OFFICE ERGONOMICS Assessment Guidelines

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VERSION OEAW306

INTRODUCTION/INSTRUCTIONS

Office Ergonomics Assessment – Guidelines

In a step-by-step fashion *Office Ergonomics Assessment – Guidelines* will assist you to conduct an effective ergonomics assessment.

Please use the *Office Ergonomics Assessment – Worksheet* to record your findings.

The *Guidelines* and *Worksheet* are based on accepted ergonomics principles and applications detailed in the accompanying manual, *A Practical Approach to Office Ergonomics.*

Consumer Approach

The overall approach of the Office Ergonomics Assessment is to consider the person you are assisting as a consumer of his or her office workspace.

After all who sits at their desk? Who uses their computer? Who answers their phone? Who does their work? The answer . . . **THEY DO**!

Relationships

When you reviewed the manual, *A Practical Approach to Office Ergonomics* you learned that ergonomics is all about establishing the correct relationships between the person and their workstation (i.e. chair, work surface, computer equipment, etc.)

When properly set-up with the correct relationships the person will use ergonomics to be more comfortable and productive throughout their day.

In the final analysis the person needs to understand ergonomics and demonstrate **they know how** to adjust their chair, computer equipment, etc. to meet their situation.

In this light, the Assessment has a powerful education and training component; *frankly, do you really want them to call you every time they need to adjust their chair?*

Ergonomics Assessment – Step-by-Step Instructions

To conduct the Assessment please go through each step of the process as outlined below and record your responses on the *Office Ergonomics Assessment – Worksheet.*

Initially to complete the *Worksheet* you will want to use the details provided in *Office Ergonomics Assessment – Guidelines*

After a few assessments you will find the *Worksheet* itself will be sufficient.

Also please note the manual, *A Practical Approach to Office Ergonomics,* provides more in-depth information as does ErgoSystems Ergonomics Solution Center found in the Resources section at www.ergoystemsconsulting.com

The Ergonomics Assessment steps include:

1. Background Information
2. Job Tasks
3. Chair
4. Worksurface
5. Computer and Office Equipment
6. Environmental Factors
7. Recommended Workstation Setup and Specifications
8. Summarize Issues and Recommendations
9. Follow-up

Step One: BACKGROUND INFORMATION

Based on your specific situation you probably will schedule a time to conduct the assessment at the person's workstation – a typical time frame is 15 to 45 minutes; this will vary based on the issues.

When you meet with the individual provide them with information about the intent (consumer approach) and method (relationships approach) of the assessment, how you will convey the results (verbal and/or written report) and how follow-up will take place. Have a chair available for yourself so you can sit with the person as you conduct the assessment. In Step One you will obtain the needed **BACKGROUND INFORMATION**

Name

Date (Of the assessment.)

Department/Location

Job Position/Title

Work schedule (Fulltime, part time, overtime, hours of work, shift, etc.)

Work location (Breakdown by where and how much, e.g. office, conference rooms, travel, etc.)

Body height with shoes (Also find out what range of shoe heel height they wear, for example if one day they wear 1" heels and the next day 3" heels this influences the workstation set-up. Encourage them to wear a consistent heel height at their workstation.)

Cost Center (If needed.)

Hand dominance (Right, Left or Ambidextrous)

Age

Years of employment (At company)

Workstation use – Single or multi-user (Determine if the person has exclusive use or if workstation is shared. Multi-user indicates the need to consider a greater degree of set-up adjustability.)

Vision (Uncorrected. Eyeglasses: single vision, bifocals, trifocals, computer glasses. Contacts. Other.)

Time in present workstation

Reason for the assessment (Determine the impetus to conduct the assessment, this could include: move to a new workstation, change in equipment or furniture, onset of symptoms, etc. Have the person list specific symptoms/concerns and how long this has been an issue.)

Changes made (Have the person list any changes made and if they were helpful.)

Other: (Have the person provide any other pertinent information.)

Step Two: JOB TASKS

The more time spent spend performing one particular task, the greater the possibility of experiencing an ergonomics related problem. In Step Two: **JOB TASKS** you will ask the person to estimate the percentage of the day engaged in various tasks. This is an estimate only; sometimes it is helpful if they average it over the past week or month. This will help you to prioritize any recommended changes.

