

Appendix 23-A

Physical Risk Factor Ergonomic Checklist

The Physical Risk Factor Ergonomic Checklist can be used as a screening tool to identify ergonomic stressors in the workplace. For each category determine whether the physical risk factors rate as a "caution" or "hazard" by placing a check (✓) in the appropriate box. Risk of developing a Work-Related Musculoskeletal Disorder is increased when ergonomic risk factors occur in combination.

If a hazard exists, it must be reduced below the hazard level or to the degree technologically and economically feasible.

If the task rates a "caution", then it should be periodically reevaluated since changes in the work environment may create new ergonomic stressors. Ensure significant contributing physical or personal risk factors are not present.




The checklist can be used for typical work activities which are a regular and foreseeable part of the job, occurring more than one day per week, and more frequently than one week per year.

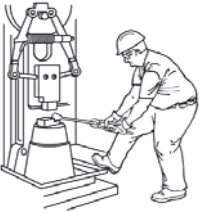


OPNAV 5100/20(2-05)



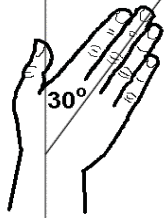
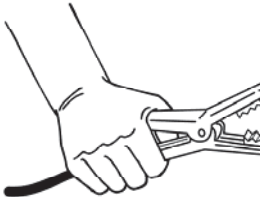

Evaluator:		Date:	
Department Name:	Location:	POC Name:	Phone Number:
Job Position Evaluated:		Number of employees performing job:	
Follow-up Date:		Email address:	

Recommendations / Follow-up / Job Description:
--



AWKWARD POSTURE



	Caution	Hazard	Comments
 <p>1. Working with the hand(s) above the head, or the elbow(s) above the shoulders</p>	<input type="checkbox"/> more than 2 hours total per day	<input type="checkbox"/> more than 4 hours total per day	
 <p>2. Repeatedly raising the hand(s) above the head, or the elbow(s) above the shoulder(s) more than once per minute</p>	<input type="checkbox"/> n/a	<input type="checkbox"/> more than 4 hours total per day	
 <p>3. Working with the neck bent (without support and without the ability to vary posture)</p>	<input type="checkbox"/> more than 30 degrees for more than 2 hours total per day	<input type="checkbox"/> - more than 30 degrees for more than 4 hours total per day, or <input type="checkbox"/> - more than 45 degrees more than 2 hours total per day	





 <p>4. Working with the back bent forward (without support and without the ability to vary posture)</p>	<input type="checkbox"/> more than 30 degrees for more than 2 hours total per day	<input type="checkbox"/> - more than 30 degrees for more than 4 hours total per day, or <input type="checkbox"/> - -more than 45 degrees more than 2 hours total per day	
 <p>5. Squatting</p>	<input type="checkbox"/> more than 2 hours total per day	<input type="checkbox"/> more than 4 hours total per day	
 <p>6. Kneeling</p>	<input type="checkbox"/> more than 2 hours total per day	<input type="checkbox"/> more than 4 hours total per day	


HIGH HAND FORCE			
	Caution	Hazard	Comments
 <p>7. Pinching an unsupported object(s) weighing 2 or more pounds per hand, or pinching with a force of 4 or more pounds per hand</p>	<input type="checkbox"/> more than 2 hours per day (comparable to pinching half a ream of paper or the force required to open two wooden clothespins)	<input type="checkbox"/> - more than 4 hours per day with no other risk factors, or - more than 3 hours day with highly repetitive motion, or - more than 3 hours per day with significant wrist deviation in flexion ($> 30^\circ$), extension ($> 45^\circ$), ulnar deviation ($> 30^\circ$)	 <p>Extension</p>  <p>Deviation</p>
 <p>8. Gripping an unsupported object(s) weighing 10 or more pounds per hand, or gripping with a force of 10 or more pounds per hand</p>	<input type="checkbox"/> more than 2 hours total per day (comparable to clamping light duty automotive jumper cables onto a battery)	<input type="checkbox"/> - more than 4 hours per day with no other risk factors, or - more than 3 hours day with highly repetitive motion, or - more than 3 hours per day with significant wrist deviation in flexion	 <p>Flexion</p>

