

CRAI STAFF

RISKS AND PREVENTIVE MEASURES



UNIVERSITAT DE
BARCELONA

Oficina de Seguretat,
Salut i Medi Ambient



CRAI STAFF:

RISKS AND PREVENTIVE MEASURES

SUMMARY

The aim of this manual is to inform the staff of the CRAI of the University of Barcelona about the risks and preventive measures to be adopted in their jobs.

CRAI staff are exposed to **non-specific risks** arising from the facilities and **specific risks depending on the activity and/or the space** where they work. This manual is divided into 5 large blocks according to the space and the activities carried out by CRAI staff:

1. Common Risks
2. Office work
3. Counter work
4. Shelf and compactus work
5. Reserves, deposits and historical background

And a final section in which we provide a table of exercises.

They complement this information:

IT/ZUB/ERG/0015 **Health and safety instructions - Manual handling of loads.**

IT/ZUB/ERG/0091 **Positional hygiene measures in the Library: use of shelving and lending at the counter.**

IT/ZUB/ER/0062/0063/0069/0070 **Technical conditions for CRAI Furniture.**

IT/ZUB/PSI/0053 **Guidelines for action in the event of a violent incident.**

BLOCK 1:

COMMON RISKS



_RISK OF FALLS TO THE SAME AND DIFFERENT LEVELS

1. Movement around the different areas of the CRAI:

- Fixed stairs and ramps: damp floors, obstacles in circulation routes, inadequate lighting.
- Equipment and wiring of equipment in passageways or work spaces.

- Move carefully and attentively, without running. Do not look at your mobile phone or documents while walking.
- Use handrails whenever possible.
- Wear suitable footwear with non-slip soles.
- Report any deficiencies that you observe on a daily basis in order to quickly resolve the risk.
- Maintain order and cleanliness in the workplace, passageways and escape routes:
 - Make sure that power cables for telephones, computers and other computer and electrical equipment do not obstruct walkways and workspaces.
 - Do not place boxes, packages or obstacles in passageways.
 - Keep consumables, such as paper, toner, etc., in the place allocated for their storage; whether they are new or for recycling.
 - Immediately remove any liquid or debris that falls on the ground.

2. Access to the upper levels of shelves and cupboards with unsuitable items (e.g. wheelchairs) or in an unsafe manner.



- Do not use chairs, wastepaper baskets, drawers or any other similar items to access the upper parts of cupboards and shelves.
- Always use ladders or suitable means of access in an appropriate manner. Never climb on shelves.
- Do not place the ladder or similar item in front of doors unless the exit is blocked or controlled by another person.
- If the work requires lateral movement, move the ladder.
- Do not attempt to move from a portable ladder to a shelf or platform.



_RISK OF ELECTRICAL CONTACT

1. In daily activity during the use of equipment (computers, printers, etc.) that are connected to the low voltage installation of the building.
2. By overloading (thieves, multipliers, etc.) of sockets.



- Do not carry out any electrical work, even the simplest operations (accessing an electrical panel and manipulating a switch, etc.).
- If the cables are worn or frayed, or if the plugs are broken, this is a serious hazard and must be repaired immediately.
- If you notice any electrical anomalies, report them to the maintenance service. Do not attempt to fix it.
- Before using electrical appliances or machines, check that they are in perfect condition and inform yourself about the precautions to be taken when using them.
- Never open the protections of electrical appliances and equipment, and respect all electrical hazard signs.
- Do not stretch electrical cables to move them or to move electrical appliances or machines.
- Do not use extension cords, extension leads and/or electrical multipliers to plug in work equipment, except in specific situations.
- Avoid the presence of water and moisture near electrical wiring.

_FIRE RISK AND EVACUATION

1. Special Risk Premises.
2. High fire load.
3. Obstacles on escape routes and emergency exits.



- Know where the nearest fire extinguisher is to your workplace and make sure it is always accessible.
- Avoid overloading sockets. Avoid the use of multipliers, burglars, etc.
- Know where the nearest emergency exit is, emergency telephone numbers and instructions to follow, according to the emergency organisation in place in your building.
- Keep your workplace tidy and clean.
- Emergency exits, in order to be operational, must be clean and free of materials that could obstruct the access of fire-fighting equipment.
- Follow the instructions given by those responsible for evacuation. If the alarm sounds continuously, evacuate the building without delay.
- Actively participates in training and drills carried out in the buildings.

Recuerda que está prohibido fumar en el lugar de trabajo.

BLOCK 2: WORK IN OFFICES

Leadership, management, administration, etc., using equipment with data display screens (DSPs).

1. Use of display screen equipment (PDU) more than 4 hours per day or 20 hours per week.
2. Inadequate distribution of equipment and work material.
3. Inadequate habits by adopting forced postures.
4. Light deficiencies, glare and/or reflections.