During a **typical day at work** what percentage of time **do you spend:**	%	What percentage of your average work day do you **devote to tasks** including:	%
• Sitting		• Computer – Data Entry (keyboard/mouse)	
• Standing		• Computer – CAD (Computer Assisted Design)	
• Walking		• Writing	
• Lifting (describe)		• Reading	
		• Telephone	
		• Meetings	
		• 10 key Calculator	
		• Printing	
		• Copying	
		• Filing	
		• Other (describe)	

Step Two also provides an opportunity to encourage the person to get up and move through out the day. We encourage what we call the 30/30/30 Rule. What this means is every 30 minutes or so, do 30 seconds of some other physical activity. For example if they have been sitting for 30 minutes encourage them to get up and walk for 30 seconds, deliver a message, meet with a coworker – they will get the message. (Oh, by the way, the last 30 of the 30/30/30 Rule is to have them try it for 30 days and see if it works and make it a habit!)

Step Three: CHAIR

One of the most important office ergonomics tools is the chair. In Step Three you will identify the chair and determine its features. You will make a determination if the chair is appropriate (fit and maintenance) you will establish the chair specifications and you will ensure the person knows how to adjust the chair. *Please recall that not all chairs have all the adjustments; just because the chair may not have a particular adjustment doesn't make it a bad chair.*

First you will conduct the assessment using the *Chair Checklist* and then you will fill out the *Chair Checklist Corrective Action Summary:*
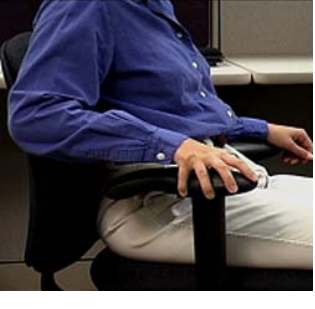
Chair Checklist

For each feature indicate if the chair has the feature and if it is an issue.

FEATURE		HOW TO ADJUST	ISSUE	ILLUSTRATION
Seatpan Height Does the chair's seatpan height adjust up and down?	YES NO	**Look for a lever.** Seated in the chair pull on the lever to adjust the height. Lower the seatpan all the way down and then raise it all the way up by taking a little weight of off the seatpan. Make sure it works correctly. **For now adjust it so your feet are flat on the floor. Later you will need to adjust it based on your worksurface set-up.**	YES NO	
Seatpan Tilt Does the chair's seatpan tilt up and down?	YES NO	**Look for a lever.** If the chair has one, adjust it to tilt it all the way one and then the other way to make sure it works. **For now adjust it so the seatpan is flat (parallel with the floor).**	YES NO	
Seatpan Depth Does the chair's seat move forward or backward?	YES NO	**Look for a lever under the seat.** You may not have this adjustment. If you do, sit all the way back in the chair and adjust the seat so you have 2 to 3" behind the back of the knee and front of the chair. Always avoid pressure behind the knee caused by contact with the front of the chair. **NOTE: If you have contact between the back of the knee and front of the seatpan the seatpan is not the correct size and the chair should be adjusted or replaced.**	YES NO	
Seatpan Fit Does the chair's seat fit your body size?	YES NO	**Chair seat size** needs to comfortably accommodate your hips and thighs in terms of width and depth. Allow 1 to 2" on each side. Either too much or too little distance indicates a problem. **NOTE: If the chair is not the correct size it should be replaced.**	YES NO	

Casters Does the chair roll easily on the floor surface?	YES NO	**To roll easily and safely** you should have hard plastic casters on carpet, softer rubberized casters on tile. Also look for damaged or worn flooring that may limit mobility. **NOTE: A chair that does not roll easily indicates the casters should be replaced or a chair mat should be used.** NOTE: The chair should have a minimum of a 5-point support system for the chair legs. This is specifically intended to reduce the likelihood of inadvertently tipping over the chair.	YES NO	
Seatpan Tension Can you adjust the seatpan tension?	YES NO	**Look for a knob under the chair.** Turn it clockwise to tighten and counterclockwise to loosen. How much is based on body weight - you want enough tension to provide support when you rock back but not so much it launches you out of the chair! **NOTE: With the tension as tight as it goes if you still do not have adequate support the chair should be replaced.**	YES NO	
Back Support Height Does your chair's back support move up and down?	YES NO	**To adjust back support look for:** Knob where the back support attaches to the chair. Lever on the back support to released the lock. If no knobs or levers exist pull up on the back support, if it moves easily pull it all the way up and then let it all the way down AND then pull it up one notch at a time to adjust it. Move the back support all the way up and down to ensure it works. Position the back rest to accommodate the natural curves of your spine. **NOTE: if you can not obtain proper back support the chair should be replaced.**	YES NO	
Back Support Angle Does your chair's back rest angle forward or backward?	YES NO	**Look for a lever.** Pull up on the lever to angle the back support all the way from upright to angled back to make sure it works. Adjust it to sit upright in the chair. **NOTE: if you can not obtain proper back support the chair should be replaced.**	YES NO	

Armrests Adjust Do your chair's armrests adjust up and down and/or side-to-side?	YES NO	**Look for a control on the armrest.** Move the armrests all the way up and down and/or side-to-side to ensure they work. Adjust them so they support your elbows with your shoulders in a comfortable position. **NOTE: if you can not obtain proper arm support the armrests should be replaced or a different chair obtained.**	YES NO	
Maintenance Is your chair functioning properly (no maintenance problems)?	YES NO	A chair with maintenance problems is a safety hazard. Make sure you report any maintenance problems to your supervisor or Health and Safety Representative. **NOTE: A maintenance problem indicates the chair should be replaced or repaired.**	YES NO	

Chair Checklist Corrective Action Summary

Summarize your findings in the chart below and take Corrective Action as indicated.

Chair Brand/model			
Feature	**Issue?**		**Corrective Action**
Seatpan Height	YES	NO	Based on workstation setup if chair can not be appropriately adjusted it should be replaced.
Seatpan Tilt	YES	NO	Based on workstation setup if chair can not be appropriately adjusted it should be replaced.
Seatpan Depth	YES	NO	Seatpan is not the correct size and should be replaced.
Seatpan Fit	YES	NO	Chair is not the correct size and should be replaced.
Casters	YES	NO	Casters should be replaced or a chair mat should be used.
Seatpan Tension	YES	NO	Chair should be replaced.
Back Support Height	YES	NO	Chair should be replaced.
Back Support Angle	YES	NO	Chair should be replaced.
Armrests Adjust	YES	NO	Armrests should be replaced or a different chair obtained.
Maintenance	YES	NO	Chair should be replaced or repaired.
OVERALL FIT	YES	NO	If **NO,** chair should be replaced.
COMMENTS:			

Step Four: WORKSURFACE

In Step Four you will assess the worksurface type. **NOTE: You will determine actual set-up specifications in Step Seven – RECOMMENDED WORKSTATION SETUP and SPECIFICATIONS**

For now determine the worksurface criteria:

- ▪ Shape: Straight, L-Shaped or Corner
- ▪ Adjustability: Fixed height or Adjustable height
- ▪ Support: Modular on wall panel or Stand-alone desk
- ▪ Present worksurface height: " (fill in)

Step Five: COMPUTER and OFFICE EQUIPMENT

In Step Five you will assess the type of computer and office equipment in use to determine if it is suitable or needs to be modified. You will also start to establish the set of specifications for set-up including heights and distances.

Document equipment (type, placement and use)

Have the person perform a short demonstration of typical use of the computer and office equipment. Look to see if they are in compliance with the ergonomics principles (be particularly mindful of neutral body/extremity positions and the reach zone parameters.) Document the set-up.

Keyboard/Keyboard Tray

1. **Configuration** Keyboard configuration is a matter of personal preference. The proper height and placement of the keyboard is most important.	**Straight**-line 	**Curved** 	**Articulated** 	**Other** (fill in)
2. **Connection**	**Wireless**: not tied down by the cord, requires batteries **Corded**: tied down by cord, powered by computer (no batteries)			
3. **Keyboard placement**	**Worksurface** Keyboard placed directly on the worksurface. 		**Tray** Keyboard placed on a keyboard tray mounted to the worksurface. 	
4. **If keyboard tray**	Height adjustable: YES/NO Angle adjustable YES/NO Height of tray: " (as measured from the top of the keyboard tray surface to the floor) Angle of tray: FLAT, TILTED UP, TILTED DOWN			
5. **Wrist rest: YES/NO**	A wrist rest can be helpful. Wrist rests should be of the gel type and be the same height as the keyboard. The wrists should NOT be 'anchored' to the rest; rather the arms should be allowed to float side-to-side over the keyboard. IF YES, what type: FOAM or GEL If YES, attached to TRAY or FREE FLOATING			