		($> 30^\circ$), extension ($> 45^\circ$), flexion, or ulnar deviation ($> 30^\circ$)	
--	--	--	--

HIGHLY REPETITIVE MOTION			
	Caution	Hazard	Comments
 <p>9. Repeating the same motion with the neck, shoulders, elbows, wrists, or hands (excluding keying activities) with little or no variation every few seconds</p>	<input type="checkbox"/> more than 2 hours total per day	<input type="checkbox"/> - more than 6 hours per day with no other risk factors, or <input type="checkbox"/> - more than 2 hours per day with wrists bent in flexion ($> 30^\circ$), extension ($> 45^\circ$), or ulnar deviation ($> 30^\circ$) AND high, forceful exertions of the hand(s)	
 <p>10. Performing intensive keying</p> <p>Reference: Appendix 23-B Computer Workstation Checklist</p>	<input type="checkbox"/> more than 4 hours total per day	<input type="checkbox"/> Either: <input type="checkbox"/> - more than 7 hours per day with no other risk factors, or <input type="checkbox"/> - more than 4 hours per day with wrists bent in flexion ($> 30^\circ$), extension ($> 45^\circ$), or ulnar deviation ($> 30^\circ$)	

REPEATED IMPACT			
	Caution	Hazard	Comments
 <p>11. Using the hand (heel/base of palm) or knee as a hammer</p>	<input type="checkbox"/> more than 10 times per hour more than 2 hours total per day	<input type="checkbox"/> more than once per minute more than 2 hours total per day	
HEAVY, FREQUENT OR AWKWARD LIFTING			
	Caution	Hazard	Comments
 <p>12. Lifting object (Heavy)</p>	<input type="checkbox"/> Weighing more than 75 pounds once per day or more than 55 pounds or more than 10 times per day	<input type="checkbox"/> For exposures that exceed caution level perform lift analysis using the NIOSH Lifting Equation or the current Lifting Index in the ACGIH TLV guide	

	<p>13. Lifting objects (Frequent)</p>	<p><input type="checkbox"/> Weighing more than 10 pounds if done more than twice per minute</p> <p>Or</p> <p>more than 2 hours total per day</p>	<p><input type="checkbox"/> For exposures that exceed caution level perform lift analysis using the NIOSH Lifting Equation or the current Lifting Index in the ACGIH TLV guide</p>	
	<p>14. Lifting (Awkward posture)</p>	<p><input type="checkbox"/> Objects weighing more than 25 pounds above the shoulders, below the knees or at arms length</p> <p>Or</p> <p>more than 25 times per day</p>	<p><input type="checkbox"/> For exposures that exceed caution level perform lift analysis using the NIOSH Lifting Equation or the current Lifting Index in the ACGIH TLV guide</p>	
MODERATE TO HIGH HAND- ARM VIBRATION				
	<p>15. Using impact or percussive type tools such as impact wrenches, carpet strippers, chain saws, percussive tools (jack hammers, scalers, riveting or chipping hammers) or other tools that typically have high vibration levels</p>	<p><input type="checkbox"/> more than 30 minutes total per day</p>	<p><input type="checkbox"/> For exposures that exceed caution level more than 30 minutes total per day - perform analysis using the Hand - Arm Vibration Analysis Tool Guide in the ACGIH TLV guide</p>	

 <p>16. Using grinders, sanders, jigsaws or other hand tools that typically have moderate vibration levels</p>	<input type="checkbox"/> more than 2 hours total per day	<input type="checkbox"/> For exposures that exceed caution level more than 2 hours total per day - perform analysis using the Hand - Arm Vibration Analysis Guide in the ACGIH TLV guide	
---	--	--	--

Drawings / Comments: