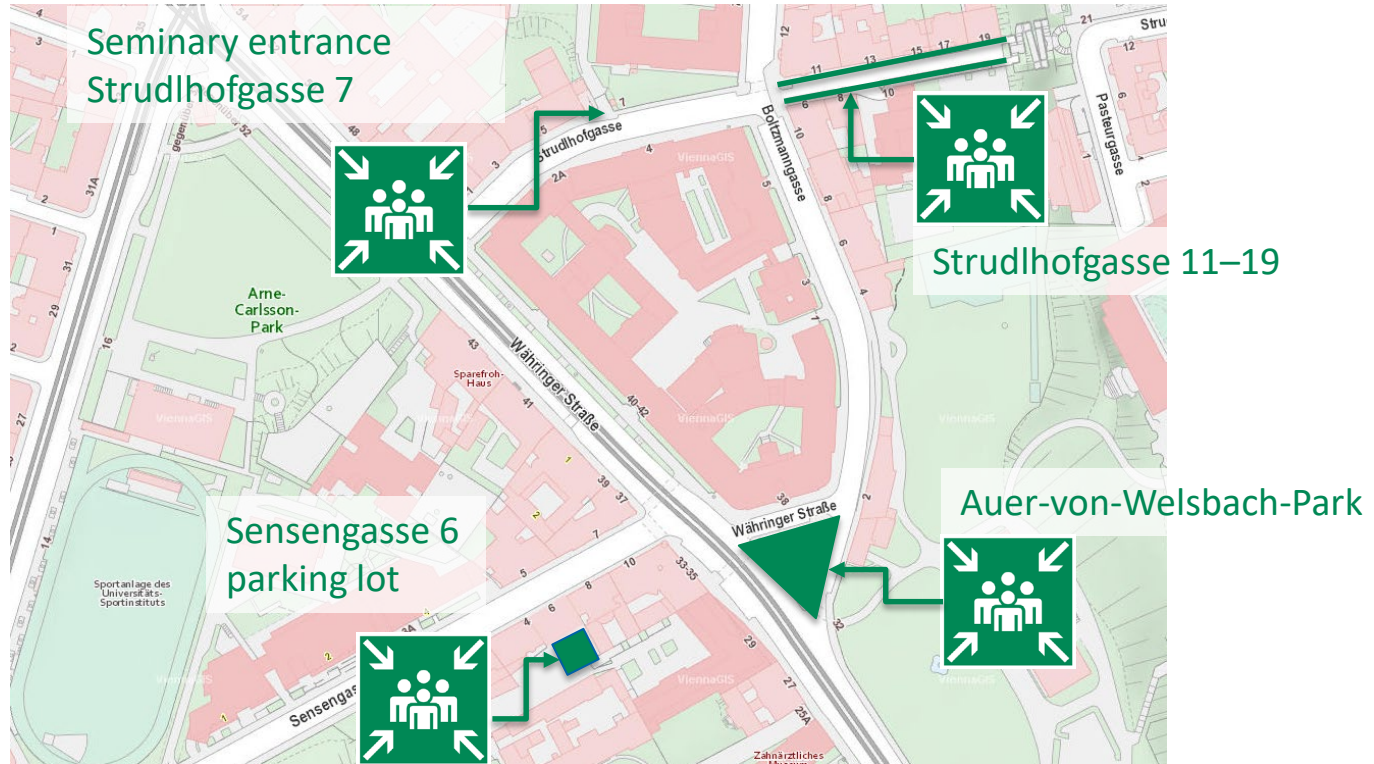
Sensengasse 6, parking lot

Währinger Straße 17

Sidewalk in front of the building Währinger Straße 15, Corner Lackierergasse/Währinger Straße

- Entering the building is forbidden after the evacuation and is only allowed again after the fire warden responsible for the building gives her or his approval.

Assembly Points



Fire protection

- Inform yourself of the location of the next fire extinguisher.
- Keep escape and rescue ways free from obstacles.
- Doors must not be draped with flammable material.
- Fire protection doors must not be wedged open.
- Open fire is forbidden in rooms susceptible to fire.
- Smoking may set off the fire alarm. Costs thereby incurred must be paid in full by the person responsible.





