

Safety training

Monitor-based workstation

Topics:

- Ergonomics
- Electrical appliances
- Explanations for escape and rescue plans
- Fire protection
- First aid
- Risks at the work station / in the work area

Monitor-based workstation

Eye complaints

High-performance sports for your eyes: Monitor-based workstation

Possible causes of eye complaints:

- Unfavorable workstation design
- Unfavorable lighting
- Direct and indirect glare and large differences in brightness
- Unfavorable typeface and colors on the screen
- Poor character display in terms of focus and contrast
- Flickering screen or lights
- Inadequate vision correction

Monitor-based workstation

Eye complaints

- For all employees who work at a monitor-based workstation: Special occupational medical exam (G37) with eye exam available.
- After an initial exam, follow-up exams are recommended every three years. If there are problems with your eyes, the exams may be done more frequently.
- Appropriate glasses for correcting vision problems at the workstation may be required

The university physician, **Dr. Simon**, is happy to answer your questions related to occupational health.

Monitor-based workstation

Posture problems

- Neck pain
- Back pain
- Wrist problems
- Wedged-in thighs
- Wedged-in stomach



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Monitor-based workstation

How to sit right

PC workstation ergonomics

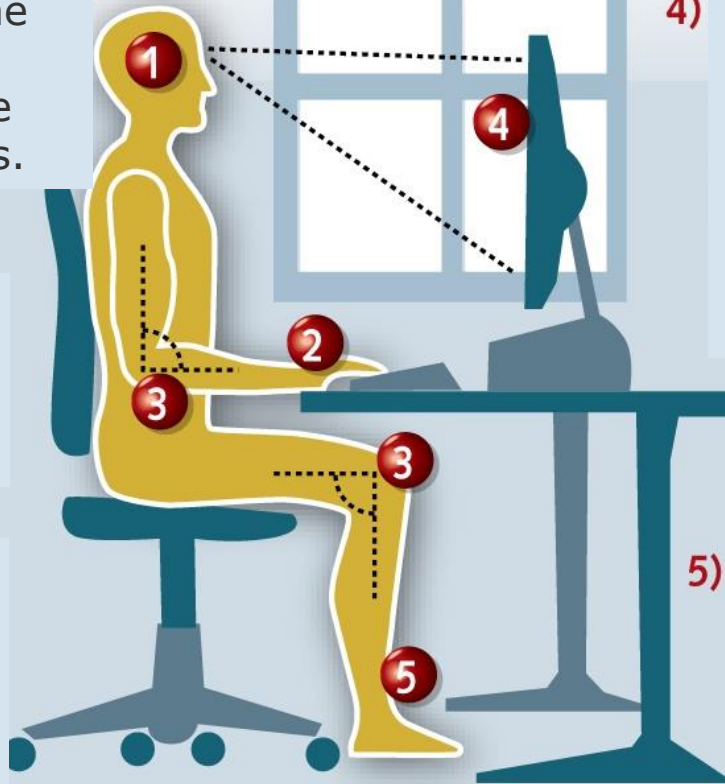
1) The top line of the screen should be slightly under the vertical sight axis.

2) The keyboard is at the level of the elbows and palms.

3) 90° angle between upper and lower arm as well as thigh and calf

4) The monitor should be at least 50 cm away from eyes. Natural light should come from the side.

5) The feet need stable support. If necessary, use a footstool.



Quelle: BITKOM

Monitor-based workstation

Monitor-based desk

- Flexible arrangement of equipment
- Matte desk surface (reflectance 20-50%)
- Minimum width 160 cm, at least 120 without lower cabinet
- Minimum depth 80 cm
- Desk height adapted to body height
- Freedom for leg movement under desk
- Monitor distance at least 50 cm

Monitor-based workstation

Swivel chairs

- Synchro mechanism
- Adjustable height backrest
- Adjustable height seat
- Stable and tilt-proof
- Adapted roll resistance → wheels with or without brakes
- Cushioning function when sitting down
- Padded and breathable seat and backrest

Monitor-based workstation

Screen

- Size adapted to tasks
- Word processing: at least 17" screen diagonal
- Graphic or presentation programs: at least 19", preferably 21" screen diagonal
- Easily turned and sufficiently tiltable
- Focused and clear character display
- Adapted character size
- Adapted brightness for screen display, no flickering picture
- Adjustable contrast between characters and background as well as environment conditions
- Anti-reflective screen surface
- Positive image (light background, dark letters)

Monitor-based workstation



Electric equipment



In case of damage, it must be proven that the devices or equipment work properly and that the inspection periods have been upheld.