Screen

- Position the monitor so that the top of the monitor is at eye level and at arm's length. Don't forget to adjust the size of the characters to make them easily visible.

- Adjust the contrast (better high) and brightness (better low) of the screen and select a soft background colour. Check your eyesight periodically.

- Avoid reflections on the monitor.

Keyboard - Table

- Place the keyboard in front of the screen and adjust its inclination to adopt a neutral wrist position. Avoid excessive force when typing.

- Ensure that the work surface and keyboard are at hand level, with your forearms parallel to the floor.

- Make sure the mouse is close to the keyboard and at the same level. Frequently used objects should be easily accessible.

Chair

- Adjust the height of the chair so that your feet are flat on the floor and your legs are at right angles.

- Avoid awkward positions and do not stretch your arms to pick up objects.

- Sit with your arms close to your body and your back straight. Your head should be straight or slightly tilted forward.

Surface

- Make sure that once the seat height has been adjusted, the feet are correctly positioned on the floor.

- Avoid static postures: it is necessary to change position and move your back to reduce muscle tension.

- Take short breaks during the day.

- Make gentle stretching movements of the loaded muscles.

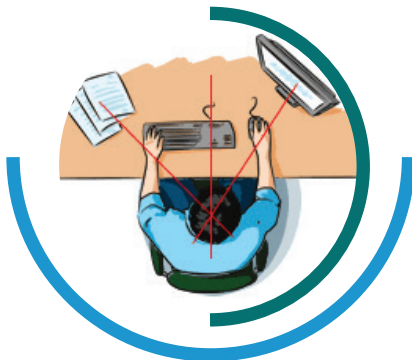
For more information, see the [following link](#).

BLOCK 3: WORK AT THE COUNTER

User service tasks, advice, lending and exchange services, reservations, etc. Work with PVD, demagnetising, barcode reader, etc.

_RISKS ARISING FROM WORK WITH PVD AND OTHER EQUIPMENT (DEMAGNETISING, BAR CODE READERS, ETC.)

1. Inadequate chair-table-screen adjustment (little space for hands, working sideways, high screen, etc.).



2. Inadequate distribution of work equipment.

■ Adapt the chair with the seat height adjustment mechanisms. The feet must be correctly positioned on the floor. The inclination of the backrest should be adjusted to ensure that the back is at an angle of 90-100°.

■ If you have mobile drawer blocks, remove them from under the table to increase the usable working area.

■ Place the screen/keyboard in an area of the table so that you can face it at a distance of 65-70 cm (eye-to-screen).

■ To make better use of the work surface, place the screen on a swivel stand. This way, when you are working, you can place it in front of you, and move it away when you are doing other tasks.

■ Place the work elements you use regularly (keyboard, mouse, demagnetiser, code reader, etc.) within easy reach. This will prevent continuous bending of the back.

_RISKS ARISING FROM AWKWARD POSTURES

Adopting inappropriate postures while working at the counter (exchanging material, picking up books, placing laptops):

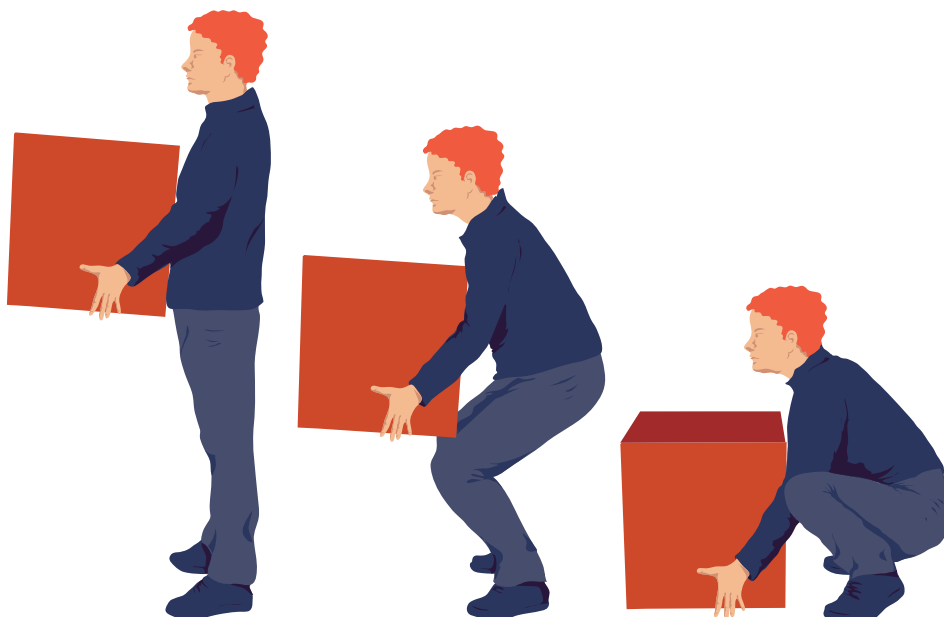
1. Reaches that are too far or too high.
2. Trunk flexions during material handling.
3. Forced neck positions associated with an inadequate visual angle with respect to the user.
4. Wrist deviations during demagnetisation and/or material exchange.

- Adopt a correct sitting position:
 - Move closer to the table to reduce the horizontal reach and avoid leaning the trunk forward.
 - Use the adjustment mechanisms on the chair, setting the height of the chair so that the height of the chair matches the height of the table.
 - The backrest should be in contact with the back ensuring that the angle of inclination is in a straight position.
 - During user care, to minimise neck extensions, recline the backrest of the chair (100—110°). If the chair has a synchro system, activate it.
- Exchanges bibliographic material with the palms of both hands, avoiding the clamp.
- Move the material over the counter, avoiding lifting it.
- Stand up for the handling of heavier bibliographic materials.
- We recommend the use of stands to place the cash registers. This makes it easier to handle bibliographic material with both hands. Furthermore, this should be done ensuring that the wrists are aligned with the forearms and are not deviated to the sides.

_RISKS ARISING FROM MANUAL HANDLING OF LOADS AND/OR OVEREXERTION

1. Handling objects and/or material away from the body or at inappropriate heights.
2. Abrupt, sudden or unstable handling.
3. Handling of bulky and heavy material.

- Do not handle weights of more than 5 kg in a seated position. If the weight is heavier than this, the handling must be done standing up.
- Move the material over the counter, avoid lifting the material.
- Handle loads close to the body, at a height between the elbows and the knuckles, as this reduces the strain on the lower back.
- If the loads to be handled are on or near the floor, opt for load-handling techniques that use the leg muscles rather than the back muscles.
- Avoid storing commonly used loads above shoulder level or below knee level.



BLOCK 4:

WORKS ON SHELVES

User service tasks, reservations, advice, lending and exchange services, etc. Work with PVD, degausser, barcode reader, etc.

_RISKS DUE TO FALLING OBJECTS, KNOCKS AND/OR TRAPS

For possible:

1. Unstable shelves.
 2. Poorly positioned material on the shelves.
 3. Handling of high volume and/or heavy material.
 4. Operation of the compactus without being aware of the presence of users inside.
 5. Lack of space between shelves.
- Store books, documentation and other material stably and securely, avoiding overloading the shelves with the heaviest items on the lower shelves.
 - If you have a large amount of documents, check that cabinets and shelves are well fixed to the floor or wall, or even to each other, to improve their stability and prevent them from tipping.
 - Place books, folders, binders, filing cabinets, etc., neatly on the shelves, without stacking them on top of each other, and make sure they do not overhang the edges of the shelves.
 - Before entering the interior of a compactus, check that the restraint system is in the steering wheel locking position.
 - Notify your superior and/or maintenance personnel when you detect any item of furniture that is damaged or in a situation likely to cause risks.

_RISKS ARISING FROM AWKWARD POSTURES

Adoption of inadequate postures while working on shelves:

1. Trunk flexions by far horizontal reaches.
2. Trunk bends, kneeling or squatting for tasks below knee level.
3. Elbows above shoulders, for tasks above head level.

- Move as close as possible to the shelving area to keep your back straight and keep your centre of gravity close to your body when handling books.

- When working continuously and continuously at heights above the shoulders and/or at heights below the hips, the use of accessories (stools, ladders, etc.) is recommended.

- In the case of specific tasks, bend your legs with your trunk straight.

- The neck must be in a neutral position: avoid bending, extending or twisting the neck.



_RISKS ARISING FROM MANUAL HANDLING OF LOADS AND/OR OVEREXERTION

1. Handling objects and/or material away from the body or at inappropriate heights.
2. Abrupt, sudden or unstable handling.



For loads over 3 kg, use the trolley.

- To ensure adequate stability and pushing and pulling forces: do not overload the trolley.

- Push frontally using the 2 arms and the handle instead of dragging it.

If the handling is manual:

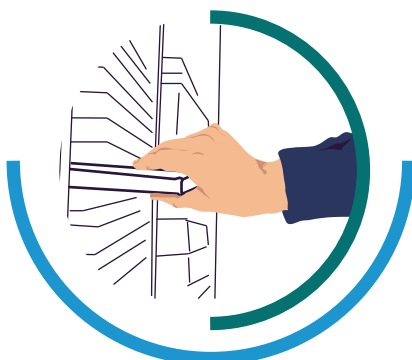
- Move as close as possible to the shelving area to keep your back straight and keep your centre of gravity close to your body when handling books.

- Avoid handling heavier than the recommended weight. This varies depending on the handling area.



In the manual handling of bibliographic material:

3. Handling of bulky and heavy material.



■ Use both hands to place books on shelves. Avoid bending or overextending the wrist.

The sequence is as follows:

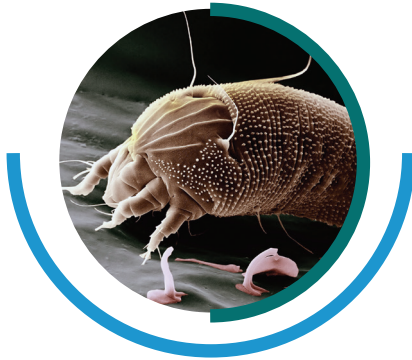
- Lift the book with both hands.
- Leave it on the corresponding shelf.
- Decant the books from the shelf, and push the book to be placed.

■ Handle bibliographic material, whenever possible, with both hands, especially in the case of large format or heavy books.

BLOCK 5: WORKS IN REPOSITORIES AND HISTORICAL

_HAZARDS ARISING FROM EXPOSURE TO LEVEL 1 CHEMICALS AND/OR BIOLOGICAL AGENTS

1. Exposure to dust when working with old, fire-recovered, poorly preserved and/or long-unconsulted material.



- Follow basic personal hygiene rules (wash hands, cover wounds, do not eat or drink).
- Performs cleaning of bibliographic material with suction equipment.
- Use personal protective equipment:
 - Disposable nitrile gloves (UNE-EN 374).
 - Mask (at least FFP2) to avoid inhalation of particles.
 - Safety goggles.

2. Exposure to allergens during work with old, poorly preserved, flooded, contaminated by microorganisms and/or material that has not been consulted for a long time.



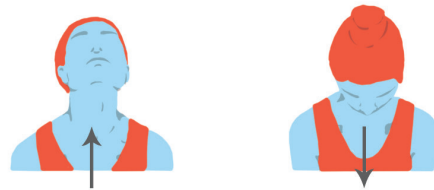
- Follow basic personal hygiene rules (wash hands, cover wounds, do not eat or drink).
- Use disposable synthetic gowns and caps to protect street clothes, hair.
- Protect footwear with a synthetic protector.
- Use personal protective equipment:
 - Disposable nitrile gloves (UNE-EN 374).
 - Self-filtering respirator (FFP3) to prevent inhalation of particles and spores.
 - Safety goggles.
- Performs regular health surveillance.

In the case of particularly sensitive personnel, as well as pregnant or breastfeeding women, carry out a specific risk assessment by OSSMA (ossma@ub.edu) technical staff and a specific health examination by the OSSMA Medical Service Unit. (medicinadeltreball.ossma@ub.edu).

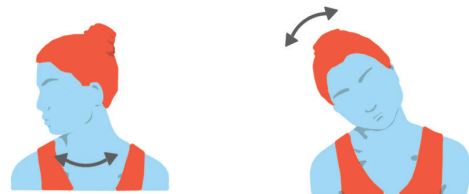
BLOCK 6: TABLE OF EXERCISES

With the increasing use of data visualisation equipment, various visual and musculoskeletal complaints have appeared, such as pain in the different areas of the spine or in the arms and legs. Prolonged work involves the fixation of some muscle and joint areas (shoulders and spine) and the rapid work of others (elbows and hands). To avoid injuries, as well as adapting your work equipment to your body, it is advisable to take into account a series of physical exercises.

_CERVICALS



Tilt your head backwards -->
Tilt your head forward



Turn head left and right -->
Tilt head to the side



Gently rotate the head

_BACK



Back arching



Upper stretching

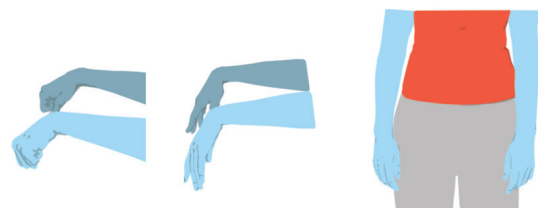
_HANDS AND WRISTS



Put your palms at 90° --> Put your palms at -90° -->
Clench your fists.



Spread your fingers apart --> Join fingers -->
Make a fist



Put your fists at -90° --> Open your hands -->
Drop your arms

_LEGS



Tip up, tip down



Leg suspension



Ankle flexion and extension

_SHOULDERS



Shoulder rotation

_ARMS



Upper stretching



UNIVERSITAT DE
BARCELONA

Oficina de Seguretat,
Salut i Medi ambient