Fire class

Fire class	Examples
 <p data-bbox="363 431 730 464">Combustible materials</p>	<p data-bbox="1381 404 1709 485">Wood, paper, fabric, refuse</p>
 <p data-bbox="363 573 660 606">Flammable liquids</p>	<p data-bbox="1381 551 1738 633">Gas, Ethanol, tar, wax, many plastics</p>
 <p data-bbox="363 715 641 748">Flammable gases</p>	<p data-bbox="1381 693 1729 775">Acetylene, Hydrogen, natural gas, Methane</p>
 <p data-bbox="363 857 660 889">Flammable metals</p>	<p data-bbox="1381 835 1767 917">Aluminum, Magnesium, Sodium, Potassium</p>

Text source: [Wikipedia](#) (CC-by-sa-3.0)

Image source: [Wikipedia](#) (Public domain)

Fire class – extinguishing agents

Agent	 A	 B	 C	 D
Water	+	-	-	-
Foam	+	+	-	-
CO ₂	-	+	-	-
Powder	+	+	+	+

The adjacent table depicts which fire class can be extinguished with which kind of extinguishing agent.

Image source: [Wikimedia](#) (Public domain)

- Make sure you are familiar with the basic first aid techniques. Information can be found e.g. in the [guidelines](#) of the [European Resuscitation Council](#) or in this [video](#) of the [British Heart Foundation](#).
- For trained first responders the recommended ratio between cardiac massage and mouth-to-mouth resuscitation is 30:2. Everybody else should simply perform cardiac massage a hundred to a hundred and twenty times a minute.
- [First aid courses](#) can be booked via the human resources development department.

First Aid

- A Defibrillator is mounted on the wall across the SSC on the ground floor. Its location is indicated by the adjacent sign.
 - You **cannot** harm anyone by using it.
 - An audioguide will instruct you how to use the defibrillator.
- Inform yourself of the location of the first aid kits. Their location is denoted by the adjoining sign.
- Inform your supervisor if there is no first aid kit at your workplace.



- Make sure that the bandages in the first aid kits are not past their expiration date.
- Room 3E65 on the ground floor is the first aid room. All trained first responders have a key to this room.
- Lists of all trained first responders are posted on all floors of the faculty.

How to react in case of an emergency

1. Report it:
 - WHERE did the accident take place
 - WHERE does the contact person wait for the rescue team
 - WHAT happened
 - WHAT kind of injuries
 - HOW MANY injured persons
 - WHO is reporting the incident
 - The reporting office will end the call once it has obtained all necessary information. Do not hang up on them.
2. Help & Rescue:
 - Provide first aid and/or call a trained first responder.

Safety in the laboratory

Laser safety

- Laser laboratories must be marked with the adjacent symbol.
- Entering these rooms is **strictly forbidden** for non-authorized personnel if they are not accompanied by authorized employees.
- Each and every incident and accident must be reported immediately to the laser safety officer of the faculty, [Wilhelm Markowitsch](#) (Extension 72625).
- The laser safety officer will take care of all further steps.



- The leaflet [M 420](#) (German) of the [AUVA](#) provides an overview of the safe handling of electricity.
- Electricity can cause burns, muscle cramp, heart fibrillation or death.
- First responders must take care not to endanger themselves and especially not to become part of the electric circuit.
- Always try to switch off the electric circuit before you start the rescue operation: Pull the plugs, Switch off the residual current circuit breaker, ...

Electricity and safety

- An isolated tool must be used in the rescue effort if switching off the electric circuit is not an option.
- The rescue operation has to start as soon as possible.
- The rescue operation has to be delegated to specialists (e.g. the fire brigade) if the accident happens in a high-voltage environment.

Hazardous substances










ECB-Designation	ECB-Pictogram (until 30.5.2015)	Code	GHS-Pictogram (from 1.6.2015 on)
Explosive		E	
Extremely Flammable		F+	
Flammable		F	
Oxidizing		O	
Gases under pressure			

Image source: [Wikimedia \(ECB\)](#), [Wikimedia \(GHS\)](#) (Public domain)

Hazardous substances











ECB-Designation	ECB-Pictogram (until 30.5.2015)	Code	GHS-Pictogram (from 1.6.2015 on)
Corrosive		C	
Very Toxic		T+	
Toxic		T	
Irritant		Xi	
Harmful		Xn	

Image source: [Wikimedia \(ECB\)](#), [Wikimedia \(GHS\)](#) (Public domain)

Hazardous substances


ECB-Designation	ECB-Pictogram (until 30.5.2015)	Code	GHS-Pictogram (from 1.6.2015 on)
Environmentally hazardous substances		N	

Image source: [Wikimedia \(ECB\)](#), [Wikimedia \(GHS\)](#) (Public domain)

- The exact definitions can be found in the publication “[Globally Harmonized System of Classification and Labelling of Chemicals \(GHS\)](#)” of the [UNECE](#).
- All hazardous substances, even self-mixed chemicals, **must** be labeled with the correct pictograms.

Radiation protection

- Radiation protection areas and radiation sources must be marked with the adjacent symbol.
- Entering these rooms is **strictly forbidden** for non-authorized personnel if they are not accompanied by authorized employees.
- You have to wear a dosimeter if you stay in these rooms or if you work with radiation sources.
- Official orders and requirements **must be observed**.



Radiation protection

- If you suspect that radioactive substances are being stored, used or disposed of improperly, contact the appropriate radiation protection officer immediately. Do not touch the radioactive substance and keep your distance.
- Working with radioactive material without the required briefing is **strictly forbidden**.
- Contact a radiation protection officer if you want to acquire the necessary qualification.

Radiation protection officers

Name	Building	Extension
Dr. Erhard Schafler	Boltzmann-gasse 5	72845
Ing. Peter Seebacher	Boltzmann-gasse 5	73805
Dr. Alfred Priller	Währinger Straße 17	51703
Mag. Dr. Martin Martschini	Währinger Straße 17	51710
Ass.-Prof. Dr. Andreas Pavlik	Währinger Straße 17	51765
AR Ing. Ewald Friedl	Währinger Straße 17	51717

Protection against theft

Protection against theft

- If necessary call the security team (extension 12700)
- The security team will call the police.
- Exception: immediate danger to goods and/or persons

IMPORTANT: Always lock the corridors doors

- During weekends at all times
- During the week after 7 PM

Ergonomics at the workplace

The optimal alignment and positioning of your workplace

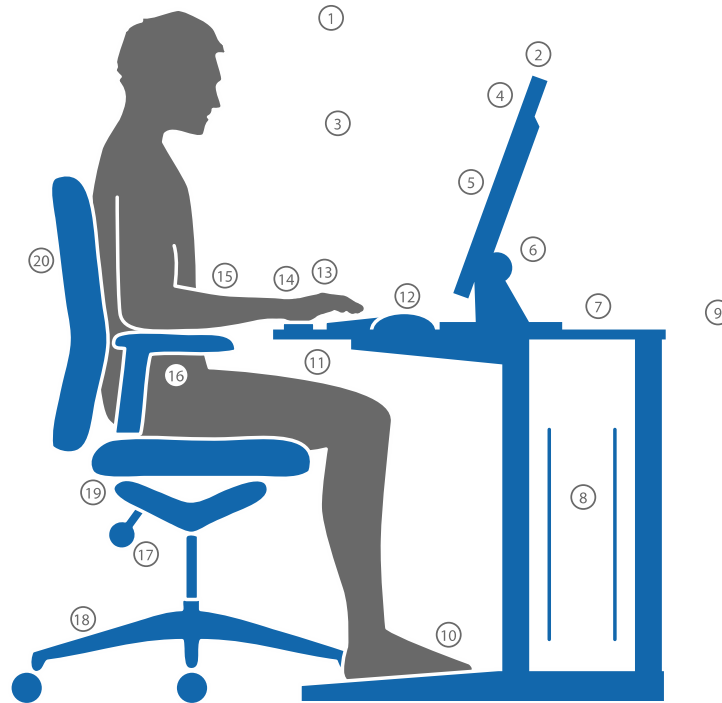
- The viewing direction should be parallel to the window. There should be no bright window areas in the viewing direction or near the computer screen.
- You should have sufficient leg space to avoid awkward seating positions and that you can vary your leg posture throughout the day.
- Do not clutter your table, so that you can position your monitor, keyboard and mouse freely.

The optimal alignment and positioning of your workplace

- A distance of 1 m should be kept between the table and other furniture. The passage width must not fall below a value of 0.6 m.
- Avoid storing items you rarely need in your office.

An ergonomic workstation (overview)

- ① Glare-free lighting
- ② Monitor 90° from window
- ③ Distance to computer screen ≥ 60 cm
- ④ Top of the computer screen on eye level
- ⑤ Glare-free computer screen
- ⑥ Screen tilted 10–25°
- ⑦ Table area $\geq 160 \times 80$ cm
- ⑧ Adjustable table height 68–82 cm
- ⑨ Surrounding noise ≤ 55 dB
- ⑩ Footrest if required