Electric equipment

Serious accidents due to improper use of electricity or electrical equipment (serious burns, ventricular fibrillation, or cardiac arrest)



Electric equipment

- Visual inspection before using electrical equipment
- Do not use damaged electrical equipment!
- Use equipment that corresponds to the manufacturer's and University's safety requirements.
- Always pull on the head of the plug, never on the cord.
- It is **forbidden** to connect several socket strips in a row
- Inspection stickers



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Electric equipment

- Danger of tripping if cords for equipment are loose on the floor
- Be especially careful with electrical equipment if it is wet
- If electrical equipment malfunction, turn them off - do not open protective covers!
- Mechanical damage cannot be excluded if the cords are stressed by pressure or tension



EMERGENCY MANAGEMENT

- Accident at work
- Fire
- Explosion
- Gas escaping
- Loss of power
- Sabotage
- Substance release
- Natural events

Emergency institutions

- **Escape routes**
- **Meeting points**
- **First aid equipment**
- **Fire extinguishers**
- **Fire alarm telephone**



Escape and rescue routes

FLUCHT- UND RETTUNGSPLAN

Verhalten bei Unfällen
Ruhe bewahren

1. Unfall melden **Telefon: 112**
 Was geschah?
 WAS geschah?
 Wie viele Verletzte?
 Welche Art von Verletzungen?
 Warten auf Rückfragen

2. Erste Hilfe **Absicherung des Unfallortes**
 Veranlagung der Verletzten
 Anweisungen befolgen

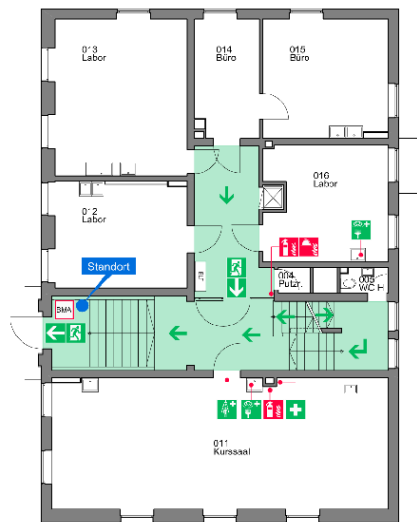
3. Weitere Maßnahmen **Rettungsdienste einweilen**
 Schaulustige entleeren

Verhalten im Brandfall
Ruhe bewahren

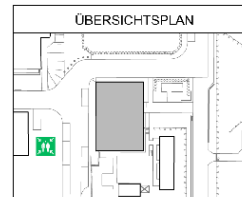
1. Brand melden **Brandmelder betätigen**
 oder
Telefon: 112
 WER meldet?
 WAS ist passiert?
 Wie viele sind betroffen/verletzt?
 Wo ist Rauch/Gestank?
 Warten auf Rückfragen

2. In Sicherheit bringen **Gründliche Personen mitnehmen**
 Türen schließen
 Sicherungsschleusen
 Rettungswege folgen
 Aufzug nicht benutzen
 Anweisungen befolgen

3. Löscheversuch unternehmen **Feuerlöscher**
 Warten bis 1. Löscheversuch
 Mittel und Geräte zur Brandbekämpfung benutzen



ERDGESCHOSS



LEGENDE

- Standort
- Feuerlöscher
- Löschdecke
- Brandmelder
- Brand melderanlage
- Hausalarm
- Rettungsweg
- Richtungsausgabe
- Notausgang
- Erste Hilfe
- Notkutsche
- Augenspül-einrichtung
- Sammelstelle
- Betriebsarzt: 22976

Objekt: Universität Hohenheim
 Zentrale Verwaltung

Gebäude: Parasitologie
 Ebene: Erdgeschoss

Datum: 10/2015
 Plan-Nr.: A-01 C 00/01

Plansteller: Universität Stuttgart und Hohenheim

**Do not block
escape routes
and escape
doors!**

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- Rescuing people
- Rescuing injured people
- Firefighter access route
- No storage areas!

