

5 Steps to Conducting an Effective Ergonomic Risk Assessment

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Conducting an ergonomic assessment is a foundational element of the ergonomics process. Your ergonomics improvement efforts will never get off the ground without being able to effectively assess jobs in your workplace for musculoskeletal disorder (MSD) risk factors.

Systematically conducting ergonomic risk assessments gives you a clear view of the risk present in your workplace. This clear view of MSD risk factors will allow you to effectively communicate, prioritize, and implement workplace improvements.

Because ergonomic assessments are the backbone of the ergonomics improvement process, it's important to be effective and efficient with your assessments.

Following are five steps to conduct an effective ergonomic risk assessment.

Step 1: Establish a Common Ergonomic Assessment Method and Set of Tools

Every ergonomic assessment your organization conducts should use the same method and set of tools. Standardizing ergonomic assessments throughout the organization ensures an “apples to apples” comparison of MSD risk factors between jobs.

Every ergonomics team member should be trained in conducting and properly documenting each assessment using the same set of assessment tools and documentation methods.

Without a standardized ergonomic assessment method in place, your team will struggle to identify and communicate MSD risk factors. Don't make this mistake. Instead, start your assessment off on the right foot by taking an organized approach.

Step 2: Involve the Workplace Athletes Performing the Job

The workplace athletes performing the job each and every day are uniquely qualified to help you assess the job. *They are the expert of their job.* Involving them in the assessment process can generate helpful improvement ideas and gets the workplace

athlete's buy-in early on. They are much more likely to adopt changes to their work environment down the road if you involve them early and often.

Observe the workplace athlete performing the job and ask them questions about their work. Get their opinion on what causes excessive fatigue and how they would improve the job if they could.

Are there any heavy or strenuous lifting/lowering tasks in the job? Do the hand tools they use have an awkward grip? Is the height of the work comfortable for them? Do they experience fatigue and discomfort doing the job?

These are just a few of the questions you can ask to get the conversation about the job going. Take good notes during this subjective portion of the assessment, and remember to take plenty of pictures and even video. They will be helpful to you when you're generating improvement ideas.

Step 3: Conduct the Objective Portion of the Assessment

Once you have collected subjective data of the job demands by observing and interviewing the workplace athlete doing the job, you should be able to generate a list of job tasks for an objective ergonomic risk assessment.

There are many ergonomic assessment tools freely available in the public domain you can use to evaluate job tasks.

- **Lifting/lowering tasks:** WISHA Lifting Calculator or NIOSH Lifting Equation
- **Upper Body Posture:** Rapid Upper Limb Assessment (RULA)
- **Entire Body Posture:** Rapid Entire Body Assessment (REBA)
- **Pushing/pulling:** Snook Tables
- **Screening tools:** WISHA Caution Zone Checklist and WISHA Hazard Zone Checklist

By using a common set of tools and a standardized method for conducting assessments, you will ensure a consistent result for every assessment and be able to objectively compare tasks and prioritize improvements.

Step 4: Assess the Data You've Collected

Now that you have collected both subjective and objective data, it's time to take a step back and assess what you've learned so far.

Is there injury risk at this job? What is the level of risk? How can the risk be reduced?

Now that you know the problem areas in the job, conduct “what if” analysis and begin to generate improvement ideas to take to the ergonomics team.

Step 5: Create a Plan Moving Forward

Next, bring your subjective data, objective data, and overall assessment back to your ergonomics team to brainstorm additional solutions and improvement opportunities.

Consulting with a multi-disciplinary ergonomics team will bring in a fresh perspective and deeper expertise to help solve problems. At this point, the team should be able to generate several improvement scenarios. Choose the best solution and create an improvement plan moving forward.

Conclusion

Identifying MSD risk factors at your worksite is just the beginning. Systematic workplace improvements that impact the key safety, productivity and quality metrics you track is the goal. Make sure you build these efforts on a solid foundation with effective and efficient ergonomic risk assessments.

About the Author

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