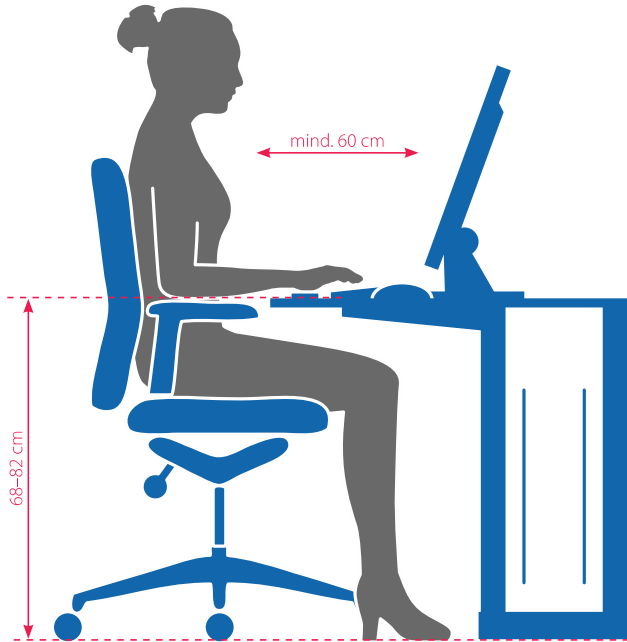
- ⑪ Thighs slightly facing down
- ⑫ Ergonomic mouse
- ⑬ Palm rest ≤ 3 cm in height
- ⑭ Hand rest ≥ 10 cm
- ⑮ Lower arms slightly facing down
- ⑯ Adjustable arm rests
- ⑰ Adjustable to body weight
- ⑱ 5-point base to avoid tipping over
- ⑲ Adjustable seat height
- ⑳ Back rest

Adjust the chair and the table according to your needs



- Place your feet relaxed on the floor.
- Right angle between thigh and calf.
- Right angle between upper arm and forearm.
- Sit straight, don't slouch.
- Don't pull your shoulders up, keep them relaxed.

Adjust the chair and the table according to your needs



- Your seating position is too high if your feet cannot reach the floor. Lower both the table and the chair. You need a foot rest if this is not possible.
- Dynamic seating position: Regularly changing the seating position relieves the pressure from your intervertebral discs and is beneficial to your circulation, metabolism and breathing.

The computer screen — height and distance

- The computer screen should be tilted backwards.
- Adjust the height of your screen, so that the topmost line of text (or the menu) is slightly below your eye level. (10–15° inclination of your head).
- The screen should be placed approximately an arms length away.



The computer screen — height and distance

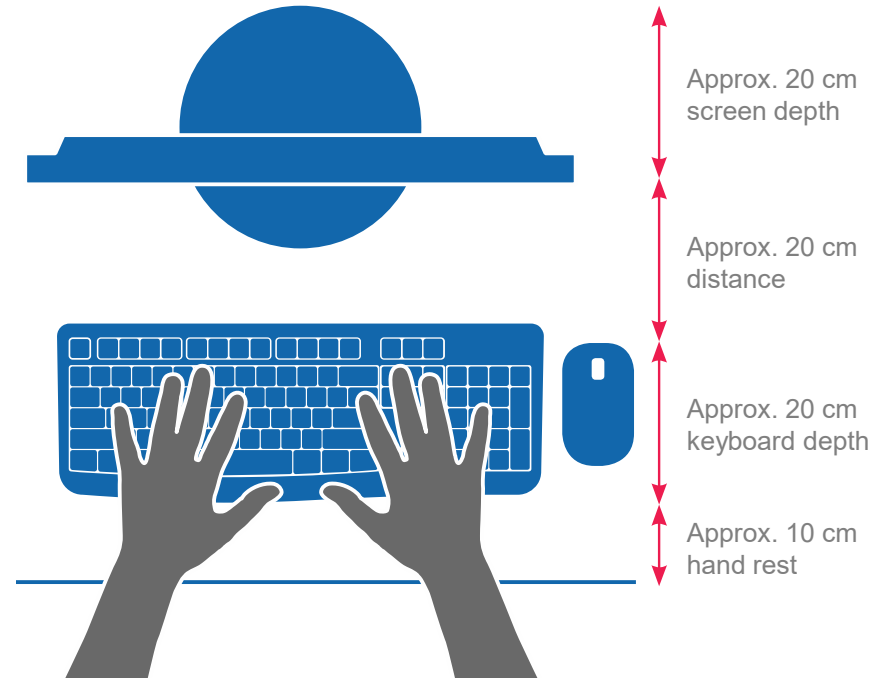
- Constantly looking horizontally or upwards puts a strain on your neck and your eyes.
- The higher a screen is, the higher the head and the wider you have to open your eyes. The larger palpebral fissure will accelerate the drying of the eye surface.
- Take a break of 10 minutes after 50 minutes of continuous computer work or change your current activity.
- Frequent shorter breaks are more effective than a few longer breaks. Several shorter breaks (approx. 10 min) should be edged in through the work day.