Emergency management

Fire Safety Instructions

If you smell something burning, see smoke or flames,
or suspect a fire:

Remain calm!

Call the fire department immediately

Fire Department 0-112 with a cell phone 112



Inform the fire department:

- ☐ Who is calling?
- ☐ Where is the fire?
- ☐ What is on fire?
- ☐ How large is the fire?
- ☐ How many people are injured?
- ☐ Wait for questions!
- ☐ Inform the Problem Reporting Point! Tel.: 22044

Then inform the Occupational Health and Safety Unit

Tel.: 22975 or cell phone: (0-) 0172 711 58 07 or
22572 or (0-) 0173 658 28 73 or
23400 (0-) 0174 205 73 56

Get to safety:

- ☐ Warn people in danger
- ☐ Take helpless people with you
- ☐ Close doors and windows
- ☐ Follow marked escape routes
- ☐ Do not use elevators
- ☐ Follow instructions



- ☐ Find meeting point



Try to extinguish fire if you can do so without putting yourself in danger

Closest fire extinguisher ☐ in hallways and laboratories

☐ Pay attention to signs

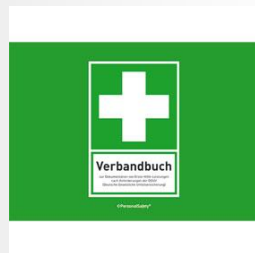


First aid

- Remain **calm** and avoid acting without thinking!
- Keep your **own safety** in mind!
- **Call emergency services** then the responsible person at the University.
- **Put out** clothing that is on fire
- **Rescue** people from danger area and take them outside, loosen tight clothing.
- **Do not leave** people who are injured alone until emergency services arrive.
- **Warn** people in danger, if necessary tell them to leave the rooms.

First aid

- Report every accident to your **supervisor** immediately!
- Enter all injuries in the **first aid log**.
- **First aid materials** that are taken out of the first aid kit should be **replaced**.



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Fire protection

Most common sources of fire

- Defective electrical appliances
- Ignition of flammable liquids, chemicals, or explosive gas mixes
- Open fire
- Smoking
- Arson

Fire protection

Fire Safety Instructions

- SAVE PEOPLE **BEFORE** FIGHTING FIRE!
- Alarm staff and other people
- Leave rooms with smoke in them while bent down or crawling → warm fumes are up high, oxygen is down low!
- Do not use elevators
- Use escape routes
- Stay in the room if the escape route is filled with smoke
- Close the door and make yourself seen/heard from the window
- Try to put out the fire with a fire extinguisher (to protect yourself)

Fire protection

Smoke fumes are always poisonous

95% of all fire victims die either of smoke poisoning or burn their lungs and airways, which can also lead to death

- Total fire victims
- Smoke fume victims

95%

Grafik: BHE
www.bhe.de
Foto: fotolia.com



Fire protection

Fire classes

Which Extinguisher?	 A Freely Burning Materials	 B Flammable Liquids	 C Flammable Gases	 D Flammable Metals	 E Electrical Hazards	 F Cooking Oils And Fat
Water	✓					
Water (Additive)	✓					
Foam	✓	✓				
ABC Dry Powder	✓	✓	✓		✓	
Co2		✓			✓	
Wet Chemical	✓					✓
Dry Powder with metal fire powder				X		

