Evaluation checklist

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| **Work Posture evaluation** | | | | |
| No. | Assessment factor | Yes | No | Comment |
|  | Head and neck are upright and in one line with the torso. (No cervical extension or flexion is noted) |  |  |  |
|  | Head, neck and trunk are in one line and facing forward. (No twisting noted) |  |  |  |
|  | Trunk is upright and at 90 degrees or > 90 degrees to the floor. (Trunk is not leaning forward) |  |  |  |
|  | Shoulders and upper arms are perpendicular to the floor, relaxed and in line with the torso. |  |  |  |
|  | Upper arms and elbows are close to the body are close to the body, in neutral alignment. (They are not extended outward.) |  |  |  |
|  | Forearms, wrists and hands are straight and in one line. |  |  |  |
|  | Wrists and hands are straight and in one line. (Wrist does not show any ulnar/ radial deviation or flexion/ extension. |  |  |  |
|  | Thighs are parallel to the floor and lower legs are roughly perpendicular to the floor. |  |  |  |
|  | Feet are flat on the floor or are supported by a stable foot rest. |  |  |  |

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| **Chair evaluation** | | | | |
| No. | Assessment factor | Yes | No | Comment |
| 1. | The chair has a sturdy 5-legged base that rolls easily. |  |  |  |
| 2. | The chair can revolve 360 degrees to prevent twisting of trunk and to allow easy access to different parts of work surface and to chair adjustment controls. |  |  |  |
| 3. | The chair is adjustable is height with minimum seat height of 16 inches. |  |  |  |
| 4. | Back rest should be at least 15 inches high and 12 inches wide. Back rest should be high enough to support the upper trunk, shoulders and neck. |  |  |  |
| 5. | Back rest should have a lumbar support that should support the area of maximum lumbar lordosis. Height of the lumbar support should be adjustable between 6.5 to 11 inches and thickness may vary between 8 to 9.5 inches. |  |  |  |
| 6. | Back rest should not interfere with the movement of the arms |  |  |  |
| 7. | Back rest should recline at least 15 degrees from vertical and should have a feature that allows to lock the inclination in place. |  |  |  |
| 8. | Back rests that recline more than 30 degrees from vertical should provide for a head rest |  |  |  |
| 9. | Seat pan width is neither too big nor too small and accommodates the user’s thighs. (Minimum width 18 inches) |  |  |  |
| 10. | Seat pan depth should be adjustable. Seat pan depth should be at least 15 to 17 inches long and should not press into the back of the knees and lower legs. (Approx. 2 finger width distance between the front edge of seat pan and the back of knees) |  |  |  |
| 11. | Seat pan is cushioned and has a rounded front edge (no sharp edge) |  |  |  |
| s12. | Seat pain material is firm, neither too soft nor too hard. (Material should be breathable and resilient, in nature) |  |  |  |
| 13. | Seat pan should allow a minimum adjustable tilt of 5 degrees forward and backward. |  |  |  |
| 14. | Arm rests should be adjustable in height. Minimum height adjustment range available should be 7.5 to 10.5 inches and minimum width should support the forearm. |  |  |  |
| 15. | Armrests should not interfere with the movement of the arms during work. |  |  |  |
| 16. | Weight of the worker has been considered. If worker weighs > 275 pounds, special chairs have been considered. |  |  |  |

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| **Keyboard and mouse evaluation** | | | | |
| No. | Assessment factor | Yes | No | Comment |
|  | Keyboard platform is stable and large enough to hold mouse |  |  |  |
|  | Mouse is placed close to the keyboard. Has sufficient cord length. Reaching is avoided, during mouse use. |  |  |  |
|  | Mouse fits the hand’s contour comfortably. |  |  |  |
|  | Wrist and hands are not resting on sharp/hard edges. Palm rests are being used if sharp/square/hard edges exist. |  |  |  |
|  | Keyboard should be thin enough to allow neutral wrist postures. |  |  |  |
|  | Keyboard platform had adjustable height ranging from at least 22 inches to 28 inches from the floor. |  |  |  |
|  | Keyboard platform is wide enough to accommodate both keyboard and the mouse. |  |  |  |

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| **Monitor evaluation** | | | | |
| No. | Assessment factor | Yes | No | Comment |
| 1. | Monitor screen is at least 15 inch to 20 inch wide to allow adequate visibility |  |  |  |
| 2. | The top of the monitor screen is at or below eye level. No neck bending should be needed. |  |  |  |
| 3. | Monitor height is so adjusted that those with bifocal/ trifocal lenses can read with no neck bending |  |  |  |
| 4. | Adequate monitor distance to prevent the forward and backward leaning of neck. |  |  |  |
| 5. | Monitor is directly in front of the user, sot that twisting of neck/ trunk is avoided. |  |  |  |
| 6. | No glare is present on the monitor screen from windows or overhead lighting |  |  |  |
| 7. | Monitor tilt and angle should be adjustable. |  |  |  |
| 8. | For built-in non-adjustable workstations, recommended heights are:  - Seated computer workstation (keyboard and mouse) height should be 27-28 inches  - Standing computer workstation height should be 42-43 inches  - Seated fixed Monitor mounting height (floor to the top of the monitor screen) should be 43-44 inches  - Standing fixed Monitor mounting height (floor to the top of the screen) should be 57-58 inches. |  |  |  |

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| **Desk and other work surface evaluation** | | | | |
| No. | Assessment factor | Yes | No | Comment |
| 1. | Enough leg space is available under the work desk. Minimum depth 15 inches for knees and Minimum depth 24 inches for feet.  (To allow free movement of bilateral lower extremities, allow worker to come close to the keyboard) |  |  |  |
| 2. | Enough leg space is available under the work desk. Minimum width 20 inches. |  |  |  |
| 3. | Work surface height should be adjustable (between 20-30 inches), if used by more than one user for seated workstations. For the individual worker, it should be at the elbow height to the worker, when the worker is sitting in a chair with feet flat on floor. For standing workstations, the height should be adjustable between 37 to 50 inches and for sit to stand workstations the height should be adjustable between 20 to 50 inches. |  |  |  |
| 4. | Work surface should be deep enough to allow placement of keyboard and monitor about 24 inches for flat panel displays and 30 inches for traditional monitors. |  |  |  |
| 5. | Work surface has matte finish to avoid glare |  |  |  |
| 6. | No sharp edges are present at the ends or the corners of the work surface, where the arm may come in contact. |  |  |  |
| 7. | Leading edge of the work surface should be 24 to 27 inches wide to accommodate the arms of the chair. Spaces narrower than this will interfere with armrests and restrict arm movements. |  |  |  |

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| **Accessories evaluation** | | | | |
| No. | Assessment factor | Yes | No | Comment |
|  | Document holder is large enough to hold documents, is stable and adjustable. |  |  |  |
|  | Document holder is at same height and distance as the monitor screen and is placed close to the monitor screen. |  |  |  |
|  | Palm rest should be at least 1.5 inches in depth and directed away from the keyboard to avoid pressure on the wrists and the forearms |  |  |  |
|  | Palm rest has no sharp or square edges. |  |  |  |
|  | Palm rest should match the front edge of the keyboard in width, height slope and contour to allow the wrist and hand to be in straight alignment with the forearm. |  |  |  |
|  | Palm rest should be firm (not too soft nor too hard). |  |  |  |
|  | Telephone, when used, should be used with head in erect posture. Hands-free headsets and speaker feature could be considered. |  |  |  |
|  | If desk lighting is being used, the location, angle and intensity of light should be adjustable. |  |  |  |
|  | If desk lighting is being used, the light should have a hood or filter to direct or diffuse the light. |  |  |  |

**References:**

1. Source: Evaluating your computer workstation. Oregon OSHA. <http://www.cbs.state.or.us/osha/pdf/pubs/1863.pdf>
2. Office ergonomics: Self-assessment worksheet. <http://www.atmos.washington.edu/safety/ErgoSeldAssess.pdf>
3. Computer workstations eTool. OSHA. United Stated Department of Labor. <https://www.osha.gov/SLTC/etools/computerworkstations/checklist_evaluation.html>
4. Standards for Computer Workstation at Duke. Duke Ergonomics Division. <https://www.safety.duke.edu/Ergonomics/Documents/StandardsandGuidelinesforComputerWorkstations.pdf>
5. Working safely with Video Display Terminals. Occupational Safety and Health Administration. United States Department of Labor. <https://www.osha.gov/Publications/videoDisplay/videoDisplay.html> Revised 1997.
6. Easy ergonomics for Desktop Computer Users. Department of Industrial Relations <http://www.dir.ca.gov/dosh/dosh_publications/ComputerErgo.pdf>
7. Rempel D, Barr A, Brafman D, Young E. The effect of six keyboard designs on wrist and forearm postures. Appl Ergon 2007 May;38(3):293-8. Epub 2006 Jun 27.
8. Rempel DM, Krause N, Goldberg R, et al. A randomized controlled trial evaluating the effects of two workstation interventions on upper body pain and incident musculoskeletal disorders among computer operators. Occup Environ Med. 2006 May;63(5):300-6
9. David GC. Ergonomic methods for assessing exposure to risk factors for work-related musculoskeletal disorders. Occup Med (Lond) 2005 May; 55 (3): 190-9.
10. Occhipinti E, Colombini D, Molteni G, Grieco A. Criteria for the ergonomic evaluation of work chairs. Med Lav. 1993 Jul-Aug;84(4):274-85.
11. Lima TM, Coelho DA. Prevention of musculoskeletal disorders (MSDs) in office work: a case study. Work. 2011;39(4):397-408. doi: 10.3233/WOR-2011-1190.