Glasses for screen work

- Employees, who work with computers on a daily basis for a non-negligible amount of time, are eligible for DSE (Display Screen Equipment) glasses if an ophthalmologic examination indicated their necessity.
- This kind of glasses should match the distance between you and the computer screen and your paper documents. This distance will usually be larger than the standard viewing distance of 30 cm.
- Further information can be found on the [Intranet](#) or inquired from your occupational physician.

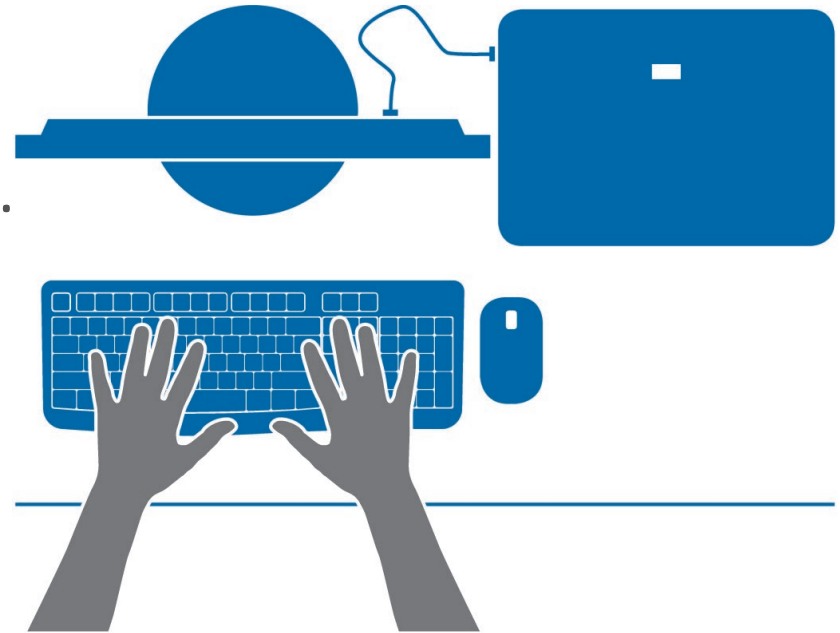
Space requirements

- There should be at least 10 cm between the edge of the table and the keyboard.
- Between the keyboard and the screen should be space for paper documents.
- The screen must not protrude over the rear edge of the table.



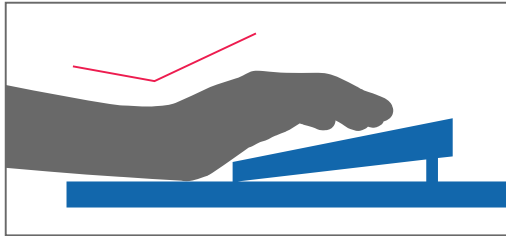
Working with a notebook/laptop

- Connect your laptop to a docking station and use an external keyboard and mouse.
- This allows you to arrange your equipment according to your needs.

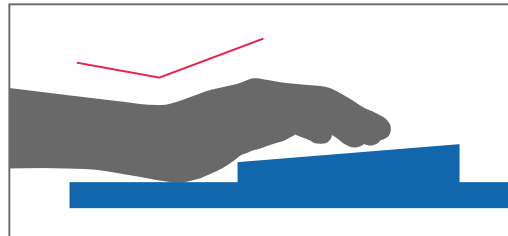


The keyboard

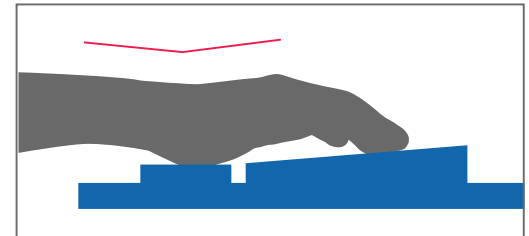
- The keyboard has to be separate from the screen and tiltable.
- Fold in the two small legs on the underside of the keyboard to prevent strain on the wrists or support your wrists optimally with an additional palm rest.



Strain on the wrists



Relief of the wrists



Optimal relief of the wrists by
means of a palm rest

Legal notes

All employees have, according to ASchG § 15, certain obligations, which have to be met for safety of life, health and morals. In case of nonobservance:

1. Personal instruction by the direct supervisor and notification of the next management level.
2. Written warning notice which will be forwarded to the relevant departments (e.g. human resources, workers' council,...) and a repeated personal instruction by the direct supervisor.
3. Continuous nonobservance and unreasonableness may lead to temporary dismissal or termination of employment contract.

Design and content

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