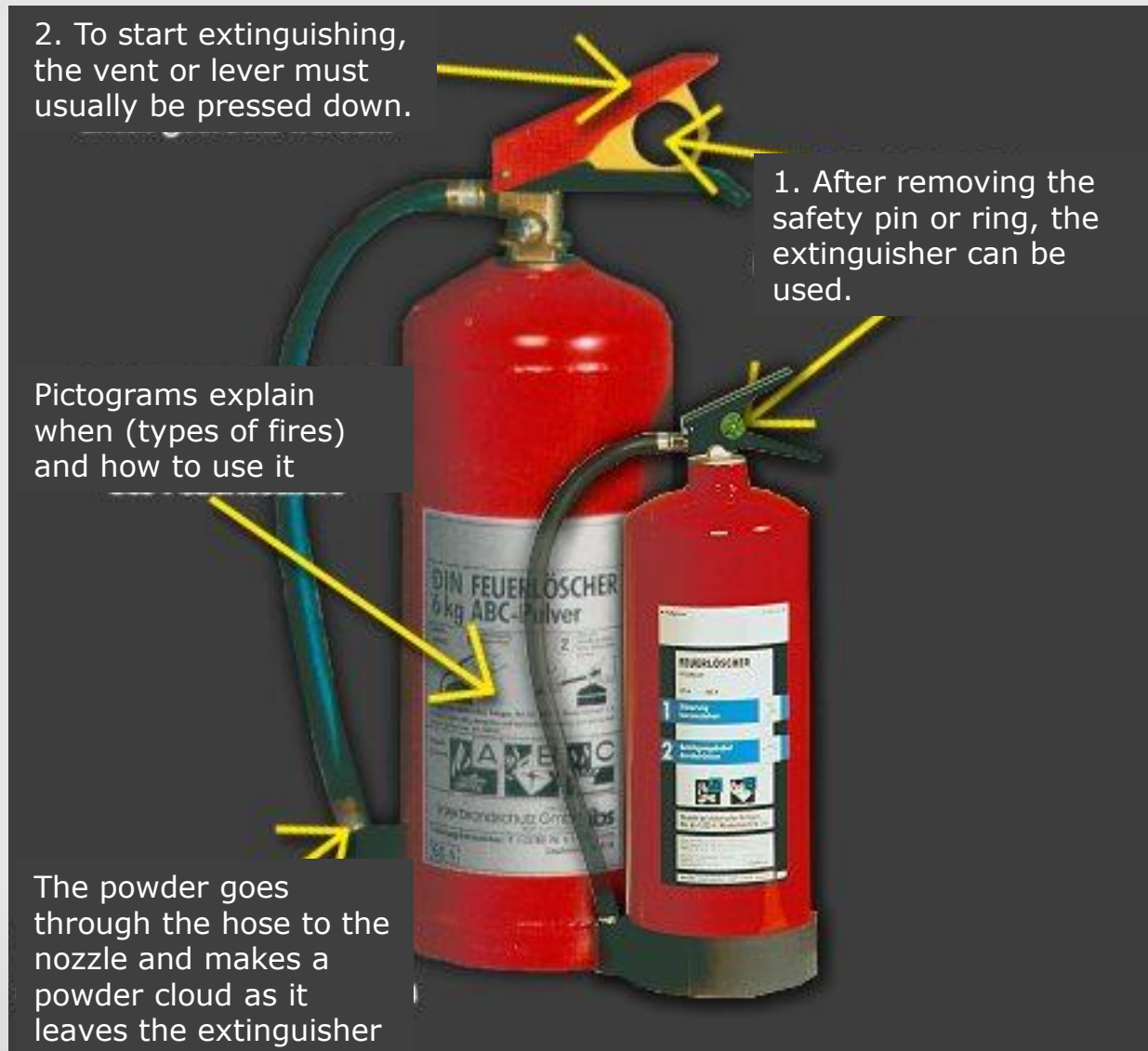
Fire protection

2. To start extinguishing, the vent or lever must usually be pressed down.

1. After removing the safety pin or ring, the extinguisher can be used.

Pictograms explain when (types of fires) and how to use it

The powder goes through the hose to the nozzle and makes a powder cloud as it leaves the extinguisher



Risks at the workstation

- Were you able to find risks at your workstation or in your work area?
- Could this risks be avoided?
- With which measures could the risks/problems be alleviated?