6. **Keyboard technique**	**Piano Player** Elbows relaxed at sides, wrists straight as keyboardist types by 'floating' over the keyboard – many times person is a trained typist and maybe actually be a piano player!	**Forearm Supporter** Pull up close to the worksurface, push keyboard forward on the worksurface and place forearms on the worksurface to support the forearms.
7. **Keyboard skill level**	Reasonable typing skill YES/NO (Demonstrated by ability to use 10 finger technique with minimal looking at keys with speed exceeding 50 words per minute) If not recommend taking a typing tutorial to improve skill level.	
8. **Keyboard shortcuts**	Makes use of keyboard shortcuts to reduce dependence on the mouse: YES/NO If not recommend learn and use as many keyboard shortcuts as possible.	
9. **Neutral position**	Able to be in neutral position of arms and body when using keyboard: YES/NO Examples of out of neutral keyboard position illustrated below:	

Mouse/Mouse Tray

1. **Configuration** Mouse types vary: shell, roller ball/track ball, touch pad, pen, joystick, etc. Mouse type is a matter of personal preference. The proper height and placement of the mouse is most important.	**Traditional (shell)**	**Rollerball/ Trackball**	**Touchpad**	**Pen/Tablet**
	Vertical	**Joystick**	**Roller Mouse**	**Other** (fill in)

2.	**Connection**	**Wireless**: not tied down by the mouse 'tail', requires batteries or charger **Corded**: tied down by mouse 'tail', powered by computer (no batteries)			
3.	**Type**	**Mechanical**: has a ball and rollers that require periodic cleaning and mouse pad for smooth curser control.		**Optical**: never needs cleaning, provides for smoother curser control, and may require a mouse pad.	

4.	**Scroll wheel**	**YES/NO** If NO recommend the mouse be replaced with one with a scroll wheel. Also ensure user knowledge of how to use the scroll wheel including the auto-scroll feature.

5.	**Mouse placement**	**Worksurface** Mouse placed directly on the worksurface.	**Tray** Mouse placed on a mouse tray mounted to the worksurface, typically attached to keyboard tray.

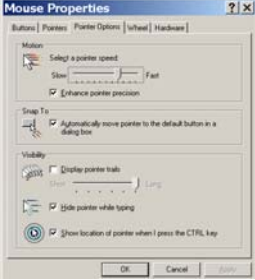|		
6.	**If mouse tray (see Neutral Position below)**	Height adjustable: YES/NO Angle adjustable YES/NO
7.	**Wrist rest: YES/NO**	A wrist rest can be helpful. Wrist rests should be of the gel type and be the same height as the keyboard. The wrists should NOT be 'anchored' to the rest; rather the arms should be allowed to float side-to-side as the mouse is used. IF YES, what type: foam or gel If YES, attached to tray or free floating

8.	**Wrist rest limits arm movement: YES/NO**	Many mouse pads have a built in wrist rest that may act as an 'anchor' to force the hand to move at the wrist to control the mouse. Result is excessive wrist wear and tear. Remove the wrist rest and ensure the mouse is at the correct level in relation to the keyboard.	
9.	**Mouse technique**	**Piano Player** Elbows relaxed at sides, wrists straight as mouse is maneuvered.	**Forearm Supporter** Pull up close to the worksurface, push mouse forward on the worksurface and place forearms on the worksurface to support the forearms.

10.	**Keyboard shortcuts**	Makes use of keyboard shortcuts to reduce dependence on the mouse: YES/NO If NO recommend learn and use as many keyboard shortcuts as possible.
11.	**Mouse setup via software**	Mouse buttons and curser control setup properly via soft ware control: YES/NO If NO change as needed. For software control go to Mouse in the Control Panel (from the Desktop: START>>CONTROL PANEL>>MOUSE>>MOUSE PROPERTIES NOTE: What you see may vary from mouse to mouse but typically will include (we have noted the ones we use most frequently):

	Buttons
	Button configuration: allows you quickly to switch primary (left click) and secondary (right click) buttons. Use when switching to opposite hand mouse use.
	Double-click speed: slow down or speed up double click.
	ClickLock: highlight or drag without holding down mouse button.
	Pointer Options
	Motion: select how fast you want the curser to move in response to mouse movement
	Snap To: automatically moves curser to default button in dialog box (this will significantly reduce mouse use).
	Visibility: shows location of pointer when CTRL key is pressed.

12. Neutral position	Neutral position of arms and body when using mouse: YES/NO
	Pay close attention to level of mouse in relation to the keyboard, many mouse trays tend to put the mouse too low. May need to build up the mouse tray to level it with the keyboard or replace it.

Low Mouse Tray	**Level with Keyboard Mouse Tray**

Other examples of out of neutral mouse positions are illustrated below:

Monitor

1. **Type**(determine the type of the monitor)	**CRT (cathode ray tube)**	**LCD (flat panel)**
2. **Placement: alignment, height and distance** (Have the person sit as they typically would to view the monitor. They sometimes will change how they sit when observed and you will get an inaccurate measurement. It is most natural for our eyes to look out and down when reading. Looking up is more demanding on our eyes and neck.	**Alignment:** is the monitor aligned to allow neutral head and neck position YES/NO If NO, determine why it is positioned off to the side. **Height:** top of screen at or lower than eye level YES/NO If NO, determine how much too low or too high. **Distance:** screen at least arm's length away YES/NO If NO, determine how much too close or far away.	
3. **Eyeglasses/Contacts** (If bifocals, trifocals, etc. are worn accommodations will need to made to ensure a neutral head position	**Eyeglasses/contacts** Are eyeglasses/contacts needed YES/NO If NO, can the person see clearly YES/NO • IF NO, determine why not (may need to recommend eye exam, improve lighting, improve monitor and hardcopy position, etc.) • If YES, what type are worn (information obtained when you received the Background Information IF bifocals or trifocals are used is the head and neck position neutral: YES/NO If NO, recommend changes (change monitor height and distance, change in eyeglasses to computer glasses)	
4. **Brightness/Contrast** (typically adjusted via controls located on the front of the monitor, unfortunately there is no standard for the controls, you will need to experiment.	**Brightness/Contrast** adjusted based on user comfort level YES/NO If NO, adjust to user preference.	
5. **Resolution** (to determine screen resolution, go to desktop, right click to open dialog box, left click Properties, left click Settings, see Screen resolution)	**CRT:** determine resolution, appropriate YES/NO If NO, change resolution to desired setting. **LCD:** determine if set to native resolution; this is the typically the highest resolution the monitor can run; this will provide the crispest image If NO change to native resolution and see Font and Icon size below (you will probably need to increase both Font and Icon size to allow for comfortable viewing.)	
6. **Desktop color scheme** (to determine color scheme, go to desktop, right click to open dialog box, left click Appearance, choose a different Color scheme. Also you can change Font size to Extra large if you want to.	**Acceptable:** YES/NO If NO, experiment with difference color schemes.	

7. Glare	**Glare:** YES/NO
	If YES: identify source of the glare (overhead lights, task lights, windows, other bright source, etc.) and modify as needed.
8. Cleaning	**Monitor screen clean:** YES/NO
	If NO, encourage the monitor be cleaned, use proper cleaning method:
	Turn off the monitor and the computer. Dust the monitor by wiping the screen and the cabinet with a soft, clean cloth. If the screen requires additional cleaning, use a clean cloth dampened with isopropyl alcohol.
	Do not use benzene, thinner, ammonia, or any volatile substance to clean the monitor screen or cabinet. These chemicals may damage the monitor. Never use water to clean an LCD screen
9. **Font and Icon size** (if the user has a difficult time reading the screen, check if the font size is too small, the monitor too far away or the person needs an eye exam)	**Font and Icon size acceptable:** YES/NO
	If NO determine cause and make recommendations.
	Here are some strategies to increase font size, they do involve some work to implement but can be well worth the time.
	Windows default text size
	The very first thing to do is to increase your default Windows text size to Extra Large. Here is how: (if you have an LCD monitor first make sure you are displaying in native resolution)
	1. Go to **Desktop**
	2. Right mouse click in any open space on the desktop to open the dialog box.
	3. Click **Properties**
	4. Click **Settings**
	5. Click **Advanced**
	6. Select **Extra Large** font size under **Display**
	7. Click **OK**
	This will increase the size of Desktop Icon text, Toolbar text and Dialog Box text. It will not change text size in software like Work, Excel and Outlook.
	Word and Excel text size
	In software like Word and Excel use the zoom feature to increase text size. Here is how:
	1. In the Tool bar select the **Zoom 100%** tool and either select a default value like 150% or type in the desired zoom, for example 125%.
	2. Alternatively use the scroll wheel on your mouse by holding the **Ctrl** key and **roll the wheel** to make the text larger or smaller (pretty cool, huh?)
	Outlook text size
	Your Outlook Inbox and Outbox will still have small text (the default is 8 pt). Here is how to increase text size (NOTE: you will have to repeat this in both the Inbox and Outbox separately):
	1. On the **View** menu, point to **Arrange By**, point to **Current View**, and then click **Customize Current View**
	2. Click **Other Settings**
	3. Click **Row Font**
	4. In the **Size** box, type the font size that you want to use for your e-mail list, and then click **OK** three times

Computer:

1. **Computer type** (two main types are desktop and laptop)	**Desktop:** YES/NO If YES answer questions below:	**Laptop**; YES/NO If YES answer questions below:
2. **Computer placement** (indicate where the computer is located)	**Floor** (indicate where) **Desktop** (indicate where) **Other** (indicate where)	**Docking station** (unit that laptop plugs into to provide separate peripherals): YES/NO If YES, is there a separate: - Keyboard: YES/NO - Mouse: YES/NO - Monitor: YES/NO If NO, does use of laptop allow adequate neutral body position: YES/NO IF NO, consider use of docking station for separate peripherals (keyboard, mouse and monitor)
3. **Computer access** (to on/off switch, disc drives and ports)	**Easy access to:** On/Off switch: YES/NO Disc drives: YES/NO Ports: YES/NO If NO to any above, reposition desktop	**Easy access to:** On/Off switch: YES/NO Disc drives: YES/NO Ports: YES/NO If NO to any above, reposition laptop

Document holder:

1. **Need for document holder**	**Computer workstation** Are documents viewed at the workstation: YES/NO IF YES, is there a document holder to allow for neutral head and neck position YES/NO If YES, document type (landscape, portrait) and position (attached to side of monitor, off to side on worksurface, between monitor and keyboard) If NO, recommend document holder.	**Writing/Reading workstation** Are documents read or written on at the workstation: YES/NO IF YES, is there a document holder to allow for neutral head and neck position YES/NO If YES, document type (landscape, portrait) and position on worksurface (off to side or in front of user) If NO, recommend document holder.

Telephone

1. **Type**	**What type of telephone is available:** - Handset - Headset – wired - Headset - wireless - Speaker phone If only a handset, is the phone used more than one hour a day and/or for calls longer than 5 minutes YES/NO If YES recommend use of headset (wireless if movement around the

	office is needed) or speaker phone.
	If only a handset, is the phone used when also at the keyboard or writing notes frequently YES/NO
	If YES recommend use of headset or speaker phone.
2. Location	**Which hand does is used to dial the telephone:**
	• Right
	• Left
	Is the telephone located on the same side as the hand used to dial: YES/NO
	If NO, reposition the telephone, consider if a stand is needed.
	Is the telephone located within easy reach: YES/NO
	If NO, reposition the telephone, consider if a stand is needed.

Other office equipment and supplies

1. Location (determine if other office equipment– printers, 10-key calculators, fax machines, etc.- are located in the user's reach zone)	**Is other office equipment located within easy reach:** YES/NO
	If NO, identify the objects and reposition them.

Desktop and secondary file storage

1. **Desktop** – includes frequently accessed office tools, equipment and materials. Place these frequently used items **within easy reach** and avoid frequent overhead reaches or situations that require twists and reaches behind the body.	**Is desktop and secondary storage adequate** YES/NO
2. **Secondary** – includes file drawer, shelf and cabinet storage. Store **heavy and less frequently accessed items to minimize** lifting, reaching, twisting or carrying.	If NO, identify the objects and reposition them.

Step Six: ENVIRONMENTAL FACTORS

Lighting

Computer work requires lower overall light levels than paper-oriented desk work.	**Do you have adequate ambient and task lighting** YES/NO
Ambient lighting – provide adequate ambient illumination levels to provide suitable ingress/egress.	If NO, identify the issues (too little, too much, shadows, etc.) and recommend changes.
Task lighting – provide adequate task lighting focused on hard copy and other areas where reading is required other than computer monitor viewing.	
Accomplished with adjustable position and illumination intensity desktop, under cabinet or wall mounted task lighting.	

Noise, Ventilation, Temperature and Humidity

Here are some basic recommendations to create a moderate environment: **Noise**: ambient sound levels not higher than 55 decibels (dBA), moderate conversation levels. **Ventilation**: control unwanted air movement and work to eliminate areas of 'dead' air flow. **Temperature**: moderate temperature as feasible based on group consensus. Recognize it is **not possible to get an entire group to agree on one temperature comfortable to all**. Make use of personal controls (sweaters, fans, heaters as allowed, etc.) **Humidity**: Control work environment humidity as feasible to **maintain comfortable levels,** typical range of 20 to 40%	**Does workplace have a** moderate environment **in terms of noise, ventilation, temperature and humidity** YES/NO If NO, identify the issues and recommend changes.

Step Seven: RECOMMENDED WORKSTATION SETUP and SPECIFICATIONS

In Step Seven you will develop the set of **Recommended Workstation Setup and Specifications**. They can be used to document the results of the present assessment and they really earn their keep when the individual moves to a new workstation in the future and they have a record of how to set it up.

How the workstation is set up depends on one critical point: **Can the height of the work surface be adjusted?**

- If the work surface height **CAN** be adjusted (panel mounted work surface, free-standing height adjustable or keyboard tray) **FIRST** adjust the chair seat height to place feet firmly on the floor and **THEN** adjust everything else to match.

- If work surface height **CAN NOT** be adjusted (fixed height desk) **FIRST** adjust the seat height to place hands at the correct height to use the keyboard/mouse and **THEN** adjust everything else to match.

Here is the list of specifications and how to take the measurements:

1. **Seatpan height** is measured as the distance from the floor to the seatpan (at the side of the seatpan) with the user in the chair. Seatpan height is based on _____" shoe heels.

2. **Seatpan depth** is measured from the front to the back of the seatpan and should allow for at least 2" between the front of the chair and back of the knee.

3. **Seatpan width** is measured from side-to-side of the seatpan and should allow 1" to 2" on each side of the hips.

4. **Armrest floor** is measured from the top of the armrest to the floor.

5. **Worksurface height** is measured from the top of the worksurface to the floor.

6. **Worksurface configuration** describe the layout and adjustability (straight-line, L-shape or corner and fixed height or adjustable.)

7. **Pointing device** (mouse) and **keyboard height** is the distance from the floor to the top surface of the platform that the keyboard/mouse rest on. (It is not to the top of the keyboard.)

8. **Monitor screen distance** is measured from the eyes (center of the brow between eyes) to the screen.

9. **Monitor screen height** is measured from the floor to the top of the monitor screen (not the top of the monitor bezel.)

Step Eight: SUMMARIZE ISSUES AND RECOMMENDATIONS

Review the Worksheet. Come up with a list of **possible suggestions** to make the workspace safer and more comfortable. In many cases the person will be able to make improvements for themselves – with simple adjustments and a little reorganization. In other cases you may need help from a supervisor or whoever provides ergonomics assistance.

Implement the recommendations.

Step Nine: FOLLOW-UP

Step Nine: FOLLOWUP is the most important step of the entire assessment process.

Ergonomics Analysis Level

The first level of follow-up is at the ergonomics analysis level. Evaluate the outcome of the specific ergonomics analysis with these points in mind:

- Specific to a particular analysis what was the result?
- Did the recommendations work?
- What fine tuning was needed?
- How well was the modification accepted?

Ergonomics Process Level

Ever heard of Murphy's Law? Well it applies to the ergonomics process as well. While good planning can certainly help you avoid pitfalls, ergonomics like any other process will have strengths and weaknesses. Re-evaluation of the whole process with fine tuning based on lessons learned is necessary to sustain and grow the ergonomics process. Proper outcomes evaluation makes up the ergonomics process level follow-up. On-going measures are compared to the initial performance measures.

- Compare at set intervals (1, 3, 9, and 12-month intervals).
- Determine changes in performance measures.
- Detail lessons learned to modify the interventions.
- Reevaluate and repeat the analysis steps.