

Welcome to the Online Training for All Employees of the University of Vienna

Topic: The Ergonomic Workstation

Version 1.3 14.11.2014



Positioning of Your Workstation

- ✓ To avoid glare from windows, position your computer workstation so when facing the monitor you are sitting beside or parallel to the window. High light levels from outside (e.g. when facing a window) may generate reflections and will make it difficult to focus on the screen.
- ✓ Don't clutter your leg space (e.g. with the computer tower). You need room under your desk to vary your leg posture throughout the day and to avoid awkward seating positions.
- ✓ Don't clutter the space on your table, so that you can position your monitor, keyboard and mouse freely as needed according to your work tasks.
- ✓ Between table and other furniture a distance of 1 m should be kept; at least a minimum passage width of 0.6 m is required.
- ✓ In your office, pay attention to have enough free space on the floor and avoid storage of items you rarely need.



Raum- und Ressourcenmanagement

An Ergonomic Workstation (Overview)

- 1 glare-free lighting
- 2 monitor 90 degrees from window
- (3) distance to monitor ≥ 60cm
- (4) top of screen and eye level
- 5 glare-free monitor
- (6) monitor tilted 10°-25°
- (7) table area \geq 160 x 80 cm
- 8 adjustable table height 68-82 cm
- 9 surrounding noise max 55 dB (printer)
- 10 footrest if required



- 11) thighs horizontal
- 2 ergonomic mouse
- ia) palm rest max. 3 cm
- (14) space for hand rest ≥10cm
- 15 elbows 90° angle
- 16 adjustable arm rests
- dynamic seating function adjustable to body weight
- 18 5-point base to avoid tip-over
- (19) adjustable seat height
- 20 back support



Typical Workstation Related Health Issues



- 1 neck pain
- (2) shoulder, arm
- 3 back pain
- 4 pressure on stomach
- 5 jammed thigh
- (6) pressure point at thigh



Adjust Chair and Table According to Your Needs

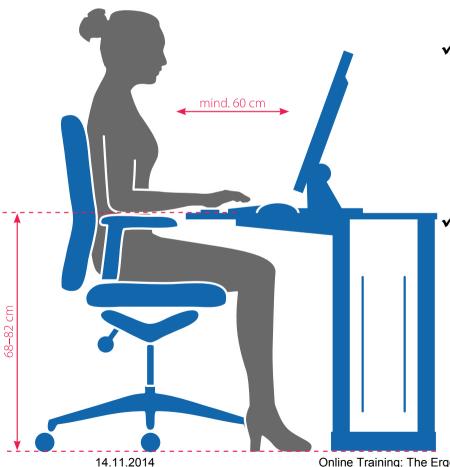


- ✓ Place your feet flat on the floor
- ✓ Right angle between thigh and calf
- ✓ Right angle between upper arm and forearm
- ✓ Sit straight, don't slouch
- ✓ Relax your shoulders



Adjust Chair and Table According to Your Needs





- ✓ In case you can't reach the floor when sitting, then your seating position is too high. You should lower the chair and the table. If this is not possible, you need a footrest
- **Dynamic seating position general** rule: There is no correct seating position, but the continuous change from one position to the other is beneficial for your intervertebral discs and your circulation



Height and Distance to Monitor

- ✓ The monitor should be tilted backwards
- ✓ Adjust the height of the monitor so that the top line of text on your computer screen is at or slightly below eye level
- ✓ The distance between your eyes and the screen when sitting in a typing position should be about arm's length
- ✓ When sitting in a typing position, your neck should be slightly flexed downwards (10°-15°)





Height and Distance to Monitor

- ★ Continuously looking horizontally or upwards will strain your neck and your eyes.
- ★ A screen that is too high can lead to dry, irritated eyes because it forces you to constantly keep your eyes wide open and blink less frequently. A screen that is too high can also cause neck pain.
- ✓ Regularly take breaks every 50 minutes of continuous computer work:
 10 minutes break or change of work!!!
- ✓ Frequent short breaks are more effective than few longer breaks. Over the day, several 10 minute-breaks should be kept.



