



Ergonomics Checklist for General Industry Workstation Adjustments

PART 2:

Ergonomic Risk Factor Checklist

The checklist in this section is a quick way to identify on-the-job risk factors for MSDs. **One checklist should be used for each employee. Each task an employee performs is scored separately. If more than one task is performed, the scores are added together.**

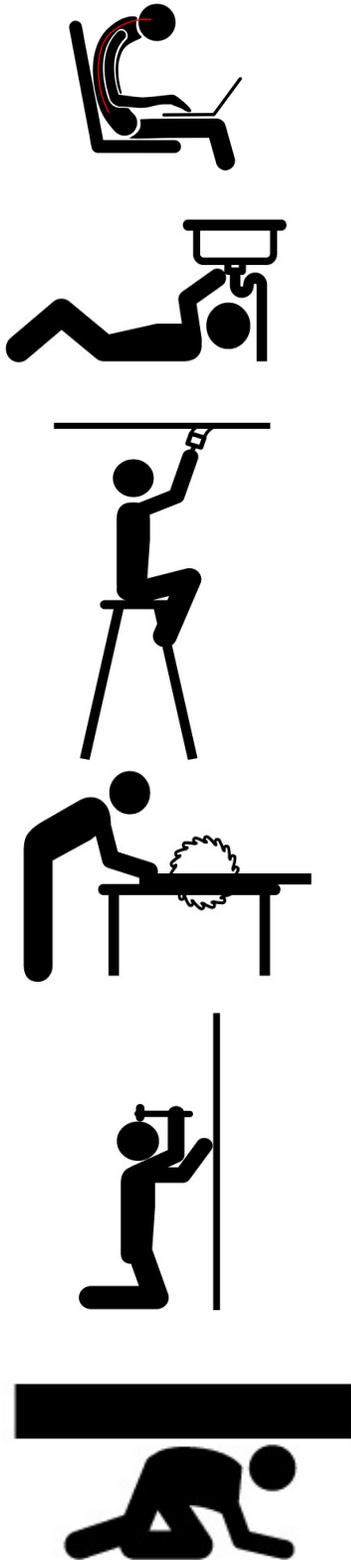
Each risk factor is scored by the length of time (the duration) the employee does the task. In the case of “repetitive motion” (see page 16), the task is scored a 0 for 5 to 59 minutes, 1 for 1 to 4 hours, or 3 for more than 4 hours. However, if the employee performs a repetitive task multiple times during a shift, such as bending and twisting the hand for the first 50 minutes of the shift and again in the last 50 minutes of the shift, the total duration the employee performs the task is 1 hour and 40 minutes, or a score of 1 (not 0 + 0). **For any score of six or more, employers should conduct a job safety analysis to make corrections or modifications for the safety of the employee.**

On the right is a list of “Terms to Know” that corresponds to the numbered questions in the checklist. Review these terms before beginning the checklist to better understand and identify the risk factors that can cause injury.

Terms to Know

- 1. Repetitive** means motions or motion patterns repeated every few seconds. Examples include repetitive twisting or bending of the hand or wrist.
 - a. Motion** is a voluntary muscle exertion to do work with or without a change in posture. For example, performing 10 wrist motions per minute or two shoulder motions per minute.
- 2. Hand force (repetitive force)**
 - a. Power grip** means holding an object that weighs more than 10 pounds (such as a big crowbar).
 - b. Pinching** means holding an object that weighs more than 2 pounds with the tips of the fingers.
- 3. Awkward postures (repetitive or static)** include work that causes a twisted, bent, or pinched neck, elbows, forearms, hands, wrists, or trunk; overhead work where arms are extended above the shoulders; and squatting or kneeling.
 - a. Static load** means the continuous exertion of a body part for more than five minutes such as when an employee works with their hands above their head.
- 4. Using power tools** impart different types of stresses on the body based on the vibration and torque produced. Examples include jackhammers, grinders, and chainsaws.
- 5. Contact stress** results from the repeated sustained (static) contact of a hand, arm, or other body parts with a solid object or hard surface. This may be due to the use of poorly designed tools such as pliers or scissors, resting an arm or palm on the edge of the desk, or repeatedly using a hand as a hammer.

Illustrations of awkward postures



6. Unsupported fixed postures often occur in jobs that are highly repetitive or require intense concentration that may cause the worker to maintain the same posture for extended periods without support. Examples include stationary standing, or feet dangling from a chair without support.

7. Environment in the workplace can include cold temperatures, poor lighting, and glare. Cold temperatures can impair muscle and tendon function. Glare occurs when light is reflected off of a screen or object. It also occurs when light shines directly in the eyes making it difficult to see. Continuous whole-body vibration from using jackhammers, operating equipment, or driving, fatigues muscle groups and can result in microfractures of the spine.

8. No employee control over the work pace-The inability to affect the rate at which work is accomplished, for example, in a machine-paced or assembly line job, creates a higher risk for MSDs.

9. High visibility demands-Concentration and visual focus on rapidly moving or complex displays cause fatigue and neck muscle tension. Examples include using a microscope for electronics assembly or repetitive inspection tasks.

10. Push/pull, lift/lower, carry 10+ feet-Determine the weight of the object, if possible, that will be pushed, pulled, lifted, lowered, or carried more than 10 feet. Push and pull forces are difficult to determine without a strain gauge but can be estimated by asking employees to rate the difficulty of the task. "Easy" is similar to pushing an empty shopping cart. "Moderate" is like pushing a full shopping cart. "Heavy" is like pushing a car.



General Risk Factor Checklist

Job _____ Department _____ Date _____

Time _____ Employee _____

Analyst _____

Risk Factor	Duration (amount of time a worker is exposed to a risk factor during a shift)			Cause of Risk Factor or Comments	Sub Total
	5 to 59 Minutes	1 to 4 Hours	More than 4 hours		
1. Repetitive motion (every few seconds)	0	1	3		
2. Hand force (repetitive force)					
a. Power grip 10+ pounds	1	2	3		
b. Pinch object	1	2	3		
3. Awkward postures (repetitive or static)					
Neck: twist/bend	0	1	2		
Shoulder: overhead work	0	1	2		
Shoulder: extended reach	0	1	2		
Elbow/forearm: twist	0	1	2		
Hand/wrist: bend/twist/pinch	0	1	2		
Trunk: twist/bend	0	1	2		
Knee: squat/kneel	0	1	2		
4. Using power tools	0	1	2		
5. Contact stress/hand hammering	0	1	2		
6. Unsupported fixed postures	1	2	3		

Risk Factor	Duration (amount of time a worker is exposed to a risk factor during a shift)			Cause of Risk Factor or Comments	Sub Total
	5 to 59 Minutes	1 to 4 Hours	More than 4 hours		
7. Environment (cold temperature, poor lighting, light, and glare)	0	1	2		
8. No employee control over the work pace	0	1	2		
9. High visibility demands	0	1	2		
10. Push/pull Easy Moderate Heavy	0 0 1	1 1 2	1 2 3		
Lift/Lower	0 to 6				
Carry 10+ Feet	0 to 6				
Employee Comments:					Total Risk Factor*

*** Jobs with a risk factor score of 6 or more require a job safety analysis.**