



Process Name • Office Ergonomics Program

(05/15/2018 Revision)

Overview of Office Ergonomics Program

Purpose: To provide applicable suggestions and procedures that may help reduce Central New Mexico Community College (CNM) employees from office work related musculoskeletal disorder, including cumulative trauma disorders and overexertion injuries.

Scope: All affected CNM employees.

CNM Way Expert: Safety and Environmental Health Department

Functional Units Involved-Responsibilities:

- A. Managers/Supervisors:
 - 1. Observes employees and reports ergonomic needs to the Safety department for individual assessment.
- B. Employees
 - 1. Be aware of ergonomic issues. These include:
 - i. Correct body positioning
 - ii. Basic furniture and equipment adjustments
 - 2. Asks for help when needed.
 - 3. Reports discomforts or injuries to their supervisors.
- C. Safety Director/Designee
 - 1. Develops and maintains the office ergonomic program and reviews it annually.
 - 2. Ensures evaluations are completed as required.
 - 3. Offers recommendations and/or adjustments when necessary.

Beginning of Process: Development of the Office Ergonomics program.

End of Process: Dynamic and continuing.

Definitions:

- A. Ergonomics- An applied science concerned with designing and arranging things people use so that the people and things interact most efficiently and safely —called also biotechnology, human engineering, human factors.
- B. Musculoskeletal Disorders (MSDs)-Are injuries and disorders that affect the human body's movement or musculoskeletal system (i.e. muscles, tendons, ligaments, nerves, discs, blood vessels, etc.).Common examples include:
 - 1. Carpal Tunnel Syndrome
 - 2. Tendonitis
 - 3. Muscle / Tendon strain
 - 4. Ligament Sprain
 - 5. Tension Neck Syndrome
 - 6. Thoracic Outlet Compression
 - 7. Rotator Cuff Tendonitis
 - 8. Epicondylitis

9. Radial Tunnel Syndrome
 10. Digital Neuritis
 11. Trigger Finger / Thumb
 12. DeQuervain's Syndrome
 13. Mechanical Back Syndrome
 14. Degenerative Disc Disease
 15. Ruptured / Herniated Disc
- C. Repetitive Motion Injuries (RMI)-Also called repetitive stress injuries, are temporary or permanent injuries to muscles, nerves, ligaments, and tendons caused by performing the same motion over and over again. A common repetitive motion injury is carpal tunnel syndrome.

Related Documents and Forms:

- A. Ergonomic Assessment Checklist (Page 3-5)
- B. CNM Safety & Environmental Health Department Office Ergonomic Evaluation SOP (Page 6)
- C. Ergonomic OSHA E-Tool (Page 7-9)
- D. Periodic Computer Stretches Guide (Page 10-12)

Ergonomic Assessment Checklist

NAME:	DATE	ROOM #	
POSTURES			
Head & neck up right, or in line with the torso (not bent down/back)	Y	N	N/A
Head, neck and trunk face forward (not twisted)	Y	N	N/A
Trunk perpendicular to floor (may lean back into backrest but not forward)	Y	N	N/A
Shoulders and upper arms in line with torso, ~ perpendicular to floor & relaxed (not elevated or stretched forward)	Y	N	N/A
Upper arms and elbows to be close to the body (not extended outward).	Y	N	N/A
Forearms, wrists, and hands to be straight and in-line (forearm at about 90 degrees to the upper arm).	Y	N	N/A
Wrists and hands to be straight (not bent up/down or sideways toward the little finger).	Y	N	N/A
Thighs parallel to the floor and the lower legs to be perpendicular to floor (thighs may be slightly elevated above knees).	Y	N	N/A
SEATING			
Backrest provides support for lumbar area.	Y	N	N/A
Seat width and depth accommodate the specific user.	Y	N	N/A
Seat front does not press against the back of your knees and lower legs.	Y	N	N/A
Seat has cushioning and is rounded with a "waterfall" front.	Y	N	N/A
Armrests, if used, support both forearms while you perform computer tasks and they do not interfere with movement.	Y	N	N/A
KEYBOARD/INPUT DEVICE			
Keyboard holder is stable and large enough to hold a keyboard and an input device.	Y	N	N/A
Mouse is located right next to keyboard so it can be operated without reaching.	Y	N	N/A
Mouse is easy to activate and the shape/size fits your hand (not too big/small).	Y	N	N/A
Wrists and hands do not rest on sharp or hard edges.	Y	N	N/A

MONITOR			
Top of the screen is at or below eye level.	Y	N	N/A
User with bifocals/trifocals can read the screen without bending the head backward.	Y	N	N/A
Monitor distance allows you to read the screen without leaning \back/forth.	Y	N	N/A
Monitor position is directly in front.	Y	N	N/A
Glare (for example, from windows, lights) is not reflected on your screen which causes an awkward posture to clearly see information on your screen.	Y	N	N/A
WORK AREA			
Thighs have sufficient clearance space between the top of the thighs and workstation	Y	N	N/A
Sufficient clearance space under the work surface.	Y	N	N/A
Document holder, if provided, is stable and large enough to hold documents.	Y	N	N/A
Document holder is placed at about the same height and distance as the monitor screen.	Y	N	N/A
Wrist/palm rest, if provided, is padded and free of sharp or square edges that push on your wrists.	Y	N	N/A
Telephone can be used with your head upright (not bent) and your shoulders relaxed (not elevated) if you do computer tasks at the same time.	Y	N	N/A
Workstation and equipment have sufficient adjustability so you are in a safe working posture and can make occasional changes in posture while performing computer tasks.	Y	N	N/A
Computer workstation, components and accessories are properly functional.	Y	N	N/A
Phones & other accessories on the side of dominant hand and not elevated	Y	N	N/A
HABIT			
Repetitive work or sports when not at work.	Y	N	N/A
Micro break, change postures?	Y	N	N/A
STRESS			
Stress scale from 1-10?			
Injuries (past/present)?			
Notes:			

Recommendations:			
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1.Adjust chair to correct position, height	Y	N
2.New Chair (Test out first)	Y	N
3.Adjust sitting position	Y	N
4.Footrest	Y	N
5.Periodic micro-stretching	Y	N
6. Wrist rest for mouse	Y	N
7.Wrist rest for keyboard	Y	N
8.Adjust screen height	Y	N
9.Adjust distance from eyes to monitor	Y	N
10.Hands free device for telephone use	Y	N
11.Implement means to reduce glare	Y	N
12. Adjust workstation setup to prevent overreaching	Y	N
13.Adjust desk height	Y	N
14.Sit-to-stand desk	Y	N
15. Reduce clutter under desk	Y	N
16.Other (describe below):		

CNM Safety & Environmental Health Department

Office Ergonomic Evaluation SOP (10/20/2017 version)

Before Evaluation

- 1.) Receive ergonomic evaluation request from employee.
 - a. Phone
 - b. Email
- 2.) Ensure you have all the important information from employee.
 - a. Reason for evaluation
 - b. Location of workstation(s)
 - c. Urgency
 - d. Supervisor name
- 3.) Schedule a date and time to perform the ergonomic assessment and email both the employee and supervisor.

Day of Evaluation

- 1.) Ensure you have all the equipment and papers needed for the evaluation.
 - a. Tape measure (eye line to screen distance)
 - b. Assessment checklist
 - c. Packet for employee (stretches/OSHA E-tool)
- 2.) Perform Evaluation
 - a. Have employee sit or stand as they would do on a normal day of work
 - b. Utilized the checklist to ensure nothing is overlooked
 - c. Gather all the information and utilized the ergonomic assessment check list recommendations section.

After Evaluation

- 1.) Email recommendation form to employee and their supervisor.
- 2.) Follow up within 4 weeks after initial assessment.

Ergonomic OSHA E-Tool

Upright Sitting

Upright sitting posture. The user's torso and neck are approximately vertical and in-line, the thighs are approximately horizontal, and the lower legs are vertical.

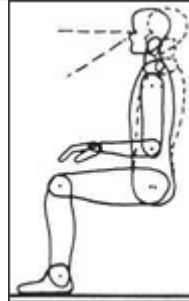


Figure 1. Upright sitting posture



Figure 2. The user's torso and neck are approximately vertical and in-line, the thighs are approximately horizontal, and the lower legs are vertical.

Standing

Standing posture. The user's legs, torso, neck, and head are approximately in-line and vertical. The user may also elevate one foot on a rest while in this posture.

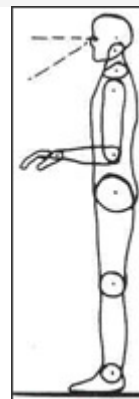


Figure 3. Standing posture



Figure 4. The user's legs, torso, neck, and head are approximately in-line and vertical.

Declined Sitting

Declined sitting posture. The user's thighs are inclined with the buttocks higher than the knee and the angle between the thighs and the torso is greater than 90 degrees. The torso is vertical or slightly reclined and the legs are vertical.

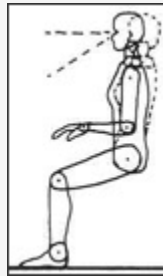


Figure 5. Declined sitting position



Figure 6. The user's thighs are inclined with the buttocks higher than the knee and the angle between the thighs and the torso is greater than 90 degrees. The torso is vertical or slightly reclined and the legs are vertical.

Reclined Sitting

Reclined sitting posture. The user's torso and neck are straight and recline between 105 and 120 degrees from the thighs.

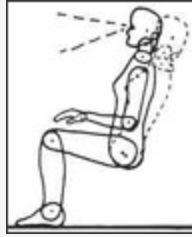


Figure 7. Reclined sitting posture



Figure 8. The user's torso and neck are straight and recline between 105 and 120 degrees from the thighs.

Periodic Computer Stretches

EXERCISES FOR COMPUTER USERS AND OFFICE WORKERS



Stop, s-t-r-e-t-c-h and check!

- Do a few of these exercises a few times every day.
- Dots show the muscles that you are exercising.
- Make sure you relax and perform them gently.
- Hold the stretch or repeat as indicated on the diagram.
- Do not over-stretch.
- Stop if you feel discomfort when performing an action.
- Remember to do each side.

While you are exercising, read the notes alongside each instruction and consider whether your workstation is adjusted to suit you.

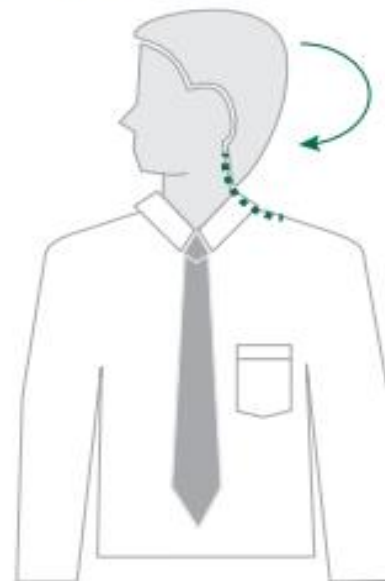
Neck

DIAGRAM 1: HEAD ROLLS



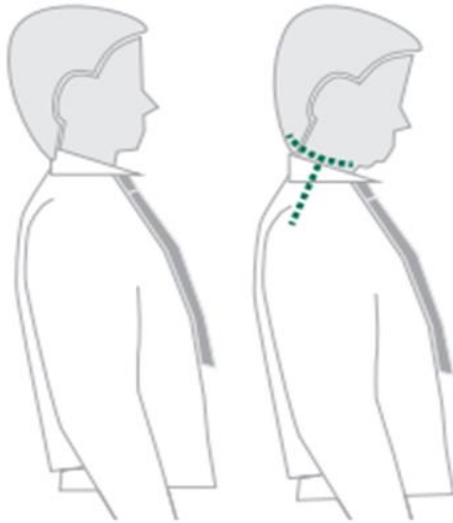
Gently lower ear to shoulder and hold for 10 seconds. Slowly roll chin to chest and up to other shoulder and hold for 10 seconds. Repeat several times and be careful not to extend your neck back too far.

DIAGRAM 2: HEAD TURNS



Turn head to look over left shoulder and hold for 10 seconds. Turn head the other way and hold for 10 seconds. Repeat several times.

DIAGRAM 3: CHIN TUCKS



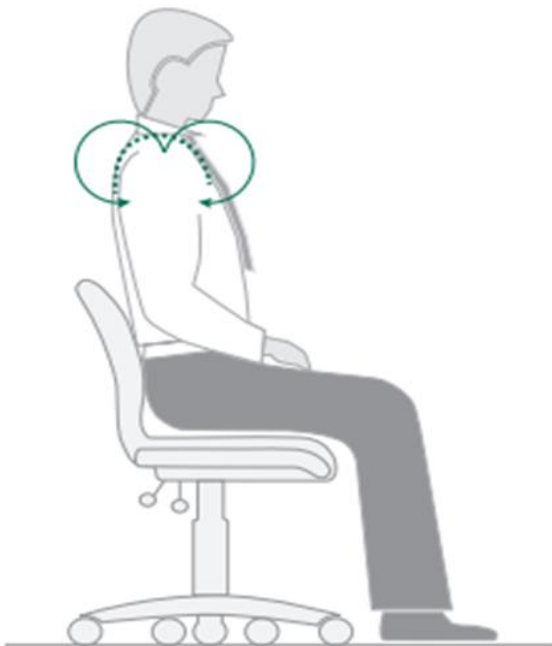
Raise the head to straighten the neck. Tuck the chin in and upwards creating a double chin. This also results in a forward tilt of the head. Hold for 10 seconds and repeat several times.

Check neck posture

- Position the top of your screen at eye level.
- Use a document holder directly beside or below the screen — it saves you looking down.

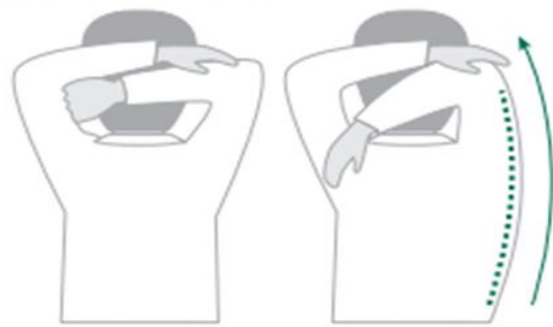
Shoulders

DIAGRAM 4: SHOULDER ROLLS



Circle shoulders forward several times, then backward. Repeat 3 to 5 times.

DIAGRAM 5: SHOULDER STRETCH



Stretch arm above head, cradle elbow with hand and gently pull elbow behind the head. Hold for 10 seconds and repeat several times.

Check shoulder posture

- Relax your shoulders and rest your hands on your lap. Bend your elbows to 90 degrees and check the height of your finger tips against your current work height. If the work (keyboard or desk) is higher than your hands you may be hunching your shoulders unnecessarily. If so, try and raise your chair height or lower your desk height and try and relax your shoulders while working.

Wrists, hands and arms

DIAGRAM 6: WRIST STRETCH



Interlace fingers, palms outward, and straighten arms in front. Hold for 10 seconds and repeat several times.

Check hand and wrist posture

- While keying, keep your wrist straight while your fingers are suspended over the keyboard.
- Keep elbows at keyboard level. This may mean adjusting the desk or chair height.
- Don't rest your wrists on the desk or keyboard. Keep hands suspended.
- Rest on the desk between periods of keying.

Upper and lower back

DIAGRAM 7: UPPER AND LOWER BACK STRETCH



Interlace fingers and turn palms upward above head; straighten arms then slowly lean slightly from side to side.

Repeat movement several times.

DIAGRAM 8: BACK ARCHING



Stand up. Support lower back with hands and gently arch back. Gently arch back and hold for 5 to 10 seconds.

Repeat as often as is needed.

Check back support

- Sit well back in your chair. If your feet need support, use a foot rest.
- Adjust the back rest on your chair to support your lower back.

Legs

DIAGRAM 9: FOOT ROTATION



Hold onto the chair with hands either side. Straighten leg and lift foot a few centimetres off floor. Rotate foot and ankle both ways (point toes up) and extend (point toes down). Repeat several times per foot.

Check leg comfort

- If the seat of your chair is digging into the back of your thighs check that it is not too high or whether it is tilted backwards.
- If the seat is too high lower the chair and desk or use a foot rest to support your feet.
- Also check the tilt of the seat and if necessary adjust it to a horizontal position.

Eyes

DIAGRAM 10: EYE EXERCISE



Sit up straight, face forward and repeat this sequence several times without moving head. Look up, then down. Look left, then right.

Visual rest

Look up and away from screen. Focus on a distant object (more than 3 metres). For example, look out of the window or at a picture on a far wall. Shift vision back to screen and refocus.

Check eye comfort

- Is there enough light falling on your documents?
- Do windows or light fittings cause glare or reflection on the screen? If so, try turning the screen or blocking the path of the light.
- Use a screen with a light background when working with text. Software with a light background for text is more comfortable for the eyes.

Process:

- 1) General Procedure/Techniques
 - a) Postural Guide: Check your working position when using a computer. To avoid unnecessary discomfort, make sure the following key principles are in place.
 - i) Neutral Neck Position:
 - (1) When looking at your work, keep your neck in a neutral or aligned position. Position the monitor directly in front of you to avoid turning your neck to the side.
 - (2) Center the monitor in front of you at arm's length distance and position the top of the monitor about seated eye level. You should be able to view the screen without turning or tilting your head up or down.
 - (3) Place the monitor at least 20 to 30 inches away from you (slightly more than an arm's length). Adjust as needed for your visual comfort.
 - (4) If you must use a telephone simultaneously with the computer, use a headset. Never try to hold the handset between your shoulder and ear. If you chose to use a telephone handset, position the telephone close to you to avoid over-reaching.
 - ii) Supported Spine:
 - (1) Place your feet flat on the floor or on a footrest if necessary.
 - (2) Your chair should provide you with good back support. Maximize the contact of your back with the chair back using chair adjustments or cushions as needed.
 - (3) Sit all the way back in the chair against the backrest.
 - (4) Set the back tilt in a slightly reclined position, about 100 degrees.
 - (5) If your chair has an active recline mechanism, use it to change your position from time to time.
 - (6) It is often useful to have armrests. However, they should be adjustable in height and width to allow for resting the arms with your shoulders in a relaxed position.
 - (7) The chair seat depth should be sufficient to support your thighs while providing a small space between the edge of the chair and the back of your knees.
 - iii) Arm/hand Positions:
 - (1) Your computer mouse should be positioned within easy reach. Over-reaching can result in shoulder and/or arm discomfort. If you are reaching out to use your pointer, elevate it on a mouse-bridge, platform or small book to bring it within closer reach.
 - (2) Keep your elbows in a slightly open angle (about 100°) with your wrists in a straight position. The keyboard tilt can help you attain the correct arm position. A negative tilt (front of keyboard higher than back) helps when working in upright sitting positions. If you recline, a positive tilt (front of the keyboard lower than the back) might be necessary.
 - (3) If you cannot adjust your keyboard height, raise your chair and use a footrest.
 - (4) If you sit in an upright position, your keyboard should be placed in a slight negative tilt so that the wrists can be placed in an aligned or neutral position.
 - (5) Your hands should be slightly lower than your elbows with your fingers pointing toward the floor. (Note: If you recline back in your chair, you might not need to tilt the keyboard. Check the alignment of your wrist, and then set the angle of the

keyboard as needed. Your sitting posture will affect how you adjust your keyboard and computer mouse.)

(6) If you use a keyboard tray, it should be wide enough for your computer mouse.

(7) If you use a palm support, use it to support your palms only when pausing between keying. Do not place your wrists on the rest and turn your wrists from side to side to key. This increases the strain on your wrist.

b) **Additional Technique's for Computer/Office Users**

i) Repetitive and prolonged use of a computer keyboard and/or mouse can lead to muscle aches and discomfort. Posture and positioning are important. Try to incorporate the following tips into your work style to avoid problems.

(1) Keep the mouse and keyboard within close reach.

(2) Center the most frequently used section of the keyboard directly in front of you.

(3) Place source documents on a document folder positioned between your monitor and keyboard. If there is not enough space, place documents on an elevated surface close to your screen.

(4) Float your arms above the keyboard and keep your wrist straight when keying.

(5) If you use a palmrest, use it to support your palms when pausing, not while keying.

(6) Hit the keyboard keys with light force. The average user keys four times harder than necessary.

(7) Keep your wrists straight and hands relaxed when using your pointer.

(8) Don't hold the computer mouse with a tight grip or extend fingers above the activation buttons.

(9) Avoid moving the pointer with your thumb or wrist. Movement should originate at your shoulder and elbow.

(10) Reduce keystrokes with macros and software programs such as voice recognition. Reduce pointing device movement with scroll locks and keystroke combinations.

(11) The screen font, contrast, pointer size, speed, and color can be adjusted to maximize comfort and efficiency.

(12) Place your monitor away from bright lights and windows. Use an optical glass glare filter when necessary.

(13) Take periodic eye breaks and intermittently refocus on distant objects. Try palming your eyes in your hands to reduce eye fatigue.

(14) Periodically adjust your body posture.

(15) Non-prescriptive medication or wrist splints can often be more harmful than helpful. Make sure to check with your physician when you have aches and pains that you suspect may be related to your workstation.

2) **Ergonomic Assessments**

a) The CNM Safety Department will conduct an ergonomic assessment of a workstation when triggered by a reactive or proactive request. The Safety Department will use the checklist identified on page 3-5.

b) **Ergonomic Assessment Findings**

- i) When problems are identified, supervisors and employees in the affected areas are notified. The Safety Team, will recommend corrective actions, and follow up to determine the effectiveness.
 - ii) In addition, employees should take steps to prevent musculoskeletal disorders by taking brief breaks and stretching periodically throughout the day. Stretching is an effective way to reduce the effect of risk factors on the body.
- 3) Training/Recordkeeping
- a) Online training courses in office ergonomics will be available to employees per request.
 - b) Safety department shall maintain copies of ergonomics evaluation reports for a minimum of three years.