DSE/VDU Glasses

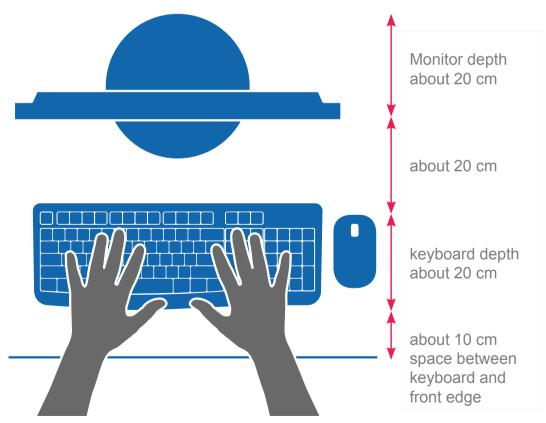
- ✓ Employees who use computers (display screen equipment) regularly and for a significant amount of time over a working day, are eligible for DSE/VDU glasses (when problems have been identified during a DSE/VDU test).
- ✓ DSE/VDU glasses are designed for the distance to the monitor as well as to your paper documents (e.g. bifocal lenses). The distance will be more than the usual reading distance of 30 cm.
- ✓ Further information about DSE/VDU eye checks and glasses can be found at uni:intra/Themen A-Z, Bildschirmarbeitsbrille





Required Space

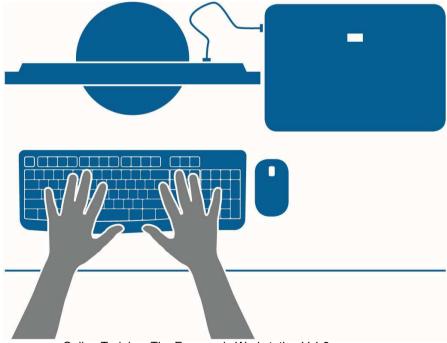
- ✓ Between the front edge of the table and the keyboard should be a minimum space of 10 cm for hand rest
- ✓ Between keyboard and monitor should be space for paper documents
- ✓ The monitor must not protrude over the rear edge of the table





Working with the Laptop

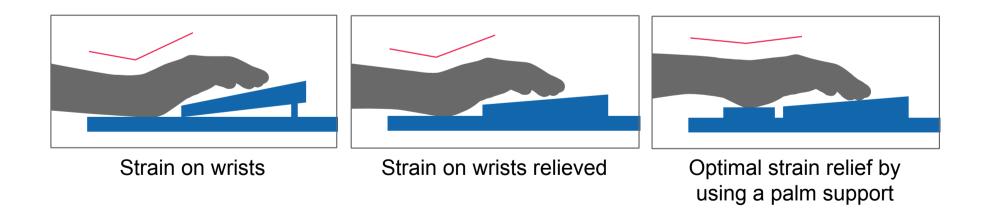
✓ Connect your laptop to a docking station or use an external keyboard and an external monitor. This allows you to arrange your equipment freely according to your needs.





The Keyboard

- ✓ The keyboard has to be separated from the monitor and needs to be tiltable.
- ✓ Keep the small legs, found on the underside of most keyboards, folded in to keep the keyboard flat and prevent bending of your wrists. Optimal strain relief can be achieved by using a palm support.



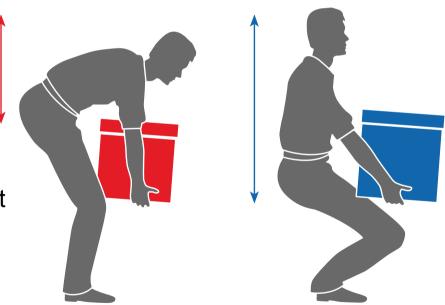




Generally, avoid carrying too much weight at once. It is better to break down the load into smaller parts if possible, and to get the load close to your body.

Good lifting techniques

- ✓ stand with your feet shoulder width apart
- √ keep your back straight
- ✓ keep the upper part of your body straight
- ✓ bend knees (not below 90°) and hips
- ✓ close to your body and in front
- ✓ if possible, always use both hands
- ✓ tighten your stomach muscels and keep your back muscles steady





If you need to carry a load in front of your body, please make sure that

- ✓ your shoulder muscles are steady
- ✓ your arms and elbows are kept close to your body
- ✓ your back is straight and not hollow
- ✓ your view should not be blocked







When you need to carry a load on your side, make sure that

✓ you change sides frequently

✓ you break down loads if possible and carry them in both hands

whenever possible: wheel them instead of carry them







When you need two persons to lift a load you should make sure that

- ✓ one person takes command
- ✓ the load is lifted simultaneously
- the persons are about the same height and don't block each other's way

14.11.2014

✓ if possible use belts or other equipment





Falls

Falls are still ranking highest in accidents at work.

- Most of the accidents happen where dangers are not expected:
 - → on flat ground
 - → on stairs and elevated places
 - → when using ladders
- Even familiar, supposedly safe situations are dangerous, because this is where we tend to be inattentive



Falls

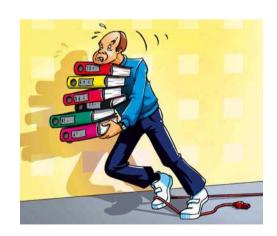


Pay attention when walking

- ✓ Don't use your mobile phone when walking up or down the stairs
- ✓ Hold onto the handrail when walking up or down the stairs
- ✓ Watch out for potential tripping hazards on the ground
- ✓ Walk particularly carefully on slippery or wet ground









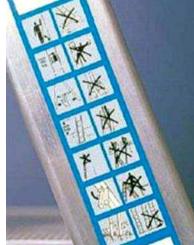
Ladders and Step Stools



General rules:

14.11.2014

- Only use ladders or step stools which have been certified: "EN 131" resp. "EN 131 geprüft (approved)" and "EN 14183" resp. "EN 14183 geprüft (approved)"
- ALWAYS check whether a ladder is in good condition before you use it!
- Only use ladders according to their designated purpose (read the instruction manual)!





Indoor Air

For good air quality in your office:

- ✓ Ventilate the rooms (e.g. by opening the windows) several times a day and regularly
- ✓ Cross ventilation is recommended, when possible
- ✓ Brief and wide opening of the windows (duration about 5-10 minutes) results in a
 fast and effective exchange of used indoor air against fresh outdoor air
- ★ Avoid keeping your windows open all the time! This way you will only waste energy, and the humid indoor air will condensate



Plants for good indoor air quality

Plants are not only beautiful to look at, they can also improve the air quality in your office. Plants serve as "green air conditioning" by filtering the air and absorbing noise and indoor pollutants!

Benefits of a "green workplace":

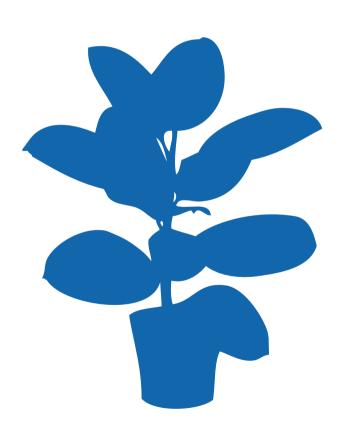
- ✓ Positive psychological effects
- ✓ Improving air quality, which is beneficial for health
- ✓ Dust reduction about 8 %
- ✓ Noise reduction about 6 %
- ✓ Absorption of pollutants of 1 %



Plants for good indoor air quality

Green plants that need a lot of water are your friends. Good examples are:

- ✓ Bird's nest fern, sword fern
- ✓ African hemp
- ✓ Benjamin's fig.
- ✓ Papyrus sedge
- ✓ Banana plant
- ✓ Indian mallow
- ✓ Japanese Aralia
- ✓ Chinese hibiscus
- ✓ Indoor azalea
- ✓ Zebra plant





Important emergency numbers

EUROPEAN EMERGENCY NO.	112
FIRE BRIGADE	122
POLICE	133
AMBULANCE	144
POISON CONTROL CENTER AKH	01 - 406 43 43



SECURITY TEAM OF THE UNIVERSITY OF VIENNA

12700

Tasks of the Security Team (24/7 on-call)

- ✓ Deployment 24 hours in all buildings
- Out-of-hours security patrols through the university buildings (at night, on weekends and holidays)
- ✓ Site surveys in the university buildings during the day
- ✓ Health and safety incidents are recorded, e.g. burglaries, theft, vandalism, threats



First Aid/Accidents

Stay calm!



RAISE THE ALARM

(rescue teams: fire brigade 122, police 133, ambulance 144)

- ✓ WHERE is the accident
- ✓ WHERE are you waiting for the rescue team
- ✓ WHAT happened
- ✓ WHAT kind of injuries
- ✓ HOW MANY injured people
- ✓ WHO is calling



EVACUATE AND HELP

- ✓ Provide first aid
- ✓ Call a first aider if necessary



The First Aid Box

Depending on the number of employees, a suitable first aid box has to be on site:

- Type 1 up to 5 employees; Type 2 up to 20 employees
- ➤ The first aiders should check the contents of the first aid box regularly. If needed, the box has to be refilled; for example, when items are missing or when they have passed their expiry date
- Please make sure that the contents of the first aid box are according to OeNORM Z 1020. A list of the contents for Type 1 and 2 can be found under uni:intra/Themen A-Z: Erste Hilfe
 - Recommendation: If you attach a little seal on the first aid box, it is easy for you to find out whether the
 first aid box has been used in the meantime.
- Only the items for first line treatment according to OeNORM Z 1020 are allowed in the first aid box. Drugs, disinfectant sprays etc. must not be stored in the first aid box because of the risk of allergic reactions. Always store these items separately!



First Aid Box

- ✓ The first aid box should be fixed onto the wall at a convenient height.
- ✓ On or near the first aid box the names and telephone numbers of the first aiders as well as the emergency numbers should be displayed
- ✓ A first aid sign to point out the location of the first aid box should be displayed (e.g. on the door of the room)







Raum- und Ressourcenmanagement

First Aid – a Guide

Check consciousness: call loudly, touch, shake



response



no response



Check breathing: clear

airway, do the head-tilt

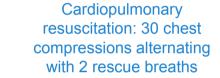
chin-lift manoeuvre,

watch/listen/feel

response



move into









First aid according to the situation, e.g. apply dressings on wounds



recovery position





The Defibrillator (SAED)



With an semi automatic external defibrillator an electric shock can be applied to a person's heart, and a cardiac arrest (in most cases cardiac fibrillation) can be reverted to a normal heart rhythm.

- A defibrillator will be used when
 - ✓ consciousness had been checked
 - ✓ cardiopulmonary arrest had been found
 - ✓ you have started with CPR (cardiopulmonary resuscitation) already
- Switch on the machine and follow the voice prompts of the machine
- You can learn how to use a defibrillator at a first aid course



14.11.2014



Defibrillators (SAED)



There are several semi automatic external defibrillators (SAEDs) to be found at the following locations, marked with this sign:

Althanstraße 14, UZA I and UZA II	Schenkenstraße 8-10
Auf der Schmelz 6a	Sensengasse 3a
Campus-Vienna-Biocenter 5	Spitalgasse 2 (Campus)
DrBohr-Gasse 9	Türkenschanzstraße 17
Gymnasiumstraße 50/Franz-Klein-Gasse 1	Universitätsstraße 7 (NIG)
Oskar-Morgenstern-Platz 1	Universitätsring 1
Rennweg 14	Währinger Straße 17
Rooseveltplatz 2	Währinger Straße 29
Schottenbastei 10-16 (Juridicum)	Währinger Straße 38-42

An accurate overview of all the locations as well as a detailled instruction for the machines can be found in the intranet:

uni:intra/Themen A-Z: Defibrillatoren



Pregnant Employees



- ✓ The supervisor and the HR department (DLE Personalwesen und Frauenförderung) has to be notified of a pregnancy immediately
- ✓ A doctor's notice of the estimated date of delivery als well as of the maternity leave (the protective period is 8 weeks before and 8-12 weeks after delivery) has to be enclosed
- ✓ The occupational health doctor will do a maternity evaluation: He/she will visit
 the pregnant employee at her workplace, do an assessment and write a report
- ✓ All work tasks which impose a substantial risk for the pregnant employee and her unborn baby are forbidden. The pregnant employee has to stop all these hazardous work tasks immediately. It might be necessary to change her workplace or work tasks.

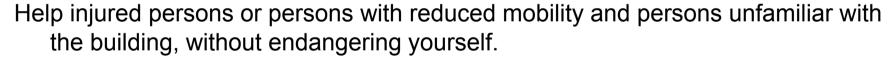


Behavior in case of evacuation

Behavior in case of an evacuation of the building (at sounding an alarm / siren / announcement)

Stay calm!

- ✓ Immediately leave the building by the shortest and safest way!
- ✓ Do not use elevators!
- ✓ In case of danger, follow the exit signs!
- ✓ Go to the assembly stations and wait for further instructions



Personal things that can be taken immediately, if possible, take them along in case of evacuation

Entering the building is no longer permitted after the evacuation.

The building shall be entered only after approval by the respective forces on the ground.





Stay calm!

RAISE THE ALARM

✓ Call the fire brigade immediately EMERGENCY NUMBER 122



- ✓ Help to rescue people at risk
- Leave building by using escape routes; gather at assembly point

EXTINGUISH

 Only try to extinguish incipient fire – using next available fire extinguishers – without putting yourself at risk

















RAISE THE ALARM

Call the fire brigade immediately **EMERGENCY NUMBER 122**

This is where you can raise the alarm:

Alarm	Symbol
Fire alarm telephone	
Push-button fire alarm	



RESCUE/EVACUATE

- ✓ Take people at risk out of the danger zone, but always take care of your own safety
- ✓ Leave the building promptly and considerate:
 - use escape routes, don't use elevators
 - call out to other people in the area to warn them
- ✓ When there is smoke in the room, you may breathe through a wet cloth before
 your nose and mouth









For your personal health and safety please take the following advice:

- ✓ Comply to the fire safety regulations which can be found at uni:intra/Themen A-Z, Brandschutz
- Inform yourselves about the escape routes and where you can find the assembly point
- ✓ Check where you can find the nearest fire extinguisher!
- ✓ In case of fire, every second counts!
- Fire doors are **never** to be wedged open!
- Keep fire extinguishers and fire alarm systems clear at all times
- Keep escape routes clear
- In areas with fire hazard: no use of open flames or other ignition sources
- Escape routes are **no storage area**: Don't clutter escape routes with storage items, 1,2014 Online Training: The Ergonomic Workstation V 1.3 35





What if the route is obstructed - and it might even be fire that's obstructing your safe exit:

- ✓ Move away from the fire
- ✓ Close doors between the fire and yourself
- ✓ Seal any gaps around doors to prevent smoke getting through; e.g. with wet cloths or similar
- ✓ Only open the window after you finished sealing
- ✓ Attract other's attention by shouting, waving, making a telephone call





Fire doors



✓ Fire doors might have an automatical release mechanism. During the day, they can be kept open with a magnet, but they will close automatically when the fire alarm system is activated



Never keep a fire door open with a wedge, the fire extinguisher or similar!



Fire Extinguisher – Classification



(Gern	nan) Classification of Commodities	Geeignete Löschmittel
A	combustibles (solids except metals) e.g. wood, charcoal, paper, straw, fabrics etc. smouldering and burning with a flame	dry chemicals with ABC-extinguishing powder, water, foam
B	<u>liquids</u> e.g. petrol, paint, oil, tar, diluents, alcohol, resin, fat etc.	CO2, dry chemicals with ABC- or BC-powder, foam
⟩ C	gases, paticularly if under pressure and leaking e.g. acetylene, butane, methane, propane, hydrogen, gas, gasoline	dry chemicals with ABC- or BC-powder
D D	metals e.g. aluminium, potassium, lithium, magnesium, sodium and their compounds	dry chemicals with metal fire extinguishing powder
F	(high temperature) <u>fats</u> e.g. fats, grease, oils etc.	fat fire extinguisher, covering the fire (e.g. with a lid of a pan, a fire blanket); never use water for a fat fire!



Use of fire extinguisher

dos don'ts

tackle the fire from the same direction as the wind

surface fire: start at the front

flowing or dripping liquids: aim nozzle towards top

aim the nozzle towards the base of the fire

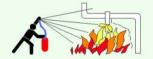
smouldering pockets: put them out completely

use fire extinguishers simultaneously

make sure the used fire extinguisher is refilled















don't tackle the fire against the direction of the wind

surface fire: don't start at the rear edge

flowing or dripping liquids: don't start at the base

don't aim the nozzle at the top (e.g. forest fire)

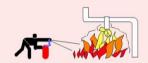
Don't leave smouldering pockets unattended

don't use fire extinguishers one after the other

don't put empty fire extinguisher back at its place

















Congratulations – Almost Done!

For any further questions please contact the safety specialists of the department of ArbeitnehmerInnenschutz und Sicherheit

Health and Safety Team

rrm.arbeitnehmerinnenschutz@univie.ac.at

+43-1-4277-12771

Further informations about our Health and Safety Team can be found in the intranet: uni:intra Sicherheitsfachkräfte

Further informations about occupational health doctors and occupational health psychologists can be found in the intranet: uni:intra, Arbeitsmedizin resp. Arbeitspsychologie

Editorial team: Martina Kaburek, Bianca Zaki, Cornelia Croÿ

... Please proceed now with the online exam ...